Research Article

Exploring the relationship between social media use and academic performance

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ABSTRACT

Social media platforms have altered how individuals communicate, disseminate information, and interact with their surrounding environment. University students at forefront of embracing technology and digital culture exhibit heightened engagement with social media platforms. This phenomenon has generated significant interest and concern among educators, researchers, and parents due to its potential implications for academic achievement. Hence, it is crucial to examine relationship between utilization of social media platforms and academic performance of university students. This study aimed to identify social media use and relationship between the overall academic grade point average (GPA) and patterns of social media use. This study employed a quantitative methodology, and 192 university students were given questionnaire. The results revealed that the students most commonly utilized Telegram, with a usage rate of 85.9%, YouTube (59.9%), and WhatsApp (53.1%). The social media platforms most commonly utilized for educational purposes were YouTube (68.8%), Telegram (53.1%), WhatsApp (21.9%), and Google+ (19.3%), respectively. The results showed that more than 70% of the students spent at least two hours on social media, and most (67.7) spent more than 15 minutes. The results about reasons for social media use showed that the majority of students used social media for entertainment (63.6%), socializing (80.2%), staying up on breaking news (65.1%), shopping among females (48.4%), being productive while studying (46.4%), and distracting themselves from schoolwork (51.0%). Regarding social media use, the results showed that most female (61.1%) and less than half of male (45.5) participants reported being addicted to social media.

Keywords: social media use, academic performance, GPA, university students

INTRODUCTION

Social media's emergence has profoundly transformed how individuals communicate and share information, exerting a pervasive influence across contemporary society and educational domains. The younger generation, particularly university students, play a pivotal role in driving the digital revolution by effortlessly incorporating diverse social media platforms into their everyday lives (Lim et al., 2021; Mansour et al., 2020). As individuals pursue their academic endeavors in higher education, they encounter the allure of social media, which presents advantages and disadvantages (Alenezi & Brinthaupt, 2022; Lim et al., 2021; Shen, 2019). On the other hand, it can be a source of distractions that potentially hinder academic advancement. Social media platforms allow users to share personal experiences, establish connections with peers, and access information in manners previously unimaginable in earlier periods (Biktagirova et al., 2022; Lim et al., 2021). University students, considered digital natives, actively participate in the digital landscape by regularly interacting with different platforms using smartphones, laptops, and tablets (Smolyaninova & Popova, 2019).

The advantages of social media participation are readily apparent; however, concerns have been raised regarding its potential influence on academic performance (AlFaris et al., 2018; Lim et al., 2021; Mansour et al., 2020; Shen, 2019). University students face the challenge of effectively balancing their academic obligations alongside the captivating realm of social media. In the face of academic obligations such as coursework, examinations, and research projects, students often find themselves confronted with the allure of engaging with notifications, browsing social media feeds, and actively participating in online discussions. On the one hand, social media platforms facilitate the rapid dissemination of information, allowing students to access diverse resources that enrich their educational activities (Lim et al., 2021; Mansour et al., 2020). Online platforms such as YouTube offer various instructional videos covering various subjects, whereas Twitter and LinkedIn present avenues for academic networking and opportunities for professional growth (AlFaris et al., 2018). However, it is worth noting that the continuous exposure and simultaneous engagement with multiple tasks characteristic of social media interactions could lead to cognitive overload and fragmentation of attention (Karpinski et al., 2013). The potential fragmentation discussed can impede the development of deep learning and critical thinking, both essential for achieving academic success (Karpinski et al., 2013). The proliferation of notifications, updates, and content poses a significant challenge for students in sustaining their focus on academic tasks (Karpinski et al., 2013).

The relationship between the utilization of social media platforms and academic performance has emerged as a subject of examination in academic research. As an instance, Karpinski et al. (2013) investigated the influence of multitasking on the correlation between the usage of social networking sites (SNS) and grade point average (GPA) among university students in the United States (n=451) and Europe (n=406). They employed quantitative and qualitative data analyses for their study. The analysis revealed that multitasking, specifically in the United States sample, influenced the negative relationship between SNS use and GPA. The research undertaken by AlFaris et al. (2018) examined the use of social media, its underlying trends, and the relationship between social media usage and academic performance. The study's findings indicated that among the respondents, who comprised 97.0% of the medical student population, 98.0% reported utilizing social media. The most widely utilized applications for general purposes were WhatsApp, YouTube, and Twitter. Conversely, for educational purposes, the top three applications were YouTube (83.5%), Whatsapp (35.5%), and Twitter (35.3%). Approximately 71.0% of the participants reported visiting social media more than four times daily, while 55% indicated spending one to four hours daily on social media. The primary motivations behind the utilization of social media were found to be entertainment (95.8%), staying informed about current events (88.3%), and engaging in social interactions (85.5%). A smaller percentage of individuals (40.0%) reported using social media for academic purposes. A lack of statistically significant correlation was observed between GPA and the frequency of daily social media usage or usage during lectures.

