



THE IMPACT OF AI ON COLLEGE STUDENT'S INTELLECTUAL DEVELOPMENT

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ABSTRACT

Artificial Intelligence (AI) is becoming more common in our lives, including in College/Universities. A study asked 38 people about how AI affects learning and thinking. It found that AI is most useful for tasks like studying for exams, problem-solving, and doing assignments. People see both good and bad sides to AI. Some like how it personalizes learning and helps to solve problems, but others worry it might make people lazy or less creative. Still, many think AI can help students learn independently by giving quick help, organizing thoughts, and improving problem-solving skills. People see AI as a tool to help, it cannot replace a human intelligence. It might even help with language skills and encourage creative thinking. Some worries include losing jobs, less creativity, and not having real-life experiences. But most don't think AI makes us worse at decision-making or less active. Overall, people believe AI helps us think better, find new solutions, and teach better. People have different opinions about trusting AI answers compared to answers from friends or teachers. This study shows that AI in education has both good and bad sides, and we need to think carefully about how we use it.

INTRODUCTION

In various fields, Artificial Intelligence (AI) has become a powerful agent of change, revolutionizing industries, boosting productivity, and reshaping societal norms. Within the educational sphere, AI shows significant potential to enhance learning experiences and foster intellectual growth. As colleges and universities increasingly incorporate AI technologies into their teaching methods and curricula, it becomes essential to grasp the multifaceted impact of AI on the intellectual development of college students.

AI's integration into educational environments spans a wide array of applications, ranging from personalized learning platforms to intelligent tutoring systems and automated grading tools. These technologies present unprecedented opportunities for tailoring educational experiences to meet individual student needs, optimizing learning outcomes, and nurturing critical thinking skills (Dillenbourg, 2013; Siemens & Baker, 2012). Furthermore, AI-powered analytics empower educators to gain insights into student performance patterns, identify areas for improvement, and adjust instructional strategies accordingly (VanLehn et al., 2007).

However, alongside its potential benefits, the widespread adoption of AI in education brings forth significant questions and challenges. Concerns regarding fairness and accessibility emerge as AI-driven educational tools may widen existing disparities among students from various socio-economic backgrounds (Molnar, 2020). Additionally, ethical considerations surrounding data privacy, algorithmic bias, and the depersonalization of learning experiences require careful examination and regulation (Knox, 2019; Selwyn, 2019). Despite these challenges, comprehending the impact of AI on college students' intellectual development is vital for shaping educational policies, devising effective interventions, and nurturing a digitally literate generation capable of navigating the complexities of the digital era. This research aims to

explore the intricate dynamics of AI's influence on college students' intellectual growth, examining both its positive contributions and potential drawbacks.

Through empirical analysis and qualitative inquiry, this study seeks to illuminate how AI shapes cognitive processes, problem-solving abilities, and critical thinking skills among college students. By investigating perceptions, experiences, and outcomes related to AI integration in higher education, this research endeavours to offer actionable insights for educators, policymakers, and stakeholders committed to fostering a holistic approach to student development in the digital age.

OBJECTIVES OF THE STUDY:

