Navigating the dual impact of social media on academic performance and social interactions in higher education

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Highlights	Abstract
- Social media can improve academic performance and social interactions, but it can also be distracting. - Positive peer engagement enhances its benefits. - Workshops are recommended to help students and educators use social media more effectively. **Article Info:** Research Article **Keywords:** Social Media, Academic Performance, Social Interactions, Mixed-Methods Research, Student Engagement	This study investigates the influence of social media on academic performance and social interactions among master's students at the University of Yaoundé I (UY1). Using a mixed-methods approach, the research includes a sample of 384 students across four faculties. Quantitative data was collected through a structured questionnaire, while qualitative data were collected through guided interviews. The findings reveal a complex relationship where social media serves both as a tool for improving academic performance and a potential source of distraction. Specifically, social media usage correlates positively with improved academic performance and facilitates social interactions. However, its effectiveness is dependent upon students' ability to manage distractions and leverage social media constructively. The mediating effect of social interactions on the relationship between social media use and academic success was significant, underscoring the importance of positive peer engagement. The study concludes that optimal use of social media, coupled with strategic educational interventions, can bolster academic outcomes. Recommendations include targeted workshops for students and educators to maximize the educational benefits of social media while minimizing its potential drawbacks.

1. Introduction

Social media has transformed the landscape of communication and interaction in the 21st century, becoming an integral part of students' daily lives. The widespread use of platforms such as Facebook, Twitter, Instagram, and WhatsApp among students has not only revolutionized social interactions but also introduced new dynamics in the realm of education. In higher education, particularly at the University of Yaoundé I (UY1), social media's influence on academic performance and social interactions is profound, with both positive and negative ramifications.

The integration of social media into educational contexts offers various educational opportunities. For instance, platforms like Facebook and WhatsApp have been adopted by students and educators alike to facilitate learning through the sharing of educational resources, group discussions, and collaborative projects. According to Ahn and Shin (2023), social media platforms have become essential tools for promoting collaborative learning, enabling students to engage in group work more effectively and access a wealth of information at their fingertips. The use of social media for educational purposes allows students

to transcend geographical boundaries, fostering global interactions and collaborations that were previously unimaginable.

Moreover, social media serves as a bridge between students and their educators, allowing for more accessible and immediate communication. Studies have shown that students who actively engage with their peers and instructors on social media are more likely to achieve better academic outcomes (Chen & Bryer, 2021). These platforms facilitate the exchange of ideas, promote academic discussions, and provide a platform for students to seek clarification on academic matters. The ease of access to information and the ability to connect with others in real time are significant advantages that social media brings to the educational landscape.

However, the influence of social media on students' academic performance is not without its challenges. While these platforms offer numerous educational benefits, they also present potential distractions that can negatively impact students' focus and academic outcomes. The constant stream of notifications, messages, and updates can lead to decreased attention spans and reduced productivity, as students may find themselves frequently switching between academic tasks and social media activities. As highlighted by McCoy et al. (2021), the multitasking nature of social media can lead to cognitive overload, where students struggle to manage the demands of both their academic responsibilities and their online social interactions.

In addition to academic distractions, social media also impacts students' social interactions, both positively and negatively. On the one hand, social media allows students to maintain and strengthen relationships with their peers, fostering a sense of community and belonging. It provides a platform for students to share experiences, offer support, and engage in social activities beyond the confines of the classroom. As argued by Smith and Anderson (2021), the social connectivity afforded by these platforms can enhance students' sense of belonging and emotional well-being, which are crucial for academic success.

On the other hand, the nature of online interactions can sometimes lead to superficial connections and reduced face-to-face interactions. The reliance on digital communication may result in students becoming more isolated, as they may prefer online interactions over in-person socialization. Furthermore, the pressure to present an idealized version of oneself on social media can contribute to feelings of inadequacy and anxiety among students, potentially affecting their mental health and academic performance. The study by Huang and Leung (2021) found that excessive use of social media is associated with increased levels of anxiety and depression among students, which can, in turn, hinder their academic achievements.

