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Social Media and Secondary School Students: How Online Engagement Affects Agricultural Science Academic Performance

Sunday Paul Adegoke[1*], Titilayo Iyabode Mamadelo Okanlawon[2], Peter Olubunmi Adeniji[3]
[1]Institute of Education, University of Ibadan, Nigeria
[2]National Examinations Council, Nigeria
[3]Institute of Education, Ekiti State University, Nigeria

*Corresponding author: greatspaul@gmail.com

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Abstract

Social media's rise has revolutionized how students engage, learn, and communicate. While social media offers benefits such as collaboration, networking, and information sharing, it also poses risks to academic success. This study investigates the impact of social media on academic performance among senior secondary school students in Ogbomoso, Oyo State. A survey of 300 S.S.2 students revealed that over half engage with social media daily. The primary purposes of social media use were sharing photos and videos (24.3%), accessing current events and news (20.7%), and learning new skills. However, only 37% of students used social media for academic purposes. Smartphones were the preferred device for accessing social media, with 82.3% of students using them, despite concerns about distractions, cyberbullying, and negative mental health effects. The study found a negligible relationship ($r = 0.057$, $p>0.05$) between social media use and academic performance in agricultural science. This suggests that social media use does not significantly impact academic achievement in this subject area. However, the study emphasizes the need for responsible social media guidelines and collaboration between educators, parents, and students to balance the benefits and risks of social media on academic engagement. Further research is recommended to better understand the nuanced relationship between social media usage, assessment practices, and academic outcomes in specific educational contexts. This study highlights the need for targeted strategies to promote responsible and purposeful social media use, ensuring it supports rather than hinders students' achievement in agricultural science.

***Keywords**: Assessment, Technology, Internet, Platform, Information*

INTRODUCTION

Social media allows individuals and organizations to express themselves and interact with others by creating profiles. This development has influenced both personal and professional spheres, enabling two-way communication and swift information dissemination. As Kaplan and Haenlein (2010) define, social media networks are dynamic platforms that rapidly transmit vast amounts of information to millions globally. They offer accessible, cost-effective means to publish, share, and connect (Prykhodkina and Makhynia, 2020).

Today, integrating technology with social media is seen as essential to communication. The internet has become a powerful social tool, shaping daily routines. Platforms like Myspace Web 2, Facebook, LinkedIn, and Twitter have transformed electronic communication (Kaplan and Haenlein 2010). Over the past decade, social media has significantly changed online behavior, with users across age groups regularly sharing experiences, emotions, and multimedia content (Bokase, 2023). Social

media is especially popular among youth aged 16–24, who use it to connect, share information, and express social identity (Bokase, 2023).

In education, social media fosters connections between educators and students, enhancing knowledge exchange (Sankar and Pushpa, 2020). It improves communication and academic outcomes, though concerns exist over its negative educational effects (Haipinge, 2018). Cai et al. (2025) define social media as a platform that enables communication and information exchange within online communities. The global internet revolution has accelerated information sharing and storage (Cai et al, 2025), and many digital technologies tied to social media have impacted society both positively and negatively (Nixon, 2014).

College students form a significant portion of social media users. Research by Lenhart et al (2010) found that 45% of college students use social media daily, and 72% have active profiles. Young adults use these platforms to engage with peers and strangers alike, creating new channels for interaction. The rise of social networking sites has transformed education, particularly in research, learning, and communication (Roshandel et al, 2018). The adoption of digital tools, such as smartphones and the internet, has deeply influenced social behavior and education (Hoehe and Thibaut, 2020). Platforms like Facebook, Twitter, YouTube, and Instagram are now educational mainstays.

According to Wheeler et al (2008), social media offers four key benefits in higher education: strengthening relationships, increasing motivation, providing customized course content, and fostering collaboration. Yet, increased use among secondary school students raises concerns. Vogels et al. (2022) showed that 95% of American teens aged 13–17 have smartphone access. Similarly, Anderson et al (2023) reported that 89% of teens own smartphones, and 70% are active social media users. Vogels et al. (2022) found that 43% of tweens (ages 8–12) and up to 95% of teens (ages 13–18) own smartphones. Over half of American children get their first smartphone by age 11 (Rideout et al., 2022). While other researchers highlight the educational benefits of social media, others warn that non-academic distractions, like idle chatting, are prevalent (Pokhrel and Chhetri, 2021). Digital addiction—a term encompassing compulsive and harmful use of digital devices, including social media—poses risks to users' mental and physical well-being (Meng et al., 2022; Al-Khani et al., 2021; Singh and Singh, 2019; Christakis, 2019). Students today are growing up immersed in digital environments, increasing the risk of overexposure and potential developmental setbacks.

