

# Examining the Impact of Artificial Intelligence on Daily Life Through Usage Patterns, Privacy Concerns and Social Dynamics

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**Abstract:** Artificial Intelligence (AI) is increasingly becoming a vital constituent of our everyday life. It is transforming our lives, which was unimaginable even some years ago. This study is an attempt to understand the social impact of AI on the daily lives of adults. The study has been conducted among 50 individuals in the age group of 18-45. Convenience and snow-ball sampling have been used to gather responses. The study uses a mixed-methodology approach, incorporating both quantitative and qualitative elements. The benefit of mixed methodology in the study is that, it overcomes the shortcomings of either of the approaches and thus provides a comprehensive understanding of social implications of AI in our day-to-day life. A structured questionnaire has been used, having both close-ended and open-ended questions. The data, which is primary data, has been presented thematically, such as frequency of AI usage, types of AI technologies used, its impact on social interactions, concerns regarding privacy and security of data being shared. Observations indicate frequent or almost regular usage of AI by respondents, thus enhancing productivity and convenience by automating monotonous tasks like household chores or customizing digital interactions to suit personal preferences or enhancing accessibility for those with disabilities. This aligns with the technology determinism perspective of sociology, which notes how human life is shaped by societal forces and changes. The findings also highlight concerns around privacy issues due to extensive data sharing or data collection and surveillance powers of AI systems. There are also anxieties over potential job losses or displacement, given the increasingly embedded nature of AI. This paper opens up further possibilities for research which may include a larger variety of samples from different socio-demographics. Such research would probe further into the integration of AI into our everyday existence.

**Keywords - Artificial Intelligence, Everyday Life, Social Interactions, Privacy, Technological Determinism.**

## 1. INTRODUCTION

Technology has been enhancing at a tremendous rate since the 1990s. One of the manifestations of this changing technology is the onset of Artificial Intelligence. It has led to major improvements in how we perform various tasks. Initially, the idea of AI seemed like something out of science fiction (Frey and Osborne 2017). However, artificial intelligence has now become a part of our reality as well as daily life. It affects many aspects of everyday life throughout contemporary society. From virtual assistants like Alexa and Siri to personalized recommendations from Netflix and Spotify, AI technology is increasingly becoming integrated into our daily routines. This integration has changed social interactions and raised issues about the

effect of AI on societal relationships.

With time, it is being observed that AI technology is becoming increasingly popular for its several advantages, including efficiency and ease. However, it is also to be noted that AI brings up issues, with regard to privacy or security of data or social interaction quality (Tai, 2020). In this regard, it becomes critical to understand how AI affects everyday life from a sociological perspective as it develops and advances. Taking this forward, this paper tries to explore how artificial intelligence is transforming the everyday lives of people.

The primary objectives of this paper are:

- To find out how often and how respondents use AI;
- To evaluate the positive effects and drawbacks of the AI technology; and
- To look at how AI affects privacy concerns and social interaction.

In doing so, this paper attempts to explain how AI technology affects relationships, behavior and social standards. In doing so, it contributes to the existing body of knowledge by expanding on the social aspects of AI.

## 2. REVIEW OF LITERATURE

Artificial Intelligence (AI), also called the Fourth Industrial Revolution (IR) 4.0, is currently changing not just how we live our everyday lives and interact with others, but also how we see ourselves. The goal of AI in computer science is to create machines that can replicate human intelligence and analytical or problem-solving abilities (Williamson, 2024). This is done by ingesting a vast amount of data, analyzing it or using lessons learned from the past to expedite and then enhance operations going forward. Unlike AI, a typical computer program, would need human intervention to rectify the errors and enhance procedures (Team, 2024).

AI is defined differently by different people. For instance, some define it as the technology developed to enable computers and other devices to operate intelligently; while some refer to it as a machine which works faster and more effectively than humans, so much so that it replaces human labour (Lee, 2020). Further, some refer to it as "a system" that can precisely understand outside data, learn from it or use that learning to complete certain actions and objectives via adaptable modification (Collins et al, 2021). Although these definitions vary, yet AI is generally understood as the use of machines and computers to help in problem-solving and to streamline operations for human beings (Sharma et al., 2022). In other words, it is machine-designed intelligence created by humans. These features of artificial intelligence (AI) powered tools that mimic the "reasoning" capacities of human brains are largely referred to as AI (Rupali and Amit, 2017).

AI has permeated almost every aspect of our lives along with the rapid advances in cybernetics. Some of these technologies, like the optical character recognition and computer systems that use *Siri* (interpretation and speech recognition interface) for information search, can no longer be considered AI because it has become common place in our daily lives. In this regard, Hosanagar and Saxena (2017) in their work note that AI algorithms are developed in a way so as to increase user engagement through content personalization. Interestingly, this has major implications for alterations in our lives as they are exposed to a wide range of perspectives (Tai, 2020).

