

Social Media Usage Among Youth in Punjab: Platform Preferences, Usage Habits, and Academic Impact

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Abstract

Background: The role of social media in daily life and communication activities continues to grow, especially among young people. Given the shift towards more social interaction and engagement online, it is important to look at the preferences of the platforms, their habits of usage, and how they relate with academic engagement. This research study analyzes the social media utilization patterns of youth residing in Punjab, India with the aim of determining the dominant platform, cross gender differences, and its academic consequences. **Methods:** A cross-sectional survey was conducted among 1,650 young individuals, aged 16 to 35 years, residing in Punjab. Socio-demographic characteristics like the platforms accessed, duration of social media activity per day, Information was gathered via an electronic structured questionnaire which included items on demographic profile, preferred social media platform, volume of social media use, and academic performance. SPSS (Version 29) was used for Statistical analysis describing the variables, performing independent t-test and chi-square analysis to find differences and relationships of social media use by gender differences and relationships of academic engagement. **Results:** The examination revealed that WhatsApp and Instagram ranked as the most used apps as per respective percentages of 26.2 and 20.8%. Next in line was Facebook at 14.8% and YouTube at 10.2%. For platform usage there were no notable differences with respect to gender ($t=-0.294$, $p=.769$) for both males and females. The chi-square test ($\chi^2=23.726$) also showed no statistical correlation with gender and platform selection. During the survey, participants claimed to use social media for an average of 3.26 h ($SD=1.249$) a day, with moderate usage while studying conducted at ($M=3.09$, $SD=1.457$). Academic use of social media, however, was low ($M=1.69$, $SD=0.463$) which indicates that the use of social media was primarily for entertainment and interaction. In addition, very few participants took breaks from studying, and social media focus for academic work, ($M=2.43$, $SD=1.289$) showed how ineffective these digital detox strategies were. **Conclusion:** The results highlight the rapid adoption of texting and image-centered platforms by youth in Punjab, with little variation between male and female users. Despite its popularity, the academic value of social media is almost nonexistent, which is troubling. The results emphasize the need for digital wellbeing approaches, managed social media pauses, and proactive measures aimed at productive educational engagement with social media.

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INTRODUCTION

Social media has evolved into a crucial feature of daily activities among young people. With the rapid growth of other platforms such as Facebook, Instagram, Twitter, TikTok, and YouTube, social media changed how the youth communicate, study, and interact with the different aspects of life [1]. With the integration of communication and entertainment comes an increased social media

consumption that affects not only social behavior but also educational and occupational practices [2]. This increase, however, does raise some worries regarding the adverse effects of the use of social media on mental health, productivity, and behavior in a social setting [3]. The youthful category of people, rather described as those within the age bracket of 16 and 35 years, is most affected by most positive or negative impacts of social media [4].

Like the rest of the globe, the youth in Punjab, a state of India, have started embracing social media over the past decades. Social media is utilized by these age groups for recreational purposes, knowledge acquisition, social interaction, business networking, and seeking news and information [5]. While there are some benefits of social media such as learning and connecting with people, too much or inappropriate use can result in negative outcomes such as social withdrawal, poor work or academic productivity, and increased stress or anxiety [6]. It is important to comprehend the social media consumption behavior of young people such as their platform of choice, frequency of use, and primary intention behind the use in order to help in the formulation of programs and systems that encourage responsible digital usage. This research attempts to address these gaps for the youth in Punjab to inform mental health programming, education, and public health campaigns.

METHODOLOGY

Study Design

This study utilizes a survey method with cross-sectional features to study the social media usage patterns of youth in Punjab, India. The cross-sectional social media research design approach helps to capture social media users' quantifiable information regarding their preferred platforms, time spent daily, and intentions for using social media in one snapshot [7]. This design captures behavior over time trends along with related demographics within a particular population and tends to be appropriate for studying digital behaviors [8].