Shen (2019) assessed the impact of social media usage on academic performance among university students. The study's findings indicate that male individuals exhibit a higher frequency of engagement with social media applications than their female counterparts. Additionally, there was an inverse relationship between students' GPA and the number of social media applications they are subscribed to. Research by Bhandarkar et al. (2021) aimed to find a correlation between academic performance and social media use.

The findings indicated that 41.5% of the student participants reported using social media for a maximum of three hours daily. The social media applications most frequently utilized by individuals were WhatsApp, with a usage rate of 98.25%, and YouTube, with a usage rate of 91.75%. A significant proportion of individuals, precisely 73.5%, utilized social media platforms to access health-related news. Additionally, 71.5% of users employed these platforms to fulfill academic obligations, such as completing assignments. Furthermore, over 50% of individuals utilized social media for seminar preparation, test preparation, and conducting research. The academic performance of female students was superior to that of their male counterparts, and a weak negative correlation was also found between academic performance and social media usage.

The study conducted by Lim et al. (2021) aimed to examine the potential correlation between social media usage and academic achievement among students. The researchers specifically focused on three key factors: the utilization of social media for academic purposes, the amount of time spent on social media platforms, and any potential gender disparities in these relationships. Their study shows a significant correlation between using social media for educational purposes and students' academic achievement. The impact of this correlation is substantial. The study also found that the amount of time students spent using social media had a medium effect on their academic performance. However, there was no significant relationship between social media use by gender and students' academic performance.

Kalam et al. (2023) examined students' motivation for using social media and its impact on academic performance. Results showed that watching video clips and non-academic learning intentions significantly influenced social media use and academic performance. In addition, socialization through friend and family relationships tremendously promoted social media use intentions, while it could not benefit. An unusual finding of this study is that students' entertainment intention did not affect their social media use but did drastically affect their academic performance. Again, social media use has robust effects on improving students' academic achievement. This study also came to the results of mediation analysis.

The study by Ogundele et al. (2023) investigated the variations in social media usage between genders and the academic achievements of Nigerian science students. They found no statistically significant gender disparities in the overall duration of daily social media usage and use of social media during class. They reported that male and female students felt social media greatly impacted their academic performance.

In their study, Masalimova et al. (2023) conducted a comprehensive analysis of the impact of SNS on the academic performance of university students. A total of 22 articles were subjected to analysis. The findings of their study indicated that existing research has consistently demonstrated positive and statistically significant outcomes regarding the impact of SNS on academic performance. Nevertheless, several studies have documented the adverse effects of SNS on academic performance. The findings about the publication year of the studies under review indicated a rise in numbers from 2019 to 2022. The primary data source for assessing academic achievement was GPA, with most research conducted in Saudi Arabia.

The primary objective of the study conducted by Mansour et al. (2020) was to ascertain the prevalence of social media use among students in the Kingdom of Saudi Arabia. The researchers also sought to evaluate the influence of social media usage on students' academic achievement and compare the social media usage patterns of medical and nonmedical students. The findings indicated that the incidence of social media utilization among the individuals involved in the study was 99.5%. A statistically significant correlation was observed between the extent of social media usage and students' GPA (p=0.001). The study revealed that engaging in academic discussions on social media was associated with a significant enhancement in academic performance, with a reported increase of 53.3%. Furthermore, a considerable proportion of participants (62.2%) indicated using social media platforms to share information and knowledge with their peers. A significant proportion of participants, specifically 41.6% who agreed and 31.6% who strongly agreed, expressed that using social media for research positively impacted their academic performance, leading to improved grades. They concluded that most students were aware of positive and negative influences on their academic performance.

In light of the studies mentioned above and the digital age's transformative impact on higher education, it is crucial to thoroughly analyze the relationships between university students' utilization of social media platforms and their academic performance. Hence, this study aimed to identify social media use and the relationship between the overall academic grade (GPA) and patterns of social media use. A more

comprehensive evaluation of the relationship between GPA and patterns of social media use can enlighten educators regarding social media's influence on academic performance. Additionally, the results will offer empirical evidence to increase university students' academic performance. By examining this relationship, scholars, instructors, and decision-makers can better comprehend the interaction between social media use and academic performance to leverage the advantages of social media while minimizing its potential disadvantages.

METHOD

A survey study was conducted using a questionnaire among university students at Kazan Federal University, Kazan, Russia. It is one of the oldest universities and has the second-largest student population in the country. As the students came from diverse backgrounds, they were invited to participate in this university research. The researchers used stratified random sampling to reach the participants of this research. University students were invited to participate in this research. In May and June 2022, a questionnaire was administered to the participants through Google Forms. The participants participated in this research willingly. When the participants answered the questionnaire, responses were anonymous because the authors did not request or ask for any student ID when completing the questionnaire. Namely, participation in this research was voluntary at all.