Anderson et al (2023) found that many students spend around 30 minutes daily on social networking sites. The academic impact of social networks remains debated. Some research suggests positive outcomes, while others highlight negative effects, showing the complex relationship between social media use and academic performance. For instance, Kirschner and Karpinski (2010) argued that academic use of social media does not predict academic success, whereas Hassell and Sukalich (2016) found that non-academic use is linked to poorer outcomes. Vogels, et al. (2022) report noted a negative correlation between time on social networking sites and academic performance. This duality underscores ongoing debates on social media's role in education. While some believe it enhances knowledge acquisition and social interaction (Manca and Ranieri, 2016), others caution against its distractions and psychological risks. Junco and Cotten (2012) found that students using Facebook during class had lower GPAs. Similarly, Junco (2012) observed that high social media use is tied to procrastination, reduced attention, and shorter study sessions, all of which hinder academic success.

Beyond academic concerns, social media can intensify issues like cyberbullying, affecting students' mental health and performance. Patchin and Hinduja (2024) reported that victims of cyberbullying experience anxiety, depression, and lower academic achievement. Nixon (2014) also linked cyberbullying to low self-esteem, increased stress, and poor academic outcomes. Despite these concerns, social media can have a positive impact on student achievement. Wang and Mark. (2018) found that students who used social media for academic purposes had higher GPAs. Bedua et al. (2021) reported increased motivation and engagement among students who used social media in classrooms. These platforms also enhance collaboration. Students engaged in social media-based group learning demonstrated more interest and participation (Bedua et al. 2021). Likewise, Kaplan and Haenlein (2010) noted that social media usage for networking supported students' professional and academic development.

A study by Chandrasena and Ilankoon, (2021) found that 79% of students believed the internet and social networks positively impacted their academic performance. Similarly, Kuh (2009) found a positive link between social media use and student engagement, a strong indicator of academic success.

Subrahmanyam and Greenfield (2008) observed that young people increasingly blur the line between virtual and real worlds, with media technologies shaping their social and psychological development. Overall, the connection between academic performance and social media is intricate. While these platforms can lead to distractions, cyberbullying, and mental health concerns, they also offer tools for collaboration, engagement, and academic support. Educators must guide students in responsible use to maximize learning while minimizing risks.

The increasing popularity of platforms like Facebook, Instagram, Twitter, and Snapchat has sparked growing concern among educators, parents, and researchers about their effect on students, particularly in senior secondary schools. While the influence of social media on university students is well documented, its impact on high school students requires further investigation. Despite its potential as a learning tool, social media is also a significant distraction, often tied to reduced academic performance and mental well-being. Addressing these issues requires collaboration among schools, families, and learners to develop guidelines promoting responsible social media use and prioritizing educational goals over screen time. A comprehensive understanding of this complex dynamic is crucial, as research remains divided; studies highlight benefits, others reveal drawbacks, and the full scope of social media's academic influence is yet to be completely understood.

Agricultural science students' learning behaviors and assessment practices are significantly influenced by their engagement with social media platforms. These students frequently utilize platforms such as WhatsApp, Facebook, and Instagram for both academic and social purposes. For instance, Orifah et al. (2017) found that Nigerian agricultural undergraduates primarily use social media to connect with friends (mean = 3.68), keep up with global governance trends (mean = 3.63), and participate in educational research and collaboration (mean = 3.57). Notably, WhatsApp is used by 100% of respondents for communication and group discussions related to coursework, highlighting its central role in facilitating collaborative learning and peer interaction. The collaborative nature of social media use among agricultural science students enhances essential skills such as problem-solving, communication, and teamwork, which are critical for their academic assessments (Orifah et al., 2017). Social media also supports innovative assessment formats, including peer feedback and reflective writing, which encourage active learning and critical thinking (Song et al, 2023).

