



THE IMPACT OF SOCIAL MEDIA ON STUDENTS' ACADEMIC PERFORMANCE IN UNIVERSITY DEGREE COLLEGES: A STUDY OF KUMAUN UNIVERSITY NAINITAL

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ABSTRACT

This study examines the impact of social media usage on academic performance among students enrolled in degree colleges affiliated with Kumaun University, Nainital. A mixed-methods approach was employed, collecting quantitative and qualitative data from 300 students and 45 faculty members across multiple disciplines. The research investigates patterns of social media usage, its effects on study habits, academic engagement, and overall performance. Findings reveal a complex relationship between social media usage and academic outcomes, with both positive and negative impacts depending on usage patterns, purpose, and time management skills. The study provides recommendations for students, educators, and institutional policymakers to optimize social media's educational potential while mitigating its adverse effects.

KEYWORDS: Social Media, Academic Performance, University Students, Digital Distraction, Kumaun University

1. INTRODUCTION

1.1 Background

The proliferation of social media platforms over the past decade has fundamentally transformed communication, information sharing, and social interaction among university students. Platforms such as Facebook, Instagram, WhatsApp, Twitter (X), YouTube, and LinkedIn have become integral to students' daily lives, serving purposes ranging from entertainment and socialization to academic collaboration and professional networking.

Kumaun University, established in 1973 in Nainital, Uttarakhand, serves as a premier educational institution in the hill region, with numerous affiliated degree colleges spread across the Kumaun region. The student population, predominantly from rural and semi-urban backgrounds, has witnessed unprecedented access to smartphones and internet connectivity in recent years, leading to increased social media penetration.

1.2 Rationale for the Study

While social media offers numerous benefits including instant communication, access to educational resources, and collaborative learning opportunities, concerns have emerged regarding its potential negative impact on students' academic performance. Faculty members at Kumaun University's affiliated colleges have observed changing student behaviors, including reduced attention spans, decreased face-to-face interaction, and potential correlation between excessive social media use and declining academic outcomes.

This study seeks to systematically investigate these observations and provide empirical evidence regarding the relationship between social media usage and academic performance in the specific context of Kumaun University's degree colleges.

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2. LITERATURE REVIEW

2.1 Social Media and Higher Education

Social media has evolved from a purely social networking tool to a multifaceted platform influencing various aspects of higher education. Research by Junco et al. (2011) demonstrated that social media can facilitate student engagement when integrated purposefully into coursework. Conversely, studies by Kirschner and Karpinski (2010) found negative correlations between Facebook usage and academic performance.

2.2 The Digital Distraction Phenomenon

The concept of “digital distraction” has gained prominence in educational research. Rosen et al. (2013) found that students’ attention to homework is frequently interrupted by social media notifications, leading to task-switching that reduces cognitive efficiency. The constant availability of social media creates what Alter (2017) terms “irresistible” pull factors that compete with academic priorities.

2.3 Positive Impacts of Social Media in Education

Despite concerns, numerous studies highlight social media’s educational benefits. These include:

- Enhanced peer-to-peer learning and collaboration
- Access to educational content and expert knowledge
- Development of digital literacy skills
- Networking opportunities with professionals and academics
- Improved student-teacher communication outside classroom hours

2.4 The Indian Context

Research in the Indian higher education context reveals unique patterns. Studies by Chawla and Gupta (2019) indicated that Indian university students average 4-6 hours daily on social media, with WhatsApp being the most popular platform. The socio-economic diversity and varying levels of digital literacy in Indian universities add complexity to understanding social media’s impact.

2.5 Research Gap

While considerable research exists on social media and academic performance globally, limited empirical studies focus on universities in hilly, semi-urban regions of India like Kumaun. This study

addresses this gap by examining the specific context of Kumaun University’s affiliated colleges, where students face unique challenges including limited campus infrastructure, connectivity issues, and diverse socio-economic backgrounds.

3. METHODOLOGY

3.1 Research Design

This study employs a mixed-methods approach combining quantitative survey data with qualitative insights from semi-structured interviews. The convergent parallel design allows for triangulation of data sources, providing a comprehensive understanding of the phenomenon.

3.2 Study Population and Sample

Population: Undergraduate students enrolled in degree colleges affiliated with Kumaun University, Nainital, during the academic year 2024-2025.