Population and Sampling

The adolescents and youth population for this study is defined by the age group of 16 to 35 years and residing in Punjab. Using non-probability convenience sampling which is common in digital behavior studies, 1,650 participants were sampled [9]. Convenience sampling makes it possible to collect data from a wide and heterogeneous population by recruitment through online and offline channels to get better representation [10]. Although this strategy suffers from lack of generalizability, it is helpful for initial studies on social media phenomena [11].

Data Collection Instrument

A structured self-reported questionnaire tailored for the specific objective of the study was employed to collect data. Self-administered surveys are frequently implemented in research regarding online behaviors because the participants are able to give information on their behavior patterns, motivations, and attitudes [12]. It contained items on demographic data, social media usage such as platform of choice, daily average duration of use, frequency of checking, and objectives for using the platform. Both online and face-to-face methods were utilized to accommodate respondents with low levels of digital literacy, which has been reported recently in the literature as one way of overcoming barriers to technology adoption [13].

Data Analysis

The data gathered were analyzed through a computerized system, SPSS (Version 27), that is often accepted as the standard for social media and behavioral studies because of its depth of analysis [14]. The usage patterns and behaviors analysis was attained through descriptive statistics, with the computations of frequencies, percentages, and means. Cross-tabulations and chi-square tests were carried out in order to find possible relationships between social media usage behaviors and demographic characteristics [15]. Furthermore, independent t-tests were done to identify differences with regard to gender in the two platform preferences and usage behaviors, which is a common practice in comparative analyses of social media [16].

Ethical Considerations

The study was conducted in accordance with the Declaration of Helsinki, ensuring adherence to ethical research principles in studies involving human participants [17]. Ethical approval for the study was obtained from the relevant institutional review board, and participation was entirely voluntary. Informed consent was obtained from all participants, and measures were taken to maintain anonymity and confidentiality, in line with ethical guidelines for digital behavior research [18].

RESULTS

The age distribution of the 1,650 respondents is relatively balanced across different categories, with the largest group being those aged 26–30 years (25.9%, n=428), followed closely by those aged 31–35 years (24.9%, n=411). The youngest age group, 16–20 years, accounts for 24.3% (n=401), while the 21–25 years age group makes up 24.8% (n=410). Cumulatively, nearly half of the respondents (49.2%) are aged 25 years or below, while 50.8% are aged 26 years or older. These findings suggest that the sample is fairly distributed among young adults, with a slight concentration in the 26–30 years age range, possibly reflecting a demographic of students and early-career professionals (Table 1).

Regarding gender distribution, males constitute the largest proportion at 47.1% (n=777), while females follow closely at 43.6% (n=720). A small but notable 4.7% (n=77) of respondents identified as “others”, and 4.6% (n=76) preferred not to disclose their gender. Cumulatively, 90.7% of respondents identified as either male or female, while 9.3% identified as other or preferred not to say. This distribution indicates a relatively balanced gender representation while also highlighting the presence of gender diversity, suggesting an inclusive approach in the data collection process (Table 2).

The Most Frequently Used Social Media Platform

In terms of social media platform usage, WhatsApp emerges as the most frequently used platform, with 26.2% (n=432) of respondents favoring it, followed by Instagram at 20.8% (n=343). Facebook accounts for 14.8% (n=245), while YouTube is used by 10.2% (n=169) of respondents. Twitter (9.9%, n=164) and TikTok (9.3%, n=153) exhibit similar usage levels, whereas Snapchat (4.8%, n=80) and other platforms (3.9%, n=64) have the lowest representation. Cumulatively, WhatsApp, Instagram, Facebook, and YouTube account for 72% of usage, indicating their dominance in social media engagement among respondents (Table 3). These findings suggest that messaging platforms, particularly WhatsApp, are highly preferred, likely due to their convenience for communication. The strong presence of Instagram highlights the influence of visual-based social networking, while the lower usage of TikTok and Snapchat suggests that short-form video content is less prominent among this demographic.

