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Negative Effects of AI In Youth: Remarking Attitude and Behavioural Changes

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Abstract

Artificial Intelligence (AI) has pervaded almost every aspect of modern life, including the lives of youth, through social media platforms, educational tools, gaming, and digital entertainment. While AI holds great promise for advancing technology and education, its negative impact on youth is an area of growing concern. This paper explores how AI influences the attitudes and behaviors of young people, particularly focusing on areas such as social skills, self-perception, and dependency on digital devices. The study aims to identify how AI-driven technologies can foster negative behavioral patterns, such as increased screen time, social isolation, and the development of unrealistic expectations about self-image. The paper also discusses the long-term implications of these changes and provides recommendations for mitigating these effects through mindful use and appropriate interventions.

Introduction:

Artificial Intelligence (AI) has undoubtedly revolutionized the way we live, interact, and learn. However, its rapid development and integration into various aspects of everyday life, particularly among youth, have raised concerns regarding its long-term effects on attitudes and behaviors. Youth are particularly susceptible to the influence of technology, as they are in critical developmental stages that shape their social interactions, self-esteem, and worldviews. AI-powered technologies—such as social media algorithms, gaming AI, virtual reality, and smart devices—can subtly alter how young people perceive themselves and interact with others, potentially leading to negative behavioral and attitude changes.

This paper explores the negative effects of AI on youth, specifically examining how AI influences their social, psychological, and emotional development. We will investigate how over-reliance on AI-driven platforms impacts their real-world social skills, sense of self-worth, mental health, and attention span. The goal of this research is to highlight the risks associated with AI overuse and to provide solutions for minimizing these harmful effects while ensuring that the benefits of AI can still be harnessed in a balanced and responsible way.

Literature Review:

Anderson and Dill (2000) conducted a landmark study that examined the relationship between video game usage and aggression. They found that playing violent video games significantly increased aggressive thoughts, feelings, and behaviors, both in laboratory settings and in real-life situations. This research is highly relevant to the discussion of AI-driven gaming platforms, where AI algorithms personalize experiences and intensify engagement. The immersive nature of such games, combined with AI's ability to adapt to a player's behavior, can potentially enhance the aggressive effects seen in youth over prolonged exposure (Anderson & Dill, 2000). This study suggests that AI's role in gaming may not only influence attitudes towards violence but also exacerbate problematic behaviors, contributing to an increase in aggression, desensitization, and reduced empathy among young players.

Pew Research Center (2021) provided a comprehensive overview of how AI-driven algorithms in social media shape the content young people are exposed to, highlighting the profound impact these systems have on their social behaviors and perceptions. These platforms use sophisticated algorithms that personalize content, often reinforcing certain behaviors and preferences, which can influence how youth engage with one another and form their social identities. AI's role in curating these experiences can amplify social comparisons and contribute

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to feelings of inadequacy or anxiety among adolescents.

Przybylski and Weinstein (2020) focused on digital communication and its effect on adolescent well-being. They argue that while digital communication technologies have created new avenues for connection, they also contribute to negative outcomes such as anxiety and depression, especially when AI-mediated platforms (e.g., social media) are used excessively. The authors emphasize the importance of balancing online and offline interactions, suggesting that over-reliance on digital communication may reduce the development of essential social skills, leading to emotional and behavioral issues.

Tiggemann and Slater (2014) investigated the relationship between internet usage and body image concerns in adolescent girls, particularly in the context of platforms like Facebook. They found that social media exposure, driven by AI algorithms, can exacerbate body dissatisfaction and self-esteem issues, particularly among adolescent girls who are highly susceptible to online comparisons. AI's role in curating idealized representations of beauty and success contributes to the internalization of unrealistic standards, fostering body image concerns.

Tuncer and Koc (2020) explored the specific effects of AI-driven gaming on youth behavior. Their research found that AI-based gaming platforms significantly alter attention spans and social behaviors, with prolonged exposure leading to heightened levels of social isolation, difficulty concentrating on tasks, and a tendency to prioritize virtual experiences over real-life interactions. AI's role in creating immersive and interactive gaming experiences has been shown to contribute to behavioral addiction and a reduction in face-to-face communication skills.

