



IMPACT OF ARTIFICIAL INTELLIGENCE ON HUMAN PSYCHOLOGY

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Abstract:

For today, the use of AI and its tools has become an important part of human life. AI is used in various domains such as healthcare, enterprises, chemical industries, e-commerce, and logistics due to its popularity. AI helps people work more easily and efficiently and also provides suggestions for difficult problems and decision-making. AI tools help people learn faster and also offer creativity, ideas, and opinions. They help students make their study notes more exploratory by shortening and summarizing content. AI can track a person's behaviour in particular tasks and help them recognize the things most suitable for them. AI chatbots help humans not feel alone; they can communicate with humans and provide emotional support when needed. AI can help people prepare for interviews, build strong self-confidence, and support skill development.

There are many advantages of AI, but it also influences human behaviour, thinking, and social interaction with friends and family. This research helps identify both the positive and negative impacts of AI on human psychology. AI has changed the interaction between humans and machines. Instead of human psychologists, AI chatbots have become close companions for humans to discuss issues, seek suggestions, and make decisions.

This is dangerous because it can lead to isolation, reduce family and friend interactions, increase stress, and ultimately reduce trust, closeness, and emotional attachment. Initially, it feels like AI is booming and making daily tasks easier, but gradually it becomes a daily necessity. We cannot imagine working or creating documents without using it. As a result, we may lose our ability to think independently, make decisions, and develop critical thinking skills. This can create stress, anxiety, and unconscious dependence because AI use becomes habitual, ultimately affecting mental health.

AI also affects personal data, privacy, and identity. Many times, personal details may be shared with third parties, which is unsafe, and data misuse is possible. Everyone should understand how to use AI wisely and ethically. For a better future, we must understand the psychological impact of AI and learn how to use it without harm. Balancing AI usage and human psychology is essential. This study helps identify the pros and cons of AI and shows how these issues can be managed wisely and intelligently, because AI is created by humans. Therefore, we can control and use AI for good practices only, with limited and mindful usage, and understand where to stop. There is a need to develop guidelines that ensure its responsible use for human well-being.

Keywords: AI, human psychology, impact of AI, social interaction, mental health, educational use, emotional support, ethical awareness.

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Introduction:**1. Artificial Intelligence (AI)**

AI is a study and development of computer systems that can have human like intelligence to perform different task. It is a branch of computer science where machines can think, study, analyse, learns and solve the problems like humans (Russell &

Norvig, 2020). These machines require data as input to make prediction. AI systems analyse data, identify similar patterns from data, process it and gives outcomes. AI uses Artificial neural network, fuzzy logic, genetic algorithm methodologies to process data. It usually helps to solve real world problems of human beings.

2. Human Psychology:

Human psychology is a branch of science, study of human mind and its behaviour in various situations (Sandford et al., 2024). It is about how people think, feel and behave. It is a broad field that uses scientific methods to understand humans, their brain functions, bridging natural and social science.

3. AI & Human psychology:

The origins of scientific psychology are usually traced to the work of the German physicist Hermann von Helmholtz (1821–1894) and his student Wilhelm Wundt (1832–1920). AI & Human psychology are closely related because the concepts of AI are built on how human thinks and behave in particular situation (Sandford et al., 2024; Deepa et al., 2023). Human psychology explains about this mental process. Humans learns from experiences similarly AI systems does. AI learns things from data. AI researchers draw insights from psychology to develop systems which understands human and interact with them. This process includes human cognitive processes, emotions, social behaviours, and decision-making mechanisms.

Artificial Intelligence plays an important role in the medical field, particularly in disease diagnosis and medical imaging. AI provides personalised learning in education, improves customer services in business, helps in transportation, monitoring crops in an agriculture, supports automation, recommending content, enhances gaming. AI has many positive impacts on Humans but on other hand it has some negative impacts too. Excessive dependence on AI tools, emotional touch, less social interaction, job displacement fear and many more reasons can prove that the making a use of AI all the time can become problematic. To explore study on topic Impact of AI on Human psychology we have collected data from educational institution. In this

paper, study tries to elaborate both impacts of AI on Human Psychology.

Literature Review:

The rapid growth of Artificial Intelligence (AI) has significantly influenced various aspects of human life, including cognition, emotions, social interaction, and ethical awareness. Several researchers have examined the psychological implications of AI usage, highlighting both its benefits and associated risks.

Russell and Norvig (2020) explained AI as a system capable of performing tasks that typically require human intelligence, such as learning, reasoning, and decision-making. AI enhances efficiency and accuracy; the authors emphasize the need for human oversight to prevent overdependence.