AI is also impacting the social dynamics by changing the nature of relationships between humans and machines. This is noted in the case of virtual assistants and AI-driven chat boxes (Miller, 2019).

AI technologies have also raised doubts on the use of personal data which sometimes lead to personal breaches and spying. In this context, Zuboff (2019) introduced the concept of “surveillance capitalism”, which refers to the way in which AI driven firms gather and generate profit from personal data, albeit without

complete information or agreement. The popularity of AI services has led to a conflict between this ease of work and gradual loss of privacy. There are also concerns about the use of AI’s data analysis and misuse of information, thus posing a substantial risk to civil rights (Cook, et al, 2009).

### 3. METHODOLOGY

The paper uses a mixed-methodology approach to understand the social impact of AI on the daily interactions of individuals aged 18 to 45. The sample size is 50 and data used, is primary data. Purposive and snow-ball sampling has been used here. The study was conducted using a survey, using a questionnaire, which included both male and female respondents. The questionnaire was carefully designed with open-ended and close-ended questions, such that diverse issues on use of AI technologies can be addressed. This comprehensive understanding is essential to develop informed policies, guidelines, and technologies which address both the benefits and challenges of AI in society.

The purpose for choosing a mixed methodology design is that it gives a comprehensive analysis by combining the strengths of both quantitative as well as qualitative research methods. The quantitative methods, like the close-ended questions of the survey, provided measurable data which revealed trends and patterns among the respondents. This has been significant in identifying the general attitudes toward AI, frequency of use or type of AI technologies used. However, the study also needed personal, subjective experiences and nuanced perspectives which are not fully captured by figures. Hence, the importance of qualitative methods arise in the study. The open-ended questions allowed participants to express their thoughts, anxieties about privacy, or the possibility of AI in reducing job prospects. In doing so, it provided detailed insights into how AI affects their lives on a deeper level. After the survey, the findings were analyzed thematically like: concerns about AI, impact of AI on social interactions, privacy concerns and employment opportunities.

### 4. RESULTS & ANALYSIS

The findings of the study have been presented and analyzed thematically.

#### A. Demographic Overview

Gender Distribution: The study had equal representation of both genders, with 25 male and 25 female respondents. It is represented with the help of table given below in Fig 1:

TABLE I.

<i>Gender</i>	<i>Number of Respondents</i>
<i>Male</i>	25
<i>Female</i>	25
	Total = 50

Fig. 1. Male-female distribution

Age Distribution: Participants in the study belonged to different age groups ranging from 18 to 45 years. Their distribution is represented below in the table in Fig 2:

TABLE II.

<i>Age Group</i>	<i>Number of Respondents</i>
18-24	12
25-30	13
31-35	10
36-40	8
41-45	7
	Total= 50

Fig. 2. Age Distribution

Occupational Background: The respondents, of the study, belonged to different occupations, like students, self employed individuals or professionals. The purpose to take this varied nature was to get a broad and diverse perspective. Their distribution is represented in the table, given below in Fig 3:

TABLE III.

<i>Occupation</i>	<i>Number of respondents</i>
Student	15
Professionals	18
Self-Employed	10
Unemployed	7
	Total= 50

Fig 3. Occupational Distribution.

### B. Frequency of AI Usage

The respondents were asked to share their views on how frequently they use AI in their everyday life. Their responses are given below in tabular format in Fig 4:

TABLE IV.

<b>Frequency of AI Usage</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
Daily Use	12	10	22
Several Times a Week	8	9	17
Once a Week	2	3	5
Rarely	2	2	4
Never	1	1	2

Fig 4. Frequency of AI use

The responses showed that most of them (22 of them) used AI-based technologies on a daily basis, with 12 males and 10 females reporting this frequency of use. This suggests a high degree of AI integration into their daily life. They noted that AI is used for daily tasks, like virtual assistants, automation tools, and recommendation systems.

The idea that AI is a predominant feature in many aspects of life is supported by the fact that a significant number of respondents engage with it multiple times a week, although it may not be as vital as for those who use it on a daily basis. Only two males and three females, that is, approximately five respondents, employ AI technologies on a weekly basis. They said they use AI tools less frequently and rely on them only for specific duties, like Siri or Alexa rather than integrating them into their daily routine. Very few, that is only four respondents, noted that AI technologies are used infrequently. This is suggestive of the fact that AI technologies are not an essential component of their daily routines. Rather, it was noted that such individuals favor traditional methods of communications or getting things done. This leads to their lesser engagement in fewer interactions with AI tools. It can be noted that the limited segment of the population that is wholly disconnected from AI-based technologies is reflected in the minimal number of respondents who never use AI. This is a result of a variety of factors, like access issues or technological or personal preference.

