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Gendered Patterns and Prevalence of Internet Use among Adolescents: Evidence from Varanasi, India

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HIGHLIGHTS

- Smartphone and internet penetration were high across genders, and no significant gender differences were observed, indicating equal digital accessibility for males and females.
- Males preferred internet to use online gaming and making public social media profiles, whereas females preferred to use it for education, social media, and for news consumption.
- YouTube and WhatsApp were the most popular applications among the respondents. However, Facebook and Twitter showed significant gender disparity among respondents.

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ABSTRACT

The rapid expansion of internet access has profoundly influenced adolescents' daily routines, revealing emerging differences in usage patterns based on gender. The purpose of this study was to investigate the gender difference in internet usage patterns and its frequency. This cross-sectional descriptive study was conducted among nine senior secondary schools in the Varanasi district. The study administered a questionnaire containing closed-ended questions. The survey was conducted from March 2024 to August 2024 among randomly sampled 200 students aged 15 to 18 years. It was found that smartphone ownership was high among both male (94.1%) and female (88.9%) participants. YouTube and WhatsApp emerged as the most preferred applications for both genders. Males were more likely to have public social media accounts compared to females, and they share photos and videos on them. Males were significantly more engaged in online gaming, while females showed higher engagement in social media, online chatting, educational activities, and news. Binary logistic regression analysis further revealed that gender significantly predicted engagement in online gaming, with males more likely to participate. The study highlights notable gender disparities in Internet usage patterns, focusing on the intensity of use. These results emphasize the necessity of gender-sensitive digital literacy programs and policy measures to encourage adolescents to use the internet in balance way.

INTRODUCTION

Over the past two decades, there has been a significant and rapid rise in the use of the internet across all social demographics, particularly among adolescents and young adults (Bickham, 2021). The World Bank reported that 46.31% of the population in India was using the internet in 2021, which increased to 55% (821 million users) in 2023 (Internet & Mobile Association of India, 2023). The penetration of the internet in India was just 14% in 2014; however, over the past decade, the number of internet users has quadrupled, positioning the country as the second-largest in the world in terms of active internet users by 2024 (Statista, 2024). Recent projections

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suggest that India is expected to surpass 900 million internet users by 2025, with adolescents and young adults constituting the largest user group. Globally, seventy-nine percent of the population aged 15-24 years uses the internet, which is 14% higher than the remaining population (65%). Across all regions of the world, a consistent generational digital divide has been observed over the past four years (International Telecommunication Union, 2023).

The internet has become a crucial element of individuals' education, professional endeavours, and daily existence, largely due to the extensive integration of internet technology, and this effect is particularly evident among young people (Joshi et al., 2022). As technological advancements continue to reshape lifestyles, they also exert significant influence on mental well-being. Although these advancements have facilitated information access and communication, they have concurrently contributed to an increase in psychological concerns associated with excessive internet use (Scott et al., 2017). The widespread adoption of smartphones, social networking platforms, online gaming, and instant messaging has rendered the internet an integral component of young people's lives (Stavropoulos et al., 2021). Research conducted across Western and Asian contexts suggests that the younger generation is increasingly vulnerable to Problematic Internet Use (PIU) (Tomczyk & Solecki, 2019). Researchers frequently observe that individuals exhibiting addictive patterns demonstrate symptoms such as irritability, aggression, conduct disorders, obsessive–compulsive tendencies, and depression (Kaur & Dhillon, 2021). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) and the American Psychiatric Association, 2022 recognize gaming disorder as a behavioural addiction. Adolescents who excessively engage with the internet without adequate regulation are emerging as a significant concern due to the potential adverse impacts on their emotional, social, and academic well-being (Mishra et al., 2024). Research indicates that excessive use of digital devices may hinder students' ability to concentrate in class and diminish their motivation for achievement (Yadav and Dube, 2025). Evidence suggests that increased screen time is negatively associated with participation in outdoor activities, completion of household responsibilities, and the ability to disengage attention from digital screens (Gupta & Vatta, 2025). Gender-based differences in digital behaviour are particularly important, as they may influence both exposure to online opportunities and vulnerability to potential risks. The present study aims to examine the gendered patterns and prevalence of internet use among adolescents. Specifically, it seeks to explore variations in frequency, purpose, and duration of internet use between male and female users. Identifying these gender-based differences in digital behaviour is essential in the contemporary digital era to promote balanced internet engagement and foster healthier relationships with technology among adolescents.