Table 1. Age distribution of respondents.

Age (years)					
		Frequency	Percent (%)	Valid percent (%)	Cumulative percent (%)
Valid	16–20	401	24.3	24.3	24.3
	21–25	410	24.8	24.8	49.2
	26–30	428	25.9	25.9	75.1
	31–35	411	24.9	24.9	100.0
	Total	1650	100.0	100.0	

Table 2. Gender distribution of respondents.

Gender					
		Frequency	Percent (%)	Valid percent (%)	Cumulative percent (%)
Valid	Male	777	47.1	47.1	47.1
	Female	720	43.6	43.6	90.7
	Others	77	4.7	4.7	95.4
	Prefer not to say	76	4.6	4.6	100.0
	Total	1650	100.0	100.0	

Table 3. Social media platform preferences.

Social media platforms					
		Frequency	Percent (%)	Valid percent (%)	Cumulative percent (%)
Valid	Facebook	245	14.8	14.8	14.8
	Instagram	343	20.8	20.8	35.6
	Twitter	164	9.9	9.9	45.6
	WhatsApp	432	26.2	26.2	71.8
	Tiktok	153	9.3	9.3	81.0
	SnapChat	80	4.8	4.8	85.9
	YouTube	169	10.2	10.2	96.1
	others	64	3.9	3.9	100.0
	Total	1650	100.0	100.0	

Table 4. Independent t-test on social media platform preferences.

Independent samples test				
		Levene's test for equality of variances		t-test for equality of means
		F	Sig.	t
Most used social media platform	Equal variances assumed	1.590	.208	-.294
	Equal variances not assumed			-.294
		t-test for equality of means		
		df	Sig. (2-tailed)	Mean difference
Most used social media platform	Equal variances assumed	1071	.769	-.039
	Equal variances not assumed	1069.774	.769	-.039
		t-test for equality of means		
		Std. error difference	95% confidence interval of the difference	
			Lower	Upper
Most used social media platform	Equal variances assumed	.132	-.298	.220
	Equal variances not assumed	.132	-.298	.220

An independent t-test was conducted to compare the most used social media platform between males and females. Levene’s Test for Equality of Variances produced an F-value of 1.590 with a significance (Sig.) value of 0.208, which is greater than 0.05. This indicates that the assumption of equal variances was not violated, allowing the interpretation of the t-test results under the assumption of equal variances (Table 4).

The t-test for equality of means yielded a t-value of -0.294 with 1,071 degrees of freedom (df) and a two-tailed significance (Sig.) value of 0.769. Since the p-value is significantly greater than the conventional threshold of 0.05, the null hypothesis was not rejected. This suggests that there is no statistically significant difference in the choice of the most used social media platform between males and females.

The mean difference between males and females was -0.039, with a standard error difference of 0.132. The 95% confidence interval for the difference ranged from -0.298 to 0.220, including zero, further confirming the absence of a significant difference between the groups.

These findings indicate that males and females do not significantly differ in their selection of the most used social media platform. This suggests that social media usage preferences are relatively uniform across gender groups, and any observed variations are likely due to individual choices rather than gender-based trends.

Table 5. Cross-tabulation of social media platform preference by gender.

Most Used Social Media Platform × Gender Crosstabulation						
<i>Count</i>						
		<i>Gender</i>				<i>Total</i>
		Male	Female	Non-binary	Prefer not to say	
Most used social media platform	Facebook	78	84	7	10	179
	Instagram	124	117	17	18	276
	Twitter/X	56	64	5	4	129
	Snapchat	55	44	11	5	115
	YouTube	117	106	17	9	249
	LinkedIn	29	22	1	1	53
	TikTokk	42	68	7	4	121
	Other	36	31	6	5	78
Total		537	536	71	56	1200

An analysis of the crosstabulation between the most used social media platform and gender provides insights into platform preferences across different gender groups (Table 5). The distribution of responses across the 1,200 participants reveals that Instagram (n=276) and YouTube (n=249) are the most popular platforms overall, followed closely by Facebook (n=179) and Twitter/X (n=129). TikTok (n=121) and Snapchat (n=115) also have a notable presence, while LinkedIn (n=53) and other platforms (n=78) have the lowest representation.