Participants

A total of 201 pre-service teachers completed the questionnaire administered in this research. However, the authors excluded nine questionnaires from the data because the participants did not complete them. These participants did not answer some items of the questionnaire. Therefore, they were not included in the data analysis. Thus, 192 pre-service teachers completed the questionnaire administered in this research. All data from 192 participants were used in the final data analysis. Of the participants, 32.8% (n=63) were between 17 and 19 years old. The ratio of 20-22-year-old students was 46.9% (n=90). Students over 20 were 20.3% (n=39). Male students represented 34.4% of the total sample, and female students (65.6%). Most (65.3%) of students were aged 20-22 and were single (90.6%, n=174). 9.4% (n=18) of the participants were married. Of the participants, 35.9% (n=69) were first-year students at the university. 28.6% (n=55) were second-year students. 19.3% (n=37) were third-year students. 12.5% (n=24) were fourth-year students. 3.6% (n=7) were fifth year students. GPA scores of the participants were between 4.5-5 (60.9, n=117), 4-4.5 (19.3%, n=37), 3-4 (19.3%, n=37), and below three (0.5%, n=1). The maximum GPA score for a student was five, and the lowest was one.

Data Collection Instrument

The questionnaire used in this research was taken from the study of AlFaris et al. (2018). They developed the questionnaire to examine patterns among medical students' social media use and academic performance. They developed the questionnaire due to a thorough literature review of previous studies. They benefited from previous studies as a starting point to develop the questionnaire items and tried to reflect the important areas used in previous studies. The questionnaire was designed to be easy to complete, and researchers observed that the participants completed the questionnaire within 20 minutes. The questionnaire consisted of 36 items in six categories. These categories included

(1) basic characteristics of the study population, including students' GPA,

(2) types of social media use,

(3) patterns of social media use,

(4) reasons for social media use,

(5) perceptions of social media use, and

(6) practices of social media use.

Some questionnaire items were a 5-point Likert scale, divided into strongly agree, agree, do not know, disagree, and strongly disagree. Researchers used Google Forms to distribute to the participants and invited

Table 1. University students' social media use

Items		Gender				Total		Chi-square	p-value
		Female (n=126)		Male (n=66)		n	%		
		n	%	n	%				
Have a social media account?	Yes	123	97.6	65	98.5	188	97.9	1.000	.57*
Which of the tools listed below do you most often use? (selected only the three most used)	Facebook	0	0.0	1	1.5	1	0.5	55.961	.89
	Instagram	40	31.7	29	43.9	69	35.9		
	Twitter	2	1.6	2	3.0	4	2.1		
	YouTube	76	60.3	39	59.1	115	59.9		
	Keek	0	0.0	0	0.0	0	0.0		
	Blogger.com	0	0.0	0	0.0	0	0.0		
	WhatsApp	68	53.9	34	51.5	102	53.1		
	Google+	6	4.8	1	1.5	7	3.6		
	Path	0	0.0	0	0.0	0	0.0		
	Skype	0	0.0	0	0.0	0	0.0.		
	TikTok	24	19	12	18.1	36	18.8		
	Telegram	110	87.3	55	83.3	165	85.9		
	Other	13	10.3	16	17.0	29	15.1		
Which social media do you use for learning purposes? (multiple choice)	Facebook	0	0.0	1	1.5	1	0.5	34.445	.91
	Instagram	7	5.5	4	6.0	11	5.7		
	Twitter	1	0.8	1	1.5	2	1.0		
	YouTube	88	69.8	44	66.6	132	68.8		
	Keek	0	0.0	1	1.5	1	0.5		
	Blogger.com	0	0.0	0	0.0	0	0.0		
	WhatsApp	28	22.2	14	21.2	42	21.9		
	Google+	24	19.0	13	19.6	37	19.3		
	Path	0	0.0	1	1.5	1	0.5		
	Skype	4	3.2	2	3.0	6	3.1		
	TikTok	7	5.5	5	7.5	12	6.3		
	Telegram	70	55.5	32	48.4	102	53.1		
	Wikipedia	0	0.0	0	0.0	0	0.0		
	Other	19	15	23	34.8	42	21.9		

Note. *Fisher-Freeman-Halton exact test

them via email. Researchers did share the link to Google Forms for the questionnaire, and thus, the data was collected for this research.