METHODOLOGY

Built upon existing viewpoints, present study intended to gain a deeper understanding of internet usage pattern and prevalence among adolescents of Varanasi, India. A closed-ended questionnaire was prepared and the content validation had been done through the experts. The questionnaire was comprised of twenty-two items focusing on various dimensions of internet usage patterns. This cross-sectional field study employed a stratified random sampling method for data collection to ensure adequate representation of relevant subgroups within the population. The strata were established based on school type (government and private) and gender (male and female).

The study targeted adolescents aged 15-18 years, a critical stage of late adolescence characterized by increased independence and identity formation, alongside active digital technology usage. The study focused on regular internet users, particularly adolescents, who were considered vulnerable to the effects of internet use and the development of long-term digital habit. The Varanasi district was selected for the study location. Due to the distinctive sociocultural and demographic makeup, which includes a mix of urban, rural, and semi-urban inhabitants. The survey was conducted from March 2024 to August 2024 including 200 adolescents attending nine secondary schools in Varanasi, Uttar Pradesh, India. An informed consent was obtained from the school principals and students for their voluntary participation in this study. The study was split into two parts: Initially participants read the information sheet, provided informed consent, and completed the demographic details. Subsequently, they responded to questions related to their internet-related behaviours. Efforts were made to maintain anonymity and confidentiality of the participants throughout the data collection process to encourage honest and unbiased responses. Data were entered into Microsoft Excel spreadsheet and analysed using the Statistical Package for the Social Sciences (SPSS, V.24.0). To compare variables among groups, the chi-square (χ^2) test was employed at a significance level of $p \leq 0.05$ to examine associations between gender and internet usage pattern. Descriptive statistics such as standard deviation and mean were used in this study.

The comprehensive demographic analysis was crucial for placing the results in perspective and understanding the potential effect of variables such as educational level, age, gender, and residential area on the study results. Among 200 participants, the number of male and female respondents was almost equal, as there were 50.5% males (101) and 49.5% females (99), respectively. The educational level comprised mainly tenth-class students (38.8%); 27.3% of respondents were from eleventh class, 20.4% were from twelfth, and the least representation was from ninth class (13.4%). This balance between high school and twelfth (senior secondary) students provides a robust foundation for examining educational influences on the variables of interest. The largest proportion of participants were 15 years old (38.3%), followed by those aged 16 years (25.8%). Adolescents aged 18 years constituted 19.4% of the respondents, while 17-year-olds represented the smallest proportion (15.9%). This distribution indicates a higher concentration of mid-adolescent respondents in the study sample. The residential area data reveals an almost even split between city and rural respondents, with 40.2% from city areas and 39.8% from rural areas. The remaining 19.4% are from towns. This distribution allows for an examination of how geographic location might influence the study variables, providing insights into potential urban-rural disparities.

RESULTS

The smartphone ownership was high among both male (94.1%) and female (88.9%) participants. The chi-square test indicated that