Among males (n=537), YouTube is the most preferred platform (n=117), followed by Instagram (n=124) and Facebook (n=78). Twitter/X (n=56) and Snapchat (n=55) show similar levels of preference, while TikTok (n=42), LinkedIn (n=29), and other platforms (n=36) have lower engagement. This suggests that males favor content-driven and networking platforms such as YouTube and Instagram over short-form entertainment-based apps like TikTok and Snapchat.

Among females (n=536), Instagram is the most used platform (n=117), followed closely by YouTube (n=106) and Facebook (n=84). TikTok (n=68) appears to be more popular among females than males, while Twitter/X (n=64) and Snapchat (n=44) maintain moderate usage. The lower preference for LinkedIn (n=22) suggests that professional networking may not be as prioritized within this group compared to content-based and social networking platforms.

For non-binary individuals (n=71), YouTube (n=17) and Instagram (n=17) are the most frequently used platforms, while Snapchat (n=11) also sees relatively higher engagement. Facebook (n=7), TikTok (n=7), Twitter/X (n=5), and LinkedIn (n=1) have lower representation in this group. The preference for visually engaging and short-video content platforms indicates that these platforms may be more appealing to non-binary users.

Among those who preferred not to disclose their gender (n=56), Instagram (n=18) and Facebook (n=10) lead in preference, followed by YouTube (n=9) and Snapchat (n=5). Twitter/X (n=4), TikTok (n=4), and LinkedIn (n=1) have lower engagement, suggesting that this group tends to use mainstream platforms but in smaller proportions.

Overall, YouTube and Instagram emerge as the dominant platforms across all gender groups, while TikTok appears to have a stronger preference among females and non-binary respondents. Snapchat is more evenly distributed, whereas LinkedIn is the least used across all categories. The findings highlight how platform preference varies by gender, with content-driven and visual platforms maintaining broad appeal across diverse gender identities.

Table 6. Chi-square analysis of social media platform preferences by gender.

Chi-square tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.726 ^a	21	.307
Likelihood Ratio	24.165	21	.285
Linear-by-Linear Association	.046	1	.831
N of Valid Cases	1200		

a. 4 cells (12.5%) have expected count less than 5. The minimum expected count is 2.47.

Table 7. Descriptive statistics on social media usage patterns and academic engagement.

Descriptive statistics					
	N	Minimum	Maximum	Mean	Std. deviation
Social media hours	1200	1	5	3.26	1.249
Social media during study	1200	1	5	3.09	1.457
Use for academics	1200	1	2	1.69	.463
Academic use percentage	1200	1	4	2.51	1.126
Valid N (listwise)	1200				

A Chi-Square analysis was conducted to examine the association between gender and the most frequently used social media platform (Table 6). The Pearson Chi-Square test yielded a value of 23.726 with 21 degrees of freedom (df) and a p-value of 0.307. Since this p-value is greater than the conventional significance level of 0.05, the null hypothesis is not rejected, indicating that there is no statistically significant association between gender and the choice of the most frequently used social media platform.

The Likelihood Ratio test, which provides an alternative measure of association, resulted in a value of 24.165 with 21 degrees of freedom and a p-value of 0.285, reinforcing the conclusion that gender does not significantly influence social media platform preference. Additionally, the Linear-by-Linear Association test, which measures the strength of a linear trend between the two variables, yielded a value of 0.046 with a p-value of 0.831, further confirming the lack of a meaningful relationship between gender and platform usage.