Sample Size: 300 students selected through stratified random sampling to ensure representation across:

- Academic disciplines (Arts, Science, Commerce)
- Year of study (First, Second, Third year)
- Gender
- Geographic origin (urban/rural)
- Type of college (government/private)

Faculty Respondents: 45 faculty members from various departments, selected through purposive sampling to include diverse teaching experiences and subject areas.

3.3 Sampling Technique

A two-stage stratified random sampling method was employed:

Stage 1: Selection of 12 degree colleges from the pool of Kumaun University-affiliated institutions, ensuring geographic diversity across Nainital, Almora, and Pithoragarh districts.

Stage 2: Random selection of 25 students from each college (300 total), proportionate to discipline and year of study.

3.4 Data Collection Instruments

3.4.1 Student Questionnaire

structured questionnaire with 45 items divided into

five sections:

- Demographic information
- Social media usage patterns (platforms, daily time, purpose)
- Academic performance indicators (self-reported GPA, study hours, attendance)
- Perceived impacts (5-point Likert scale items)
- Study habits and time management

3.4.2 Faculty Interview Guide

Semi-structured interviews covering:

- Observations of student behavior changes
- Perceived relationship between social media and academic performance
- Examples of positive and negative impacts
- Suggestions for institutional policy

3.4.3 Academic Performance Data

With student consent, official academic records were accessed including:

- CGPA for the previous two semesters
- Attendance percentages
- Assignment submission rates

3.5 Data Collection Procedure

Data collection occurred over three months (August-October 2024). Student questionnaires were administered both online (Google Forms) and in-person to accommodate varying internet access. Faculty interviews were conducted face-to-face, each lasting 30-45 minutes, and audio-recorded with permission.

3.6 Data Analysis

Quantitative Analysis: SPSS version 26 was used for:

- Descriptive statistics (means, frequencies, standard deviations)
- Correlation analysis (Pearson's r) between social media usage time and GPA
- Multiple regression analysis to identify predictors of academic performance
- Independent t-tests and ANOVA for group comparisons

Qualitative Analysis: Faculty interview transcripts were analyzed using thematic analysis, identifying recurring themes related to social media's impact on student learning.

3.7 Ethical Considerations

- Institutional approval obtained from Kumaun University Research Ethics Committee
- Informed consent secured from all participants
- Anonymity and confidentiality maintained
- Voluntary participation emphasized with option to withdraw
- Data stored securely with restricted access

4. RESULTS AND FINDINGS

4.1 Demographic Profile of Respondents

Student Sample (N=300)

- Gender: Male (52%), Female (48%)
- Age Range: 18-23 years (Mean = 20.2 years)
- Academic Stream: Arts (38%), Science (35%), Commerce (27%)
- Year of Study: First Year (34%), Second Year (33%), Third Year (33%)
- Residential Background: Urban (31%), Semi-urban (42%), Rural (27%)
- College Type: Government (68%), Private (32%)

Faculty Sample (N=45)

- Average Teaching Experience: 12.4 years
- Department Distribution: Humanities (31%), Sciences (38%), Commerce (31%)
- Age Range: 28-58 years

4.2 Social Media Usage Patterns

4.2.1 Platform Preferences

The most commonly used platforms among students were:

1. WhatsApp (97% users) - Average 2.5 hours/day
2. Instagram (89% users) - Average 1.8 hours/day
3. YouTube (86% users) - Average 1.5 hours/day
4. Facebook (71% users) - Average 0.9 hours/day
5. Snapchat (52% users) - Average 0.7 hours/day
6. Twitter/X (38% users) - Average 0.4 hours/day
7. LinkedIn (23% users) - Average 0.3 hours/day

4.2.2 Daily Usage Time

- Light users (<2 hours/day): 18% (n=54)
- Moderate users (2-4 hours/day): 43% (n=129)
- Heavy users (4-6 hours/day): 28% (n=84)
- Excessive users (>6 hours/day): 11% (n=33)

Mean daily social media usage: 4.2 hours (SD = 2.1)

4.2.3 Purpose of Usage

Students reported using social media for multiple

purposes (respondents could select multiple options):

- Entertainment/Recreation: 91%
- Communication with friends/family: 88%
- Following news and current affairs: 67%
- Academic purposes (study materials, discussions): 54%
- Professional networking: 19%
- Content creation/blogging: 15%

4.2.4 Time of Peak Usage

- During class hours: 34% admitted to frequent use
- During study hours: 68% reported interruptions
- Before sleep: 89% used social media
- Immediately upon waking: 76%

4.3 Academic Performance Analysis

4.3.1 GPA Distribution

- High performers (GPA ≥ 7.5): 22% (n=66)
- Average performers (GPA 6.0-7.49): 51% (n=153)
- Low performers (GPA < 6.0): 27% (n=81)
- Mean GPA: 6.84 (SD = 1.12)

4.3.2 Correlation Between Social Media Usage and GPA

A significant negative correlation was found between daily social media usage hours and GPA:

Pearson's $r = -0.418$, $p < 0.001$

This indicates that as social media usage increases, GPA tends to decrease. The correlation is moderate in strength and statistically significant.

