
Social Media and Academic Outcomes in Higher Education: A Systematic Review of Undergraduate Experiences

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Abstract

The evolution of social media platforms is changing the way undergraduate students interact with academic content, peers and faculty in higher education. The objective of this systematic review was to provide a comprehensive examination of the influence of social media use on educational performance of undergraduate students, including both positive and negative influences. The review synthesises studies that have examined this question over the past 8 years, from 2017-2024. Scopus database was used for searching the relevant literature. After applying inclusion and exclusion criteria 10 studies are found suitable. PRISMA flow diagram was used to represent the review process. It was found that social media has both positive and negative influence on students' learning outcomes. The role of social media platforms like Facebook, Instagram, and Twitter serve as facilitators of academic discussion, learning resources and peer support. The review also discusses the problem of lost time and productivity from over-use or misuse of social media. At worst, it means that the more time students spend on social media—as opposed to studying or doing homework—the lower their grades will be. The study closes with directions for future research and practical interventions for educators and students to cater the use of social media in academic environment, maintaining balance between risks and advantages.

Keywords: undergraduate Students, learning outcomes, higher education, systematic review

Introduction

Social media platforms have transformed communication and connection on a worldwide scale, integrating into billions of users' daily lives (Flew & Iosifidis, 2020). These digital venues bridge geographical and cultural borders by enabling a variety of modes of expression, networking, and information sharing (Dekker et al, 2014). The integration of social media platforms into educational environments has transformed conventional teaching practices (Li et al., 2014), student engagement strategies (Junco et al, 2011), and learning outcomes (Ashraf et al., 2021). This revolution is driven by the ability of social media to promote collaboration,

facilitate knowledge sharing, and foster interactive learning experiences (Bagarukayo, 2018). College students are extensively using social media, which is significantly impacting their academic, social, and personal life. Social media platforms like as Facebook, Instagram, Telegram, Twitter, and Whatsapp play a crucial role in facilitating communication, information sharing, and social interaction among students and the wider community (Bashir et al., 2021). These platforms provide immediate connectivity, enabling instantaneous conversation through texting, group chats, and the sharing of multimedia. Social media functions as a platform for students to creatively express themselves (Fitzgerald et al., 2022), share experiences, and remain informed about campus events and activities. Moreover, it plays a key role in academic pursuits, enabling students to access educational resources, participate in online debates, and work on projects remotely (Sungkur et al., 2020). Although social media improves connectivity and access to information, it also poses obstacles such as privacy issues, digital distractions, and the potential for adverse effects on mental well-being (Throuvala et al., 2021). Studies suggest that an overabundance of social media usage might result in college students experiencing emotions of isolation (Boursier et al. 2020), unease, and melancholy, underscoring the importance of maintaining a well-regulated and conscientious approach to its use. Educational institutions are increasingly recognizing the need of digital literacy and supporting ethical online behaviour to empower students as responsible digital citizens. Overall, social media continues to affect the college experience significantly, influencing how students engage (Mahdiun et al., 2020), learn (Kolhar et al. 2021), and navigate their academic and personal journeys in the digital age (Sabah, 2023).

Various factors contribute to the intricate relationship between the use of social media and academic performance. Social media platforms serve as valuable instruments for acquiring knowledge and fostering collaboration (Khan et al., 2021). They facilitate students' access to academic materials, encourage the exchange of knowledge, and stimulate collaboration through group projects and debates. Social media can facilitate contact between students and educators, fostering a more interactive and stimulating learning environment (Kumi-Yeboah et al., 2020). In addition, platforms such as LinkedIn enable students to establish professional networks, interact with mentors, and access career opportunities (Cho & Lam, 2021), all of which can have a favorable impact on their academic and professional paths.

On the other side, excessive usage of social media can lead to poor outcomes, particularly in the context of educational achievement (Whelan et al., 2020). One of the primary difficulties is the possibility for distraction (Siebers et al., 2022). The frequent notifications, updates, and the temptation of infinite scrolling can divert students' attention away from their academics, resulting to procrastination and poor productivity (Pratiwi et al., 2024). Moreover, the tendency to multitask—such as scanning social media while studying—can hamper cognitive efficiency and lower the quality of learning. Research has revealed that multitasking in such a manner can severely affect memory recall and the capacity to focus on complicated tasks, which are crucial for academic accomplishment (Murphy & Creux 2021).