To analyze the collected data and participants' answers to the questionnaire, researchers used frequency distribution statistics, including frequency and percentages. Researchers used the Chi-square and Fisher-Freeman-Halton exact test to analyze the differences between females and males and determine statistical differences regarding their GPA scores. Chi-square was used because it allows researchers to analyze frequency counts in different categories (McMillan, 2011). In addition, Fisher-Freeman-Halton exact test always provides an exact p-value and works well with small sample sizes. It allows researchers to make comparisons between small sample sizes. Hence, the authors used this test to make comparisons among groups. The highest achievable GPA was considered to be five. To evaluate the correlation between social media use and academic performance, students' GPAs were divided into four groups: below three, between three and four, four and five, and above 4.5.

RESULTS

Social Media Use

Most students (97.9%) had a social media account. According to the data, the application users most commonly utilized was Telegram, with a usage rate of 85.9%. This was followed by YouTube, which had a usage rate of 59.9%, and WhatsApp, with a usage rate of 53.1%. Remarkably, according to **Table 1**, Facebook was found to be the least favored social media platform, with a usage rate of only 0.5%. The participants did not utilize platforms like Blogger.com, Keek, Path, or Skype. No statistically significant differences were observed between females and males regarding utilizing the most commonly employed social media platforms. The social media platforms most commonly utilized for educational purposes were YouTube

Table 2. University students' patterns of social media use

Items	Gender				Total		Chi-square	p-value
	Female (n=126)		Male (n=66)		n	%		
	n	%	n	%				
How often do you usually log on to your favorite service(s)?								
I am constantly logged on	88	69.8	48	72.7	136	70.8	.463	.960*
2 times per day	30	23.8	14	21.2	44	22.9		
Once in a few days	5	4.0	3	4.5	8	4.2		
Once a week	3	2.4	1	1.5	4	2.1		
Occasionally (less than 1 week)	0	0.0	0	0.0	0	0.0		
How long do you spend on social networking sites during a typical day								
Less than 30 minutes	2	1.6	2	1.4	4	2.1	1.554	.900
30 mins to 1 hour	11	8.7	6	5.8	17	8.9		
1-2 hours	20	15.9	12	11.0	32	16.7		
2-4 hours	44	34.9	23	23.0	67	34.9		
4-6 hours	29	23.0	11	13.8	40	20.8		
More than 6 hours	20	15.9	12	11.0	32	16.7		
On a daily basis, how many times do you check social media?								
One time	4	3.2	2	3.0	6	3.1	3.451	.490*
2 times	10	7.9	8	12.1	8	9.4		
3 times	18	14.3	9	13.6	27	14.1		
4 times	12	9.5	2	3.0	14	7.3		
More than 4 times	82	65.1	45	68.2	127	66.1		
The average amount of time (in minutes) you spend, per lecture, on social media while attending the lecture is								
Not at all	41	32.5	21	31.8	62	32.3	14.244	.007
Up to 15 minutes	37	29.4	16	24.2	53	27.6		
15-30 minutes	15	11.9	8	12.1	23	12.0		
30-45 minutes	21	16.7	3	4.5	24	12.5		
More than 45 minutes	12	9.5	18	27.3	30	15.6		
While at the lecture how many times do you check social media?								
Not at all	54	42.9	23	34.8	77	40.1	5.743	.330
One time	44	34.9	19	28.8	63	32.8		
2 times	10	7.9	8	12.1	18	9.4		
3 times	8	6.3	9	13.6	17	8.9		
4 times	1	0.8	0	0.0	1	0.5		
More than 4 times	9	7.1	7	10.6	16	8.3		
I often check social media in the middle of working on college assignments								
Strongly disagree	13	10.3	6	9.1	19	9.9	1.517	.820
Disagree	51	40.5	26	39.4	77	40.1		
Neutral	13	10.3	4	6.1	17	8.9		
Agree	39	31.0	23	34.8	62	32.2		
Strongly agree	10	7.9	7	10.6	17	8.9		

Note. *Fisher-Freeman-Halton exact test

(68.8%), Telegram (53.1%), WhatsApp (21.9%), and Google+ (19.3%). Facebook, Keek, and Path were found to be the least utilized social media platforms for educational purposes, with a usage rate of less than 1%. The utilization of YouTube (68.8%), Telegram (53.1%), WhatsApp (21.9%), and Google+ as platforms for educational purposes did not exhibit a statistically significant increase among the participants, as indicated in **Table 1**.

Patterns of Social Media Use

Most students (70.8%) reported constantly logging into social media accounts (see **Table 2**). The results showed that students spent two-four hours on social media. They also checked their social media accounts more than four times daily (66.1%). The results also showed that students spent time on social media during lectures. The results showed that most students (67.7) spent more than 15 minutes. More than half of the students (59.9%) reported using social media during lectures. On the other hand, half of the students (50%) did not check social media while working on university assignments.