Category-wise Analysis:

- Light users: Mean GPA = 7.45 (SD = 0.89)
 - Moderate users: Mean GPA = 6.92 (SD = 0.98)
 - Heavy users: Mean GPA = 6.42 (SD = 1.15)
 - Excessive users: Mean GPA = 5.78 (SD = 1.31)
- ANOVA results: $F(3, 296) = 18.74$, $p < 0.001$, indicating significant differences among groups.

4.3.3 Study Hours Analysis

- Light social media users: Average 4.2 study hours/day
- Moderate users: Average 3.1 study hours/day
- Heavy users: Average 2.4 study hours/day
- Excessive users: Average 1.8 study hours/day

Correlation between study hours and GPA: $r = 0.524$, $p < 0.001$

4.3.4 Attendance Patterns

- Light users: Mean attendance = 82.4%
- Moderate users: Mean attendance = 76.8%
- Heavy users: Mean attendance = 71.2%
- Excessive users: Mean attendance = 65.3%

Correlation between social media usage and attendance: $r = -0.337$, $p < 0.001$

4.4 Regression Analysis

Multiple regression analysis was conducted with GPA as the dependent variable and the following independent variables:

- Daily social media hours
- Study hours per day
- Attendance percentage
- Purpose of social media use (academic vs. non-academic ratio)

Model Summary:

- $R^2 = 0.412$
- Adjusted $R^2 = 0.404$
- $F(4, 295) = 51.67$, $p < 0.001$

Significant Predictors:

1. Study hours per day ($\beta = 0.386$, $p < 0.001$) - strongest positive predictor
2. Attendance percentage ($\beta = 0.298$, $p < 0.001$)
3. Daily social media hours ($\beta = -0.241$, $p < 0.001$) - negative predictor
4. Academic purpose ratio ($\beta = 0.156$, $p = 0.012$)

This model explains approximately 41% of variance in GPA, suggesting that while social media usage is a significant factor, it's one of several variables affecting academic performance.

4.5 Perceived Impacts: Student Perspectives

Students rated various statements on a 5-point Likert scale (1=Strongly Disagree, 5=Strongly Agree):

Negative Impacts (Mean scores):

- Social media distracts me during study time (M = 4.12, SD = 0.89)
- I feel anxious when unable to check social media (M = 3.87, SD = 1.02)
- Social media reduces my sleep time (M = 3.94, SD = 0.95)
- I procrastinate academic work due to social media (M = 3.76, SD = 1.08)
- Social media notifications disrupt my

concentration ($M = 4.01$, $SD = 0.92$)

Positive Impacts (Mean scores):

- Social media helps me access educational content ($M = 3.68$, $SD = 0.98$)
- I learn about academic opportunities through social media ($M = 3.45$, $SD = 1.05$)
- Social media facilitates group study and discussions ($M = 3.52$, $SD = 1.01$)
- Social media improves my communication skills ($M = 3.29$, $SD = 1.12$)

5. DISCUSSION

5.1 Interpretation of Findings

The results of this study present a nuanced picture of social media's impact on academic performance at Kumaun University's degree colleges. The moderate negative correlation ($r = -0.418$) between social media usage time and GPA confirms concerns raised by educators while also suggesting that social media is not the sole determinant of academic success.

5.1.1 The Displacement Effect

The data strongly support the "displacement hypothesis" - time spent on social media directly reduces time available for academic activities. Students in the excessive user category averaged only 1.8 study hours daily compared to 4.2 hours for light users. This displacement effect appears to be the primary mechanism through which social media negatively impacts academic performance.

5.1.2 Quality of Engagement vs. Quantity of Time

The regression analysis revealed that the purpose of social media use matters significantly. Students who primarily used social media for academic purposes showed better performance than those using it primarily for entertainment, even when controlling for total usage time. This suggests that interventions should focus on promoting purposeful use rather than simply restricting time.