The increasing prevalence of social media usage among undergraduate students has sparked considerable interest in understanding its impact on all aspects of their lives, particularly their

academic performance. The significance of academic accomplishment in determining future job opportunities and overall life satisfaction makes it a central concern for educators, parents, and students alike. Given the growing ubiquity of social media, it is imperative to assess whether this phenomena fosters or hinders academic achievement. The correlation between social media usage and academic performance is intricate and subject to various factors, such as the specific social media platforms utilized, the intention behind the usage (academic or non-academic), the duration of time spent on these platforms, and individual disparities among students. Some studies propose that social media can serve as a beneficial instrument for academic collaboration and sharing of resources, whilst others indicate that using social media for non-academic purposes is linked to decreased academic achievement. The diverse results in the current body of research emphasize the necessity of conducting a comprehensive review to consolidate the information and gain a more precise comprehension of the impact of social media on academic achievements among undergraduate students.

Research Questions:

1. What are the patterns of social media usage among undergraduate students?
2. What is known about the influence of social media use on the academic achievement of undergraduate students?

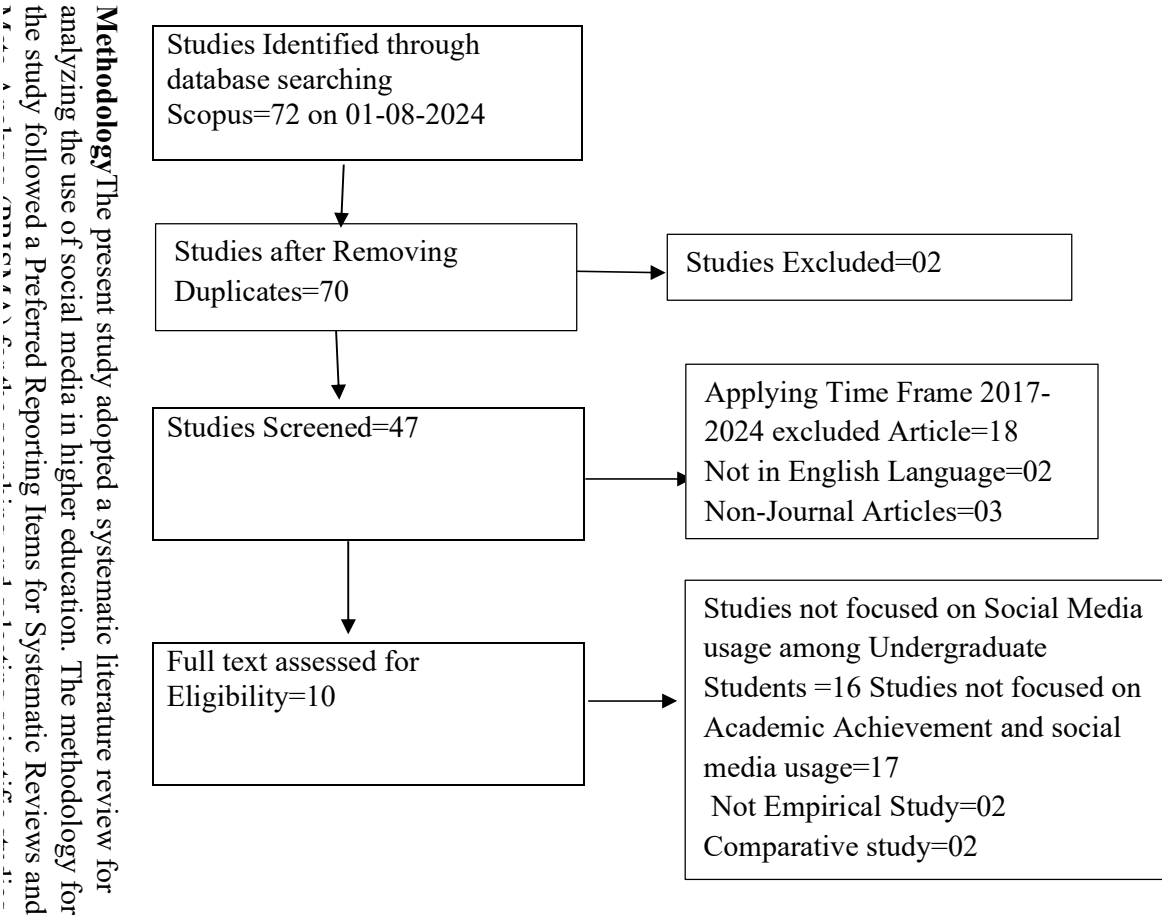