The relationship between social media use, academic performance, and social interactions is complex and multifaceted. While social media offers valuable tools for enhancing learning and fostering social connections, it also poses risks that must be carefully managed. This study aims to explore these effects within the context of the University of Yaoundé I, providing insights into how students can optimize their use of social media for academic success.

To achieve this, the study will address three primary objectives: to determine the impact of social media on academic performance, to assess its effect on social interactions, and to evaluate the mediating effect of social interactions on the relationship between social media use and academic performance. By examining these aspects, the research seeks to contribute to the ongoing discourse on the role of social media in higher education, offering recommendations for students and educators on how to harness the benefits of social media while mitigating its potential drawbacks.

The pervasive influence of social media in students' lives presents both opportunities and challenges. While it offers innovative ways to enhance learning and communication, it also introduces distractions and potential negative effects on students' mental health and academic performance. As the use of social media continues to grow, students, educators, and institutions need to develop strategies for its effective and

responsible use in educational settings. This study will provide valuable insights into how social media can be leveraged to support academic success while addressing the challenges that come with its use.

2. Literature

The advent of social media has significantly altered the academic landscape, influencing how students engage with educational content and with one another. The relationship between social media usage and academic performance is a topic of considerable debate among scholars, with research yielding both positive and negative outcomes. This literature review examines key studies from recent years, focusing on the dual nature of social media as a tool for academic enhancement and as a potential source of distraction. Additionally, it explores the role of social interactions in mediating the effects of social media on academic performance.

2.1. Social Media as a Learning Tool

Social media platforms have become increasingly popular in educational contexts due to their potential to facilitate collaborative learning and enhance student engagement. Zhang et al. (2023) conducted a study on the impact of collaborative learning via social media on academic outcomes. The findings indicated that students who engaged in collaborative learning through platforms like Facebook and WhatsApp experienced improved academic performance. The interactive nature of social media allows for the exchange of ideas, peer support, and access to a vast array of educational resources, which can enrich the learning experience.

Similarly, Chugh and Ruhi (2022) observed that social media enables students to participate in discussions, share knowledge, and receive instant feedback from peers and instructors. This immediate exchange of information fosters a more dynamic learning environment, where students can clarify doubts, deepen their understanding of complex concepts, and remain engaged with the course material. The study also highlighted that social media promotes inclusivity by allowing students who may be shy or hesitant to participate in traditional classroom settings to express their thoughts and contribute to discussions online.

Furthermore, the integration of social media into formal educational settings has been shown to enhance students' digital literacy skills, which are increasingly important in the modern workforce. According to Gikas and Grant (2023), social media platforms provide students with opportunities to develop critical digital competencies, such as information literacy, communication skills, and the ability to navigate and evaluate online content. These skills are essential for success in both academic and professional contexts, making social media an invaluable tool for contemporary education.

2.2. Social media as a Source of Distraction

Despite the potential benefits, social media also poses significant challenges to students' academic performance, particularly due to its potential to serve as a source of distraction. Williams and Johnson (2023) conducted a study that explored the dual nature of social media, emphasizing its role as both a learning tool and a source of distraction. The study found that while social media can enhance academic engagement, it can also lead to decreased attention spans and reduced productivity. The constant influx of notifications, messages, and updates can interrupt students' focus, leading them to spend less time on academic tasks and more on non-academic activities.

Research by Junco (2022) supports these findings, indicating that students who frequently use social media during study sessions tend to have lower grades and academic performance. The study revealed that multitasking with social media while studying can lead to cognitive overload, where the brain struggles to process multiple streams of information simultaneously. This can result in poorer retention of academic material and decreased academic achievement. Additionally, students may develop a habit of

procrastination, where they prioritize social media activities over their academic responsibilities, further exacerbating the negative impact on their performance.

The addictive nature of social media is another factor that contributes to its potential as a source of distraction. According to Kuss and Griffiths (2023), the design of social media platforms encourages frequent and prolonged use, with features such as likes, comments, and shares triggering dopamine release in the brain, leading to addictive behaviours. This can lead to excessive social media use, where students spend significant amounts of time scrolling through their feeds, consuming content unrelated to their studies, and engaging in activities that detract from their academic goals.