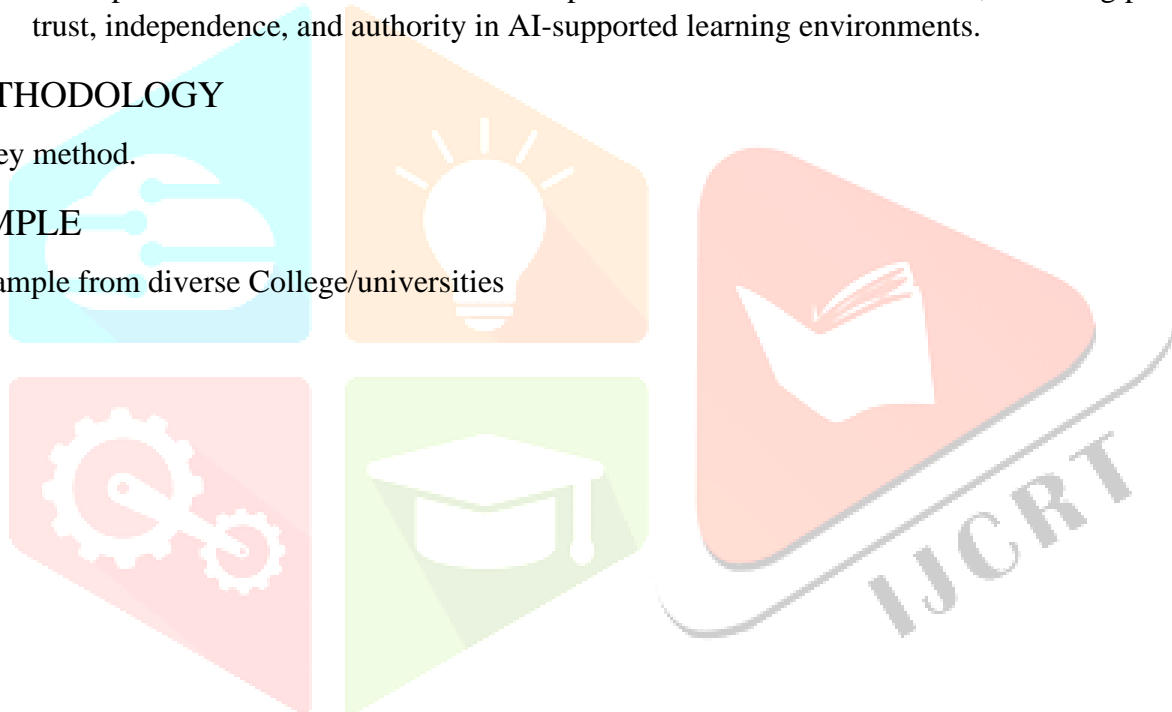
- To Explore the various ways in which AI influences the intellectual growth of college students.
- To Investigate what college students, think about how AI affects their lives, looking at both good and bad effects on things like learning, problem-solving, and how smart they become.
- To Examine the impact of AI on student motivation, engagement, and self-regulated learning behaviours, particularly in online and blended learning environments.
- To Examine how AI impacts student stress, anxiety, and mental well-being, particularly concerning academic pressure, workload management, and concerns about technological displacement.
- To Explore how AI affects the relationship between students and teachers, including perceptions of trust, independence, and authority in AI-supported learning environments.

METHODOLOGY

Survey method.

SAMPLE

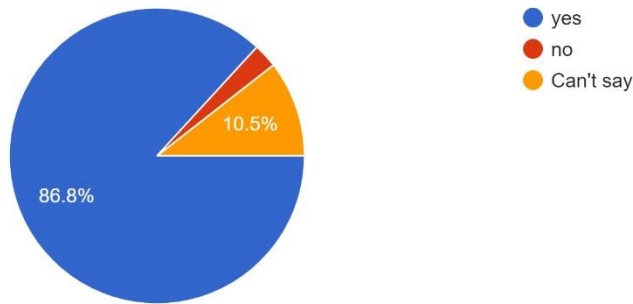
38 Sample from diverse College/universities



ANALYSIS THROUGH PIE CHART

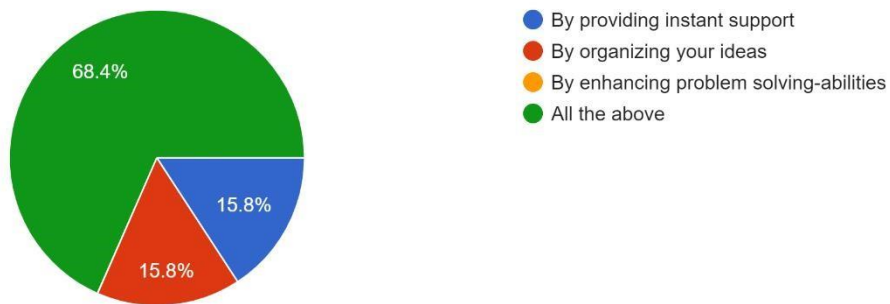
Do you think AI has both positive and negative impact in our life?