Figure-1 PRISMA Flow Diagram of Selection of Studies

Source-Adopted From Moher et al. (2009)

Keywords used for searching the databases

The following keywords are used in selection of articles for literature analysis-

“Social media” OR “Social networking Sites” OR “Facebook” OR “Twitter” OR “Instagram” OR “YouTube” AND “Higher Education” OR “Undergraduate Students” OR “College Students” AND “Learning Outcomes” OR “Academic Achievement” OR “Academic Performance” OR “Teaching-Learning”.

Inclusion and Exclusion Criteria

The inclusion and exclusion criteria presented in the table-1 are strictly adhered in selection of studies for conducting this literature review.

Inclusion Criteria	Exclusion Criteria
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Studies focusing on social media as a tool for Learning in higher education Studies focusing on the relationship between social media usage and academic achievement. Studies conducted between 2017-2024 Any social media platforms i.e. Facebook, YouTube, WhatsApp, Twitter.	Studies focusing on impact of social media on mental health of Students Studies conducted on High Schools and Higher Secondary Students Social media Addiction
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Table-1 Inclusion and Exclusion Criteria

Descriptive Information

The figure-1 depicts the studies included in this study for literature analysis year wise from 2017-2024.

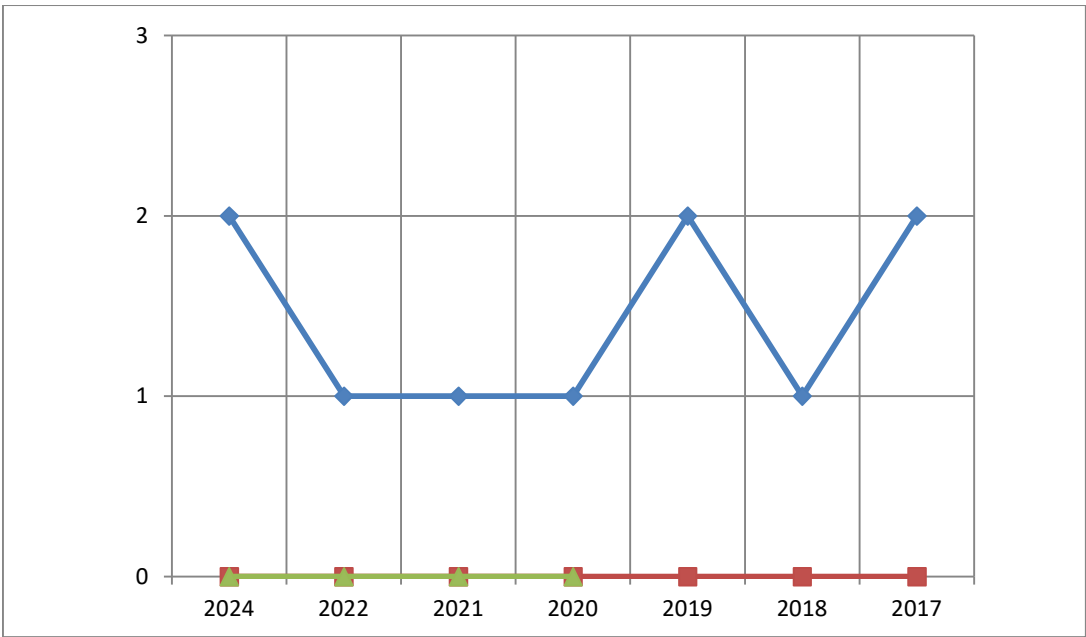


Figure-1:Year wise studies included in this study

Results

Table-1 represents the summary of the studies included in this study for literature analysis.