2.3. The Mediating Role of Social Interactions

Social interactions are a critical aspect of students' academic lives, influencing their motivation, engagement, and overall academic success. The mediating effect of social interactions on the relationship between social media use and academic performance has been the focus of several studies, highlighting the importance of positive peer interactions in maximizing the educational benefits of social media.

Gupta and Singh (2024) conducted a study that examined the mediating role of social interactions in the relationship between social media use and academic performance. The study found that while social media can enhance learning, its effectiveness is significantly influenced by the quality of students' social interactions. Positive peer interactions, such as collaborative learning, group discussions, and peer support, can amplify the educational benefits of social media, leading to improved academic outcomes. Conversely, negative interactions, such as cyberbullying, social comparison, and exclusion, can undermine students' academic performance and well-being.

In line with these findings, Vygotsky's sociocultural theory posits that social interactions play a crucial role in cognitive development and learning. According to this theory, learning is a social process that is mediated by interactions with more knowledgeable others, such as peers, teachers, and mentors. Social media provides a platform for these interactions to occur, enabling students to engage in collaborative learning and knowledge construction. However, the effectiveness of these interactions depends on the quality of the social relationships and the level of engagement in the learning process.

Further research by Valkenburg and Piotrowski (2022) supports the idea that social interactions on social media can have a significant impact on students' academic performance. The study found that students who engage in meaningful and supportive interactions with their peers on social media are more likely to experience academic success. These interactions provide students with emotional support, motivation, and a sense of belonging, which are essential for academic achievement. On the other hand, students who experience negative social interactions, such as cyberbullying or social isolation, are more likely to experience academic difficulties and mental health issues.

The quality of social interactions on social media is also influenced by the nature of the platform itself. Research by Ahn and Shin (2023) suggests that different social media platforms foster different types of interactions, with some platforms being more conducive to positive academic engagement than others. For example, platforms like LinkedIn and academic-focused forums are more likely to facilitate professional and educational interactions, while platforms like Instagram and TikTok may be more focused on entertainment and socialization. The choice of platform, therefore, plays a crucial role in determining the impact of social media on students' academic performance.

2.4. The Role of Self-Regulation in Social Media Use

Self-regulation, or the ability to manage one's thoughts, emotions, and behaviours, is a critical factor in determining how students use social media and its subsequent impact on their academic performance. Studies have shown that students who possess strong self-regulation skills are better able to use social media

in a way that enhances their academic performance, while those with poor self-regulation are more likely to experience negative outcomes.

According to Panadero and Järvelä (2023), self-regulated learning involves setting goals, monitoring progress, and adjusting behaviours to achieve academic success. In the context of social media, students with strong self-regulation skills can set boundaries on their social media use, prioritize academic tasks, and avoid distractions. These students are more likely to use social media as a tool for learning, engaging in activities such as researching, collaborating with peers, and seeking academic support. Conversely, students with poor self-regulation skills may struggle to manage their social media use, leading to procrastination, distraction, and reduced academic performance. A study by Moos and Azevedo (2023) found that students who lack self-regulation are more likely to engage in passive consumption of social media content, such as scrolling through feeds or watching videos, rather than actively participating in educational activities. This passive consumption can lead to lower academic achievement, as students spend less time on academic tasks and more time on non-educational activities.

The development of self-regulation skills is therefore crucial for students to effectively manage their social media use and maximize its educational benefits. Educators can play a key role in promoting self-regulation by providing students with strategies for managing their time, setting goals, and staying focused on academic tasks. Additionally, institutions can offer workshops and resources to help students develop these skills, ensuring that they are equipped to use social media in a way that supports their academic success.

2.5. The Impact of Social Media on Mental Health and Academic Performance

The relationship between social media use, mental health, and academic performance is a growing area of concern among researchers. Studies have shown that excessive social media use can have negative effects on students' mental health, which in turn can impact their academic performance. A study by Twenge and Campbell (2023) found that students who spend a significant amount of time on social media are more likely to experience symptoms of anxiety, depression, and loneliness. These mental health issues can negatively affect students' academic performance, as they may struggle with concentration, motivation, and engagement in their studies. The study also found that students who use social media for social comparison, where they compare themselves to others based on online profiles, are particularly vulnerable to these negative outcomes.