Valkenburg and Peter (2020) examined the effects of internet communication on youth's social skills and relationship development. Their study suggests that AI-mediated communication tools (e.g., chatbots, AI-driven messaging apps) may hinder the development of deep, meaningful relationships, as young people are increasingly relying on virtual communication instead of engaging in in-person conversations. This shift has implications for emotional intelligence and the ability to navigate complex social dynamics, which are crucial for personal growth.

Zhou and Liu (2020) reviewed the psychological impact of AI on youth, particularly in terms of identity formation and social skills. They argue that AI's pervasive presence in youth media consumption is reshaping how adolescents perceive themselves and others. With AI algorithms dictating much of the content youth engage with, the development of a stable, authentic identity becomes more difficult. AI's influence on social behaviors is evident in the shift towards online personas that may not align with real-world identities, contributing to a fragmented sense of self.

Background and Context

- Overview of AI in modern society and its increasing use in youth-focused platforms such as social media, video games, and educational tools.
- The dual nature of AI: potential for positive growth vs. concerns over its negative impact on young users.

Research Problem

- AI's pervasive role in shaping youth attitudes and behaviors, Focusing on the negative consequences.
- The need to understand how AI affects youth in terms of aggression, social behaviors, mental health, and cognitive development.

Objectives:

1. To examine the negative impacts of AI on the attitudes and behavior of youth.
2. To identify the specific behavioral changes associated with prolonged AI interaction among

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young people.

3. To investigate how AI technologies (e.g., social media, video games, virtual reality) influence social skills and emotional development.
4. To explore the implications of AI-induced changes on mental health and self-perception.

Limitations:

1. **Sample Size and Demographics:** The study may have a limited sample size, and the sample demographic may not fully represent the diverse cultural, social, and economic backgrounds of the youth population.
2. **Self-Reported Data:** Much of the data collected may rely on self-reported surveys or interviews, which could introduce biases based on individual perceptions or social desirability.
3. **Generalization:** The study focuses primarily on the negative effects of AI and does not account for the potential positive impacts AI can have on youth development.
4. **Technological Variability:** The study may not be able to account for all types of AI technologies that influence youth, as new forms of AI emerge rapidly.

Hypothesis:

- **H_0:** AI platforms don't significantly affect youth social skill development.
- **H_1:** Prolonged AI use hinders youth social skills and reduces effective face-to-face interactions.
- **H_0:** AI use in youth platforms doesn't impact empathy or emotional intelligence.
- **H_1:** AI use reduces empathy and emotional intelligence by making interactions more impersonal.
- **H_0:** Youth don't significantly rely on AI for decision-making.
- **H_1:** Youth increasingly depend on AI, weakening decision-making and critical thinking skills.

Methodology:

1. Research Design

The study employs a mixed-methods approach combining quantitative and qualitative research techniques. This approach will offer a comprehensive understanding of how AI influences youth behavior, emotional health, decision-making, and social skills.

The research will be conducted over a six-month period, utilizing both cross-sectional and longitudinal data collection methods. Youth participants will be tracked to observe short-term and long-term effects of AI interaction on their attitudes and behaviors.

2. Participants

The participants will consist of youth aged 12-18 years, selected using stratified random sampling to ensure diversity in age, socioeconomic background, and AI usage frequency.

Group	Age Range	Number of Participants	AI Usage Categories
Early Adolescents	12-14 years	100	Heavy, Moderate, Light AI users
Middle Adolescents	15-16 years	100	Heavy, Moderate, Light AI users
Late Adolescents	17-18 years	100	Heavy, Moderate, Light AI users

3. Data Collection Methods

Data will be collected from surveys, interviews, focus groups, and observational studies. The following table provides an overview of the data collection methods.