5.1.3 The Attention Economy Challenge

Faculty observations regarding declining attention spans align with broader research on the "attention economy." Social media platforms are designed to maximize engagement through intermittent reinforcement and infinite scroll features, making them particularly difficult for young adults to resist.

The 89% of students who use social media before sleep and 76% who check it immediately upon waking demonstrate how deeply integrated these platforms have become in daily routines.

5.2 Comparison with Existing Literature

The findings align with Kirschner and Karpinski's (2010) research showing negative correlations between social media use and academic performance, though the effect size in this study ($r = -0.418$) is somewhat smaller than reported in their Facebook-focused research ($r = -0.56$). This may reflect the changing social media landscape, with usage now distributed across multiple platforms rather than concentrated on Facebook.

The study's findings regarding purposeful vs. recreational use echo Junco et al.'s (2011) distinction between engagement-enhancing and engagement-detracting uses of social media. However, the current study found a lower percentage of academic social media use (54%) compared to Western universities, possibly reflecting less systematic integration of social media into pedagogical practices at Indian regional universities.

5.3 Positive Aspects: An Overlooked Dimension

While much attention focuses on negative impacts, this study documented several positive aspects:

Knowledge Access: 54% of students used social media for accessing educational content, with YouTube being particularly valued for tutorial videos in subjects like mathematics and science where local tutoring may be limited.

Peer Learning Networks: WhatsApp study groups emerged as important collaborative spaces, especially for students in colleges with limited peer interaction opportunities.

Current Affairs Awareness: 67% of students followed news through social media, contributing to broader awareness beyond textbooks.

Professional Socialization: Though only 23% used LinkedIn, those who did (primarily third-year students) reported enhanced awareness of career opportunities and professional norms.

6. LIMITATIONS OF THE STUDY

6.1 Self-Reported Data

The study relied primarily on self-reported social media usage, which may suffer from social desirability bias or recall errors. Students may underestimate their usage time, and actual usage could be higher than reported.

6.2 Causality

While correlation analysis indicates relationships between variables, the cross-sectional design cannot establish definitive causality. It's possible that students with pre-existing academic difficulties turn to social media more frequently, rather than social media causing poor performance.

6.3 Platform Evolution

The rapidly evolving social media landscape means findings may have limited longevity. New platforms and features emerge constantly, altering usage patterns.

6.4 Regional Specificity

Findings are specific to Kumaun University's context and may not generalize to universities in metropolitan areas with different student demographics and institutional resources.

6.5 Academic Performance Measures

The study relied primarily on GPA as a performance indicator, which doesn't capture other important outcomes like critical thinking, creativity, or practical skills development.

7. RECOMMENDATIONS

7.1 For Students

Time Management Strategies:

1. Use app-based screen time trackers to monitor and limit social media usage
2. Implement the "Pomodoro Technique" - 25 minutes focused study with 5-minute breaks, keeping phones away during study periods
3. Designate specific times for social media use rather than constant checking
4. Turn off non-essential notifications during class and study hours

Purposeful Usage:

1. Follow educational accounts, subject experts, and

academic institutions

2. Join subject-specific study groups while muting entertainment-focused groups during exam periods
3. Use YouTube selectively for learning rather than algorithmic recommendations
4. Develop digital literacy to critically evaluate online information

Sleep Hygiene:

1. Establish a "digital sunset" - no screen time 1 hour before bed
2. Use alarm clocks instead of phones to avoid morning social media scrolling
3. Recognize the relationship between sleep quality and academic performance

7.2 For Faculty Members

Pedagogical Integration:

1. Create official class WhatsApp groups for announcements and resource sharing with clear usage guidelines
2. Recommend credible YouTube channels and online resources as supplementary materials
3. Assign social media-based projects (e.g., curating educational content, creating infographics) to leverage students' platform familiarity
4. Use polls and interactive features on platforms students already use to enhance engagement

Classroom Management:

1. Develop clear, consistent policies regarding device use during lectures
2. Build phone-free zones or times during intensive learning activities
3. Incorporate brief breaks in longer classes to acknowledge students' need to check devices
4. Explain the neuroscience of attention and multitasking to help students understand impacts

Professional Development:

1. Participate in workshops on digital pedagogy and contemporary student behavior
2. Stay informed about popular platforms and how students use them
3. Seek student input on effective integration of technology in learning