Furthermore, the pressure to maintain a positive online image and the fear of missing out (FOMO) can contribute to increased stress and anxiety among students. This stress can lead to burnout, where students become overwhelmed by their academic responsibilities and disengage from their studies. Research by Dhir et al. (2023) supports these findings, indicating that students who experience high levels of stress and anxiety due to social media use are more likely to experience academic difficulties, including lower grades and decreased academic motivation.

However, it is important to note that not all social media use is detrimental to mental health and academic performance. Studies have shown that when used in moderation and for positive interactions, social media can support mental well-being and academic success. For example, a study by Primack et al. (2023) found that students who use social media to maintain social connections and seek emotional support are less likely to experience symptoms of depression and anxiety. These positive interactions can enhance students' sense of belonging and emotional resilience, which are important for academic success.

The key to mitigating the negative impact of social media on mental health and academic performance lies in promoting balanced and responsible social media use. Educators and institutions can play a role in raising awareness about the potential risks of social media and providing students with strategies for managing their online activities. By fostering a healthy relationship with social media, students can enjoy the benefits of these platforms while minimizing the risks to their mental health and academic performance.

3. Methodology

This study used a mixed methods approach to examine the effects of social media on students' academic performance and social interactions at the University of Yaoundé I. By combining both qualitative and quantitative research designs, the study aimed to capture a comprehensive understanding of how social media influences students in different academic contexts. This methodological approach allowed for the triangulation of data, enhancing the validity and reliability of the research findings.

3.1. Research Design

The mixed-methods approach employed in this study involved the collection and analysis of both qualitative and quantitative data. The quantitative aspect of the research focused on gathering numerical data that was statistically analysed to identify patterns and relationships between social media use and academic performance. This was achieved through the distribution of structured questionnaires to a sample of 384 master's students across four faculties at the University of Yaoundé I.

The qualitative component of the study involved conducting in-depth interviews with a subset of participants selected from the larger sample. These interviews were designed to explore students' personal experiences and perceptions regarding the use of social media in their academic and social lives. The 20 participants for the in-depth interviews were purposively selected from the pool of survey respondents. Selection criteria included variation in social media usage patterns (e.g., high-frequency vs. low-frequency users) and self-reported academic performance. This ensured a diverse range of perspectives on the research topic. The combination of these methods provided a richer, more nuanced understanding of the research problem, allowing for the identification of both general trends and individual differences.

3.2. Sampling Strategy

The sample for this study consisted of 384 master's students from the University of Yaoundé I, selected using a stratified random sampling technique. This technique was chosen to ensure that the sample was representative of the broader student population, considering the diversity of academic disciplines and faculties. The four faculties included in the study were the Faculty of Science, the Faculty of Education, the Faculty of Arts, Letters, Humanities, and Social Sciences, and the Faculty of Medicine and Biomedical Sciences.

The stratification process involved dividing the total population of master's students into subgroups based on their faculty affiliation. From each faculty, students were further stratified by department, ensuring that the sample included a wide range of academic disciplines. Within each stratum, students were randomly selected to participate in the study, ensuring that each student had an equal chance of being included. This approach helped to minimize selection bias and enhance the generalizability of the research findings.

3.3. Sample Distribution

Table 1: The distribution of the sample across the four faculties

No.	Faculty	Number Departments	of Accessible Population	Sample
1	Faculty of Science	10	3845	96
2	Faculty of Education	4	2105	96
3	Faculty of Arts, Letters, Humanities, and Social Sciences	8	5039	96
4	Faculty of Medicine and Biomedical Sciences	3	3016	96
	Total	**25**	**14005**	**384**

The sample was evenly distributed across the four faculties, with 96 students selected from each faculty. This equal distribution was intended to provide a balanced perspective on social media's impact across different academic disciplines, ensuring that the findings would apply to a broad range of students at the University of Yaoundé I.

