

BRIEF STUDY ON NEGATIVE EFFECTS OF ARTIFICIAL INTELLIGENCE (A.I) ON STUDENTS IN EDUCATION

* **Dhananjay Mali**** **Anuj Main**

* *Chetana's H.S College Of commerce and economics and self-financing courses.*

Abstract

Artificial Intelligence (A.I) has transformed numerous industries, including education, by offering personalised learning and increased efficiency. Nonetheless, the swift integration of AI technologies in educational settings has raised substantial apprehensions regarding its adverse effects on students. This abstract examines the negative impacts of AI on students in education, including reduced social interaction, decline in critical thinking abilities, widening of educational inequalities and ethical quandaries. It also emphasises the necessity of finding a balance between harnessing AI's advantages and addressing its harmful effects to guarantee a comprehensive and fair educational experience for all students.

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Introduction:

The integration of Artificial Intelligence (A.I) into educational systems has generated both enthusiasm and apprehension in recent years. While supporters highlight its potential to transform learning with tailored experiences and improved efficiency, there is a growing acknowledgement of potential negative consequences for students. This introduction investigates the adverse effects of AI on students in education addressing various areas of concern. Firstly, AI-powered educational platforms often prioritise data-driven decision-making and automation, which could diminish human interaction and personalised support for students. This departure from traditional teaching methods may compromise the quality of social interaction and the development of interpersonal skills essential for holistic students development. Secondly, the reliance on AI algorithms for content delivery and assessment raises worries about

the decline in students critical thinking skills. With algorithms customising content based on individual preferences and performance, students may have limited exposure to diverse perspectives and challenges, impeding their ability to think critically and solve problems independently.

Moreover, the uneven access to AI technologies exacerbates existing educational disparities, widening the gap between students with and without access to advanced AI-driven learning tools. This discrepancy not only perpetuates existing educational inequalities but also reinforces socioeconomic divisions within society.

Given these concerns, it is crucial to critically assess the negative impacts of AI on students in education and devise strategies to mitigate these effects, ensuring an equitable and balanced educational experience for all students.

Objective:

- > To comprehensively grasp and tackle the possible negative outcomes arising from the integration of AI in students' educational experiences, encompassing their learning journeys, social interactions, critical thinking capacities, and the broader landscape of educational fairness.
- > To identify and assess these adverse effects, with the aim of crafting effective strategies and interventions to alleviate them.
- > To raise awareness among educators, policymakers, and stakeholders about the importance of considering the ethical, social, and educational implications of AI in order to foster a balanced and inclusive learning environment for all students.

Literature Review:

After reviewing [Potential downsides of AI in education – Promethean World](#) and [The Pros and Cons of AI in Education](#), we discovered that while AI has positive effects on students, it also carries negative consequences that cannot be overlooked. Here are some adverse effects of AI that may affect students:

1.1 LACK OF PERSONALIZATION:

1.2 The absence of personalization in education resulting from AI can impede students' personalised learning journeys, potentially leading to disengagement and a decline in academic achievement.

1.3 POTENTIAL FOR ERRORS:

1.4 The possibility of errors in AI can have adverse effects on students' education by introducing inaccuracies into learning materials and assessment, potentially causing confusion.

1.5 REDUCED HUMAN INTERACTION:

1.6 The decline in human interaction due to AI can impact students by restricting their chances for social and emotional growth, potentially resulting in feelings of isolation and impaired interpersonal abilities.

1.7 REDUCE STUDENTS' CAPACITY FOR CRITICAL THINKING:

1.8 The decrease in students' critical thinking capacity caused by AI can impede their aptitude to independently analyse, evaluate and solve problems, potentially restricting their academic performance.

1.9 DEHUMANISED LEARNING EXPERIENCES:

The depersonalised learning encounters stemming from AI can lessen students' feelings of engagement and connection with the learning journey, possibly resulting in decreased interest and motivation to pursue learning.