This can be analyzed sociologically. Technological determinism, from a sociological standpoint, notes that technological advancements influence human development. They greatly affect the ways in which individuals perceive and interact in their everyday life. The fact that majority of respondents (22 out of 29) use AI shows its profound impact of on daily routines. It underscores the fact that AI is becoming increasingly critical regarding time management, information access, decision making. This is understood by the pervasive use of virtual assistants such as Siri and Alexa, as well as automation tools and recommendation systems.

Traditionally, such tasks like setting reminders, scheduling appointments, and responding to inquiries required a greater amount of effort in recalling and remembering. But now, the virtual assistants simplify these processes. Recommendation algorithms on sites such as Netflix and Amazon, are adapted to fit personal tastes, shape consumer behaviour as well as cultural consumption habits.

### C. Types of AI Technologies Used

In this section, attempts were made to understand the kind of AI technologies used by the respondents. Their responses are represented in the table below, in Fig 5:

TABLE V.

<i>AI Technology</i>	<i>Male User</i>	<i>Female User</i>	<i>Total</i>
Virtual Assistants	15	18	33
Recommendation Systems	18	20	38
Autonomous Vehicles	5	3	8
Chatbots	12	14	26
Home Automation	10	8	18

Fig 5. Types of AI technologies used

The responses showed that most men and women regularly use virtual assistants like Siri and Alexa. This underlines the importance of AI in their everyday life. Both men and women find the tool convenient for everyday tasks like reminder setting, alarm, remembering important dates like meetings or birthdays.

Women are seen to use it more as they are into domestic chores and multitasking.

Furthermore, it was also noted that about 18 men and 20 women use AI-powered recommendation systems very frequently. This, in fact, emphasizes their relevance in creating customized materials like music, movies and goods. Interestingly, modern digital interactions greatly depend on such systems as they improve user experience by proposing and filtering choices depending on personal preferences.

With regard to automated cars, very few men and women are found to use them. This was mainly because such technologies are still developing and that automated cars are still not yet widely adopted. Other associated factors include high price, lower availability, high maintenance charges along with lack of battery charging facilities at different parts of the country.

Regarding use of Chatbots, both men and women widely acknowledged in using it, thereby suggesting their value in addressing questions and offering customer service. Their growing inclusion into services and websites emphasizes their role in helping effective communication and connection. Equal access among both sexes implies that chatbots are convenient for their simplicity and usefulness. Respondents were asked about their use of home automation systems. To this, most men and women noted of Using AI-based home automation like Siri or Alexa. This shows its increasing prevalence in smart home technologies, which improve convenience and control over domestic surroundings like lighting, temperature, curtains or songs or music.

#### D. Concerns about AI

In this section, the respondents were asked to share their views whether they had concerns about the data being shared in AI. Their responses are given in the table below in Fig 6:

TABLE VI.

<i>Concern Type</i>	<i>Male Users</i>	<i>Female Users</i>	<i>Total Users</i>	<i>Concern Level</i>
Overall Concern	12 (Rating 3)	14 (Rating 3)	26	3.2
	8 (Rating 4)	6 (Rating 4)	14	4
Privacy and Data Concern	15	17	32	High
Job Displacement	10	12	22	Moderate
Dependence on Technology	9	11	20	Moderate

Fig 6. Concerns over use of AI

The respondents noted anxieties or concern regarding artificial intelligence. It was more or less shared equally by both sexes. Most of the respondents scored their degree of worry as 3 or 4. This anxiousness is suggestive of the fact that while respondents recognize and understand the negative effects of AI, yet they do not perceive them to be intolerable. A balanced awareness among sexes implies that both women and men are equally educated about the possible advantages and drawbacks of artificial intelligence.

Most men and women cited privacy and data security as major concerns and these are vital issues. This points towards increasing knowledge of people as to how their personal data is handled in an environment driven by AI. Both men and women noted general concerns about the way AI systems gather, exploit and retain sensitive data. Thus, unanimously they spoke about the need to protect personal data. This emphasizes

the importance of strong privacy policies and open data methods in the progress of AI.

With regard to work displacement, ten men and twelve women expressed their concerns, suggesting that AI does have potential influence on career possibilities. This captures the discussions of larger society as to how artificial intelligence and automation may influence employment markets and the need of policies to handle any such job disturbances.

With regard to technological dependence, about nine men and eleven women voiced their worries. This reflects the effects of AI technologies and its over reliance on cognitive and social abilities. This shows a complex awareness of the function of artificial intelligence in society. The major privacy and data security issues draw attention to the crucial problem of technological trust, thereby stressing the requirement of ethical artificial intelligence methods and strict data security laws.

#### E. Impact of AI on Social Interactions

In this section, respondents were asked to share their views how AI shapes social interactions. The responses are represented in the table given below, in Fig 7:

TABLE VII.