Table 1. Smartphone ownership in relation to participants' demographic details

Demographic characteristics	Yes (%)	No (%)	Total	χ^2/P-value
Gender				
Male	95 (94.1)	6 (5.9)	101 (50.5)	1.71/0.190
Female	88 (88.9)	11 (11.1)	99 (49.5)	
Class				
9th	21 (80.7)	5 (19.2)	26 (13)	
10th	66 (84.6)	12 (15.4)	78 (39)	.324/0.000
11th	55 (100)	0 (0)	55 (27.5)	
12th	41 (100)	0 (0)	41 (20.5)	
Age				
15	62 (80.5)	15 (19.4)	77 (38.5)	
16	50 (96)	2 (4)	52 (26.5)	
17	32 (100)	0 (0)	32 (16)	
18	39 (100)	0 (0)	39 (19.5)	
Residential area				
Rural	72 (90)	8 (10)	80 (40)	
City	75 (91.4)	7 (8.6)	82 (41)	0.743/0.690
Town	36 (94.7)	2 (5.3)	38 (19)	

there were no statistically significant differences in smartphone ownership across gender, educational status, age-group and their residential area. Almost all participants used smartphones to access the internet, either their own device or a shared device. Only three students reported having laptops, but they commonly utilize smartphones.

Table 2. Gender-based distribution of respondents about their daily usage of social media applications

Social media apps	Male (N=101)	Female (N=99)	*χ^2/P-value*
YouTube	99	95	*1.90/0.167*
Instagram	61	51	*1.60/0.206*
Snapchat	41	35	*.583/0.445*
Facebook	48	21	*15.31/.001*
WhatsApp	100	96	*1.06/0.303*
Twitter (Now X)	31	18	*4.24/0.039*

Table 2 represents how many social media apps the respondents used daily. YouTube and WhatsApp were the most frequently used applications by the respondents. Both male and female respondents exhibited similar engagement levels with this video-sharing platform, as there was no significant difference in male users and female users (χ^2=1.90, *P=0.167)*. Instagram and snapchat usage also showed no significant gender difference ($\chi^2 = 1.60$, $p = 0.206$, $\chi^2 = 0.583$, $p = 0.445$) respectively. In contrast, Facebook usage demonstrated a significant gender disparity ($\chi^2 = 15.31$, $p < 0.001$). Males were more frequently engaged in Facebook than females, indicating a pronounced gender difference. A significant gender difference was also observed in Twitter (now X) usage ($\chi^2 = 4.24$, $p = 0.039$).

The cross-tabulation of favourite apps by gender (Figure 1) revealed distinct patterns in app preferences, reflecting both gender-based variations and potential implications for content targeting and

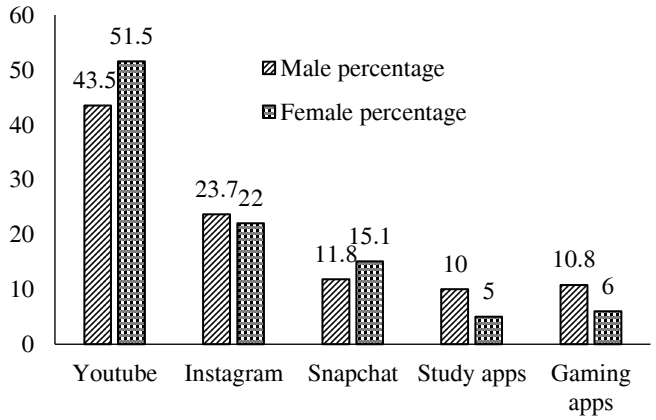

Figure 1. Relationship between favourite app and gender

user engagement strategies. YouTube emerged as the most preferred app among both genders, with 43.5% of males and 51.5% of females identifying it as their preferred platform. Instagram exhibited a fairly balanced preference across genders, with 23.7% of males and 22% of females selecting it as their favourite app. Snapchat, on the other hand, displayed a slight gender disparity, with 11.8% of males and 15.1% of females favouring the app. In contrast, online learning applications revealed a more significant gender difference, with 10% of males and only 5% of females reporting them as their preferred apps. Gaming Apps also displayed a notable gender-based preference, with 10.8% of males and 6% of females choosing them as their favourite.