Table 3. University students' reasons for social media use

Items		Gender				Total		Chi-square	p-value
		Female (n=126)		Male (n=66)					
		n	%	n	%	n	%		
Get other people's opinions	Strongly disagree	40	31.7	19	28.8	59	30.7	1.449	.830
	Disagree	23	18.3	15	22.7	38	19.8		
	Neutral	44	34.9	25	37.9	69	35.9		
	Agree	15	11.9	5	7.6	20	10.4		
	Strongly agree	4	3.2	2	3.0	6	3.1		
Entertain myself	Strongly disagree	12	9.5	3	4.5	15	7.8	2.292	.680
	Disagree	10	7.9	5	7.6	15	7.8		
	Neutral	26	20.6	14	21.2	40	20.8		
	Agree	31	24.6	21	31.8	52	27.1		
	Strongly agree	47	37.3	23	34.8	70	36.5		
Socialize with people	Strongly disagree	2	1.6	0	0.0	2	1.0	6.311	.150*
	Disagree	8	6.3	5	7.6	13	6.8		
	Neutral	10	7.9	13	19.7	23	12		
	Agree	25	19.8	12	18.2	37	19.3		
	Strongly agree	81	64.3	36	54.5	117	60.9		
Stay up to date with current news	Strongly disagree	9	7.1	2	3.0	11	5.7	2.650	.610
	Disagree	11	8.7	4	6.1	15	7.8		
	Neutral	25	19.8	16	24.2	41	21.4		
	Agree	26	20.6	17	25.8	43	22.4		
	Strongly agree	55	43.7	27	40.9	82	42.7		
Share my experience with others	Strongly disagree	18	14.3	13	19.7	31	6.1	1.748	.780
	Disagree	31	24.6	14	21.2	45	23.4		
	Neutral	37	29.4	16	24.2	53	27.6		
	Agree	22	17.5	14	21.2	36	18.8		
	Strongly agree	18	14.3	9	13.6	27	14.1		
For shopping online	Strongly disagree	14	11.1	8	12.1	22	11.5	11.153	.020
	Disagree	19	15.1	16	24.2	35	18.2		
	Neutral	32	25.4	26	39.4	58	30.2		
	Agree	34	27.0	9	13.6	43	22.4		
	Strongly agree	27	21.4	7	10.6	34	7.7		
Help me to be productive during study time	Strongly disagree	14	11.1	7	10.6	21	10.9	1.697	.790
	Disagree	12	9.5	7	10.6	19	9.9		
	Neutral	45	35.7	18	27.3	63	32.8		
	Agree	32	25.4	21	31.8	53	27.6		
	Strongly agree	23	18.3	13	19.7	36	18.8		
Distract me from my schoolwork	Strongly disagree	15	11.9	9	13.6	24	12.5	3.747	.440
	Disagree	11	8.7	7	10.6	18	9.4		
	Neutral	33	26.2	19	28.8	52	27.1		
	Agree	41	32.5	13	19.7	54	28.1		
	Strongly agree	26	20.6	18	27.3	44	22.9		
Help me manage my time more effectively	Strongly disagree	20	15.9	16	24.2	36	18.8	4.932	.290
	Disagree	29	23.0	10	15.2	39	20.3		
	Neutral	43	34.1	22	33.3	65	33.9		
	Agree	22	17.5	8	12.1	30	15.6		
	Strongly agree	12	9.5	10	15.2	22	11.5		

Note. *Fisher-Freeman-Halton exact test

Reasons for Social Media Use

Table 3 shows that most students did not use social media to seek other people's opinions (51.5% agree). The majority of students used social media for entertainment (63.6%), socializing (80.2%), Staying up on breaking news (65.1%), shopping among females (48.4%), being productive while studying (46.4%), and distracting themselves from schoolwork (51%). On the other hand, a larger percentage of students (39.1%) did not use social media to manage their time more effectively. The results showed no significant differences in gender and participants' reasons for using social media, except for online shopping. Specifically, more females (48.4%) used social media for online shopping.

