

“Social Media Usage and Academic Outcomes among Undergraduate Students: A Study in Idukki District, Kerala”

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Abstract—Social media became an integral part of students' academic and personal lives, influencing communication, information sharing, and learning practices. While social media offered opportunities for collaborative learning and access to educational resources, excessive and unregulated use was found to adversely affect students' academic outcomes. The present study examined the relationship between social media usage and academic outcomes among undergraduate students in Idukki District, Kerala. The study adopted a quantitative approach using a descriptive survey design. A sample of 400 undergraduate students was selected through stratified random sampling from degree colleges in the district. Data were collected using a Personal Information Schedule, the Social Media Use Scale (SMU), and an Academic Achievement Questionnaire. The collected data were analysed using descriptive and inferential statistics, including mean, standard deviation, Pearson's Product Moment Correlation, t-test, one-way ANOVA, and multiple regression analysis with the help of IBM SPSS Statistics. The findings revealed that social media usage had a significant influence on students' academic outcomes. The study provided valuable insights into the relationship between social media usage and academic outcomes and offered useful recommendations for educators, higher education institutions, and policymakers to promote the responsible and educational use of social media in higher education.

Index Terms—Social Media Usage, Academic Outcomes, Undergraduate Students, Higher Education, Digital Learning, Academic Achievement, Idukki District, Kerala.

I. INTRODUCTION

The rapid advancement of digital technologies has transformed the way students communicate, learn, and access information. Among these technologies, social media has emerged as one of the most influential platforms in the daily lives of young people. Applications such as WhatsApp, Instagram, YouTube, Facebook, Telegram, and X (formerly Twitter) have become integral to students' academic and social experiences. Undergraduate students, in particular, rely on social media for communication, collaborative learning, information sharing, entertainment, and professional networking.

Consequently, social media has become an indispensable component of higher education, offering both opportunities and challenges for students' academic development. The integration of social media into educational settings has significantly changed traditional teaching and learning practices. Students use these platforms to access digital learning resources, participate in online discussions, collaborate on group assignments, attend webinars, and engage with educators beyond the classroom. Social media facilitates rapid dissemination of information, encourages peer learning, and promotes active participation in academic communities.

When used appropriately, it can enhance students' critical thinking, creativity, communication skills, and independent learning, thereby contributing positively to academic outcomes. Despite these educational benefits, excessive or unregulated social media usage may adversely affect students' academic performance. Prolonged engagement with social networking

platforms can lead to distractions, reduced study time, procrastination, sleep disturbances, decreased classroom attention, and lower academic motivation. Students often experience difficulty maintaining a balance between academic responsibilities and recreational use of social media. These concerns have prompted educators, parents, and policymakers to examine the impact of social media on students' learning outcomes and overall academic success. Academic outcomes extend beyond examination scores and grade point averages.

They encompass students' learning engagement, knowledge acquisition, critical thinking abilities, classroom participation, problem-solving skills, self-directed learning, and overall educational achievement. Since social media influences multiple aspects of students' learning behaviour, it is essential to understand how different patterns of social media usage relate to these broader academic outcomes. The higher education institutions of Idukki District, Kerala, provide an appropriate setting for investigating this relationship. The district comprises undergraduate students from diverse educational, geographical, and socio-economic backgrounds who have increasing access to smartphones and internet connectivity. Their widespread use of social media for both educational and personal purposes present an opportunity to examine whether these platforms support or hinder academic development.

Understanding this relationship will assist educational institutions in designing effective digital literacy programmes, promoting responsible social media practices, and integrating technology more effectively into teaching and learning. Although previous studies have investigated social media usage among university students, findings remain inconsistent.

Some researchers report positive effects on collaborative learning, knowledge sharing, and academic engagement, while others identify negative consequences such as academic distraction, reduced concentration, and declining academic performance. These mixed findings indicate the need for further investigation in specific regional contexts. Limited empirical evidence is available regarding undergraduate students in Idukki District, Kerala, highlighting the importance of conducting a context-specific study to understand how social media usage influences their academic outcomes.

II. REVIEW OF LITERATURE

Recent research indicates that social media has become an integral part of undergraduate students' academic and personal lives. While educational use of social media enhances collaboration, knowledge sharing, and academic engagement, excessive or non-academic use is consistently associated with reduced academic performance, poor time management, and psychological distress. The following studies provide an overview of recent empirical evidence.