S n o	Author & Year	Sample and Sampling techniques	Method	Key Findings
1	Sakhieva et al.2024	192 university students	Survey Study	The results on the correlation between social media use and GPA did not indicate any statistically significant differences across many criteria, such as the frequency of daily usage, reasons for using, length of usage, and frequency of checking social

		stratified random sampling		media during lectures. The findings regarding the motivations behind social media usage revealed that a significant proportion of students utilized social media platforms for entertainment (63.6%), social interaction (80.2%), staying informed about current events (65.1%), online shopping (48.4% among females), enhancing productivity during studying (46.4%), and as a means of diversion from schoolwork (51.0%).
2	Ibrahim et al.2024	220 nursing students convenience sample	descriptive correlation al design	On average, the students reported spending 6.41 hours engaging with social media platforms. The study findings revealed that social networking usage had a positive link to the academic achievement of nursing students
3	Sharma et al.2022	258 students of management stratified random	Survey Study	The survey concluded that while students' grade point average has no relationship with the use of WhatsApp, the app can sometimes assist students in their learning and performance. The majority of students spend less than two hours on WhatsApp, and they use it because it is easy, smooth and free to utilize.
4	Bhandar kar et al. 2021	400 undergraduat e medical students Purposive sampling	Cross-sectional study	41.5% of students used social media for upto 3 h per day. Whatsapp (98.25%) and Youtube (91.75%) were the most commonly used social media applications. 73.5% used social media to read health-related news, 71.5% used it to complete assignments and more than 50% used it for seminar preparation, test preparation and research-related purposes. Social media has a negative impact on the academic performance of 21 st century undergraduate medical students.
5	Bou-Hamad 2020	112 undergraduat e students Convenience Sampling	Survey Study	Social media usage was a strong predictor of poor academic performance and Social media usage was negatively influencing the academic performance.
6	Alnjadat et al.2019	328 university students	Cross-sectional study	The average time spent on social media usage was reported as 2-3 h per day. Furthermore, males were more addicted to social media females (49.6%) and

		Simple Random Sampling		(32%), respectively. Additionally, females' academic performance was more influenced by the usage of social media than that of males, although males were more addicted to social media networks.
7	Alamri, 2019	132 undergraduate Students Selected by Simple Random sampling	Survey Study	There were general positive perceptions toward using social media for academic purposes. There also was a statistical significant relationship between the purpose of social media usage and students' GPA. Findings also revealed that there was no statistically impact of students' usage period of social media on GPA. WhatsApp and Twitter were the most preferred social media options used among students whereas Wiki, Facebook and LinkedIn were the lowest options reported.
8	Mushtaq & Benragha, 2018	371 undergraduate students selected by using Simple Random Sampling	Survey Study	The positive impacts of social media among the undergraduates appeared to be higher as compared to negative impacts. Social media do not affect students' academic achievements negatively.
9	Lau, 2017	348 undergraduate students selected through Convenience SAMpling	Survey Study	Using social media for academic purposes was not a significant predictor of academic performance as measured by cumulative grade point average, whereas using social media for non-academic purposes (video gaming in particular) and social media multitasking significantly negatively predicted academic performance.
10	Nsizwan et. al., 2017	68 undergraduate students cluster sampling	Survey Study	Facebook is the most widely used social network amongst the students. Students in the study reported that they spent most of their time on WhatsApp, an application that enables people to chat and send short messages for free. The results of the study indicated that familiarity with social networks results in excessive use of social networks and the time spent on academic activities. The results further showed that time spent on social media predicts students' academic pass rate.