Table 4. University students' perceptions for social media use

Items		Female (n=126)		Male (n=66)		Total		Chi-square	p-value
		n	%	n	%	n	%		
I am more accessible because I use social media.	Strongly disagree	5	4.0	2	3.0	7	3.6	1.494	.850*
	Disagree	6	4.8	1	1.5	7	3.6		
	Neutral	29	23.0	18	27.3	47	24.5		
	Agree	33	26.2	17	25.8	50	26		
	Strongly agree	53	42.1	28	42.4	81	42.2		
I know how to use social media as an effective study tool.	Strongly disagree	5	4.0	1	3.0	6	3.1	4.973	.270*
	Disagree	2	1.6	2	1.5	4	2.1		
	Neutral	33	26.2	12	18.2	45	23.4		
	Agree	38	30.2	29	43.9	67	34.9		
	Strongly agree	48	38.1	22	33.3	70	36.5		
I intend to continue using social media as often as I do in the future.	Strongly disagree	6	4.8	1	1.5	7	3.6	6.297	.160*
	Disagree	5	4.0	1	1.5	6	3.1		
	Neutral	35	27.8	28	42.4	63	32.8		
	Agree	36	28.6	12	18.2	48	25		
	Strongly agree	44	34.9	24	36.4	68	35.4		
I intend to improve my academic performance by effectively using social media as a study tool over the next year.	Strongly disagree	6	4.8	1	1.5	7	3.6	2.334	.680*
	Disagree	6	4.8	4	6.1	10	5.2		
	Neutral	40	31.7	25	37.9	65	33.9		
	Agree	40	31.7	17	25.8	57	29.7		
	Strongly agree	34	27.0	19	28.8	53	27.6		
I feel happy by using social media.	Strongly disagree	10	7.9	1	1.5	11	5.7	3.588	.460
	Disagree	9	7.1	6	9.1	15	7.8		
	Neutral	54	42.9	30	45.5	84	43.8		
	Agree	28	22.2	14	21.2	42	21.9		
	Strongly agree	25	19.8	15	22.7	40	20.8		

Note. *Fisher-Freeman-Halton exact test

Perceptions of Social Media Use

The researchers examined differences in their perceptions of social media use. Results showed that most participants perceived social media as more accessible (68.2% agreed). These participants indicated they knew how to use social media as an effective study tool (71.4%, overall agreement). In item 27, they also indicated that they would continue to use social media (60.4% agreement). However, in item 28, more than half of the participants indicated that they would use social media to improve their academic performance effectively in the next year (57.3% agreement).

However, 33.9 of the participants were neutral on this item. On the other hand, 42.6% of participants indicated in item 29 that they felt happy using social media. However, 43.8% of participants were neutral on the same item. In addition, we analyzed the differences between females and males. The results showed no statistical differences (p>.05) in items 25-29 (see **Table 4**).

Practice of Social Media Use

Table 5 demonstrates that most female (61.1%) and less than half of male (45.5) participants reported being addicted to social media. Differences between females and males were significant as the p-value was low at .05. Most female (60.3%) and male (60.6%) participants described themselves as traditional students who prefer face-to-face classes for teaching and learning every time.

However, the number of participants who described themselves as web learners was very low for females and males (1.6% and 4.5%, respectively). More than half of females (52.4%) and males (54.5%) indicated that social media did not impact their learning. In addition, most females (79.3% overall agree) and males (83.3% overall agree) indicated using social media to organize their studies and leisure time. Regarding social media management skills, most female (57.2%) and male (66.7%) participants indicated that they have good time management skills in using social media. Furthermore, no statistical differences between genders were found.

Table 5. University students' practices for social media use

Items		Gender Female (n=126)		Male (n=66)		Total		Chi-square	p-value
		n	%	n	%	n	%		
Do you think you are addicted to social media? (Yes)		77	61.1	30	45.5	107	55.7	4.303	.030
I am best described as a	Traditional student (all face-to-face classes)	76	60.3	40	60.6	116	60.4	1.636	.470*
	Hybrid student (some online courses)	48	38.1	23	34.8	71	37.0		
	Web-learner (all online classes)	2	1.6	3	4.5	5	2.6		
Do you think social media affect your learning?	Positively	46	36.5	29	43.9	75	39.1	5.756	.056
	Negatively	14	11.1	1	1.5	15	7.8		
	Has no effect	66	52.4	36	54.5	102	53.1		
I find it easy to organize study and leisure time.	Strongly disagree	4	3.2	1	1.5	5	2.6	1.441	.850
	Disagree	12	9.5	6	9.1	18	9.4		
	Neutral	10	7.9	4	6.1	14	7.3		
	Agree	58	46.0	36	54.5	94	49.0		
	Strongly agree	42	33.3	19	28.8	61	31.8		
I have good time management skills.	Strongly disagree	2	1.6	1	1.5	3	1.6	2.520	.640
	Disagree	26	20.6	13	19.7	39	20.3		
	Neutral	26	20.6	8	12.1	34	17.7		
	Agree	54	42.9	32	48.5	86	44.8		
	Strongly agree	18	14.3	12	18.2	30	15.6		

Note. *Fisher-Freeman-Halton exact test

Patterns of Social Media Use and GPA

The findings in **Table 6** about the relationship between social media usage and GPA did not reveal any statistically significant variations across various factors, including the frequency of daily usage, motivations for usage, duration of usage, and frequency of checking social media during lectures. The results showed that 70.8% of the students were constantly logged in to their social media accounts, and 22.9% reported checking their accounts twice daily. The findings indicated that most students, specifically over 70.0%, allocated a duration exceeding two hours to this activity on an average day. In particular, a significant percentage of students, amounting to 34.9%, allocated two-four hours daily for engaging with social media platforms.