Sandford et al. (2024) focused on the relationship between AI and psychology, emphasizing how AI chatbots and virtual assistants are increasingly used for emotional support. The study reported that users often develop emotional attachment to AI systems, which may lead to reduced human contact, emotional isolation, and altered social behavior.

Tripathi (2024) examined both the positive and negative impacts of AI on human psychology. The study highlighted AI's role in enhancing productivity, learning outcomes, and decision-making abilities. At the same time, concerns related to privacy, ethical misuse of data, emotional dependence, and mental well-being were strongly emphasized. The author stressed the importance of ethical guidelines and awareness programs for responsible AI use.

Mondal et al. (2025) analyzed AI's influence on social interaction and communication patterns. Their research showed that AI-driven platforms and recommendation algorithms often create echo chambers, limiting diverse viewpoints and affecting social behavior. The study also raised concerns regarding data privacy, surveillance, and trust in AI-generated content, especially with the rise of deepfake technologies.

Jyoti et al. (2024) studied the transformative impact of AI and machine learning on human psychology and found that AI enhances creativity, efficiency, and accessibility to information. However, the researchers warned that continuous exposure and dependency on AI systems may increase stress, anxiety, and reduced attention span if not used mindfully.

Overall, the reviewed literature indicates that Artificial Intelligence has a dual impact on human psychology. While AI positively contributes to education, creativity, emotional support, and productivity, it also poses risks related to cognitive dependency, emotional attachment, reduced social interaction, and ethical concerns. These studies highlight the necessity of responsible AI usage, ethical awareness, and balanced human-AI interaction.

Objective:

1. To study how the students use AI in their studies.
2. To examine the emotional effects of AI Usage.
3. To study can AI affect communication skills.
4. To identify users' concern about data privacy and personal information.
5. To identify positive as well as negative impacts of AI on human life.

Methodology:

Research Design:

The primary source of the data has been implemented to gather the information, for the research topic **impact of AI on human psychology**. A survey using **Google Forms** was conducted. The survey included participants from **all age groups**. The questionnaire was divided into **seven sections**:

1. Awareness and Usage of AI
2. Cognitive Impact (Thinking & Learning)
3. Emotional and Psychological Impact
4. Social Interaction and Behaviour
5. Ethical Awareness and Privacy
6. Responsible Use and Perception
7. Open-Ended Questions

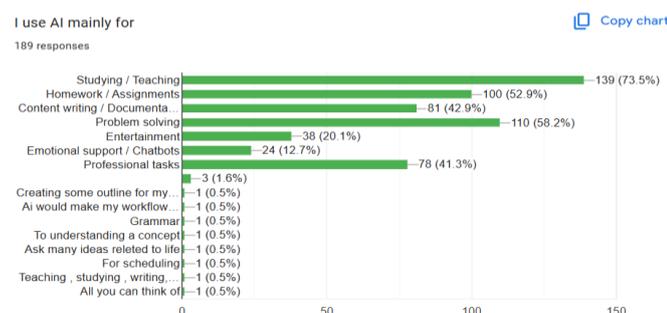
Each section contained **4-5 questions**, designed to collect information on how individuals use AI from different perspectives. A total of **189 responses** were recorded from various categories, including **students, teachers, and working professionals**.

Data Analysis

Quantitative Analysis (Statistical Models): Quantitative analysis included descriptive statistics and one-sample t-test”

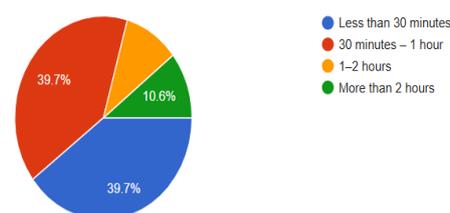
Qualitative Analysis: Thematic analysis of google form questions responses to identify patterns

Results:



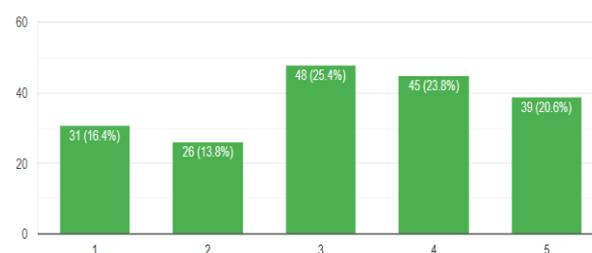
Average daily time spent using AI tools:

189 responses



I prefer using AI rather than asking people for help.

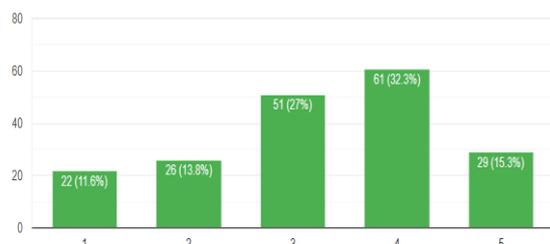
189 responses



AI chatbots make me feel supported or understood.