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Method	Description	Data Type	Purpose
Surveys	Pre- and post-study questionnaires on social skills, emotional intelligence, and decision-making.	Quantitative	To measure changes in attitudes and behaviors before and after AI exposure.
Interviews	One-on-one interviews with selected youth participants to explore their experiences and perceptions of AI.	Qualitative	To gain in-depth understanding of the effects of AI on social interactions, emotional health, and decision-making.
Focus Groups	Group discussions with 6-8 participants on their AI-related experiences.	Qualitative	To explore common themes and perceptions of AI's impact in a group setting.
Observational Studies	Observing youth's interactions with AI tools in social and educational settings.	Qualitative	To assess behavioral changes in real-world AI usage scenarios (e.g., group work, social media use).

4. Ethical Considerations

Given the focus on youth, ethical considerations are paramount. The study will prioritize informed consent, confidentiality, and mental health support for participants.

5. Data Analysis

a) Quantitative Data Analysis

- **Descriptive Statistics**: The initial step involves summarizing survey data using measures like mean, median, and standard deviation to understand the distribution of responses.
- **Inferential Statistics**: To test the research hypotheses, t-tests and ANOVA will compare the differences between groups (e.g., youth who use AI heavily vs. those who use it less frequently).

Variable	Group 1 (Heavy AI Users)	Group 2 (Moderate AI Users)	Group 3 (Light AI Users)
Social Interaction Score	4.3	5.1	6.2
Emotional Intelligence Score	3.8	4.0	5.5
Decision-Making Confidence	2.9	3.4	5.0

- The table above illustrates a hypothetical example of the type of data that could be collected regarding social interaction, emotional intelligence, and decision-making confidence among different AI usage groups. The scores reflect participants' self-assessments based on survey responses.
- Regression Analysis: To examine the impact of AI usage on various behavioral and attitudinal outcomes (e.g., emotional intelligence, social isolation), multiple regression analysis will be conducted.

b) Qualitative Data Analysis

- Thematic Analysis: Interviews and focus group transcripts will be coded to identify recurring themes and patterns in participants' perceptions of AI's impact on their social lives, mental health, and behavior.

Example Themes from Interviews:

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- **Impact on Social Skills**: "I don't talk to my friends as much in person anymore."
- **Dependence on AI**: "I ask Siri for advice more than I ask my parents."
- **AI and Emotional Health**: "Social media makes me feel bad about myself."

- **Content Analysis**: Social media posts or text-based AI communications will be analyzed for changes in tone, emotional expressions, and social engagement.

6. Example Analysis: Regression of AI Usage and Social Skills

A regression analysis could reveal how changes in AI use (independent variable) influence social interaction (dependent variable). For example:

Predictor Variable	B (Coefficient)	Standard Error	t-Statistic	p-value
Heavy AI Use	-0.85	0.23	-3.70	0.001
Moderate AI Use	-0.20	0.21	-0.95	0.34
Age	0.15	0.05	3.00	0.003

This hypothetical regression table shows the relationship between heavy AI use and a decrease in social interaction (negative B value). The p-value of 0.001 indicates that this relationship is statistically significant. Age is also shown to influence social interaction, with older participants reporting better social skills, potentially due to greater maturity or less reliance on AI.

Discussion:

The rapid integration of artificial intelligence (AI) into the everyday lives of youth has sparked growing concern regarding its potential negative impact on attitudes and behavior. While AI-driven technologies offer numerous benefits in education, communication, and entertainment, their increasing presence has also been linked to significant shifts in how young people interact with themselves, others, and the world around them. One of the most critical areas of concern is the change in social behavior. AI-powered social platforms, virtual assistants, and recommendation algorithms often encourage passive interaction patterns. Youth may begin to favor mediated communication through AI-enhanced messaging apps and virtual environments over direct, face-to-face interaction. This over-reliance on technology can weaken essential interpersonal skills such as empathy, conflict resolution, and active listening, which are typically nurtured through in-person social experiences.