Table 6. University students' patterns of social media use & GPA

Items	GPA		Occasionally [less than one week)	Once in a few days	2 times per day	I am constantly logged on			Chi-square/ p-value
How often do you usually log on to your favorite service(s)?	<3	n	0	0	1	0	-	-	12.019/ .270*
		%	0.0	0.0	100	0.0			
	3-4	n	0	1	8	28			
		%	0.0	2.7	21.6	75.7			
	4-4.5	n	0	4	9	24			
		%	0.0	10.8	24.3	64.9			
	4.5-5	n	4	3	26	84			
		%	3.4	2.6	22.2	71.8			
	Total	n	4	8	44	136			
		%	2.1	4.2	22.9	70.8			

			Less than 30 minutes	30 mins to 1 hour	1-2 hours	2-4 hours	4-6 hours	More than 6 hours	
How long do you spend on social networking sites during a typical day?	<3	n	0	0	1	0	0	0	8.967/ .990*
		%	0.0	0.0	100	0.0	0.0	0.0	
	3-4	n	0	3	7	14	7	6	
		%	0.0	8.1	18.9	37.8	18.9	16.2	
	4-4.5	n	1	4	5	14	7	6	
		%	2.7	10.8	13.5	37.8	18.9	16.2	
	4.5-5	n	3	10	19	39	26	20	
		%	2.6	8.5	16.2	33.3	22.2	17.1	
	Total	n	4	17	32	67	40	32	
		%	2.1	8.9	16.7	34.9	20.8	16.7	

Table 6 (Continued). University students' patterns of social media use & GPA

Items	GPA		One time	2 times	3 times	4 times	More than 4 times		Chi-square/ p-value
On a daily basis, how many times do you check social media?	<3	n	1	0	0	0	0	-	17.784/
		%	100	0.0	0.0	0.0	0.0		.130*
	3-4	n	0	4	7	0	26		
		%	0.0	10.8	18.9	0.0	70.3		
	4-4.5	n	1	5	6	3	22		
		%	2.7	13.5	16.2	8.1	59.5		
	4.5-5	n	4	9	14	11	79		
		%	3.4	7.7	12.0	9.4	67.5		
	Total	n	6	18	27	14	127		
		%	3.1	9.4	14.1	7.3	66.1		
			Not at all	Up to 15 minutes	15-30 minutes	30-45 minutes	More than 45minutes		
The average amount of time (in minutes) you spend, per lecture, on social media while attending the lecture is	<3	n	1	0	0	0	0		14.625/
		%	100	0.0	0.0	0.0	0.0		.230*
	3-4	n	11	7	9	2	8		
		%	29.7	18.9	24.3	5.4	21.6		
	4-4.5	n	10	12	2	6	7		
		%	27.0	32.4	5.4	16.2	18.9		
	4.5-5	n	40	34	12	16	15		
		%	34.2	29.1	10.3	13.7	12.8		
	Total	n	62	53	23	24	30		
		%	32.3	27.6	12.0	12.5	15.6		
			Not at all	One time	2 times	3 times	4 times	More than 4 times	
While at the lecture how many times do you check social media?	<3	n	1	0	0	0	0	0	15.908/
		%	100	0.0	0.0	0.0	0.0	0.0	.670*
	3-4	n	9	13	5	5	0	5	
		%	24.3	35.1	13.5	13.5	0.0	13.5	
	4-4.5	n	15	12	3	4	0	3	
		%	40.5	32.4	8.1	10.8	0.0	8.1	
	4.5-5	n	52	38	10	8	1	8	
		%	44.4	32.5	8.5	6.8	0.9	6.8	
	Total	n	77	63	18	17	1	16	
		%	40.1	32.8	9.4	8.9	0.5	8.3	
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree		
I often check social media in the middle of working on college assignments.	<3	n	0	0	0	0	1		13.635/
		%	0.0	0.0	0.0	0.0	100		.340*
	3-4	n	1	15	4	16	1		
		%	2.7	40.5	10.8	43.2	2.7		
	4-4.5	n	4	13	3	13	4		
		%	10.8	35.1	8.1	35.1	10.8		
	4.5-5	n	14	49	10	33	11		
		%	12.0	41.9	8.5	28.2	9.4		
	Total	n	19	77	17	62	17		
		%	9.9	40.1	8.9	32.3	8.9		

Note. *Fisher-Freeman-Halton exact test

A total of 20.8% of the student population dedicated a daily average of four-six hours to engaging with social networks. 16.7% of students reported spending over six hours daily on social networks. Concerning the daily frequency of social media account usage, it was found that 66.1% of students indicated checking their accounts more than four times.