1.10 DEPENDENCY ON TECHNOLOGY:

1.11 The dependence on technology, enabled by AI, may affect students by potentially reducing their capacity for critical thinking, independent problem-solving and the development of fundamental cognitive skills.

Research Methodology:

This research project incorporates both primary and secondary data. Primary data was gathered through surveys, capturing the perspectives of respondents. Meanwhile, secondary data was obtained by analysing several articles found on the internet.

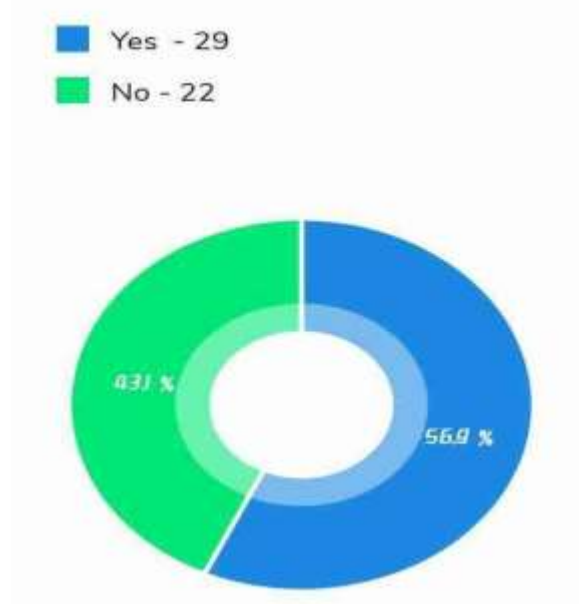
The following survey was completed by 50 individuals from various educational backgrounds.

1.1 What is your educational background?



The provided image (fig 5.1) illustrates the educational backgrounds of the participants. According to the survey, approximately 47.1% hold bachelors degree, 27.5% had high school diplomas, 11.8% possessed masters degree and 13.7% came from other educational backgrounds.

1.2 Have you personally used AI powered educational tools or platforms?



Among the respondents, 56.9% utilize AI applications or tools, while 43.1% do not.

1.3 I driven personalised learning experiences catter better to individual studentneeds?



Over 56% of the respondents agree with an additional 14% strongly agreeing, that they receive effective assistance from AI in meeting their needs. conversely , 28% of respondents remain neutral on this question while 2% disagree.

1.4 AI generated education materials and assessments are consistently accurate and error free?



Inspite of being 13.7% of respondents who do not agree and 35.3% who neutralopinions, 39.2% of respondents agree and 11.8% strongly agree that they find iteasier to seek assistance from AI in educational learning.

1.5 Dependency on AI technology on education enhances students critical thinkingand problem solving skills?



Among the respondents, 45.1% agree, with an additional 5.9%strongly agreeing, with this statement. However 31.4% hold neutral opinions, while 15.7% and 2% strongly disagree, expressing the belief that AI does not assist in improving problem-solving skills.

1.6 Dehumanized learning experiences by AI decreases students engagement and motivation in their studies



A larger portion of respondents, comprising 43.1% who agree and 19.6% who strongly agree, have acknowledged the negative impact of AI on students in theirstudies and its potential influence on their future goals. Meanwhile, 21.6% of respondents remain neutral, while 15.7% disagree with this assessment.

Conclusion:

In conclusion, the survey results reveal a mix of positive and negative perceptions regarding the impact of AI on students in education. While some respondents acknowledge beneficial aspects, there's also recognition of detrimental effects such as decreased personalisation, potential errors in educational materials, reduced human interaction affecting social and emotional well being, weakened critical thinking skills, disengagement from

dehumanised learning experiences, technology dependency impacting cognitive development and doubts about AI's effectiveness in enhancing problem-solving skills. Addressing these concerns is essential to foster a fair and inclusive learning environment for all students amidst the era of AI.

Bibliography:

- > www.classpoint.io
- > www.prometheanworld.com

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