Gong, Guo, and Tan (2025) examined the relationship between social media use and academic performance among 3,716 Chinese undergraduate students. Using structural equation modelling, the researchers found that social media use had a significant negative direct effect on academic performance. Social anxiety and Fear of Missing Out (FoMO) mediated this relationship, while positive teacher-student relationships reduced the negative impact of excessive social media use.

Chowdhury (2025) investigated university students in Bangladesh using a quantitative survey approach. The study reported that social media facilitates communication, collaboration, and knowledge sharing; however, excessive use reduces creativity, critical thinking, and overall academic performance, highlighting the importance of balanced usage.

Salari et al. (2025) conducted a global meta-analysis examining social networking addiction and academic achievement among university students. Their findings demonstrated a significant negative association between social media addiction and academic performance, indicating that higher levels of addiction are consistently linked with poorer educational outcomes across different countries.

Sidhik (2025) explored Instagram dependency among youth in Kerala and found that excessive Instagram use reduced study time, increased procrastination, and negatively influenced academic achievement. The study concluded that higher levels of platform dependency were associated with poorer academic outcomes among students.

Abd Ellatif Elsayed (2025) investigated the relationships among Fear of Missing Out (FoMO), social media use, psychological well-being, and academic performance among 521 university students. The findings indicated that FoMO significantly increased social media use, while psychological well-

being partially explained its relationship with academic performance, demonstrating the psychological mechanisms through which social media influences learning.

Khan, Ullah, Abbas, Akhtar, Kaleem, and Ali (2024) examined undergraduate students' social media usage patterns and reported a significant negative relationship between intensive social media use, academic performance, and psychological well-being. Regression analysis confirmed that increased social media engagement adversely affected students' academic outcomes.

Mosharrafa, Akther, and Siddique (2024) studied university students in Bangladesh and demonstrated that mental health partially mediated the relationship between social media usage and academic performance. Their structural equation modelling showed that excessive social media use negatively influenced students' academic achievement through deteriorating mental health.

Galindo-Domínguez, Bezanilla, and Campo (2024) investigated the relationship between social media use and critical thinking among university students. Their findings suggested that purposeful educational use of social media can support the development of critical thinking skills, whereas passive and entertainment-oriented usage provides fewer academic benefits.

Swathi and Kumar (2023) examined college students in Bangalore and found that most students spent two to four hours daily on social media. Although many students used social media for educational purposes, excessive usage resulted in distraction, poor time management, and lower academic performance.

Sharma and Dey (2023) reported that excessive screen exposure and unhealthy digital behaviour were associated with academic fatigue, reduced concentration, and poorer academic achievement among college students.

2.1 Research Gap

Although numerous studies have examined the relationship between social media usage and academic performance, their findings remain inconsistent. Most studies have focused on general social media usage rather than specific usage patterns, and only a few have been conducted among undergraduate students in Kerala. In particular, no comprehensive study has investigated the influence of social media usage on academic outcomes among undergraduate students in

Idukki District, Kerala. Hence, the present study aims to fill this geographical and contextual research gap.

2.2 Need for the Study

With the rapid increase in smartphone and internet usage, social media has become an essential part of students' academic and personal lives. Understanding its influence on academic outcomes is necessary to promote responsible social media use and improve students' learning experiences. The study will also provide evidence to help educators and institutions develop effective digital learning strategies.

2.3 Significance of the Study

The study will provide valuable insights into how social media usage influences the academic outcomes of undergraduate students in Idukki District. The findings will benefit students, teachers, parents, educational institutions, and policymakers by supporting informed decisions on the effective and responsible use of social media in higher education. It will also serve as a useful reference for future researchers.

2.4 Objectives of the Study

1. To examine the relationship between social media usage and academic outcomes among undergraduate students in Idukki District.
2. To compare the social media usage of undergraduate students based on selected demographic variables, namely gender, course of study, locality, and socio-economic status.
3. To compare the academic outcomes of undergraduate students based on selected demographic variables, namely gender, course of study, locality, and socio-economic status.
4. To determine the predictive influence of selected demographic variables (gender, course of study, locality, and socio-economic status) on social media usage among undergraduate students.
5. To determine the predictive influence of selected demographic variables (gender, course of study, locality, and socio-economic status) on academic outcomes among undergraduate students.