However, there are challenges associated with social media use. Excessive engagement in non-academic activities and poor time management, often facilitated by smartphones, which are the primary access device for 82.3% of students-can negatively impact academic performance (Lukose and Agbeyangi, 2025). Additionally, concerns about academic integrity and the reliability of information shared on these platforms persist, requiring students and educators to be vigilant about content quality ((Song et al, 2023). Beyond classroom learning, social media is a vital resource for agricultural education extension. Ghadei and Jyoti (2017) reported that 68% of agricultural graduate students actively search for new agricultural information and technologies online, which supports both their research and practical fieldwork. This demonstrates that, when used responsibly and purposefully, social media can be a powerful tool for enhancing learning behaviors and supporting academic success in agricultural science.

Studies on social media's role in agricultural education and extension are inconsistent, reflecting diverse findings across contexts and stakeholders. Some studies highlight social media as a transformative tool that enhances extension services and farmer engagement, such as research from Ghana (Chowdhury and Gow 2024). It also serves as a valuable professional learning network for agricultural educators, particularly new teachers, supporting ongoing development (Ray et al., 2022). Conversely, concerns exist about overreliance on commercial social media platforms due to risks like path dependency, misinformation, and challenges to digital autonomy, suggesting the need for diversified ICT strategies. The widespread misinformation in agri-food social media further threatens trust and learning outcomes (Chowdhury, et al, 2023). Regarding academic performance, findings vary: some report no significant link between social media use and achievement in agricultural science (Destari, et al, 2024), while others find positive effects when social media is used purposefully for collaboration and resource sharing (Sivakumar et al, 2023).

1. Social Media as a Learning Tool

Social media has become a vital tool in education, transforming student engagement, collaboration, and knowledge construction across formal and informal settings. Platforms like Facebook, Twitter, YouTube, LinkedIn, and Pinterest enhance communication, resource sharing, and interactive learning (Ye and Li, 2024). These tools support activities ranging from discussion forums to multimedia content delivery, making learning more accessible and engaging. Delello et al (2015) found that social media fosters dynamic learning communities and personal connections with content, energizing both traditional and online instruction. Their multidisciplinary study showed improved student engagement and competency through enhanced interaction and reflection. Bibliometric analysis reveals increasing research interest in social media as a learning tool since 2020, particularly focusing on student populations and language learning (Ye and Li, 2024). Despite its advantages, challenges such as privacy, distractions, and methodological rigor remain, highlighting the need for strategic integration in curricula.

2. Social Media and Formative Assessment

Social media is increasingly valued as a tool for formative assessment, providing interactive, timely, and student-centered learning opportunities. By integrating familiar platforms, educators boost engagement and motivation through ongoing feedback that helps students identify strengths and areas for improvement (Vázquez-Cano and Díez-Arcón, 2021; Manca and Ranieri, 2016). Private social media groups, such as Facebook, facilitate discussions, resource sharing, and peer support, fostering autonomy and communication skills as teachers verify content accuracy rather than answer every question (Vázquez-Cano and Díez-Arcón, 2021; Manca and Ranieri, 2016). Twitter is also used for instant polls and quizzes, offering prompt feedback and enhancing engagement, especially in medical education (Mondal and Mondal, 2024).

3. Challenges and Benefits of Social Media in Agricultural Education

Social media has become an influential tool in agricultural education and extension, offering significant benefits while also presenting notable challenges. Its integration has transformed how information is disseminated, how farmers engage with content, and how learning occurs within agricultural communities. Social media platforms such as WhatsApp, Facebook, and YouTube enable rapid and broad communication among farmers, extension workers, and agricultural educators. These platforms provide timely access to information on crop and livestock management, weather forecasts, market prices, and innovative farming techniques, which contribute to improved productivity and decision-making (Uyar et al, 2024). The multimodal nature of social media-combining text, images, videos, and audio-caters to diverse learning preferences, facilitating continuous learning and practical skill development (Singh and Singh, 2019). Moreover, social media enhances social capital by connecting farmers across geographical boundaries, fostering networking, motivation, and peer support. WhatsApp groups, for example, allow farmers from different districts to share experiences and link with institutional actors such as agricultural research centers, overcoming remoteness and strengthening community bonds (Singh and Singh, 2019). Additionally, social media plays a vital role in engaging youth in agriculture by raising awareness, encouraging participation, and disseminating information relevant to young farmers, thereby promoting sustainable agricultural development (Rahman and Mithun 2021; Talaue et al, 2018).