Furthermore, AI-driven systems that personalize content—such as social media feeds or virtual influencers—can subtly shape attitudes and self-perception. Continuous exposure to algorithmically curated content may create unrealistic standards of beauty, success, and lifestyle, leading to increased feelings of inadequacy, low self-esteem, and mental health issues such as anxiety or depression. These shifts are particularly concerning given the developmental vulnerability of youth and their heightened sensitivity to external validation during adolescence. AI's role in decision-making is also reshaping cognitive habits. With the rise of AI-powered recommendation systems, such as those found in streaming platforms, shopping apps, or even educational tools, many young users begin to depend on machines for guidance. This diminishes critical thinking and personal agency, as youth become conditioned to trust automated suggestions without questioning their accuracy or intent. In the long term, this could erode confidence in independent decision-making and limit opportunities for problem-solving and intellectual growth.

Moreover, behavioral patterns influenced by AI systems—such as shortened attention spans, impulsive reactions to stimuli, or dependence on instant gratification—may further alter the emotional and behavioral landscape of youth. These changes can manifest in reduced patience, difficulty concentrating, or an increased susceptibility to mood fluctuations based on online interactions and feedback loops. While AI undoubtedly enhances certain aspects of youth life, its pervasive presence also introduces substantial risks to psychological development and social

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functioning. The observed changes in attitudes and behavior suggest the need for more mindful integration of AI in youth-centered environments. This includes fostering digital literacy, encouraging balance between online and offline interactions, and promoting ethical AI use that prioritizes the mental and emotional well-being of young users.

Conclusion

As artificial intelligence continues to integrate into nearly every facet of modern life, its influence on youth cannot be overstated. From social media algorithms to AI-powered educational tools and decision-making platforms, the digital ecosystem surrounding young people is increasingly shaped by machine learning and automation. While these technologies offer unparalleled access to information, connectivity, and personalization, they also come with hidden costs that directly affect the attitudes and behaviors of the younger generation. The most pressing concern lies in the gradual erosion of authentic social interaction. As youth increasingly engage with AI-mediated environments, opportunities for face-to-face communication, empathy development, and emotional resilience are reduced. These changes are not immediately visible, but over time, they may result in diminished social competence, making it more difficult for young people to build meaningful relationships, handle interpersonal challenges, or engage in collaborative problem-solving.

Moreover, the constant presence of AI-generated content and recommendations shapes not only what youth consume, but how they think and behave. Exposure to curated realities and algorithmic feedback loops can distort self-image, increase dependency on external validation, and promote unrealistic expectations of life and self-worth. This psychological shaping has implications far beyond screen time—it can lead to increased anxiety, lowered self-esteem, and a decreased ability to reflect critically on one's choices and values. Another key area of concern is the passive reliance on AI for decision-making. Whether it is choosing what to watch, wear, study, or even believe, many young people are growing up in an environment where decisions are subtly made for them. This passive consumption discourages independent thought and weakens critical thinking abilities, posing long-term risks for intellectual growth and civic engagement. It is important to recognize that these effects are not inherently due to AI itself, but to how it is designed, implemented, and consumed. When used mindfully and ethically, AI can be a powerful tool for education, creativity, and connection. However, without proper guidance, regulation, and digital literacy education, the negative behavioral and attitudinal shifts may become more deeply entrenched in the next generation.

Therefore, the conversation must now shift from whether AI is beneficial or harmful to how we can ensure its responsible integration into the lives of young people. Parents, educators, developers, and policymakers must work together to cultivate an environment where AI serves as a supplement to human interaction, not a replacement for it. Only then can we empower youth to thrive in a digital age—armed not just with access to technology, but with the emotional intelligence, critical thinking, and ethical awareness needed to navigate it wisely.

References

1. Anderson, C. A., & Dill, K. E. (2000). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of Personality and Social Psychology, 78*(4), 772-790. https://doi.org/10.1037/0022-3514.78.4.772
2. Baumer, D. L., & Sweeney, R. (2021). The impact of social media algorithms on youth behavior: A review of the literature. *Journal of Digital Behavior, 9*(2), 25-42. https://doi.org/10.1080/20501900.2021.1904983
3. Binns, A., & Hardy, D. (2021). The ethics of AI in digital gaming: A critical analysis of its effects on young users. *International Journal of AI & Society, 30*(4), 453-468. https://doi.org/10.1007/s00146-020-01038-7
4. Boulton, A., & Hughes, B. (2019). The role of AI in shaping youth identity in the digital age.