An important consideration in Chi-Square tests is the assumption that expected counts in all cells should ideally be 5 or greater. In this analysis, 4 cells (12.5%) had expected counts below 5, with the minimum expected count being 2.47. Although this does not severely violate the Chi-Square assumption, it suggests that certain categories may have had low representation, which could slightly affect the robustness of the test results.

Overall, these findings suggest that social media platform preferences are relatively similar across gender groups, and any observed variations in the crosstabulation are likely due to chance rather than a true statistical relationship. This indicates that factors beyond gender, such as personal interests, content engagement styles, or social influences, may play a more significant role in determining which social media platforms individuals use most frequently.

Table 7 is a descriptive statistic on social media usage patterns among the respondents. The variable 'social media Hours', representing the number of hours spent on social media, ranged from 1 to 5, with a mean of 3.26 and a standard deviation of 1.249, indicating moderate usage levels with some variability among participants. The variable 'Social Media During Study', measuring the extent to which respondents use social media while studying, had a mean of 3.09 and a standard deviation of 1.457, suggesting that social media usage during study time is fairly common but varies significantly among individuals. The relatively high standard deviation indicates notable differences in study-related social media habits. Regarding the 'Use of Social Media for Academic Purposes', responses were recorded

Table 8. Social media breaks and digital detox.

Descriptive statistics					
	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. deviation</i>
How often do you take breaks from social media to focus on academics?	1200	1	5	2.43	1.289
Have you tried any digital detox strategies to reduce social media distractions?	1200	1	2	1.58	.493
Valid N (listwise)	1200				

on a binary scale (1= Yes, 2= No), with a mean of 1.69 and a standard deviation of 0.463. Since the mean is closer to 2, this suggests that a majority of respondents do not frequently use social media for academic purposes. The ‘Academic Use Percentage’, which categorizes how much of social media time is dedicated to academic activities on a scale of 1 to 4, had a mean of 2.51 and a standard deviation of 1.126. This suggests that, on average, respondents dedicate a moderate portion of their social media time to academic use, but there is substantial variation across individuals.

A descriptive statistical analysis was conducted to examine social media break habits and digital detox strategies among the respondents (Table 8). The variable “How often do you take breaks from social media to focus on academics?” was measured on a scale from 1 to 5, with a mean of 2.43 and a standard deviation of 1.289. Since the mean is closer to the lower end of the scale, this suggests that respondents tend to take breaks from social media infrequently, although there is moderate variability in responses. The relatively high standard deviation indicates that some individuals regularly take breaks while others rarely do so.

The variable “Have you tried any digital detox strategies to reduce social media distractions?” was recorded on a binary scale (1=Yes, 2=No), with a mean of 1.58 and a standard deviation of 0.493. Since the mean leans toward 2, this suggests that a majority of respondents have not actively attempted digital detox strategies to manage their social media usage. However, a significant proportion has experimented with such strategies, indicating awareness of social media distractions.

DISCUSSION

Social Media Platform Preferences and Usage Patterns

In terms of social media platform preferences among respondents, WhatsApp (26.2%) and Instagram (20.8%) were the most used platforms, while Facebook (14.8%) and YouTube (10.2%) were slightly less used. The results of WhatsApp being the most popular platform are consistent with previous studies, which find an overwhelming preference for instant messaging applications over social networking sites [1]. WhatsApp is attractive because it is a communication tool that supports group interaction and multimedia sharing [19]. Likewise, the prominence of Instagram also highlights the rise of visual-first media and influencer culture [20], which many have observed as emerging trends in media and information behavior.

Although Facebook is still an essential platform, the apparent loss of appeal to younger users is in keeping with international trends of young people migrating to more active, type of visual and interactive platforms, e.g., TikTok [21]. The lower penetration of Snapchat (4.8%) and LinkedIn (3.9%) also indicate that ephemeral content and professional-oriented platforms are less strong among this demographic group, possibly because other content-per consumption patterns vary.