38 responses



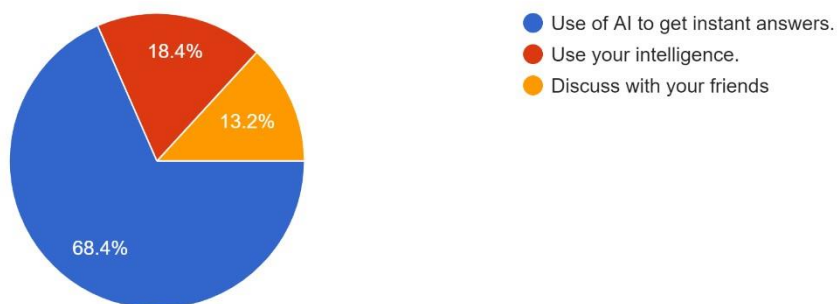
How does AI help you to foster independent learning?

38 responses



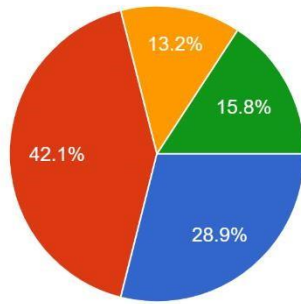
Suppose your faculty asked you a random question that you don't know, in which he/she allowed to use any resources, then what would you prefer the most?

38 responses



How can you improve your intelligence by using AI?

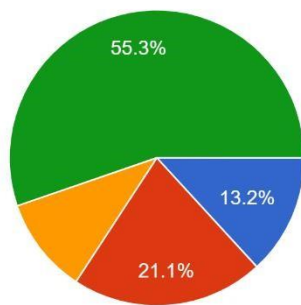
38 responses



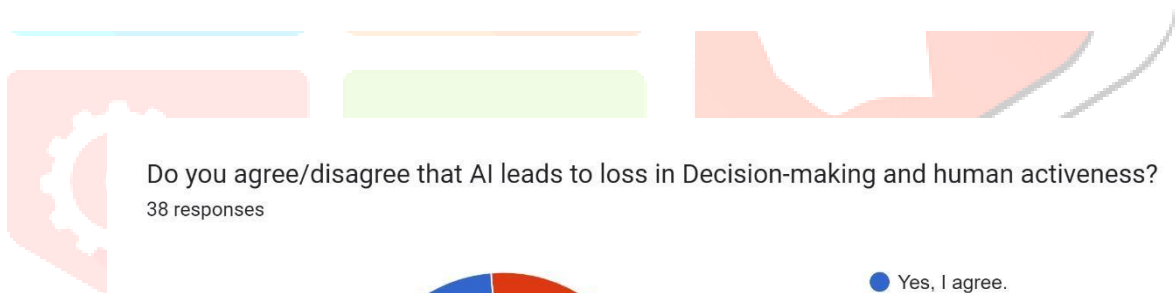
- By enhancing my language and communication skills
- By expanding my existing knowledge
- By creative thinking Even what a AI can't think.
- No idea

What may be the disadvantages of using AI?

38 responses

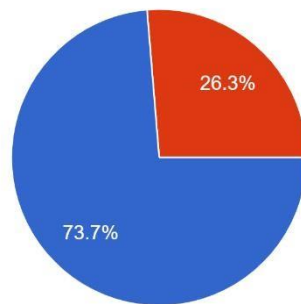


- Job Displacement
- Absence of creativity and intuition
- Lack of real- life challenges and experience
- All the above



Do you agree/disagree that AI leads to loss in Decision-making and human activeness?

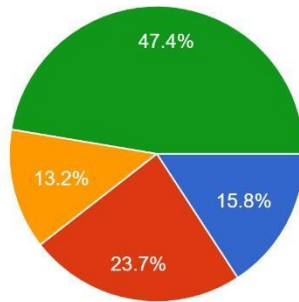
38 responses



- Yes, I agree.
- No, I don't agree.

What is role of AI in your intellectual development?

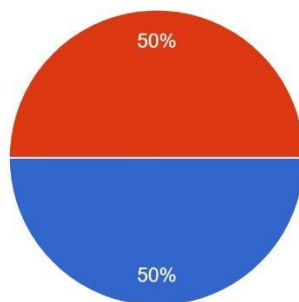
38 responses



- It Increases the thinking power.
- We find diverse solutions to a single problem.
- It help us to Improve the effectiveness of our instruction
- All the above

Whose answer you do rely more on?

38 responses



- The answer generated by AI.
- The answer given by your friend/ teachers/ any others.

