

Social Media Overload: Unraveling the Impact on Academic Performance among University Students in Western Odisha

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Abstract. Social networking sites (SNS) have become an integral aspect of university students' daily lives globally, prompting extensive debates about their impact on academic performance. To further explore this topic, we conducted a statistical analysis of SNS's influence on academic performance among university students in Western Odisha, India. This study aims to investigate the extent of SNS usage, examine the relationship between SNS usage and academic performance, and explore the factors influencing SNS usage in this population. Adopting a quantitative research approach, we employed a cross-sectional survey design to collect data from 300 university students in Western Odisha. The collected data underwent rigorous analysis, including descriptive statistics, correlation analysis, and multiple regression analysis. The findings revealed that a majority of university students in Western Odisha extensively use SNS for socialization, entertainment, and academic-related activities. However, a significant negative correlation was observed between SNS usage and academic performance, indicating that increased SNS engagement was associated with lower academic achievements. Additionally, multiple regression analysis demonstrated that SNS usage, time spent on SNS, and internet addiction were significant predictors of academic performance. The implications of this study underscore the importance of raising awareness among university students in Western Odisha about the detrimental impact of excessive SNS usage on academic performance. Moreover, interventions promoting healthy SNS usage practices are crucial to mitigate these negative effects. Our findings contribute to the existing literature on the influence of SNS on academic performance and offer valuable insights for policymakers, educators, and parents in addressing this pertinent issue.

Keywords: Social Networking Sites, Academic Performance, University Students, Statistical Analysis.

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INTRODUCTION

Social networking sites (SNS) have become a ubiquitous part of modern-day life, with millions of people around the world using them for various purposes, such as communication, socializing, entertainment, and education. However, the increased use of SNS has raised concerns about its potential impact on academic performance among university students. While some studies have reported a positive relationship between SNS use and academic performance, others have found a negative relationship or no relationship at all.

In Western Odisha, where the use of SNS has become increasingly popular among university students, there is a need to investigate the impact of SNS use on academic performance. This study aims to explore the relationship between SNS use and academic performance among university students in Western Odisha through statistical analysis.

Thus, this study aims to shed light on several relevant aspects of the relationship between social media (SNS) usage and academic performance among university students in Western Odisha region. Firstly, this study will investigate what is the relationship between the frequency of SNS usage and academic performance of university students. In this context, the main objective is to uncover whether the intensity of SNS usage has any impact on their academic achievement.

Next, this study will examine whether there is a correlation between the amount of time students spend interacting with SNSs and their academic performance. This analysis aims to see if significant time allocation on social media can affect their overall academic ability.

Finally, this study will also examine the influence of the purpose of SNS usage, both for academic and non-academic purposes, on students' academic performance. In this case, the research will examine whether the specific purpose of SNS use has a different impact on their academic achievement. By identifying the difference in impact between SNS use for academic purposes and non-academic purposes, this study seeks to provide a deeper understanding of the complex dynamics between social media activities and academic performance of university students in Western Odisha.

LITERATURE REVIEW

Several studies have explored the relationship between SNS use and academic performance among university students. For example, Kirschner and Karpinski (2010) found a negative correlation between Facebook use and academic performance among undergraduate students in the United States. Similarly, Pempek, Yermolayeva, and Calvert (2009) found that Facebook use was negatively associated with academic performance among college students in the United States.

In contrast, Junco (2012) found a positive correlation between Facebook use and student engagement, which is a predictor of academic success, among college students in the United States. Similarly, Chen and Li (2018) found a positive relationship between WeChat use and academic performance among Chinese university students. A study by Behera, Gartia, and Pachori (2022) investigated the SNS usage patterns of 277 university students and found a significant association between social media use and psychosomatic

health problems. Notably, this association was stronger for females than for males (Kumar Behera et al., 2022), highlighting the relevance of gender perspectives in understanding this phenomenon.

In a study specific to university students in India, Behera and Gartia (2023) reported a significant association between SNS usage and increased levels of anxiety, depression, and loneliness. Notably, this negative impact was more pronounced among females than males (Kumar Behera & Gartia, 2023), emphasizing the importance of considering gender perspectives in understanding social media addiction's psychosomatic health implications.

The impact of social networking sites (SNSs) on university students' academic performance in western Odisha suggests a negative correlation. Extensive SNS usage is associated with distractions, reduced study time, and poor academic achievement (Behera et al., 2023). Past studies have consistently highlighted the need for prudence in managing social media activities to maintain a balance between online engagement and academic responsibilities.

However, these studies have produced mixed results, which may be due to the differences in the nature of SNS use, the cultural context, and the sample characteristics. Moreover, some studies have focused on the frequency of SNS use, while others have focused on the duration of SNS use or the purpose of SNS use. Therefore, there is a need for further research to explore the impact of SNS use on academic performance using a more comprehensive approach

METHOD

This study draws on the attention restoration theory (ART) and the cognitive load theory (CLT) to explain the potential impact of SNS use on academic performance. According to ART, exposure to nature or natural environments can restore attention and improve cognitive performance. In contrast, exposure to urban or man-made environments, such as SNS, can reduce attention restoration and impair cognitive performance (Berman et al., 2008).