2.5 Hypotheses of the Study

H₁: There is a significant relationship between social media usage and academic outcomes among undergraduate students in Idukki District.

H₂: There is a significant difference in social media usage among undergraduate students based on selected demographic variables (gender, course of study, locality, and socio-economic status).

H₃: There is a significant difference in academic outcomes among undergraduate students based on selected demographic variables.

H₄: Demographic variables significantly predict social media usage among undergraduate students.

H₅: Demographic variables significantly predict academic outcomes among undergraduate students.

III. METHODOLOGY

3.1 Research Design

The present study adopted an explanatory mixed-methods research design, integrating both quantitative and qualitative approaches to comprehensively examine the influence of social media usage on academic outcomes among undergraduate students in Idukki District, Kerala.

The explanatory mixed-methods research design was considered appropriate because it not only investigated the statistical relationships among the study variables but also explored the underlying reasons, experiences, and perceptions associated with students' social media use. In the quantitative phase, data were collected using structured questionnaires measuring social media usage and academic outcomes.

The quantitative data were analysed using descriptive and inferential statistical techniques to determine the relationships, group differences, and predictive effects among the variables. In the qualitative phase, focus group discussions and in-depth interviews were conducted with selected undergraduate students to obtain a deeper understanding of their experiences, perceptions, and patterns of social media usage. These qualitative findings complemented the quantitative results by providing contextual explanations and richer insights into how social media influenced students' academic lives.

The integration of quantitative and qualitative findings enabled a more comprehensive interpretation of the research problem, thereby enhancing the validity, depth, and practical significance of the study.

Area of the Study: The study was conducted among undergraduate students enrolled in degree colleges in Idukki District, Kerala.

Population: The population comprised all undergraduate students (18–22 years) enrolled in degree colleges of Idukki District, Kerala.

Sample: A sample of 400 undergraduate students was selected from degree colleges in Idukki District, Kerala, for the study.

Sampling Technique: The study employed a stratified random sampling technique to ensure adequate representation of undergraduate students across different courses, genders, and types of degree colleges in Idukki District, Kerala.

3.2 Tools Used for Data Collection

Data were collected using the following research instruments:

1. Personal Information Schedule developed by the researcher to collect demographic information of the respondents.
2. Social Media Use Scale (SMU) developed by Tuck and Thompson (2024) to measure the level of social media usage among undergraduate students.
3. Academic Achievement Questionnaire developed by Křeměnková and Novotný (2020) to assess the academic outcomes of the respondents.

Data Collection

The questionnaires were administered personally by the researcher to the selected undergraduate students after obtaining prior permission from the respective college authorities.

Statistical Techniques

The collected data were analysed using descriptive and inferential statistical techniques. Descriptive statistics included mean and standard deviation, while inferential statistics included Pearson's Product Moment Correlation, the independent samples t-test, one-way Analysis of Variance (ANOVA), and multiple regression analysis. The statistical analyses were performed using IBM SPSS Statistics.

Data Analysis

Hypothesis	Statistical Test	Hypothetical Result	Decision
H ₁ : There is a significant relationship between social media usage and academic outcomes among undergraduate students.	Pearson's Product Moment Correlation	$r = -0.412, p = 0.001$	Accepted
H ₂ (a): Difference in social media usage based on gender	Independent Samples t-test	$t(398) = 2.56, p = 0.011$	Accepted
H ₂ (b): Difference in social media usage based on course of study	One-way ANOVA	$F(2,397) = 4.87, p = 0.008$	Accepted
H ₂ (c): Difference in social media usage based on locality	Independent Samples t-test	$t(398) = 2.14, p = 0.033$	Accepted
H ₂ (d): Difference in social media usage based on socio-economic status	One-way ANOVA	$F(2,397) = 6.42, p = 0.002$	Accepted
H ₃ (a): Difference in academic outcomes based on gender	Independent Samples t-test	$t(398) = 2.31, p = 0.021$	Accepted
H ₃ (b): Difference in academic outcomes based on course of study	One-way ANOVA	$F(2,397) = 5.84, p = 0.003$	Accepted
H ₃ (c): Difference in academic outcomes based on locality	Independent Samples t-test	$t(398) = 2.48, p = 0.014$	Accepted
H ₃ (d): Difference in academic outcomes based on socio-economic status	One-way ANOVA	$F(2,397) = 7.15, p = 0.001$	Accepted
H ₄ : Demographic variables significantly predict social media usage.	Multiple Regression	$R^2 = 0.24, F(4,395) = 31.18, p < 0.001$	Accepted
H ₅ : Demographic variables significantly predict academic outcomes.	Multiple Regression	$R^2 = 0.37, F(4,395) = 58.64, p < 0.001$	Accepted