[Copy chart](#)

189 responses



The results of the study are based on responses collected from 189 participants, including students, teachers, and working professionals. A one-sample t-test was conducted using a test value of 3 to examine whether the mean scores of major parameters differed significantly from the neutral point.

The results indicate that the **mean score for Educational Use of AI (M = 3.566)** is significantly higher than the neutral value, suggesting a positive inclination toward AI usage in education. **Ethical Awareness (M = 3.969)** recorded the highest mean score, indicating strong concern regarding ethical and responsible use of AI.

In contrast, **Emotional Support (M = 2.463)**, **Dependency on AI (M = 2.489)**, and **Social Interaction (M = 2.690)** showed mean values below the neutral point, indicating relatively lower agreement. All parameters showed statistically significant results, as the p-values were less than 0.05.

Result of T test for major parameters

Major Parameters	Mean	SD	T	Sig
Educational use of AI	3.566	0.941	8.272	0
Emotional Support	2.463	0.818	-9.028	0
Dependency on AI	2.489	0.819	-8.577	0
Social Interaction	2.690	0.947	-4.505	0
Ethical Awareness	3.969	0.824	16.179	0

Scale used as per google form : Likert(1-5)

Test applied: one sample t-test

Test value: 3

Purpose: To check whether the mean score of each parameter is significantly different from the neutral point.

Interpretation/Research Report:

1. Educational use of AI shows a significantly positive impact, as the mean is above 3.
2. Emotional Support, Dependency on AI, and Social Interaction have means below 3, indicating lower agreement and a statistically significant difference from neutrality.
3. Ethical Awareness has the highest mean, showing strong awareness and concern among respondents.
4. All p-values are < 0.05, meaning the results are statistically significant.

Findings of the Study and Discussion:

Findings:

Based on the data collected from students, teachers and other working professionals, the following key findings have emerged:

Usage of AI:

More than 60% of students are aware of AI tools like ChatGPT, Google Assistant, and recommendation systems.

28% use AI tools in their daily activities.

73% use AI tools for educational purposes.

10% spend 1–2 hours daily using AI tools.

Thinking & Learning:

34% of people understand topics faster using AI tools.

9% depend on AI for tasks they could do themselves.

13% feel they are losing the ability to think independently.

Many participants report that AI improves their creativity and idea generation.

31% feel they can make decisions confidently with AI assistance.

Emotional & Psychological Impact:

17% feel less stressed when completing tasks using AI.

3% feel anxious when AI tools are not available.

15% rely on chatbots to communicate or feel understood.

5% are emotionally dependent on AI tools.

10% believe that excessive AI use affects mental well-being.

Social Interaction & Behaviour:

21% find it difficult to ask for help from others because of AI tools.

6% have reduced social interaction with family or friends due to AI use.

12% feel more comfortable communicating with chatbots than with people.

23% say AI improves their communication skills.

Ethical Awareness & Privacy:

32% are concerned about how AI uses their personal data.

52% believe that AI should be used with clear ethical guidelines.

Responsible Use & Perception:

64% say AI should support humans, not replace human thinking.

60% believe schools and workplaces should teach responsible AI usage.

32% think individuals should consciously try to limit their use of AI tools.

Positive Impacts of AI based on above findings:

1. Most students are aware of various AI tools and use them for studying, completing homework and assignments, content writing, documentation, and problem-solving.

2. AI helps students understand topics more easily and quickly. It also enhances creativity and idea generation. Additionally, AI tools improve students' communication skills.

3. AI chatbots can provide students with a sense of support and understanding, helping them cope with feelings of loneliness.

4. At the workplace, people use AI tools to complete personal tasks efficiently, which helps them meet deadlines and improves the quality of their work.

5. Overall, schools and workplaces should promote responsible AI usage to maximize these benefits.

Negative Impacts of AI based on above findings:

1. As per the data collected, some students use AI tools for entertainment purposes. While this is not entirely negative, spending two hours or more on AI tools may be harmful to their eyesight and mental health.

2. Excessive dependence on AI tools can reduce students' critical thinking and problem-solving skills, potentially diminishing their ability to think independently. Students who become addicted to AI may rely on it to solve every problem, and when it is unavailable, they may feel anxious or panicked.

3. Some students seek emotional support from chatbots to share their views or make decisions, which can be risky if the advice is incorrect. Sharing personal information with AI tools can also pose privacy risks. Overusing AI for communication may negatively impact mental well-being and reduce social interaction with family and friends.