Despite these advantages, several challenges limit the effective use of social media in agricultural education. A primary barrier is the digital divide, characterized by poor internet connectivity, limited access to smartphones or computers, and high data costs, especially in rural areas (Uyar et al, 2024; Ghanney et al, 2017). These infrastructural limitations restrict many farmers' ability to fully utilize social media platforms. Digital literacy is another significant obstacle. Many farmers, particularly older and less educated individuals, lack the necessary skills to navigate social media effectively, limiting their access to valuable content and participation in online communities (Singh and Singh, 2019; Ghanney et al, 2017). Illiteracy and language barriers further exacerbate this issue, making it difficult for some farmers to comprehend and apply the information shared online. Content relevance and information overload also pose challenges. Farmers often encounter irrelevant posts and struggle to identify trustworthy and locally applicable information, which can reduce the perceived usefulness

of social media for agricultural purposes (Uyar et al, 2024). Privacy concerns and preferences for simpler platforms like WhatsApp over Facebook reflect usability and trust issues (Uyar et al, 2024). This study aims to examine the frequency, duration, and methods by which social media is accessed. Additionally, the study aims to evaluate how often social media is used for academic purposes. Finally, it seeks to determine whether a significant correlation exists between social media usage and students' academic performance.

Despite existing empirical investigations into the influence of social media on students' academic performance, there seems to be a gap, particularly in secondary schools in Ogbomoso, Oyo State, Nigeria. It seems that few studies have explored how social media influences domain-specific learning or assessment methods in agricultural fields. Consequently, the researcher is motivated to replicate the study on the influence of social media on senior secondary students' academic performance in Ogbomoso, Oyo State, Nigeria, contributing to a more comprehensive understanding of the subject in this specific context.

Research Questions

i. How often do students use social media?
ii. What do students use social media for most?
iii. Where do students normally access social media most?
iv. How often do students use social media for academic purposes?
v. What is the relationship between social media use and students' academic achievement?

METHODS

This was a correlational study that adopted a survey research design. The target population for the study comprises Senior Secondary School Students Two (2) in Ogbomoso Metropolis. The reason for choosing the students is that they are free from the pressure of examinations. A multi-stage sampling technique was used in the selection of a sample for this study. A stratified sampling technique was adopted to put the secondary schools in Ogbomoso Metropolis into strata/groups. Ogbomoso metropolis comprises five local governments (Ogbomoso South, Ogbomoso North, Oriire, Surulere, and Ogo-Oluwa). Two schools were selected from each local government to make ten (10) sample schools, and thirty (30) S.S.S.2 students were selected from each school with gender sensitivity to make a total number of 300 samples.

1. Instruments Validity and Reliability

Two instruments were employed to collect data for this study: the Social Media Use Questionnaire (SMUQ) and the Agricultural Achievement Test (AAT). The Social Media Use Questionnaire (SMUQ) was developed by the researcher and comprised two sections. Section A gathered demographic information of the students; this was only supportive data, not central to the study. Section B contained items designed to explore students' knowledge of social media, its uses, and its perceived effects on academic achievement. To ensure content validity, the SMUQ was constructed based on relevant literature and aligned with the study's objectives. Additionally, the instrument was reviewed by experts in educational measurement and agricultural science to verify the clarity, relevance, and representativeness of the items.

The Agricultural Achievement Test (AAT) was adopted from Adegoke (2012). This test consists of 50 validated objective items derived from the agricultural science curriculum as outlined in the school scheme of work and teaching diaries. The AAT's content validity was established by Adegoke through rigorous alignment with curriculum standards and expert review. To determine reliability, the SMUQ was pilot tested with a sample similar to the study population. The internal consistency of the SMUQ was assessed using the Kuder-Richardson Formula 20 (KR-20), yielding a reliability coefficient of 0.817, indicating good reliability and consistent measurement of social media use constructs. The AAT's reliability coefficient, as reported by Adegoke (2012), was 0.9531, demonstrating excellent

reliability and stability in measuring students' achievement in agricultural science. The instruments were administered to a sample of 300 Senior Secondary Two (S.S.2) students, comprising an equal number of boys and girls (150 each). Data collected were analyzed using descriptive statistics (frequencies and percentages) and inferential statistics (correlation analysis) to examine the relationships between social media use and academic performance.

RESULT AND DISCUSSION

The results of the study are presented below, highlighting key findings and trends that emerged from the data analysis.

1. Research question 1: How often do students use social media?

Table 1 shows the descriptive statistics of the frequency of students' usage of social media. From Table 1, 53.7% of the students representing more than half of the sample use social media platforms daily, followed by 20.3% of the students who use social media several times a week, 19.7% use it twice a week, 2.0% use it once in a week, while 4.3% of the students never make use of social media.