The chi-square test results (Table 4) indicated a significant difference in social media usage patterns between genders ($\chi^2 = 14.49$, $p \leq 0.001$). Males were more likely to have public social media accounts and share photos and videos compared to females. A significant difference was observed across educational levels ($\chi^2 = 37.12$, $p \leq 0.000$). Students from higher (11th and 12th grades)

Table 3. Privacy Settings of Social Media Accounts and Photo/Video Sharing Behaviour

Demographic characteristics	Public and share	Private and do not share	No social media account	χ^2/P-value
Gender				
Male	88	6	7	14.49/0.001
Female	70	25	4	
Class				
9th	21	6	0	
10th	45	22	10	
11th	52	3	0	37.12/0.000
12th	41	1	1	
Age-group				
15	42	27	8	
16	47	3	2	49.66/0.000
17	31	0	1	
18	38	1	0	
Residential area				
Rural	65	13	2	
City	66	9	7	5.82/.213
Town	27	9	2	

Table 4. Relationship between gender and purpose to use the internet

Purpose to use the internet	Male (%) (101)	Female (%) (99)	χ^2/*P-value*
Online game	56.4	24.2	*21.5/0.001*
Chatting/sending mail\messages	63.3	72	*3.37/0.185*
Online Banking	29.7	39.3	*3.26/0.196*
Social media	35.6	57.5	*11.15/0.004*
Watching reels/shorts	64.3	65.5	*0.037/0.84*
Listening music\watching videos	75.2	80.8	*2.22/0.32*
To gain subject knowledge	71.2	83.83	*6.21/0.04*
To gain knowledge beyond the subject	43.5	58.5	*5.88/0.05*
News	28.7	43.5	*6.63/0.03*
Making new friends	36.6	34.3	*1.10./0.57*
Porn videos	8	8	*1.02/0.59*

classes, were more likely to maintain public accounts and actively share content, while students from lower (9th and 10th) classes showed comparatively restricted sharing behaviour. Significant differences were noted across age (χ^2 = 49.66, p ≤ 0.000). Adolescents aged 16 and above demonstrated a greater inclination toward public accounts and content sharing, whereas younger adolescents were more likely to keep accounts private or not use social media platforms. The analysis of residential area showed no significant difference in social media usage patterns (χ^2 = 5.82, p = 0.213). While city and rural residents exhibited a slightly higher tendency towards public accounts compared to those in town areas, this difference was not statistically significant.

The table provides an understanding of the relationship between gender and various purposes of using the internet. The analysis revealed a significant gender disparity in online gaming (χ^2 = 21.5, p ≤ 0.001). Males were more inclined than females in using the internet for gaming. The purpose of chatting or sending messages did not show a significant gender difference (χ^2 = 3.37, p = 0.185). Both males and females were engaged in online communication at similar rates. A significant gender difference was observed in social media usage (χ^2 = 11.15, p ≤ 0.004), with females more likely to engage with social media platforms than males. There was no significant difference between males and females when it comes to watching reels or shorts (χ^2 = 0.037, p = 0.84). There was also no significant gender difference in listening to music or watching videos (χ^2 = 2.22, p = 0.32). The use of the internet to gain subject knowledge revealed a significant gender difference (χ^2 = 6.21, p dd 0.04), with females (83.8%) more likely than males to use the internet for educational purposes. There was a significant gender difference in using the internet to gain knowledge beyond the subject (χ^2 = 5.88, p ≤ 0.05), with females more likely than males to engage in this activity. News consumption demonstrated a significant gender difference (χ^2 = 6.63, p ≤ 0.03), with females more likely than males to use the internet for news. The purpose of making new friends showed no significant gender difference (χ^2 = 1.10, p = 0.57). Both males and females used the internet for social networking to similar extents. Finally, the use of the internet for watching pornographic content revealed no significant gender difference (χ^2 = 1.02, p = 0.59). Both males and females reported similar levels of engagement in this activity.