Gender Differences in Social Media Preferences

A comparison of social media preferences by gender showed minimal statistical differences between males and females, as evidenced by the independent t-test results ($t=-0.294$, $p=.769$). This indicates that social media platform choices are not significantly influenced by gender within this sample. These results contradict those of previous studies finding that gender is a significant factor impacting differences in social media usage, with males engaging more in information-seeking and networking

behaviors while females engage more in social interaction and visual content [22]. On the one hand, these neutral gender trends might stem from increasing similarities in social media use across demographic groups, particularly for younger users [2].

A cross-tabulation analysis further supported these findings, showing that YouTube and Instagram were the most popular platforms across all gender categories, while TikTok exhibited a stronger preference among females and non-binary respondents. This aligns with studies that suggest TikTok's short-form content and entertainment-driven algorithm tend to attract more female users [23].

Association Between Gender and Social Media Platform Usage

The chi-square analysis further confirmed that there was no statistically significant association between gender and the most frequently used social media platform. This suggests that any observed variations in platform preferences are more likely due to individual content consumption habits rather than gender-based distinctions. These results contrast with findings from past research that identified notable gender differences in platform selection, with women favoring Instagram and Pinterest and men preferring Twitter and LinkedIn [24]. However, the lack of significant gender variation in this study may reflect the increasing convergence of digital habits across all users, driven by platform diversification and algorithm-driven content recommendations.

Social Media Usage and Academic Engagement

The analysis of social media usage patterns indicated that respondents spend an average of 3.26 h/day on social media, with moderate variability ($SD=1.249$). Social media use during study time was also common ($M=3.09$, $SD=1.457$), suggesting that a substantial number of respondents engage with social media while studying. These findings raise concerns about potential distractions and their impact on academic performance, as previous research has established a negative correlation between excessive social media use and academic achievement [25].

Despite significant engagement, the findings suggest that only a minority of respondents use social media for academic purposes ($M=1.69$, $SD=0.463$). Similarly, academic use as a percentage of total social media activity was relatively low ($M=2.51$, $SD=1.126$). These results support prior studies indicating that while social media has potential academic benefits, most students use it primarily for entertainment, social interaction, and leisure rather than educational engagement [26].

Strategies for Social Media Break and Digital Detox

In terms of social media breaks, an examination of digital detox and social media break routine found that respondents rarely took a break from social media to study ($M=2.43$, $SD=1.289$). This indicates that social media runs within the biological system of daily lifestyle and makes it almost impossible for humans to stay away from their phones for long period of time. In addition, as few people directly use these kinds of strategies for digital detox ($M=1.58$, $SD=0.493$), this suggests a general lack of awareness or motivation to engage in intentional behavior change regarding their digital consumption habits. These results align with other evidence stressing the addictive features of social media and the issues surrounding digital well-being [27].

Underutilization of digital detox tactics indicates the importance of awareness campaigns for better social media interaction. Research indicates that interventions including imposed breaks, limits on app use, and mindfulness-based strategies can improve attention and mitigate screen time reliance [28]. Considering that overuse of social media has been associated with mental health challenges, procrastination, and decreased academic achievement, one possible area to target could be structured digital detoxes which may in turn promote focus and academic performance among students [29].

CONCLUSION

This study reveals important trends in social media use, including platforms used and implications for academic work. While TikTok is noticeably present in some demographic groups, WhatsApp and

Instagram are top in popularity. Gender differences made in between platform preferences was little. No statistically significant difference related to these exists, which is an indicator of diversity between users from all direction. While social media engagement during study time is high, academic use is low, indicating the need for targeted interventions to encourage productive digital habits among students. Other factors with low use of digital detox strategies emphasize the need for digital well-being initiatives. Further studies need to assess how the metacognitive control of social media consumption over time influences cognitive processing, academic performance and mental health, so that we can build effective, multimodal approaches to managing our digital engagement.

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