Table 1 Frequency of Social Media Use

Variables	**N**	**Percent**
Daily	161	53.7
Several times a week	61	20.3
Twice in a week	59	19.7
Once a week	6	2.0
Never	13	4.3
Total	300	100.0

2. Research question 2: What do students use social media for most?

Table 2 presents the students' most-used social media platforms. From the table, 24.3% of the students use the social media platform for sharing photos and videos. Also, 20.7% use it for current events and news. Moreover, 20.0% use it for academic purposes, and 17.0% use it to learn new skills. This implies that the majority of the students, 63%, use social media for non-academic purposes, while the remaining 37% use it to learn new skills and for academic purposes.

Table 2 Students' most Used Social media platform

Variables	**N**	**Percent**
Dating	7	2.3
Sharing Photos and Videos	73	24.3
Play Games	17	5.7
Shopping	4	1.3
Music and Podcasts	15	5.0
Learn new Skills	51	17.0
Current Events and News	62	20.7
Academic Purpose	60	20.0
Illegit Business	5	1.7
Pornography	6	2.0
Total	300	100.0

3. Research Question 3: Where do students normally access social media most?

Table 3 presents students' means of access to social media. From the table, 82.3% of the students use smartphones to access social media. Followed by laptop 5.7%, tablet 5.0%. Also, 3.3% use both

desktops and laptops, 2.0% use desktops, and 1% use both smartphones and tablets. While .7% use other means. This implies that the majority of the students make use of smartphones.

Table 3 Means of access to social media

	N	Percent
Desktop	6	2.0
Laptop	17	5.7
Smartphone	247	82.3
Tablet	15	5.0
Both Desktop and Laptop	10	3.3
Both smartphones and tablets	3	1.0
Others	2	.7
Total	300	100.0

4. Research Question 4: How often do students use social media for academic purposes?

From Table 4, only a small portion (6.1%) use social media daily for academic purposes, while a significant number (32.7%) never use it for this purpose. Most students use social media occasionally (once or twice a week). Collaboration via social media on academic projects is relatively low, with no students using it daily. Nearly 40% never use social media for collaboration, indicating limited reliance on social media for group work. Participation in academic discussions on social media is somewhat more common than collaboration. About 48.7% participate at least twice a week, but a quarter of respondents never engage in such discussions. Seeking academic advice via social media is not common, with no daily users and 42.7% never using social media for this purpose. Most who do use it tend to do so once a week. Connecting with students from other schools via social media is the least frequent activity, with nearly half (46.1%) never engaging in this practice and no daily users.

Table 4 Frequency of use of social media for academic purposes

S/N	Variables	Daily	Several times a week	Twice in a week	Once a week	Never
1.	I use social media for academic purposes	18 (6.1%)	51 (17.1%)	52 (17.2%)	81 (26.9%)	98 (32.7)
2.	I use social media to collaborate with other students on group projects or assignments in my academic	0 (0%)	22 (7.5%)	60 (19.9%)	98 (32.5%)	120 (40.1%)
3.	I use social media to participate in online discussions or debates related to academic topics	13 (4.3%)	57 (19.1%)	76 (25.3%)	75 (24.9%)	79 (26.4%)
4.	I use social media to seek advice or guidance from teachers or students regarding academic matters	0 (0%)	17 (5.6%)	43 (14.2 %)	112 (37.5%)	128 (42.7%)
5.	Social media helps me to connect with students from other schools for academic purposes	0 (0%)	9 (2.9%)	42 (14.1%)	111 (36.9%)	138 (46.1%)

Research Question 5: Is there any relationship between social media use and students' academic performance?

Table 5 presents the relationship between social media use and students' academic performance. From the Table, it was revealed that there is no statistical relationship between social media use and students' academic performance ($r = .057$, $p>.005$).

Table 5 Relationship between social media usage and students' academic performance

Variables	Social Media Usage	Agric. Sci. Performance
Social Media Usage	1	.057
Agric. Sci. Performance	.057	1

**Correlation is significant at the 0.05 level (2-tailed).

DISCUSSIONS

This study investigated students' patterns of social media use, their primary purposes for using these platforms, preferred means of access, frequency of academic-related social media activities, and the relationship between social media usage and academic performance. The findings indicate that more than half of the students engage with social media daily, with a substantial proportion using it several times or twice a week. This high frequency of use reflects a global trend where social media has become an integral part of young people's everyday lives (Montag et al., 2021). A small minority of students reported never using social media, which may be attributed to individual preferences or limited access, consistent with research on the digital divide (Van Deursen and Van Dijk, 2019).