Binary logistic regression analysis was conducted to evaluate the predictive significance of gender and age in adolescents about internet gaming. The model had statistical significance overall (χ^2 = 13.859, p = .001), indicating that the predictors collectively contributed to distinguishing between adolescents who engaged in online gaming compared to those who did not. The model accurately classified 65.6 percent of the cases. Gender emerged as a significant predictor of online gaming activity (B = -1.414, p < .001). The odds ratio demonstrated that male adolescents were around four times more likely to engage in online gaming than their female counterparts. Nonetheless, age was not a substantial predictor of online gaming behaviour (B = 0.168, p = .507). The results demonstrated that gender significantly influence adolescents' participation in online gaming, although age did not substantially affect involvement in the studied population.

DISCUSSION

The research shows considerable gender differences in internet usage patterns, focusing on purpose of usage and types of online activities among respondents in Varanasi. The study includes a diverse educational distribution of participants is significantly diverse, representing a wide range of academic proficiency levels, which is critical for interpreting the study's findings. The balanced gender distribution mitigates potential biases and enhances the generalizability of the results. Additionally, the inclusion of urban, semi-urban and rural respondents provides a nuanced view of how geographic factors may interact with internet use and related behaviours. Smartphones are the predominant means of internet access, with no respondents claiming non-usage. John et al., 2024 also found the same result in Indian rural secondary school going adolescents that they had the accessed to smartphone for internet use rather than other devices. Statistical analysis revealed no significant difference in ownership of smartphone between male and female users (χ^2= *1.71, P= .190*), as well as in residential area (χ^2=*0.743, P= 0.690*) supporting findings from Hargittai and Marwick (2016) regarding minimal gender differences in smartphone ownership among young adults in the U.S. However, other research, such as that by Lopez-Fernandez (2017), suggests that gender disparities in smartphone ownership may vary in different cultural contexts. Moreover, a significant and positive correlation was

Table 5. Binary logistic regression analysis predicting adolescents' engagement in online gaming from gender and age

Variable	B	S.E.	Wald	p-value	Odds Ratio (Exp(B))
Gender (Male)	-1.414	0.395	12.841	< .001	0.243
Age	0.168	0.253	0.441	.507	1.183
Constant	0.936	0.471	3.949	.047	2.550

Note: B = regression coefficient; S.E. = standard error; Exp(B) = odds ratio.

identified between owning a smart phone and age group (χ^2=*20.98, p=.000)* as with increasing age, ownership of smartphone was also increasing. Previous studies link smartphone ownership to negative outcomes, such as psychological distress and problematic usage (Chen et al., 2021), suggesting minors with personal devices report more adverse incidents (Martín-Cárdaba, 2024). The study identified YouTube and WhatsApp emerged as leading social media apps, followed by Instagram, Snapchat, Facebook, and Twitter following behind. This aligns with results showing heightened YouTube usage among 16- to 20-year-olds and increased Instagram engagement as compared to other platforms, as noted by Alhabash and Ma (2017) and Mahendran et al. (2024).This study reveals a shift in platform preference, with YouTube and WhatsApp emerging as the most preferred platforms among adolescents, illustrating shifts in social media usage over time in consistent results with Zimmermann, et al. (2020). In contrast, Pandey et al. (2020) stated that nearly all adolescents used WhatsApp, Facebook, and several other applications, often using various digital platforms simultaneously. This study also highlighted notable gender differences in Facebook and Twitter usage, with males showing higher engagement levels. This pattern implies that teenagers are moving toward more visually oriented and newer platforms (such as YouTube, Instagram and Snapchat) and moving from older platforms (such as Facebook and Twitter) to the margins of their social media usage (Pew Research Centre, 2023). Male adolescents exhibit distinct patterns in social media use, characterized by public account maintenance and high online gaming activity. These behaviors reflect gender socialization, with boys drawn towards technology and competitive play in digital environments (Prakash, 2025). In contrast, female adolescents focus more on communication, internet chatting, learning, and accessing news, indicative of academic socialization influenced by their restricted real-world mobility, particularly in India (Prakash, 2025). Digital platforms thus emerge as crucial spaces for these forms of interaction and information gathering. This phenomenon aligns with the concept of the second-level digital divide, emphasizing not just access to technology, but also the varied utilization of digital resources among different gender groups (Iqbal, 2021). The study supported previous findings indicating that girls score higher in social media communication, while boys excel in gaming (Svensson et al., 2022). Although some online activities, such as chatting and short-form video viewing, highlighted no significant gender differences. Understanding these patterns provides valuable insights into how different genders interact with digital platforms and can inform the development of targeted content and services.