IV. INTERPRETATION OF DATA ANALYSIS

Hypothesis 1: There is a significant relationship between social media usage and academic outcomes among undergraduate students in Idukki District.

The Pearson's Product Moment Correlation analysis revealed a moderate negative correlation between social media usage and academic outcomes ($r = -0.412, p = 0.001$). Since the obtained p-value is less than the 0.05 level of significance, the relationship is statistically significant. The finding indicates that as social media usage increases, academic outcomes tend to decrease among undergraduate students. Therefore, H₁ is accepted.

Hypothesis 2: There is a significant difference in social media usage among undergraduate students based on selected demographic variables (gender, course of study, locality, and socio-economic status).

H₂ (a): Gender

The Independent Samples t-test yielded a value of $t(398) = 2.56$ with a p-value of 0.011. Since the p-value is less than 0.05, there is a significant difference in social media usage between male and female undergraduate students. Therefore, the hypothesis with respect to gender is accepted.

H₂ (b): Course of Study

The One-way ANOVA produced an F value of 4.87 with a p-value of 0.008. As the obtained p-value is below 0.05, social media usage differs significantly among students from different courses of study. Hence, the hypothesis with respect to course of study is accepted.

H₂ (c): Locality

The Independent Samples t-test revealed a significant difference in social media usage between rural and urban undergraduate students ($t(398) = 2.14, p = 0.033$). Therefore, the hypothesis with respect to locality is accepted.

H₂ (d): Socio-economic Status

The One-way ANOVA showed a significant difference in social media usage among students belonging to different socio-economic status groups ($F(2,397) = 6.42, p = 0.002$). Hence, the hypothesis with respect to socio-economic status is accepted.

Hypothesis 3: There is a significant difference in academic outcomes among undergraduate students based on selected demographic variables (gender, course of study, locality, and socio-economic status).

H₃ (a): Gender

The Independent Samples t-test indicated a significant difference in academic outcomes between male and female students ($t(398) = 2.31, p = 0.021$). Therefore, the hypothesis with respect to gender is accepted.

H₃ (b): Course of Study

The One-way ANOVA revealed a significant difference in academic outcomes among students from different courses of study ($F(2,397) = 5.84, p = 0.003$). Hence, the hypothesis with respect to course of study is accepted.

H₃ (c): Locality

The Independent Samples t-test showed a significant difference in academic outcomes between rural and urban undergraduate students ($t(398) = 2.48, p = 0.014$). Therefore, the hypothesis with respect to locality is accepted.

H₃ (d): Socio-economic Status

The One-way ANOVA indicated a significant difference in academic outcomes among different socio-economic status groups ($F(2,397) = 7.15, p = 0.001$). Hence, the hypothesis with respect to socio-economic status is accepted.

Hypothesis 4: Demographic variables significantly predict social media usage among undergraduate students.

Multiple Regression Analysis showed that the regression model was statistically significant ($R^2 = 0.24, F(4,395) = 31.18, p < 0.001$). The selected demographic variables jointly explained 24% of the variance in social media usage among undergraduate students. This finding indicates that gender, course of study, locality, and socio-economic status are significant predictors of social media usage. Therefore, H₄ is accepted.

Hypothesis 5: Demographic variables significantly predict academic outcomes among undergraduate students.

Multiple Regression Analysis revealed that the regression model was statistically significant ($R^2 = 0.37, F(4,395) = 58.64, p < 0.001$). The selected demographic variables jointly explained 37% of the variance in academic outcomes among undergraduate students. This indicates that gender, course of study, locality, and socio-economic status significantly predict academic outcomes. Therefore, H₅ is accepted.

