

Exploring the Impact of AI ChatGPT on Humans: Opportunities, Challenges, and Ethical Considerations

*1Dr. Aparna Vaidyanathan

*1Department of Computer Science, Fergusson College (Autonomous), Pune, Maharashtra, India.

Abstract

The rapid advancement of artificial intelligence (AI) has transformed human-computer interaction, with conversational agents such as ChatGPT becoming increasingly integrated into daily life. This study examines the multifaceted impact of ChatGPT on human cognition, education, creativity, and socio-economic dynamics. Employing a mixed-methods research design, the study combines quantitative surveys and qualitative interviews to evaluate both the benefits and challenges of ChatGPT adoption. Findings indicate that ChatGPT enhances productivity, facilitates personalized learning, and expands creative possibilities, yet also presents significant risks, including misinformation, reduced critical thinking, and ethical concerns surrounding authorship and data privacy. The paper argues for a framework of responsible integration, emphasizing AI literacy, transparent governance, and sustained human oversight. By understanding the complex interplay between technological capability and human agency, this research contributes to the discourse on how society can shape AI deployment to support human flourishing while mitigating potential harms. This research paper looks at how ChatGPT is affecting people's lives based on a survey that gathers insights from users. The study explores things like who uses ChatGPT, how often they use it, why they turn to it, what benefits they get, and what challenges they face. It also takes a closer look at some of the concerns and opportunities for improvement that come with using AI-powered tools like ChatGPT. Through this survey, we learned more about user demographics, engagement levels, and attitudes toward ChatGPT. It also explored the benefits people see in using ChatGPT and the difficulties they get into. The results give us a clearer picture of how people are interacting with this AI and what could be improved to make the experience better for everyone. Artificial Intelligence (AI) conversational agents, such as OpenAI's ChatGPT, have become integral to human-computer interaction. This paper explores the multifaceted impact of ChatGPT on human cognition, education, creativity, and socio-economic structures. By synthesizing existing literature and emerging case studies, the research evaluates both the positive potential—such as democratizing access to information and enhancing productivity—and the concerns, including ethical dilemmas, misinformation, and overreliance. The findings underscore the need for balanced integration of AI into daily life, emphasizing critical AI literacy and governance frameworks.

Keywords: Artificial Intelligence (AI), ChatGPT, AI in Education, User Perception, AI Awareness, Digital Literacy, ChatGPT Usage, Benefits of AI Tools, AI and Productivity, Survey-Based Research, Human-AI Interaction.

1. Introduction

As AI becomes a bigger part of our everyday lives, tools like ChatGPT are changing the way we find information, solve problems, and even create content. People are using it for everything from quick answers to complex tasks, making it a valuable resource in both learning and work. However, with its growing popularity, there are important questions about how reliable it is, whether it is ethical to use, and how it might affect our thinking and decision-making over time. This study takes a closer look at how people feel about using ChatGPT. Through surveys, we will explore what users think, what they like, and where they see room for improvement, offering insights into how this AI is shaping the way we interact with technology and each other. Conversational AI has transitioned from simple rule-based systems to sophisticated models capable of natural language understanding and generation. ChatGPT, powered by Generative Pre-trained Transformer (GPT) architecture, represents a significant leap, enabling context-aware, human-like dialogue. In recent years, artificial intelligence (AI) has evolved from a niche technological tool into a mainstream driver of innovation, influencing nearly every sector of society. Among the most prominent developments is the rise of conversational AI systems, particularly OpenAI's ChatGPT, which leverages the Generative Pre-trained Transformer (GPT) architecture to produce context-aware, human-like responses. Unlike earlier rule-based chatbots, ChatGPT's ability to adapt to diverse prompts, generate creative outputs, and simulate nuanced conversations has positioned it as both a practical assistant and a source of debate in educational, professional, and creative domains.

2. Methodology

i). Survey Design: To get a well-rounded view of how

people use ChatGPT, we created a survey that combined both numbers (quantitative data) and personal insights (qualitative data). This helped us understand not just how often people use it but also how they feel about it. While ChatGPT offers unprecedented opportunities for knowledge sharing and automation, it also raises questions about authenticity, trust, cognitive dependency, and job displacement. This study adopts a mixedmethods research design, integrating quantitative and qualitative approaches. The rationale for this choice is that the complex impacts of ChatGPT on humans cannot be fully captured through numerical data alone; qualitative insights are essential to understand user experiences, perceptions, and ethical concerns. The research is exploratory and descriptive, aiming to identify patterns, relationships, and emerging trends in AI-human interaction.