Impact Type	Male Users	Female Users	Total Users
Positive Impact	14	12	26
Negative Impact	8	5	13
Neutral or No Impact	3	2	5

Fig 7. Impact of AI on Social Interactions.

Most respondents noted that artificial intelligence improves their social life. It helps them to be in touch, and also, control social contacts. They cited instance of recalling birthdays or anniversaries or special days with AI gadgets like Siri or Alexa.

On the other hand, six men and eight women noted that artificial intelligence hampered their social connections. Respondents pointed out the negative impacts of AI which included declining face-to--face contact or interactions and feelings of isolation. However, some men and women said that their social contacts were not much affected by AI. This was because of their low usage of artificial intelligence in their social life or accessibility. Some of them believed that it does influence their personal relationships.

#### F. Privacy Concerns

The respondents were asked to comment on how comfortable they were regarding data sharing in AI tools. Their responses are represented in the table below:

TABLE VIII.

Privacy	Male Users	Female Users	Total Users
Comfortableness with Data Collection			
Very Comfortable	8	6	14
Somewhat Comfortable	12	14	26
Neutral/No Opinion	3	4	7

Not Comfortable	2	3	5
Privacy Steps Taken			
Steps Taken	15	18	33
Steps Not Taken	10	7	17

Fig 8. Concerns about Privacy for users

The findings suggested that around 8 males and 6 females were quite comfortable with AI's data collection practices, indicating a level of trust in AI systems and their handling of personal information. The majority of respondents fall into this category, suggesting a general acceptance of data collection practices by AI, though with some reservations. This indicates a balanced view where individuals accept data collection but have concerns about its extent or implementation. Only few of them feel neutral or have no opinion on data collection. This small group represents those who are indifferent or unsure about AI's data collection practices, due their limited use or engagement with the technology. A handful of men and women reported being very uncomfortable with AI's data collection. Their uncomfortable feeling reflect significant concerns about privacy and data security. This discomfort is driven by fears of data misuse or inadequate data protection measures.

Respondents were also asked about whether they took privacy protection steps while using AI. Most of them have actively taken measures to protect their privacy. A larger number of females have taken steps to safeguard their privacy, indicating a proactive approach towards managing personal data. This included using privacy settings, opting out of data collection and using additional security measures. Some men and women reported to have not taken any specific steps to protect their privacy. This group may either be less aware of privacy risks or less concerned about data protection. The lower number of females in this category suggests a more cautious approach to privacy among women compared to men.

### G. Belief in AI's impact on Human Relationships

Respondents were asked about the potential impact of AI on human relationships and whether they believed it would bring about some change in it. Their responses are given in the table below, in Fig 9:

TABLE IX.

<i>Belief about AI's Impact</i>	<i>Male Users</i>	<i>Female Users</i>	<i>Total Users</i>
Significant Change	16	18	34
No Change	9	7	16

Fig 9. Beliefs about impact of AI on human relationships.

Most men and women noted that during the next ten years AI will necessarily affect human interactions. However, some men and women did raise doubt on how much artificial intelligence will affect personal relationships. Here, the respondents either distrust AI's possible impact on relationships or they do not feel any significant changes resulting from it. The lower number of responses in this category implies that while many people hope AI will bring about major improvements, others feel that conventional relationship dynamics will be there.

## 5. FUTURE SCOPE OF THE STUDY

AI has now become an integral part of our lives. It is reshaping our patterns of interaction, privacy concerns and the overall structure of relationships in society. Technological determinism suggests that technology



shapes society and culture, rather than the other way around. From the perspective of technological determinism, AI can be viewed as shaping society and culture and a driving force behind the changes of the world around us. Interestingly, as these systems are becoming advanced, we are becoming increasingly dependent on such technologies to simplify and enhance our lives. This study finds that AI technologies, such as virtual assistants or recommendation systems, are becoming almost a daily part of our lives as many people are, in fact, relying on them for their routine tasks like: setting reminders of social events or choosing entertainment options. Due to the increasing embeddedness of AI in our everyday lives, the study also notes the concerns of people about privacy, security of data, potential job loss. Responses of participants also noted the dichotomous nature of AI. On one hand the AI is helpful in maintaining and improving social connections, yet there are also anxieties or worries of reducing face-to-face interactions and increase feelings of isolation.

Further research in this field is essential in order to ensure that AI technologies are developed as well as used in ways which improve human life while at the same time minimize potential risks. This paper opens up possibilities for new areas of further study which can include a larger and more diverse sample across different regions and social backgrounds to explore AI's impact. Another area of future scope of the research can be long-term studies that can undertaken to explore and suggest as to how AI, its utilities and its effects evolve over time. This would be helpful in assessing the continuous integration of AI into our daily life and its new dimensions. In conclusion, it can be noted that while AI brings with it various benefits by making certain routine tasks easier, yet it also presents challenges which need to be addressed.

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