

IMPACT OF ARTIFICIAL INTELLIGENCE AMONG MALE AND FEMALE ADOLESCENTS

Praveen Kumar K.B.*

DOI: <https://doi.org/10.5281/zenodo.21223952>

ABSTRACT

The present study was conducted to examine the impact of artificial intelligence among male and female adolescents. Nowadays, modern technology is acquiring all fields around the world, including human life. Artificial intelligence (AI) plays a significant and uncontrollable role, which is highly dominated among male and female adolescents who are using it for gaining knowledge, enjoyment, and other relevant multiple purposes effectively in their everyday lives. Artificial intelligence is making a very valuable place as well as getting more space in the modern world; therefore, both positive as well as negative impacts on adolescent male and female lives are being studied by the following research. The sample for the study consisted of 50 adolescents (25 females and 25 males), aging between 16-18 years from various rural areas in Bhadravathi taluk, Shivamogga district. Both male and female groups belong to the rural area, and a random sampling technique was used. For the measurement and collection of data, an online questionnaire regarding the utilization of artificial intelligence was used via https://saferinternet4kids.gr/forms/ai_en_questionnaire/. The obtained data was analyzed by using mean, SD, and the 't'-test was applied. The result of the study concluded that there is a significant difference between female and male adolescents on the use of artificial intelligence, who are assessed over the use of artificial intelligence underlying various reasons with respect to different types of situations.

KEYWORDS: Artificial Intelligence, Male and Female, Adolescents, Assessment.

Introduction

Artificial Intelligence (AI) has become a habitual part of everyday life, from effective helpers like Siri and Alexa to personalized suggestions on social media. At the same time, AI makes things much easier and provides more and quick access to information that also brings many challenges and difficulties, especially for adolescents who are still developing mentally, cognitively, and emotionally. AI's very high impact on adolescents can be deep, shaping their thinking, reasoning, thoughts, emotional control, and relationships. As AI becomes a big part of adolescents' lives, we can understand that there are many effects on the young generation, and for adolescent people, it is important to minimize risk factors and increase benefits. Artificial Intelligence (AI) is not just used socially, especially on social media, but is also used in smart home systems that employ Siri or Alexa. When you give a vocalized command, the AI interprets and analyzes it and obeys. Ask

an inquiry, and the AI will give a response based on trends and new information gleaned from its usage. AI also has a more beneficial effect on both parents and children. For children with special wants and needs, fulfilling all these by artificial intelligence can be used to create an appropriate assessment (Rowe, J. and Lester, J., 2020). The world is highly dominated by artificial intelligence (AI). Soft skills like thinking, creativity, emotional intelligence, critical thinking, critical reasoning, and problem-solving will be extraordinarily valuable. It's important for the future settled careers of adolescents to gain a growth mindset and permit them to adjust to technological changes (Xie, et al., 2022).

"Nowadays, the young generation, especially Gen Z and Gen Alpha, has highly grown up with new technology. It's likely that they do not know the uses of a typewriter or beeper. Artificial Intelligence may not be known to them, yet it is all around them. (Andrew, et al., 2023)."

* **Dr. Praveen Kumar K.B.**, Assistant Professor, Department of Psychology, Sahyadri Arts College, Shivamogga.

Definition and Meaning of AI

Artificial Intelligence (AI), a term coined by emeritus Stanford Professor John McCarthy in 1955, was defined by him as “the science and engineering of making intelligent machines”. Artificial intelligence (AI) “is technology that enables computers and machines to simulate human intelligence and problem-solving capabilities”.

Review of Literature

Andrew, et al. (2023) found the importance of Artificial Intelligence in health fields, concentrating on different medical practicing methods like MRI, ECG, EEG, etc., to accept the different aspects of the medical domains. The study concentrated on the practice and utilization of artificial intelligence methods for adolescents in medical settings.

Ahmad, et al. (2023) investigated the implementation of AI-based technology into the classroom. It's like calling in the devil to accept AI without addressing the main concerns raised by humans. To solve many related problems, it is guided to pay attention to creating, executing, and utilizing AI for education in a way that makes sense.

Brisson, et al. (2023) conducted a study stating it might be required to design and train AI to be adolescent-competent in its interactions with younger ones in order to protect the psychological wellbeing of teenagers. Meanwhile, there is a lack of historical study on adolescents' use of AI for health purposes, growth, and developing pertinent regulations and tailoring.

Giovanelli, et al. (2023) reported that artificial intelligence has significantly influenced the measurement, modeling, and discovery of new treatments, as well as the optimization of existing ones for youth involvement. We must also discuss the possible restrictions of AI, paying special attention to issues related to teenage privacy life.

Lai, et al. (2023) reported that AI research discovered that there is no support for any schoolwork, there is a negative correlation with social adaptability, and a damaging influence on youth social adaptability when it comes to AIEd. It is highly influenced by social adaptability directly and indirectly through family help.