- ii). Participants: The survey reached a wide range of people from different age groups, educational backgrounds, and professions. This variety gave us a rich mix of responses, making the findings more representative of the general user base.
- iii). Data Collection: We created a Google Form for the survey, which was shared with participants. Over 100 people took the survey, and we collected their responses over a set period. To track engagement trends, we also recorded timestamps for each submission, which allowed us to see how usage patterns evolved.

Who Took the Survey: Most of the people who filled out the survey were between the ages of 15 and 25, with some people in their late 20s and early 30s. A few older participants also took part, but the younger group made up the majority. We also had a variety of education levels, with many people having bachelor's or master's degrees. As for jobs, we heard from students, professionals, and business owners, giving us a wide range of insights into how different people use ChatGPT.

3. Data Collection Methods Quantitative Data Collection

 Online Surveys: Distributed via Google Forms or Qualtrics, containing Likert-scale, multiple-choice, and demographic questions.

• Metrics to Measure:

- Frequency of ChatGPT use
- Perceived accuracy of responses
- Impact on productivity, creativity, and decisionmaking
- Level of trust in AI outputs

Qualitative Data Collection

- **Semi-Structured Interviews:** Conducted via Zoom or face-to-face to explore personal experiences, ethical concerns, and perceived advantages/disadvantages.
- **Focus Groups:** 5–7 participants per group to foster discussion on shared experiences and divergent perspectives.
- **Document Analysis:** Reviewing selected AI-generated outputs for accuracy, bias, and creativity.

Data Analysis Techniques Quantitative Analysis

• Descriptive Statistics: (Mean, median, mode, standard

- deviation) to identify general trends.
- Inferential Statistics: (ANOVA, t-tests, Pearson correlation) to compare groups and test relationships between ChatGPT usage patterns and perceived impacts.
- Statistical Software: SPSS or R.

Qualitative Analysis

- Thematic Analysis following Braun & Clarke's six-step framework: familiarization, coding, theme development, reviewing themes, defining/naming themes, and reporting.
- Inter-coder Reliability Checks to ensure consistency in thematic interpretation.
- Qualitative Software: NVivo or ATLAS.ti for coding and theme visualization.

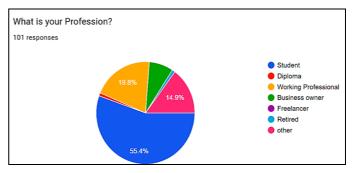


Fig 1: Profession distribution of survey participants

How People Use ChatGPT

People used ChatGPT at different rates, but many said they used it daily or at least once a week.

This shows that ChatGPT is becoming a regular tool for lots of users. The main reasons people use it include learning new things, getting help with schoolwork, doing tasks for work, and even for personal stuff like organizing tasks or answering everyday questions

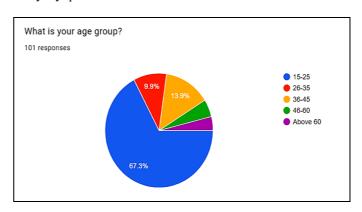


Fig 2: Age distribution of survey respondents

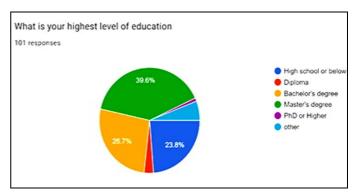


Fig 3: Age distribution of survey respondents

Education Levels Purpose of Use

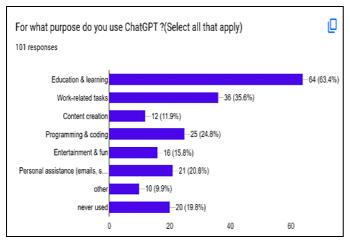


Fig 5: Primary reasons for using ChatGPT

How People Heard About ChatGPT

Many respondents learned about ChatGPT through online platforms, word of mouth, or academic sources. The most common sources were social media and educational websites.

Heard About ChatGPT

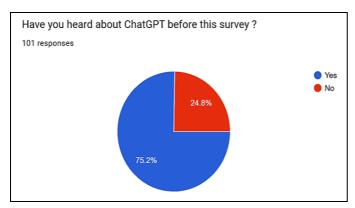


Fig 6: How respondents first heard about ChatGPT

Benefits of Using ChatGPT

Many users reported significant benefits when using ChatGPT, including increased productivity, quick access to information, and enhanced learning.

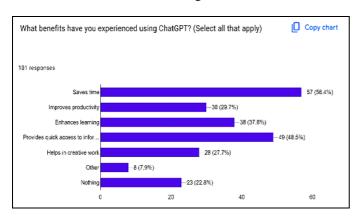


Fig 7: Benefits of using ChatGPT as reported by survey respondents

Challenges Faced by Users

Despite its advantages, users also pointed out several challenges. Many expressed concerns about becoming too

dependent on AI, while others worried about the lack of a human touch in the responses. Privacy concerns were also frequently mentioned, along with occasional issues with outdated information.