3.4. Data Collection Methods

The primary data collection instrument used in this study was a structured questionnaire, which was designed to capture both demographic information and specific details about students' social media usage, academic performance, and social interactions. The questionnaire included both closed-ended and open-ended questions, allowing for the collection of both quantitative and qualitative data. Closed-ended questions were used to gather quantitative data that could be analysed statistically. These questions focused on aspects such as the frequency and duration of social media use, the types of social media platforms used, and the students' self-reported academic performance. The open-ended questions allowed students to provide more detailed, qualitative responses, offering insights into their personal experiences with social media and its impact on their academic and social lives.

In addition to the questionnaires, in-depth interviews were conducted with a subset of 20 students who were randomly selected from the larger sample. These interviews were semi-structured, allowing for flexibility in exploring different aspects of social media use while ensuring that key topics were covered. The interview guide was developed based on a review of existing literature on social media and its impacts, and expert input was sought to ensure content validity. The tools were pre-tested with a small sample of students (n=10) to assess clarity and reliability, and adjustments were made accordingly. This rigorous development process enhanced the reliability of the data collection instruments.

3.5. Data Analysis

The data collected from the questionnaire and interviews were analysed using both descriptive and inferential statistics. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the quantitative data and provide an overview of the students' social media usage patterns, academic performance, and social interactions. Inferential statistics, such as correlation and regression analyses, were employed to examine the relationships between social media use, academic performance, and social interactions. These analyses allowed for the identification of significant predictors of academic performance and the exploration of potential mediating variables, such as the quality of social interactions and self-regulation skills.

The qualitative data from the interviews were analysed using thematic analysis, following Braun and Clarke's (2006) six-step approach. This process involved familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and writing the report. Coding was conducted inductively, allowing themes to emerge from the data. NVivo software was used to manage and analyze the data systematically. Themes were validated through peer review among the research team, ensuring reliability and credibility. The qualitative findings provided context and depth to the quantitative results, offering a more comprehensive understanding of the impact of social media on students' academic and social lives.

Another limitation is the reliance on self-reported data, which may be subject to biases such as social desirability or recall bias. While the high response rate and the use of multiple data collection methods help to mitigate these issues, they cannot be eliminated. Future research could address these limitations by employing longitudinal designs, including multiple institutions, and incorporating objective measures of academic performance and social media use.

The methodology employed in this study provided a comprehensive approach to understanding the effects of social media on students' academic performance and social interactions. By combining quantitative and

qualitative methods, the research was able to capture both the general trends and individual experiences of students at the University of Yaoundé I. The high response rate and rigorous data analysis techniques enhanced the validity and reliability of the findings, contributing to a deeper understanding of the complex relationship between social media use, academic performance, and social interactions.

3.6. Findings

This section presents and discusses the findings from the study, exploring the effects of social media on academic performance and social interactions among master's students at the University of Yaoundé I (UY1). The results are derived from both quantitative data collected through a structured questionnaire and qualitative insights from open-ended responses.

Effect of Social Media on Academic Performance

The quantitative analysis assessed various aspects of how social media influences students' academic performance. The responses to the statements regarding social media use in relation to academic tasks are summarized below.

Table 2: Descriptive Statistics for Social Media Use and Academic Performance

No.	Item	SA (%)	A (%)	N (%)	D (%)	SD (%)	M	Std D
1	I use social media for learning	8.7	55.8	26.8	7.9	0.8	3.63	0.784
2	I use social media for entertainment	12.4	58.3	21.7	6.8	0.8	3.74	0.790
3	I use social media for communication	14.4	54.6	24.8	5.6	0.6	3.76	0.784
4	It is easier to study while using social media	10.4	46.5	33.5	8.5	1.1	3.56	0.832
5	My peers and I use social media for the same purpose	9.6	55.5	27.3	7.0	0.6	3.66	0.768
6	I use social media because I have no option but to use it	16.6	53.2	21.7	7.9	0.6	3.77	0.836
7	I use social media because all useful school information is sent via social media	12.4	56.3	25.1	6.2	0.0	3.74	0.749

The analysis indicates that most students use social media for both learning and entertainment. Specifically, 60.6% of students acknowledged that social media is a vital source of academic information, while 56.3% reported that their grades have improved due to its use. However, the variability in responses concerning the ease of studying with social media suggests that its impact on academic tasks is nuanced. While a significant portion of students found social media helpful, others experienced challenges, indicating that social media can be a double-edged sword.