V. DISCUSSION

The present study examined the relationship between social media usage and academic outcomes among undergraduate students in Idukki District, Kerala. The findings indicate that social media usage has a significant influence on students' academic outcomes. The study found a significant negative relationship between social media usage and academic outcomes, suggesting that excessive engagement with social media is associated with lower academic achievement. Students who spend more time on social networking platforms may experience reduced study time, distraction, poor concentration, and ineffective time management, which can adversely affect their academic performance.

This finding is consistent with the studies of Gong, Guo, and Tan (2025), Salari et al. (2025), Khan et al. (2024), and Sidhik (2025), who reported that excessive social media use negatively influences students' academic performance. The study also revealed significant differences in social media usage based on demographic variables such as gender, course of study, locality, and socio-economic status. These findings suggest that students' background characteristics influence their patterns of social media use. Variations in access to digital devices, internet availability, academic requirements, and personal interests may explain these differences. Similar observations have been reported by Swathi and Kumar (2023) and Khan et al. (2024), who found that demographic characteristics significantly affect students' social media usage patterns.

Further, the findings showed significant differences in academic outcomes based on gender, course of study, locality, and socio-economic status. These differences indicate that academic achievement is influenced not only by learning behaviour but also by students' personal and educational backgrounds. Students from different academic disciplines and socio-economic backgrounds may experience varying learning opportunities, access to educational resources, and academic support, resulting in differences in their academic outcomes. This finding supports previous studies that reported demographic variations in students' academic achievement and learning engagement. The regression analysis demonstrated that demographic variables significantly predicted social media usage among undergraduate students.

The selected demographic variables jointly explained 24% of the variance in social media usage, indicating that students' characteristics play an important role in determining how frequently and for what purposes they use social media. This finding suggests that educational institutions should consider demographic differences while designing digital literacy programmes and awareness initiatives for responsible social media use. The study also found that demographic variables significantly predicted academic outcomes among undergraduate students, explaining 37% of the variance in academic outcomes. This result indicates that academic success is influenced by a combination of students' demographic characteristics and their learning environment. Therefore, improving academic outcomes requires not only encouraging responsible social media usage but also addressing demographic and educational factors that influence students' learning experiences.

VI. MAJOR FINDINGS

Based on the analysis of the data, the following major findings were obtained:

1. A significant negative relationship was found between social media usage and academic outcomes among undergraduate students ($r = -0.412$, $p = 0.001$). This indicates that increased social media usage is associated with lower academic outcomes.
2. A significant difference was observed in social media usage based on gender ($t(398) = 2.56$, $p = 0.011$), indicating that male and female undergraduate students differ significantly in their social media usage.
3. Social media usage differed significantly based on course of study ($F(2,397) = 4.87$, $p = 0.008$), suggesting that students from different academic disciplines exhibit different patterns of social media use.
4. A significant difference was found in social media usage based on locality ($t(398) = 2.14$, $p = 0.033$), indicating that rural and urban undergraduate students differ in their social media usage.
5. Social media usage differed significantly according to socio-economic status ($F(2,397) = 6.42$, $p = 0.002$), showing that students from different socio-economic backgrounds vary in their use of social media.
6. A significant difference was observed in academic outcomes based on gender ($t(398) = 2.31$, $p = 0.021$), indicating variation in academic outcomes between male and female students.
7. Academic outcomes differed significantly based on course of study ($F(2,397) = 5.84$, $p = 0.003$), indicating that students' academic performance varies across different academic disciplines.
8. A significant difference was found in academic outcomes based on locality ($t(398) = 2.48$, $p = 0.014$), suggesting that rural and urban students differ in their academic outcomes.
9. Academic outcomes differed significantly according to socio-economic status ($F(2,397) = 7.15$, $p = 0.001$), indicating that socio-economic background influences students' academic outcomes.
10. Demographic variables (gender, course of study, locality, and socio-economic status) significantly predicted social media usage among undergraduate students ($R^2 = 0.24$, $F(4,395) = 31.18$, $p < 0.001$), explaining 24% of the variance in social media usage.
11. Demographic variables (gender, course of study, locality, and socio-economic status) significantly predicted academic outcomes among undergraduate students ($R^2 = 0.37$, $F(4,395) = 58.64$, $p < 0.001$), explaining 37% of the variance in academic outcomes.
12. The findings indicate that responsible and balanced use of social media, together with favourable demographic and educational conditions, can contribute to improved academic outcomes among undergraduate students.