Regarding the purposes of social media use, students predominantly use these platforms for sharing photos and videos, staying updated on current events and news, and engaging in academic activities such as learning new skills. While a majority use social media primarily for non-academic purposes, a significant portion also utilizes it for educational reasons. This dual use aligns with prior studies recognizing social media as a tool for informal learning and knowledge sharing (Greenhow and Lewin, 2016). However, the predominance of non-academic use suggests that educational institutions could enhance strategies to better integrate social media into learning environments to foster academic engagement. Smartphones are overwhelmingly the preferred device for accessing social media among students, reflecting the global shift toward mobile-first internet use among youth (Vogels et al. 2022). This mobile accessibility supports constant connectivity but also raises concerns about distractions and multitasking during study time (Junco, 2012). The relatively low use of desktops and laptops for social media access suggests a preference for convenience and portability.

Despite the high overall use of social media, the frequency of academic-related activities on these platforms is relatively low. Only a small fraction of students uses social media daily for academic purposes, and collaboration on group projects via social media is minimal, with no students reporting daily use for this purpose. Participation in academic discussions and seeking advice through social media are also infrequent. These observations are consistent with existing literature indicating that although students acknowledge the potential benefits of social media for academic collaboration, actual engagement remains limited due to concerns such as distractions, privacy, and the informal nature of social media platforms (Tess, 2013; Manca and Ranieri, 2016). Additionally, connecting with students from other schools for academic purposes is rarely practiced, indicating an underutilization of social media's networking capabilities for educational enrichment.

The analysis revealed no significant correlation between social media use and academic performance. This finding corresponds with mixed evidence in the literature, where some studies report negligible or no direct effects of social media on academic outcomes, while others suggest the impact depends on the nature and purpose of use (Kirschner and Karpinski, 2010; Junco, 2012; Paul et al., 2012). The absence of a significant relationship in this study may reflect the predominance of non-academic social media use or a balance between positive and negative influences.

Constructivist learning theory posits that learners actively construct knowledge through authentic experiences and social interaction rather than passively receiving information. The study's finding that a significant portion of students use social media to learn new skills and for academic purposes aligns with constructivist principles, where social media platforms serve as environments for knowledge construction and sharing. Social media's affordances for collaboration, discussion, and sharing of artifacts support a constructivist approach by enabling students to co-construct knowledge through interaction with peers and teachers (Chimruang and Yampinij, 2021; Yakar et al., 2020). Although the study showed limited daily academic collaboration, the potential for social media to foster social constructivist learning is evident, as these platforms allow learners to engage in meaningful

dialogue, exchange ideas, and build understanding collectively (Salmon, 2009; Schlager and Fusco, 2003).

Mobile access to social media, predominantly via smartphones, further supports the concept of "mobile constructivism," where learning is not confined to traditional classrooms but occurs anytime and anywhere, providing authentic, context-rich experiences that promote active knowledge construction (Yakar et al., 2020). This mobile connectivity facilitates continuous interaction and scaffolding, key components of social constructivist pedagogy (Yakar et al, 2020).

Cognitive load theory emphasizes the limitations of working memory and suggests that learning environments should minimize extraneous cognitive load to optimize learning. The study's finding that most students use social media primarily for non-academic purposes, such as sharing photos and videos or following news, suggests that social media can be a source of distraction, potentially increasing extraneous cognitive load and interfering with academic focus (Junco, 2012). The relatively low frequency of social media use for academic collaboration or seeking academic advice may reflect students' attempts to manage cognitive load by limiting social media's role in demanding academic tasks. However, when social media is purposefully integrated into academic activities, it can serve as a cognitive tool that supports germane cognitive load by enabling learners to organize, rehearse, and elaborate on information through discussions and collaborative projects (Greenhow and Lewin, 2016). Thus, the challenge lies in designing social media use in ways that reduce distractions and optimize cognitive resources for learning.