CONCLUSION

The study provides empirical data regarding patterns and prevalence of internet use among adolescents in Varanasi, India. It shows that all adolescents had internet access as well as ownership of smartphone. It indicated a narrow digital access gap between male and female users. Despite similar levels of access, genders differ significantly in how they use the internet, significant gender difference was observed in platform preferences, privacy settings, and purposes of internet engagement. Gender played a major role in shaping online behaviours. Age and educational level further influenced patterns of digital engagement. In contrast, residential area did not significantly influence internet usage patterns, suggesting that digital behaviours are shaped more by individual and developmental factors than by geographic context. The study highlights the need for age and gender-specific digital literacy initiatives, school-based interventions, and parental guidance to promote responsible and balanced internet

DECLARATIONS

Research ethics statement(s): Informed consent of the participants was sought

Conflict of interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest. The author declares that they have thoroughly reviewed, revised, and edited the content as needed. The authors take full responsibility for the final content of this publication.

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REFERENCES

Alhabash, S., & Ma, M. (2017). A tale of four platforms: Motivations and uses of Facebook, twitter, Instagram, and snapchat among college students? *Social media + Society*, *3*(1), 1-14. doi: https://doi.org/10.1177/2056305117691544

American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders, Fifth Edition, Text Revision. *American Psychiatric Association Publishing.*

Bickham, D. S. (2021). Current research and viewpoints on internet addiction in adolescents. *Current Paediatrics Reports*, *9*(1), 1-10. doi:10.1007/s40124-020-00236-3.

Chen, I. H., Chen, C. Y., Pakpour, A. H., Griffiths, M. D., Lin, C. Y., Li, X. D., & Tsang, H. W. (2021). Problematic internet-related behaviors mediate the associations between levels of internet engagement and distress among schoolchildren during COVID-19 lockdown: A longitudinal structural equation modeling study. *Journal of Behavioral Addictions*, *10*(1), 135-148.

Gupta, R., & Vatta, L. (2025). Disruptions in Lifestyle Due to Escalating Screen Time: A Behavioural Perspective. *Indian Journal of Extension Education*, *61*(4), 14-18. https://doi.org/10.48165/IJEE.2025.61403

Hargittai, E., & Marwick, A. (2016). "What can I really do?" Explaining the privacy paradox with online apathy. *International Journal of Communication, 10*, 3737–3757. Retrieved from http://ijoc.org/index.php/ijoc/article/view/4655/1738

International Telecommunications Union. Measuring digital development: facts and Figures- 2023. Retrieved from: https://www.itu.int/hub/publication/d-ind-ict_mdd-2023-1/**.** Accessed September 1, 2025. ISBN: 978-92-61-38371-8

Internet And Mobile Association of India and marketing data and analytics company Kantar (2023). Retrieved from https://www.iamai.in/knowledge-centre. Accessed September 5. 2025

Iqbal, R. (2021). Gendering of smartphone ownership and autonomy among youth: Narratives from rural India. *arXiv*. doi: https://doi.org/10.48550/arxiv.2108.09788

John, R., Pokale, A., Chutke, A., Narula, A. P. S., Shinde, S., & Deshmukh, R. (2024). Prevalence of excess screen time among secondary school children in rural India. *Journal of Preventive Medicine and Hygiene*, *64*(4), E457. doi: 10.15167/2421-4248/jpmh2023.64.4.3030

Joshi, R., Pavithra, N., & Singh, C. K. (2022). Internet an integral part of human life in 21st century: A review. *Current Journal of Applied Science and Technology*, *41*(36), 12-18. https://doi.org/10.9734/cjast/2022/v41i363963