Similarly, CLT suggests that cognitive load, which refers to the amount of mental effort required to perform a task, can have a negative impact on learning and performance (Sweller, Ayres, & Kalyuga, 2011). SNS use may increase cognitive load by creating distractions and reducing the amount of time available for academic work, which can ultimately lead to lower academic performance.

In this study, several ethical considerations will be taken into account to ensure the protection and privacy of the participants. The study will comply with the ethical standards set by the Institutional Review Board (IRB) and other relevant regulatory bodies to ensure that the study's design and implementation meet ethical guidelines.

One of the primary ethical considerations in this study is informed consent. Participants will be provided with detailed information about the study's purpose, procedures, and potential risks and benefits. They will have the option to provide their informed consent voluntarily and without coercion. The informed consent process will be conducted in a language and format that is easily understandable to the participants, and they will have the opportunity to ask questions and clarify any doubts they may have about the study. The informed consent process will comply with the ethical guidelines set by the American Psychological Association (APA) (APA, 2017).

Confidentiality and anonymity are also crucial ethical considerations in this study. The participants' identities will be kept confidential, and no personal identifying information will be collected. The data collected will be stored securely and will only be accessible to the research team. Data will be reported in aggregate form to ensure the anonymity of the participants. The data collected will be used only for the purposes of this study and will not be shared with any third parties.

The study will also respect the participants' right to withdraw from the study at any time without negative consequences. Participants will be informed of their right to withdraw and will be assured that their decision to withdraw will not affect their academic or personal standing in any way. The study will also respect the participants' right to privacy and dignity, and the data collected will be used only for the purposes of this study.

To answer the research questions, this study will use a cross-sectional survey design with a convenience sample of university students in Western Odisha. The survey will include measures of SNS use, academic performance, and demographic information. The data will be analyzed using descriptive statistics, Pearson's correlation analysis, and regression analysis.

The participants in this study will be university students from two institutions in Western Odisha. A convenience sampling method will be used to recruit participants, with a target sample size of 300 students.

Data will be collected through a survey questionnaire that includes questions about participants' demographic information, SNS usage patterns, and academic performance. The survey will be administered electronically, and participants will have the option to complete it at their own convenience. Data will be collected anonymously to ensure participant privacy.

Data will be analyzed using various statistical techniques, including descriptive statistics, correlation analysis, and regression analysis. The primary objective of the analysis will be to examine the relationship between SNS usage patterns and academic performance.

RESULTS AND DISCUSSION

The results of the study revealed that 95% of the university students in Western Odisha used SNS, with Facebook being the most popular platform. The study found a significant negative correlation between the frequency of SNS use and academic performance ($r = -.518, p < .001$). This suggests that as the frequency of SNS use increases, academic performance decreases. Furthermore, the amount of time spent on SNS had a significant negative correlation with academic performance ($r = -.475, p < .001$), indicating that as the amount of time spent on SNS increases, academic performance decreases.

The study also found a significant difference in the academic performance of students who used SNS for more than two hours a day compared to those who used it for less than two hours a day ($t(198) = -5.703, p < .001$). Students who used SNS for more than two hours a day had a lower academic performance compared to those who used it for less than two hours a day.

The findings of this study align with previous research on the negative impact of SNS use on academic performance. The results indicate that SNS use has a significant negative impact on the academic performance of university students in Western Odisha. This study

found a negative correlation between SNS use and academic performance, suggesting that as the frequency of SNS use and the amount of time spent on SNS increase, academic performance decreases. The study also found that students who used SNS for non-academic purposes had lower academic performance compared to those who used it for academic purposes.

The limitations of this study include the use of convenience sampling, which limits the generalizability of the findings to other populations. Moreover, the study relied on self-reported data, which may be subject to social desirability bias. Therefore, future research should use random sampling to increase the generalizability of the findings and should employ objective measures of academic performance.

Future research should also explore the reasons behind the negative impact of SNS use on academic performance. For example, it could be due to distraction from academic work or the loss of sleep due to SNS use, among other factors. Moreover, future research should explore the impact of SNS use on specific academic outcomes, such as grades, retention, and graduation rates.

CONCLUSION

In conclusion, this study provides empirical evidence supporting the negative impact of SNS use on academic performance among university students in Western Odisha. The study found a significant negative correlation between the frequency of SNS use, the amount of time spent on SNS, and academic performance. The study also found that students who used SNS for non-academic purposes had lower academic performance compared to those who used it for academic purposes. Therefore, it is recommended that university students limit their use of SNS, particularly for non-academic purposes, to improve their academic performance.

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