7.3 For Institutional Administration (Kumaun University and Affiliated Colleges)

Policy Development:

1. Formulate comprehensive social media guidelines balancing restriction with recognition of educational benefits
2. Create official social media presences for colleges to share opportunities, achievements, and educational content
3. Develop protocols for faculty-student digital communication to maintain professional boundaries

Infrastructure Enhancement:

1. Improve campus Wi-Fi to support academic uses while potentially restricting entertainment sites during class hours
2. Create dedicated spaces for collaborative learning where technology is embraced purposefully
3. Ensure library resources include digital literacy sections

Student Support Services:

1. Offer workshops on digital wellness, time management, and productive social media use
2. Provide counseling services for students showing signs of social media addiction
3. Create peer mentorship programs where senior students share effective digital habits

Curriculum Integration:

1. Incorporate digital literacy modules in first-year orientation programs
2. Include social media research skills in research methodology courses
3. Offer elective courses on digital citizenship and online behavior

Monitoring and Evaluation:

1. Conduct regular surveys to track changing patterns of social media use
2. Monitor academic performance trends in relation to digital policy changes
3. Create feedback mechanisms for students and faculty regarding digital tools in education

7.4 For Parents and Guardians

1. Engage in open conversations about social media use without judgment

2. Model healthy digital habits within families
3. Support students in creating structured schedules balancing academics and social time
4. Stay informed about platforms students use and their features
5. Encourage face-to-face social interactions and outdoor activities

7.5 For Platform Developers and Policymakers

While beyond the direct control of this study's stakeholders, recommendations include:

1. Implement robust built-in time management tools in social media apps
2. Create "study mode" features that limit distracting content during specified hours
3. Improve algorithmic transparency regarding addictive design features
4. Develop educational versions of platforms optimized for learning rather than engagement maximization

8. CONCLUSION

This comprehensive study of 300 students and 45 faculty members across Kumaun University's affiliated degree colleges reveals that social media's impact on academic performance is complex and multifaceted. While a significant negative correlation exists between social media usage time and GPA ($r = -0.418$, $p < 0.001$), the relationship is moderated by several factors including purpose of use, time management skills, and individual discipline.

The research identifies three primary mechanisms through which social media affects academic performance:

1. **Time Displacement:** Excessive social media use directly reduces time available for studying, with heavy users spending only 1.8 hours on academics daily compared to 4.2 hours for light users.
2. **Attention Fragmentation:** Constant notifications and the habit of frequent checking interrupt concentration and reduce cognitive efficiency during study periods.
3. **Sleep Disruption:** Evening and nighttime social media use disrupts sleep patterns, indirectly affecting academic performance through reduced alertness and cognitive function.

However, the study also documents positive impacts

when social media is used purposefully for academic collaboration, accessing educational content, and professional development. The 54% of students using social media for academic purposes, particularly those in subject-specific study groups, demonstrate that the platforms themselves are neutral tools whose effects depend on usage patterns.

Faculty perspectives reveal widespread concern about declining student attention and engagement, yet also highlight opportunities for purposeful integration of social media into pedagogy. The generational divide in digital literacy between faculty and students suggests the need for mutual adaptation - students developing discipline in usage, and faculty developing competence in digital pedagogy.

In the specific context of Kumaun University's degree colleges, serving predominantly students from hill regions with limited resources, social media plays a particularly important role in connecting students to broader educational ecosystems. The challenge lies in maximizing these benefits while minimizing the documented negative impacts.

The study concludes that rather than viewing social media as inherently harmful or beneficial, educational stakeholders should adopt a nuanced approach that:

- Educates students about productive vs. unproductive usage
- Develops institutional policies supporting healthy digital habits
- Integrates social media purposefully into learning when appropriate
- Provides support services for students struggling with excessive use
- Empowers students with time management and digital literacy skills

As social media continues evolving and penetrating deeper into rural and semi-urban regions of India, universities like Kumaun must proactively address both the challenges and opportunities it presents. The findings and recommendations from this study provide an evidence-based foundation for such efforts, ultimately aiming to help students harness the potential of digital connectivity while preserving the focus and depth necessary for academic excellence.

The 41% variance in GPA explained by the regression model (including social media usage, study hours, attendance, and purpose of use) indicates that while social media is a significant factor in academic performance, it operates within a complex ecosystem of influences. Success in academic settings increasingly requires not just intellectual capability but also digital wisdom - the ability to use powerful technologies purposefully while avoiding their pitfalls.

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