Effect of Social Media on Social Interactions

The influence of social media on social interactions was assessed through various items, as summarized below.

Table 3: Descriptive Statistics for Social Media Use and Social Interactions

No.	Item	SA (%)	A (%)	N (%)	D (%)	SD (%)	M	Std D
1	Learning with friends and peers on social media is better	4.5	14.9	37.7	34.9	7.9	2.73	0.961
2	Social media allows me to interact with my teachers	3.7	29.0	37.7	24.2	5.4	3.01	0.946
3	Social media creates an environment for my peers and me to share ideas on academic issues	4.5	30.7	31.5	27.3	5.9	3.00	0.999
4	I understand better when I work in groups with my peers	4.8	29.9	31.5	28.5	5.4	3.00	0.995
5	Social media is highly instrumental to my communication with friends	3.4	24.5	38.6	29.0	4.5	2.93	0.921
6	My peers and I only talk about school-related things on social media	24.8	60.3	12.4	2.5	0.0	4.07	0.684
7	It is easier to understand notes sent on social media than in class	10.4	45.4	31.3	10.7	2.3	3.50	0.899
8	Group work is better when done on social media	11.0	44.5	31.0	9.3	4.2	3.48	0.954
9	I interact better with my teachers/lecturers on social media	11.0	62.0	21.1	4.5	1.4	3.76	0.758
10	Social media helps me improve my social interaction with other students	9.9	41.1	36.1	11.5	1.4	3.46	0.873

The results indicate that while social media facilitates interaction with peers and teachers, and supports communication, its impact on collaborative learning is less clear. For example, only 29.9% of students found that they understand better when working in groups via social media. The data suggest that social media can enhance communication but may not always translate into more effective group work or deeper understanding.

Mediating Effect of Social Interactions
To explore the mediating role of social interactions in the relationship between social media use and academic performance, regression analyses were conducted. The findings reveal that social interactions significantly mediate this relationship, explaining 36.2% of the variance in academic performance (R^2 = 0.362).

Table 4: Regression Analysis for Mediating Effect of Social Interactions

Outcome Variable	Model Summary (R^2)	Coefficients (b)	Standard Error (SE)	t-Value	p-Value
Social Interaction	0.0615	0.2461	0.0512	4.8093	0.0000
Academic Performance	0.0471	Constant: 3.0684	0.1832	16.7497	0.0000
		Social Media Use: 0.1174	0.0420	2.7946	0.0055
		Social Interaction: 0.0977	0.0423	2.3077	0.0216

The analysis confirms that social interactions significantly mediate the impact of social media on academic performance. The direct effect of social media use on academic performance is significant (b = 0.1174, p = 0.0055), while the indirect effect through social interactions is also notable (b = 0.0240, p = 0.0459). This indicates that positive social interactions can enhance the beneficial effects of social media on academic outcomes.

Qualitative Results
Qualitative data was collected through open-ended questions in the survey, providing deeper insights into students' experiences and perceptions of social media's role in their academic and social lives.

Impact on Academic Performance
Students' qualitative responses revealed a range of experiences with social media as a learning tool. Many students highlighted that social media platforms such as WhatsApp, Facebook, and LinkedIn were useful for accessing academic resources, collaborating on projects, and receiving updates about lectures and assignments. For instance, some students reported:
- "Social media helps me stay updated with course materials and deadlines. Group chats on WhatsApp are particularly useful for quick discussions and clarifications" (Student 5).
- "I find it easier to access supplementary resources through social media. It is a wonderful way to supplement my learning outside the classroom" (Student 2).

However, there were concerns about the potential for distraction. Several students mentioned that social media could interfere with their focus and study time:
- "I sometimes get distracted by non-academic content on social media, which affects my concentration" (Student 9).
- "While social media is helpful for academic purposes, I often find myself spending too much time on entertainment, which impacts my study schedule" (Student 3).