4. Students may feel more comfortable communicating with AI than with family, highlighting the need for **responsible use**. Personal data collected by AI tools must be handled carefully, and AI should always be used **with clear ethical guidelines** to support humans rather than replace human thinking.

Discussion:
AI Knowledge & Adoption

Artificial Intelligence is powerful and capable of performing tasks with greater speed and accuracy. However, adopting AI for everything can lead to social

isolation and reduced human interaction (Tripathi, 2024; Sandford et al., 2024).

Availability:

People increasingly rely on AI for decision-making, largely due to its free and constant availability. AI tools are accessible 24×7, providing instant assistance whenever needed. This convenience helps solve problems quickly while also minimizing costs.

Effects on Learning & Thinking:

Excessive use of generative AI can reduce critical thinking skills and limit the development of creative ideas, as individuals may rely too heavily on automated solutions instead of independent reasoning (Jyoti et al., 2024; Tripathi, 2024).

Emotional & Mental Effects:

Emotional dependence on AI chatbots can decrease real human interaction. While AI can support mental health by offering guidance and resources, overreliance may weaken interpersonal connections (Sandford et al., 2024; Tripathi, 2024).

Influence on Social Life:

AI tools, social media platforms, and virtual assistants such as Siri and Cortana influence how people communicate and connect. Algorithms on platforms like Facebook and Instagram often create filter bubbles and echo chambers, limiting exposure to diverse or opposing viewpoints (Mondal et al., 2025). Habitual engagement with these tools can reduce focus and increase cognitive offloading.

Moral Awareness & Confidentiality:

AI-powered surveillance systems and facial recognition technologies raise serious concerns regarding privacy, data protection, and the potential misuse of personal information. AI requires large datasets to process in order to train and make predictions.

Trust Issues:

Generative AI and deep fake technologies make it increasingly difficult to distinguish between real and

synthetic content (Mondal et al., 2025). Personal data must be protected, and AI systems should adhere to legal and ethical standards.

Responsible Attitude Towards AI:

AI processes should be transparent and understandable so that people can trust how decisions are made. This transparency builds accountability. Organizations must establish responsible AI standards and promote AI literacy among individuals to ensure ethical and informed usage (Tripathi, 2024; Russell & Norvig, 2020).

Conclusion:

“The study reveals that Artificial Intelligence has a significant influence on human psychology, offering both benefits and challenges.”

Excessive dependence on AI tools can reduce students’ critical thinking, problem-solving abilities, creativity, and idea generation. Over-reliance on AI may also decrease interaction between teachers and students, as well as reduce social, collaboration, and teamwork skills, which are essential for professional success.

Educational platforms collect large amounts of student data, which can be misused if proper cybersecurity measures are not implemented. Automation and AI integration may create concerns about job displacement; therefore, AI should be used wisely to reduce stress and enhance productivity.

Educational institutions should conduct workshops, seminars, and digital literacy programs to promote responsible and balanced use of AI. Support systems should be established for students struggling with AI addiction or social isolation. AI ethics education should be introduced to guide students in ethical usage, and skill-based AI training programs should be implemented to help students secure employment in the evolving job market.

Since AI is becoming an unavoidable part of human life, it is crucial to use it responsibly, wisely, and ethically.

References:

1. Russell, S., & Norvig, P. (2020). *Artificial Intelligence: A Modern Approach* (4th ed.). Pearson.
2. Chouhan, M. A., & Saini, A. *The Impact of Artificial Intelligence on the Human Mind: A Study of Indian College and University Students.*
3. Dr. N. Deepa, G. Aswini, G. Asenath Jemimah, S. Kaviya, *Impact of Artificial Intelligence in Human Psychology*
4. Adam Sandford, Bryce Mulligan, Eleanor Gittens, Meghan Norris, Myra Fernandes (January 2024) **ARTIFICIAL INTELLIGENCE AND PSYCHOLOGY**
5. Dr. Rohini Tripathi (March 2024) *Positive and Negative impact of AI on Human Psychology*
6. Mondal, D. T., Kadyan, J. S., Putrevu, D. J., Subramanian, U., & Upadhyaya, D. M. (2025). *Artificial Intelligence and Social Interactions: Understanding AI's Role in Shaping Human Psychology and Social Dynamics.* *Artificial Intelligence and Social Interactions: Understanding AI's Role in Shaping Human Psychology and Social Dynamics* (April 27, 2025). *Journal of Marketing & Social Research*. ABDC-C, ISSN (Online), 3008-0711.
7. Amrita Jyoti, Vikash Yadav, Amita Pal, Mayur Rahul and Sonu Kumar Jha, December 2024, *The Transformative Impact of AI and Machine Learning on Human Psychology*

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