Objectives of the Study

- To assess the significant relationship between male and female adolescents regarding the use of Artificial Intelligence.
- To determine the significant gender differences among adolescents regarding the use of Artificial Intelligence.

Hypotheses

- There would be a significant relationship between male and female adolescents regarding the use of Artificial Intelligence.
- There would be a significant gender difference among adolescents regarding the use of Artificial Intelligence.

Method

Sample:

The sample for the study consisted of 50 adolescents (25 females and 25 males) aging between 16-18 years from various rural areas in Bhadravathi taluk, Shivamogga district. Both male and female groups belong to the rural area, and data was collected using a random sampling technique.

Tools Used for the Study:

In the present study, the researcher planned to collect the data by filling out online forms or questionnaires regarding the utilization of artificial intelligence (AI); retrieved from: https://saferinternet4kids.gr/forms/ai_en_questionnaire/.

Data Collection Procedure:

The investigator planned to assess the impact of artificial intelligence on adolescent male and female samples and conducted it in online mode through Google Forms for collecting data. After data collection, the questionnaires were scored according to the scoring pattern.

Statistical Analyses:

Mean, SD, and the 't'-test were used for data analysis.

Results and Discussion

Table 1: Shows the Mean, SD, and 't' value of the utilization of artificial intelligence among male and female adolescents.

	Male (N=25)		Female (N=25)		
Variable	Mean	SD	Mean	SD	t value
Academic stress	5.28	1.93	7.52	1.98	2.11*

***Significant at 0.05 level**

Table 1 reveals the results of the utilization of artificial intelligence among male and female adolescents. Regarding the overall utilization of artificial intelligence among male and female adolescents, the male adolescents' mean = 5.28 and SD = 1.93. The female students' mean = 7.52 and SD = 1.98. The obtained 't' value is 2.11, which is significant at the 0.05 level.

It can be further referred and stated that there is a positive and highly significant difference

between the two groups of males and females taken for the current study, revealing that female adolescents are more highly dependent on the utilization of artificial intelligence than male adolescents.

Suggestions for Adolescent Males and Females Regarding AI

- **Critical Thinking Skills:** Must enhance critical thinking skills. Help adolescents learn the limitations and biases that may come out in AI systems.
- **Technology Balance:** Ensure a balanced use of technologies and use mixed offline and online activities to foster a good lifestyle.
- **Cognition of Privacy:** Must be aware of the basic needs of privacy. Awareness about risks associated with sharing personal information online.
- **Digital Literacy:** Know about digital literacy. Adolescents must have the necessary skills to negotiate the digital landscape and have knowledge of how AI algorithms work.
- **Ethical Value Considerations:** Consider ethical values related to AI. It helps adolescents using technology understand how their choices can impact other people.
- **Time Management in Screen Use:** Support healthy screen time management. Limit the use of devices.
- **Open Communication:** Keep communication channels open always. Discuss their experiences with technology, answer questions, and address any concerns they may have.

Conclusion:

1. There is a significant difference in the utilization of artificial intelligence (AI) between male and female adolescents. 2. Female adolescents are more highly dependent on the utilization of artificial intelligence (AI) than male adolescents.

Finally, there is a high impact of Artificial Intelligence (AI) on adolescent males' and females' daily lives. Both are using the techniques of Artificial Intelligence (AI) as a habit and have total dependence on it. Thus, it impacts the development of cognitive capacities; day by day, adolescents are losing cognitive abilities as they are highly dependent on AI. Some research has also proven the over-impact of Artificial Intelligence on adolescent life.

References:

1. Ahmad, et al. (2023). Impact of artificial intelligence on human loss in decision making, laziness and safety in education. <https://doi.org/10.1057/s41599-023-01787-8>.
2. Andrew, et al. (2023). Artificial intelligence in adolescents mental health disorder diagnosis, prognosis, and treatment. <https://doi.org/10.3389/fpubh.2023.1110088>.
3. Brisson, et al. (2023). Investigating the Influence of Artificial Intelligence on Adolescent Health: An Urgent Call to Action. <https://doi.org/10.1016/j.jadohealth.2023.06.002>.
4. Giovanelli, et al. (2022). Supporting Adolescent Engagement with Artificial Intelligence-Driven Digital Health Behavior Change Interventions. doi: 10.2196/40306.
5. Lai, et al. (2023). Influence of artificial intelligence in education on adolescents' social adaptability: The mediatory role of social support. doi: 10.1371/journal.pone.0283170.
6. Premlata Bourai & Vijay Laxmi Yadav (2025). The psychological impacts of artificial intelligence on young people. *Journal of Emerging Technologies and Innovative Research (JETIR)*. Volume 12, Issue 4.
7. Rowe, J. and Lester, J. (2020). Artificial Intelligence for Personalized Preventive Adolescent Healthcare. <https://doi.org/10.1016/j.jadohealth.2020.02.021>
8. Xie, et al. (2022). Influence of Artificial Intelligence in Education on Adolescents' Social Adaptability: A Machine Learning Study. doi: 10.3390/ijerph19137890