Digital pedagogy models emphasize the thoughtful integration of digital technologies to enhance teaching and learning processes. The study's results suggest that while students are frequent users of social media, their academic engagement on these platforms is limited, indicating a gap between students' digital practices and their academic application. This gap underscores the need for pedagogical strategies that intentionally incorporate social media into curriculum design to foster active learning, collaboration, and critical thinking (Manca and Ranieri, 2016). Models such as the Mobile Inverted Constructivism (MIC) approach highlight how mobile technologies and social media can reposition students as active agents in their learning, supported by teacher feedback and peer interaction (Chai and Fan, 2016). The findings that students use social media more for social than academic purposes suggest that educators should scaffold academic social media use to align with constructivist and digital pedagogy principles, promoting meaningful engagement and reducing off-task behavior.

THE IMPLICATIONS OF THE FINDINGS

The study's findings have several important implications for agricultural education. Foremost, integrating social media into teaching can enhance student engagement by leveraging platforms students already use frequently, especially via smartphones. Educators should design mobile-friendly learning materials and activities that promote collaboration and active participation. Although social media use for academic purposes is currently limited, there is potential to encourage more purposeful use to support learning and skill development. Assessment methods can also be innovated to include social media tools that foster practical, real-world applications and teamwork. Institutions should develop policies and provide training to support responsible and effective social media use while ensuring all students have equitable access to digital resources. Finally, guiding students to balance social and academic use of social media can help minimize distractions and improve learning outcomes.

LIMITATIONS OF THE STUDY

This study has limitations, including reliance on self-reported data, which may be subject to bias. Future research could adopt longitudinal designs and objective tracking of social media use to clarify causal relationships. Furthermore, qualitative studies exploring the content and quality of social media engagement could provide deeper insights into its role in students' academic lives. Moreover, this study is limited by a small sample size, which may reduce statistical power and affect the generalizability of the findings. Future research with larger samples is recommended to confirm these results.

RECOMMENDATIONS FOR FUTURE RESEARCH OR PRACTICE

The government should promote social media as a key channel for agricultural information to engage youth and reduce unemployment. Investments in infrastructure, such as reliable electricity and affordable internet access, are essential. Additionally, organizing training programs and awareness campaigns will build youth capacity in using social media for agriculture. Special efforts should be made to support women's access and encourage the use of popular platforms like WhatsApp for agricultural extension services. Schools should integrate social media into the agricultural curriculum by providing training and resources to both students and teachers for responsible and effective use. Incorporating social media tools in agricultural education will enhance learning and foster innovation. Teachers should encourage students to create and share agricultural content on popular social media platforms such as Facebook and Instagram. Assigning group projects like social media campaigns or digital portfolios focused on farming practices can promote collaboration and creativity. Additionally, teachers can utilize social media groups to allow students to post their work and receive constructive feedback from both peers and instructors. Incorporating interactive tools such as polls and quizzes on platforms like Twitter can help assess students' understanding. Students should also be encouraged to create posts or videos that tell stories about agricultural issues or innovations, promoting deeper learning and communication skills. Designing assignments that can be completed and submitted via smartphones will increase accessibility and convenience. Hosting live discussions or question-and-answer sessions on social media will facilitate real-time collaboration and interaction. Finally, teachers need to provide clear guidelines and training to ensure the responsible and effective use of social media in the learning environment.

CONCLUSION

The findings highlight the significant role social media plays in students' daily lives, particularly through mobile devices, and underscore the opportunity for agricultural faculties to harness this trend to improve teaching and learning. By integrating social media into instructional strategies, educators can create more engaging, interactive, and collaborative learning experiences that resonate with students' existing digital habits. This can include using social media platforms to facilitate discussions, share multimedia content, and support group projects, thereby enhancing both understanding and peer interaction.

In terms of assessment, incorporating social media tools can promote authentic and practical evaluations that encourage students to apply agricultural knowledge in real-world contexts. Such assessments can foster critical thinking, creativity, and teamwork, which are essential skills for success in agricultural professions.

Furthermore, institutional policies should support the responsible and purposeful use of social media by providing guidelines, digital literacy training for both students and faculty, and ensuring equitable access to mobile technologies and internet connectivity. This comprehensive approach will help maximize the educational benefits of social media while minimizing distractions and misuse.

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DATA AVAILABILITY STATEMENT

Data will be made available on request.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this work, the author(s) used Ask AI and Hugging Chart to generate the initial drafts of the introduction and to perform language editing. After using these tools, the author(s) reviewed and edited the content as necessary and take full responsibility for the final version of the publication.

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