Kaur, R., & Dhillon, R. K. (2021). Potential behavioral issues exposed by adolescents due to excessive internet gaming habits: A literature review. *The Research Reservoir of Paramedical Science*, *7*, 68-73. doi:10.47211/trr.2021.v07i01.011

Lopez-Fernandez, O., Kuss, D. J., Romo, L., Morvan, Y., Kern, L., Graziani, P., & Billieux, J. (2017). Self-reported dependence on mobile phones in young adults: A European cross-cultural empirical survey. *Journal of Behavioral Addictions*, *6*(2), 168-177. https://doi.org/10.1556/2006.6.2017.020

Mahendran, R., Abiharini, S., & Subbaraj, A. (2024). Unveiling the YouTube addiction: Understanding the spectrum of digital dependency. *Journal of Family Medicine and Primary Care*, *13*(11), 5265-5269. doi:10.4103/jfmpc.jfmpc_1107_24

Martín-Cárdaba, M. Á., Martínez Díaz, M. V., Lafuente Pérez, P., & García Castro, J. (2024). Smartphone ownership, minors' well-being, and parental mediation strategies. An analysis in the context of social media influencers. *Journal of Youth and Adolescence*, 1-17. https://doi.org/10.1007/s10964-024-02013-7

Mishra, J., Behera, M. R., Mitra, R., Samanta, P., Mahapatra, P. K., & Kar S. (2024). Prevalence and impact of internet addiction disorder among adolescents and young adults. *Open Public Health Journal, 17*, 642. doi: 10.2174/0118749445345806241010081642

Pandey, D. K., De, H. K., & Dubey, S. K. (2020). Social media usage among agriculture collegian in north-Eastern India. *Indian Journal of Extension Education*, *56*(2), 26-30.

Pew Research Center. (2023, December 11). *Teens, social media and technology 2023*. doi: https://www.pewresearch.org/internet/2023/12/11/teens-social-media-and-technology-2023/

Prakash, O. (2025). Is it time for India to set social media age limits for adolescents? *Indian Journal of Psychiatry, 67*(1), 267–273. https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry_1012_24

Scott, D. A., Valley, B., & Simecka, B. A. (2017). Mental health concerns in the digital age. *International Journal of Mental Health Addict*, *15*(3), 604–613. doi: 10.1007/s11469-016-9684-0

Statista (2024). Accessed on October 5, 2024. Retrieved from https://www.statista.com/statistics/262966/number-of-internet-users-in-selected-countries/

Stavropoulos, V., Motti-Stefanidi, F., & Griffiths, M. D. (2021). Risks and opportunities for youth in the digital era. *European Psychologist*, *27*(2), 86-101. https://doi.org/10.1027/1016-9040/a000451

Svensson, R., Johnson, B., & Olsson, A. (2022). Does gender matter? The association between different digital media activities and adolescent well-being. *BMC Public Health*, *22*(1), 273. https://doi.org/10.1186/s12889-022-12670-7

Tomczyk, L., & Solecki, R. (2019). Problematic internet use and protective factors related to family and free time activities among young people. *Educational Sciences: Theory & Practice*, *19*(3), 1–13. doi: 10.12738/estp.2019.3.001

World Bank. Individual Using the Internet. Available from: https://data.worldbank.org/indicator/IT.NET.USER.ZS. Accessed August 1, 2025.

Yadav, M., & Dube, S. (2025). Effect of digital devices and parental regulations on adolescents' achievement motivation: A quantitative study. *Indian Journal of Extension Education*, *61*(2), 67-72. https://doi.org/10.48165/IJEE.2025.61213

Zimmermann, D., Noll, C., Gräßer, L., Hugger, K. U., Braun, L. M., Nowak, T., & Kaspar, K. (2020). Influencers on YouTube: a quantitative study on young people's use and perception of videos about political and societal topics. *Current Psychology*, 1-17. https://doi.org/10.1007/s12144-020-01164-7