SUMMARY OF THE DATA:

Based on the answer provided by the sample, it seems there's a mix of opinions regarding the impact of AI on education. Such as the following points... Positive impacts:

Personalized learning experiences for students.

Enhanced problem-solving abilities and ease in assignment completion.

Facilitation of gathering required information quickly.

Organization and channelling of ideas.

Instant feedback on pronunciation, grammar, and vocabulary.

Assistance in research-based work.

Time saving for students.

Simplification of project and presentation making.

Generation of innovative and enhanced ideas.

Contribution to dynamic and adaptive educational experiences.

Negative impacts:

Dependency leading to laziness and reduced creativity.

Diminished utilization of students' own thinking abilities.

Potential erosion of intellectual capabilities.

Overall, the general sentiment seems to lean towards the positive impacts of AI on education, with acknowledgment of potential drawbacks such as over-reliance and decreased creativity. It's evident that AI holds promise in revolutionizing educational practices, but careful consideration of its integration is necessary to maximize benefits while mitigating risks.

CONCLUSION

In conclusion, the survey findings provide insights into the varied perspectives and experiences of college students regarding the role of Artificial Intelligence (AI) in their academic and personal lives.

Firstly, it is evident that the demand for AI differs among college students, with a notable portion expressing its importance during tasks such as exam preparation, problem-solving, and assignment completion. This underscores AI's practical value in assisting with various aspects of student life, aiding in tasks requiring information retrieval, organization, and problem-solving.

Secondly, the majority of respondents acknowledge the dual nature of AI's impact, recognizing both its positive and negative consequences. While many acknowledge AI's role in fostering independent learning by providing immediate support, organizing ideas, and enhancing problem-solving abilities, concerns arise regarding potential job displacement, diminished creativity, and a lack of real-world challenges and experiences. This nuanced viewpoint emphasizes the need to consider both the advantages and disadvantages of integrating AI into higher education.

Furthermore, respondents view AI as a valuable tool for intellectual development, crediting its role in boosting cognitive abilities, facilitating diverse problem-solving approaches, and enhancing instructional effectiveness. This underscores AI's potential to complement traditional educational methods and empower students with improved learning outcomes.

Moreover, the survey reveals mixed opinions regarding reliance on AI-generated answers versus input from peers or educators, suggesting the necessity for further investigation into factors influencing students' confidence in AI-driven information.

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APPENDIX:

5/4/24, 12:27 PM SURVEY FROM

SURVEY FROM

(THE IMPACT OF AI ON COLLEGE STUDENT'S INTELLECTUAL DEVELOPMENT)

* Indicates required question

1. Email *

2. When do you feel the need of AI (Artificial Intelligence) the most in your life? *
Mark only one oval.
 - During exams preparation
 - While solving every-problems in your life
 - While making the Assignment/presentation etc.
 - None of the above

3. Do you think AI has both positive and negative impact in our life? *
Mark only one oval.
 - yes
 - no
 - Can't say

4. How does AI help you to foster independent learning? *
Mark only one oval.
 - By providing instant support
 - By organizing your ideas
 - By enhancing problem solving-abilities
 - All the above

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SURVEY FROM

9. Do you agree/disagree that AI leads to loss in Decision-making and human activeness? *

Mark only one oval.

- Yes, I agree.
- No, I don't agree.

10. What is role of AI in your intellectual development? *

Mark only one oval.

- It increases the thinking power.
- We find diverse solutions to a single problem.
- It help us to Improve the effectiveness of our instruction
- All the above

11. Whose answer you do rely more on? *

Mark only one oval.

- The answer generated by AI.
- The answer given by your friend/teachers/ any others.

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5. share at least one of your idea out the the impact of AI on college student's intellectual development? *

6. Suppose your faculty asked you a random question that you don't know, in which he/she allowed to use any resources, then what would you prefer the most? *

Mark only one oval.

Use of AI to get instant answers.

Use your intelligence.

Discuss with your friends

7. How can you improve your intelligence by using AI? *

Mark only one oval.

By enhancing my language and communication skills

By expanding my existing knowledge

By creative thinking Even what a AI can't think.

No idea

8. What may be the disadvantages of using AI? *

Mark only one oval.

Job Displacement

Absence of creativity and intuition

Lack of real-life challenges and experience

All the above

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