Youth & Society, 51(6), 795-812. https://doi.org/10.1177/0044118X18820375

5. Briggs, D., & Thompson, K. (2021). AI in education: Impact on cognitive development and student behavior. *Journal of Educational Technology & Society, 24*(2), 19-35. https://www.jstor.org/stable/26457344
6. Dienlin, T., & Johannes, N. (2020). The effect of social media algorithms on youth: A systematic review. *Cyberpsychology, Behavior, and Social Networking, 23*(10), 674-681. https://doi.org/10.1089/cyber.2020.0273
7. Duggan, M. (2019). The impact of artificial intelligence on youth behavior in online communities. *The Journal of Social Media in Society, 8*(2), 1-10. https://www.researchgate.net/publication/330632906
8. Ellis, D., & Lee, S. (2021). Artificial intelligence in social media: Its effects on self-esteem and youth identity. *Journal of Youth and Adolescence, 50*(5), 985-997. https://doi.org/10.1007/s10964-020-01316-x
9. Gonzalez, F., & Sanchez, T. (2020). AI, gaming addiction, and mental health: The intersection of virtual worlds and youth well-being. *Journal of Mental Health & Digital Technology, 15*(1), 24-35. https://doi.org/10.1080/20470547.2020.1714251
10. He, J., & Zhang, Y. (2021). The role of AI in reinforcing stereotypes: Implications for youth and media consumption. *International Journal of Communication, 15*(3), 498-513. https://www.ijoc.org/index.php/ijoc/article/view/15104
11. Kuss, D. J., & Griffiths, M. D. (2017). Social networking sites and addiction: Ten lessons learned. *International Journal of Environmental Research and Public Health, 14*(3), 311-317. https://doi.org/10.3390/ijerph14030311
12. Lange, S., & Stevenson, R. (2020). Social media, body image, and self-esteem: The role of AI algorithms in shaping youth perceptions. *Cyberpsychology, Behavior, and Social Networking, 23*(4), 260-267. https://doi.org/10.1089/cyber.2019.0489
13. Mok, H. (2019). Virtual reality and AI in youth development: The potential dangers of excessive exposure. *Journal of Technology and Youth, 12*(2), 75-89. https://doi.org/10.1080/22228756.2019.1625362
14. Nussbaum, M., & Moravcsik, A. (2020). Artificial intelligence and the psychological effects on adolescents: A review of existing literature. *Journal of Psychological Research, 45*(2), 102-115. https://doi.org/10.1016/j.psychres.2020.03.017
15. Pew Research Center. (2021). The role of AI in youth social media: Insights from recent data. *Pew Research Center*.
16. Przybylski, A. K., & Weinstein, N. (2020). Can you hear me now? Digital communication and its impact on adolescent well-being. *Journal of Adolescence, 78*, 97-109. https://doi.org/10.1016/j.adolescence.2020.04.009
17. Tiggemann, M., & Slater, A. (2014). NetGirls: The Internet, Facebook, and body image concern in adolescent girls. *International Journal of Eating Disorders, 47*(6), 630-643. https://doi.org/10.1002/eat.22307
18. Tuncer, M., & Koc, T. (2020). How AI-driven gaming is altering attention span and social behaviors in youth. *Games and Culture, 15*(5), 604-620. https://doi.org/10.1177/1555412019840913
19. Valkenburg, P. M., & Peter, J. (2020). The effects of internet communication on youth's social skills and relationship development. *Journal of Social and Personal Relationships, 37*(1), 19-36. https://doi.org/10.1177/0265407520925476
20. Zhou, W., & Liu, F. (2020). The psychological impact of AI: Youth identity, social skills, and behavior. *Computers in Human Behavior, 108*, 106312. https://doi.org/10.1016/j.chb.2020.106312