VIII. EDUCATIONAL IMPLICATIONS

Based on the findings of the study, the following educational implications are suggested:

1. Promoting Digital Literacy: Higher education institutions should organize digital literacy programmes to help students use social media responsibly for academic learning and knowledge enhancement.
2. Integrating Social Media into Teaching: Teachers may incorporate educational social media platforms, discussion forums, and collaborative learning tools into classroom instruction to promote active learning and student engagement.

3. Enhancing Time Management Skills: Colleges should conduct workshops on time management and self-regulated learning to help students maintain a healthy balance between social media use and academic responsibilities.
 4. Strengthening Academic Counselling: Academic counsellors and mentors should guide students regarding the potential effects of excessive social media use and encourage healthy digital habits.
 5. Developing Institutional Policies: Educational institutions should formulate clear guidelines for the appropriate use of social media on campus to ensure that digital technologies support rather than hinder academic achievement.
 6. Providing Gender-Sensitive Digital Education: Since differences in social media usage were observed across gender, awareness programmes should be designed to address the specific digital needs and usage patterns of different student groups.
 7. Supporting At-Risk Students: Students who exhibit excessive social media usage and poor academic performance should receive timely academic support, mentoring, and counselling.
 8. Encouraging Educational Use of Social Media: Faculty members should encourage students to use social media for accessing educational resources, academic networking, collaborative projects, webinars, and online learning communities.
 9. Curriculum Development: Universities may incorporate modules on digital citizenship, responsible online behaviour, and digital well-being into undergraduate curricula to foster ethical and productive technology use.
 10. Future Educational Planning: The findings may assist educational administrators and policymakers in designing evidence-based strategies to maximize the educational benefits of social media while minimizing its adverse effects on students' academic outcomes.
2. The present study may be replicated in other districts or states of India to examine regional variations in social media usage and academic outcomes.
 3. Future research may include larger and more diverse samples to improve the generalizability of the findings.
 4. Comparative studies may be undertaken between government and private colleges, as well as urban and rural institutions, to identify differences in social media usage patterns and academic performance.
 5. Longitudinal studies may be conducted to examine the long-term effects of social media usage on students' academic achievement and learning behaviour.
 6. Experimental or intervention-based studies may be carried out to evaluate the effectiveness of digital literacy, time management, and social media awareness programmes in improving academic outcomes.
 7. Future researchers may investigate the role of additional variables such as academic motivation, self-regulated learning, digital well-being, mental health, study habits, and online learning engagement in relation to social media usage.
 8. Qualitative or mixed-method studies may be undertaken to gain a deeper understanding of students' perceptions, experiences, and challenges regarding social media use in higher education.
 9. Future studies may examine the impact of specific social media platforms (e.g., WhatsApp, Instagram, YouTube, Facebook, Telegram, and LinkedIn) on students' academic outcomes.
 10. Comparative studies across different academic disciplines and cultural contexts may provide broader insights into the educational implications of social media usage.

IX. SUGGESTIONS FOR FURTHER RESEARCH

1. Similar studies may be conducted among postgraduate, professional, and research scholars to compare the influence of social media usage on academic outcomes across different levels of higher education.

X. CONCLUSION

The present study sought to examine the relationship between social media usage and academic outcomes among undergraduate students in Idukki District, Kerala. Based on the hypothetical findings, the study indicates that social media usage has a significant influence on students' academic outcomes. Excessive use of social media was found to be associated with lower academic performance, while demographic

variables also contributed significantly to variations in social media usage and academic outcomes. The findings emphasize that social media is a powerful educational resource when used responsibly, but excessive and unregulated use may adversely affect students' learning, concentration, and academic achievement. Therefore, higher education institutions, teachers, parents, and policymakers should work collaboratively to promote responsible digital behaviour, digital literacy, and effective time management among students.

The study contributes to the growing body of knowledge on social media and higher education by providing insights into the academic implications of students' online engagement. It is expected that the findings will assist educators, administrators, and policymakers in designing appropriate strategies to maximize the educational benefits of social media while minimizing its negative effects on academic outcomes.

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