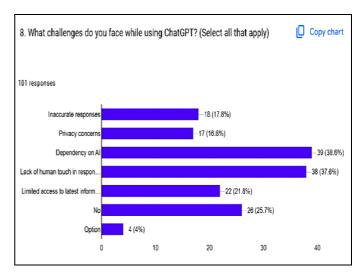


Fig 8: Challenges faced by users while using ChatGPT

Feedback from Users

When asked for feedback, many users suggested improving the accuracy of information, adding more real-time updates, and enhancing the user interface for easier navigation.

User Feedback

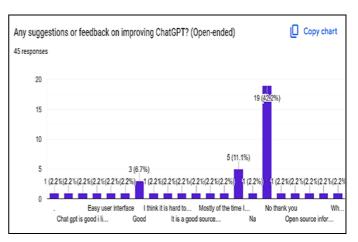


Fig 9

Conclusion

This study shows that ChatGPT is a useful tool for students and professionals. It helps make learning and working easier by giving quick access to information. However, at the same time, we need to be careful about things like wrong information and using it too much.

From our survey of 101 people, we found that 20–30% did not know what ChatGPT is—most of them were uneducated or not into tech, like homemakers or labourers. The other 70–80% who knew about it were mostly educated people like students, teachers, and IT professionals.

This clearly shows there is still a gap in awareness. To fix this, we can make simple apps, produce short videos in local languages, or hold workshops in communities to help everyone understand and use ChatGPT. If we do that, tools like this can truly help all types of people—not just those who are already tech-savvy.

The emergence of ChatGPT marks a pivotal shift in human-

computer interaction, offering transformative potential in education, creativity, workplace productivity, and information accessibility. The evidence suggests that, when used critically, ChatGPT can serve as a powerful cognitive aid—streamlining workflows, enhancing learning and broadening creative possibilities. However, this same accessibility brings risks: the spread of misinformation, erosion of independent critical thinking, and new ethical complexities around authorship, data privacy, and trust in automated systems.

The challenge, therefore, lies not in resisting AI adoption, but in cultivating a culture of responsible integration. This requires embedding AI literacy into education, fostering transparent AI governance, and encouraging human oversight in decision-making. ChatGPT should not be viewed as a replacement for human intellect, but as a complementary tool whose value depends on the discernment of its users.

As AI, systems continue to evolve, the relationship between humans and AI will increase.

The future of knowledge creation, communication, and problem solving. The way society chooses to frame and regulate this relationship will determine whether ChatGPT becomes a catalyst for human flourishing—or a source of dependency and misinformation. The future impact of AI on humanity will not be defined by the technology itself, but by the collective choices we make in its deployment and governance.

References

- https://www.researchgate.net/publication/372770404_Th e_Impact_of_ChatGPT_on_Education_and_Future_Prospects
- 2. https://www.researchgate.net/publication/375106489_Th e Impact of ChatGPT on Human Society_
- 3. https://www.mdpi.com/2504-2289/9/3/56
- Bender EM, Gebru T, McMillan-Major A & Shmitchell S. On the dangers of stochastic parrots: Can language models be too big? Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency, 2021, 610–623. https://doi.org/10.1145/3442188.3445922
- 5. Floridi L & Chiriatti M. GPT-3: Its nature, scope, limits, and consequences. *Minds and Machines*. 2020; 30(4):681–694. https://doi.org/10.1007/s11023-020-09548-1
- Kasneci E, Sessler K, Küchemann S, Bannert M, Dementieva D, Fischer F & Kasneci G. ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*. 2023; 103:102274. https://doi.org/10.1016/j.lindif.2023.102274
- 7. OpenAI, 2023. *GPT-4 technical report*. https://doi.org/10.48550/arXiv.2303.08774
- 8. Shum HY, He X & Li D. From Eliza to XiaoIce: Challenges and opportunities with social chatbots. Frontiers of Information Technology & Electronic Engineering. 2018; 19(1):10–26. https://doi.org/10.1631/FITEE.1700826
- 9. Taecharungroj V. "What can ChatGPT do?" Analyzing early reactions to the innovative AI chatbot on Twitter. *Big Data and Cognitive Computing*. 2023; 7(1):35. https://doi.org/10.3390/bdcc7010035
- 10. Zou J & Schiebinger L. AI can be sexist and racist—it's time to make it fair. *Nature*. 2018; 559(7714):324–326. https://doi.org/10.1038/d41586-018-05707-8.