Table-2 Summary of the studies included for Literature analysis

Discussion

Pattern of social media usage

Majority of undergraduate students use social media about 6.41 hours daily (Ibrahim et al., 2024) as they are easy and free to utilize. Two to three hours a day are said to be the typical amount of time spent on social media (Alnjadat et al., 2019). The most preferred social media platform was WhatsApp which was preferred by 98.25 percentages of students (Bhandarkar et al., 2021). Further the study by Nsizwana et al., 2017 concluded that Facebook was a favourite platform for students for making friends and getting updated news and educational information. Male students had a higher social media addiction than their female counterparts (Alnjadat et al., 2019). Of the pupils, 41.5% spent up to three hours a day on social media. The two most widely used social media apps were Youtube (91.75%) and Whatsapp (98.25%) (Bhandarkar et al., 2021). The study conducted by Sakhieva et al., 2024 found that 41.5% of student participants used social media for a maximum of three hours daily. WhatsApp and YouTube were the most frequently used platforms, with usage rates of 98.25% and 91.75%, respectively. A notable 73.5% of participants accessed health-related news through social media, and 71.5% used it for academic obligations, including assignments and seminar preparation. Similarly Sharma et al., 2022 concluded that Students reported using WhatsApp extensively, with many engaging for two to five hours daily, primarily for academic communication.

Influence of social media use on the academic achievement

The results of this literature review showed contradictory views regarding the influence of social media usage on academic performance of undergraduate students. Studies conducted by Ibrahim et al. 2024 and Mushtaq & Benraghda, 2018 have reported positive influence of social media on student academic achievements. In contrast studies by Bhandarkar et al. 2021, Bou-Hamad 2020 and Lau, 2017 revealed that students social media engagement have a negative influence on their academic performance. Research conducted by Sakhieva et al. 2024 and Sharma et al. 2022 found that there was no significant relationship between social media use and academic performance of students. Overall, there were favorable views regarding the use of social media for academic objectives (Alamri, 2019). But excessive social media use has a detrimental effect on academic performance (Bou-Hamad, 2020). Social media usage duration is a predictor of students' academic success rate (Nsizwana et al., 2017). Similarly Sharma et al., 2022, found a positive association between the time spent using WhatsApp and students' grade point averages (GPA). However, while using the app occasionally appeared to help with learning, frequent use—especially during lectures—was associated with lower GPAs. Social interaction was found to be the primary purpose of social media engagement among the undergraduate students followed by information acquisition and entertainment (Sakhieva et al., 2024).

Conclusion

This literature review aimed at analysing social media influence on the academic performance of undergraduate students. The link between social media usage and academic performance of

undergraduate students is complicated. It remains obvious that social media, encourages interaction, networking and seeking academic assistance, encourages procrastination and inadequate attention to timely work. Based on this systematic review, the effect of social media on academic achievement is not general; it depends on the certain aspects such as the subject of the platform, its purpose of use whether it is for education or non-education orientated and the time spent on social media networking. Nevertheless, aiming for educational benefits on the social networks, such networks can aid in developing the peer learning culture, in reaching and communicating effectively with the instructors, and in broader seeking of educational materials. Social media also expands the learning opportunities where students participate in learning activities like projects, discussions, and tracking new developments in their fields through the use of LinkedIn, Facebook academic groups, and Twitter. The review also states the negative consequences when social media is used excessively, in non-academic pursuits. To wrap up, the use of social networks is a determining factor in how social networking influences the academic performance of students. It appears to be very important to minimize the soft and recreational use of the social sites and encourage the students to use them for professional and educational purposes. Educators and institutions also play a fundamental role in advising students on the positive and negative aspects of integrating social media in their studies. This review emphasizes the need for further studies that would allow deeper understanding of the way social media interacts with study activities. In addition, it provides useful recommendations for those who are concerned with education, students and lawmakers aiming to utilize the advantages of the social networks and reduce the harms towards the education process.

Future research directions

An important bearing in future research is the longitudinal studies to be employed so as to enhance understanding of social media and academic performance over time. Comparative studies should also aim at factors such as culture and context as well as individual characteristics like self-regulation that might influence this relationship. In addition to this, a further avenue of this type of research would be to evaluate which social media strategies actually promote greater learning and usage of the media for educational purposes. However, making the progress in decoding how exactly social media benefits students, future works must look for the academic impact of factors that have recently appeared, or whose rapid technological advancement has emerged, in social media, while examining the osmosis between academic performance and mental well-being.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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