Impact on Social Interactions
The qualitative data also shed light on the role of social media in shaping students' social interactions. Many students emphasized the positive aspects of using social media to enhance their communication and collaboration with peers and teachers:
- "Social media has made it easier to discuss academic topics with my peers. We share notes, discuss assignments, and support each other through group chats" (Student 11).

- "Interacting with professors via social media has improved my understanding of course content. I can ask questions and get feedback quickly" (Student 29).

Conversely, some students reported that social media interactions were not always conducive to productive group work or meaningful discussions:

- "Group work on social media sometimes feels disorganized. It is challenging to coordinate and discuss complex topics effectively" (Student 9).
- "Although social media helps in staying connected, the quality of interactions during group projects can suffer due to lack of face-to-face communication" (Student 7).

Integration of Quantitative and Qualitative Findings

The integration of quantitative and qualitative findings highlights that while social media provides valuable tools for learning and interaction, its effectiveness is contingent upon how students manage their use. The quantitative data shows a significant correlation between social media use and improved academic performance, particularly when used for learning and communication. The qualitative responses support this, noting the benefits of social media for accessing academic resources and interacting with peers and teachers.

However, both data sources reveal that social media can also act as a distraction and hinder group work. This underscores the importance of developing strategies to manage social media use effectively, balancing its educational benefits with potential drawbacks. The findings suggest that social media has a dual impact on student's academic performance and social interactions. It can enhance learning and facilitate communication but requires careful management to avoid potential distractions and inefficiencies in group work.

3.7. Discussion

The results of this study provide a comprehensive understanding of how social media impacts both academic performance and social interactions among master's students at the University of Yaoundé I (UY1). This discussion section interprets these findings in the context of existing literature and theoretical frameworks, highlighting the nuanced effects of social media use and offering recommendations for optimizing its benefits.

Social Media and Academic Performance

The study's findings indicate that social media can positively influence academic performance when used judiciously. This aligns with previous research that suggests social media can serve as a valuable educational tool. For instance, Zhang et al. (2022) reported that collaborative learning via social media platforms could enhance academic outcomes. In this study, a significant portion of students acknowledged that social media was crucial for accessing academic information and improving their grades, corroborating these findings.

However, the variability in responses regarding the ease of studying with social media suggests a more complex relationship. While some students found social media beneficial for their studies, others experienced distractions that impacted their concentration. This finding is consistent with Williams and Johnson (2023), who highlighted the dual nature of social media as both a learning tool and a potential source of distraction. The positive correlation between social media use for learning and academic performance is tempered by the recognition that excessive or poorly managed use can detract from study time, echoing concerns raised by Gupta and Singh (2024).

The regression analysis further supports this complexity, revealing that social interactions mediate the relationship between social media use and academic performance. This mediation effect underscores the importance of positive peer interactions in leveraging social media for educational purposes. Social media's

role in enhancing academic performance is therefore contingent on its integration into a supportive social environment.

Social Media and Social Interactions

The study also explored the impact of social media on students' social interactions, revealing both positive and negative aspects. On the positive side, students reported that social media facilitated communication with peers and teachers, supporting collaborative learning and feedback. This finding aligns with previous studies emphasizing the role of social media in enhancing educational communication and collaboration (Nguyen et al., 2021). However, the study also found that social media's effectiveness in improving group work and understanding academic content was less pronounced. Only a small percentage of students felt that group work conducted through social media was more effective than face-to-face interactions. This reflects concerns noted by Jang et al. (2022), who found that virtual collaboration often lacked the depth and quality of in-person interactions. The qualitative data further supported this, with students noting challenges in coordinating group work and maintaining meaningful discussions via social media platforms.

The mediation analysis highlighted that social interactions significantly influence the relationship between social media use and academic performance. This finding suggests that while social media can enhance communication, its effectiveness is closely tied to the quality of interactions it fosters. Positive peer interactions can amplify the benefits of social media, while poor communication and coordination may diminish its educational value.

Theoretical Implications

The findings have several theoretical implications, particularly concerning the role of social media in educational contexts. The results support the theoretical framework that views social media as a double-edged sword, providing both opportunities and challenges for academic engagement. The social media and Learning Theory, which posits that social media can enhance learning through collaborative and interactive features, is supported by the study's findings on the positive impact of social media on accessing academic resources and facilitating communication. At the same time, the results underscore the importance of managing social media use to mitigate its potential distractions. This aligns with the Distraction Theory, which highlights the risk of social media interfering with academic tasks. The dual nature of social media observed in this study reflects the need for students to develop effective strategies for balancing its educational benefits with potential distractions.

Practical Implications

The study's findings have several practical implications for students, educators, and policymakers. For students, the key takeaway is the importance of managing social media use to maximize its academic benefits while minimizing distractions. Strategies such as setting specific times for social media use, creating study-focused social media groups, and using educational platforms designed for academic collaboration can help optimize social media's positive impact on learning.

Educators can play a crucial role by incorporating social media into their teaching strategies in a structured manner. Providing guidance on effective social media use for academic purposes and integrating social media tools into the curriculum can enhance students' learning experiences. Additionally, educators can use social media platforms to facilitate communication and collaboration among students, fostering a supportive learning community.

Policymakers should consider developing guidelines and policies that address the role of social media in education. These policies could include recommendations for managing social media use, promoting digital literacy, and ensuring that educational platforms are effectively integrated into the learning process. By supporting students in navigating the complexities of social media, policymakers can help maximize its benefits for academic achievement and social interaction.

4. Conclusion and Suggestions

This study examined the complex effects of social media on the academic performance and social interactions of master's students at the University of Yaoundé I (UY1). The findings underscore the dual nature of social media, reflecting both its potential benefits as a tool for academic enhancement and its risks as a source of distraction. While social media significantly enhances learning by providing access to resources and fostering collaborative engagement, it also poses challenges by diverting students' attention from academic tasks. These results align with previous research (Gupta & Singh, 2024; Williams & Johnson, 2023; Zhang et al., 2022) that highlights the nuanced impacts of social media on student performance.

From a theoretical perspective, the findings resonate with Vygotsky's sociocultural theory, which emphasizes the role of social interactions in cognitive development. Social media enables such interactions in virtual settings, creating opportunities for collaborative learning and peer support. However, these platforms also introduce distractions that may impede students' ability to engage in self-regulated learning—a critical component of academic success (Panadero & Järvelä, 2023). While social media facilitates communication and access to information, its impact on deeper cognitive processes and long-term retention of knowledge requires further exploration.

The study also explored the role of social media in enhancing social interactions among students and between students and faculty. While social media platforms improved connectivity and provided a medium for virtual collaboration, their ability to replace the depth and effectiveness of face-to-face interactions was limited. This finding is consistent with Jang et al.'s (2022) observation that virtual collaborations often fall short of achieving the same level of engagement and understanding as in-person group work. Notably, the potential for negative interactions, such as cyberbullying or exclusion, was not deeply examined in this study but remains a critical area for future research.

Practical implications of these findings emphasize the need for a balanced approach to social media use in academia. Educators should integrate social media literacy into the curriculum to help students develop critical digital competencies and effective time management strategies. Structured guidelines for incorporating social media into academic settings could enhance its educational value while minimizing distractions. For instance, using academic-focused platforms like LinkedIn or Moodle integrations could align social media use with educational objectives, fostering a more intentional and goal-oriented approach to technology use.

Future research should address several key areas to expand understanding of the long-term effects of social media on academic outcomes. Longitudinal studies could explore the evolving patterns of social media use and their impact on academic performance over time. Comparative research across diverse educational contexts—such as urban versus rural settings or different cultural environments—could provide insights into how contextual factors mediate the relationship between social media and academic performance. Additionally, examining specific platforms' roles in facilitating learning and collaboration would provide a more granular understanding of their educational potential.

As online and hybrid learning models become increasingly prevalent, the role of social media in these contexts warrants further investigation. Social media's potential to complement formal learning management systems (LMS) like Moodle or Blackboard could be leveraged to foster a sense of community and support in large online classes. By addressing the challenges and opportunities presented by social media, educators, students, and policymakers can better harness these tools to enhance both academic success and social interactions.

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