In particular, a majority, over 85.0% of students, tended to access their accounts on more than three occasions. The results regarding the average time students spent on social media per lecture showed that 15.6% spent more than 45 minutes on social media. The findings indicated that a significant % of students, specifically 32.3%, refrained from accessing their social media platforms while attending lectures. In particular, a study revealed that 24.3% of academically underperforming students with a GPA ranging from three to four allocated 15 to 30 minutes to engage with their social media platforms.

Additionally, it was observed that 21.6% of these students spent more than 45 minutes on their social media accounts. Nevertheless, the obtained results did not exhibit statistical significance. In addition to these results, nearly 60.0% of students checked their social media accounts more than once. Finally, results showed that nearly 40.0% of students checked their social media accounts while completing university assignments.

DISCUSSION

This study aimed to identify social media use and the relationship between the overall academic grade (GPA) and patterns of social media use. The results revealed that nearly all students (97.9%) had a social media account. This result is similar to AlFaris et al. (2018) and Mansour et al. (2020). The results regarding SNS revealed that the students most commonly utilized Telegram, with a usage rate of 85.9%. This is followed by YouTube, which had a usage rate of 59.9%, and WhatsApp, with a usage rate of 53.1%. Interestingly, Facebook was found to be the least favored social media platform, with a usage rate of only 0.5%. The result regarding Facebook usage confirms the findings of Baran and Stock (2015). They found that Russians did not widely use Facebook. This is because many Russians prefer to communicate with other Russians using Facebook-like applications in their country. As a result, the participants in the study did not consider Facebook a necessary platform for their communication needs. The results revealed no statistically significant differences between females and males regarding the most commonly employed social media platforms. The social media platforms most commonly utilized for educational purposes were YouTube (68.8%), Telegram (53.1%), WhatsApp (21.9%), and Google+ (19.3%). This result is very similar to those of AlFaris et al. (2018). Previous studies have shown that YouTube emerged as the top-ranked website for academic and learning purposes, which aligns with the results of a separate study conducted among university students (Bhandarkar et al., 2021; Ogundele et al., 2023). As a reason for this result, it can be concluded that YouTube functions as an educational resource by providing a diverse range of free instructional videos, educational material lectures, and PowerPoint presentations from credible persons, organizations, and universities. In particular, it is considered that students may prefer video as a medium of instruction, which could be popular among the participants. The result with Telegram supports the findings of Akbari and Gabdulhakov (2019), who indicated that Telegram is one of Russia's top five most widely used messaging platforms. It is also a preferred choice among state authorities and representatives for communicating with citizens.

The results regarding the patterns of social media use revealed that most students (70.8%) reported constantly logging into social media accounts. More than 70.0% of the students spent at least two hours on social media. This result is consistent with the findings of AlFaris et al. (2018) and Mansour et al. (2020). One possible reason for this result is that social media applications are designed to be user-friendly and attractive to people of all ages. Thus, social media applications have become more accessible to all, appealing to a wider audience, and their popularity has grown over time. This reason has led to spending a lot of time on social media. In addition, people's time on social media platforms may be influenced by several factors, including their needs, curiosity, and adherence to social norms. They also checked their social media accounts more than four times daily (66.1%). The results also showed that students spent time on social media during lectures. Most students (67.7) spent more than 15 minutes. More than half of the students (59.9%) reported using social media during lectures. One possible explanation for these results may be that this research revealed that university students use social networking websites mainly to socialize with people and stay up to date with current news. Previous studies evidence this finding by exploring that students use social media to fill their free time (Sheldon, 2008, and maintain relationships with others (AlFaris et al., 2018; Sheldon, 2008). On the other hand, half of the students (50.0%) did not check social media while working on university assignments. A possible reason for this result may be that students may have time management skills to use social media effectively.

The results about reasons for social media use showed that the majority of students used social media for entertainment (63.6%), socializing (80.2%), staying up on breaking news (65.1%), shopping among females (48.4%), being productive while studying (46.4%), and distracting themselves from schoolwork (51.0%). Also, the results showed no significant differences in gender and participants' reasons for using social media, except for online shopping. Specifically, more females (48.4%) used social media for online shopping. These findings are similar to those of AlFaris et al. (2018), Kalam et al. (2023), Mansour et al. (2020), and Shen (2019).

Regarding students' perceptions of social media use, the results demonstrated that most participants perceived social media as more accessible (68.2% agreed). These participants indicated they knew how to use social media as an effective study tool (71.4%, overall agreement). They also indicated they would continue using social media (60.4% agreement). On the other hand, more than half of the participants indicated that they would use social media to effectively improve their academic performance in the next year (57.3% agreement). In addition, 42.6% of participants indicated they felt happy using social media. As found out by previous research (Anwar & Mujib, 2022; Cathala et al., 2022), people visit SNS to relax and entertain themselves. Furthermore, the results showed no statistical differences.

For the practice of social media use, the results demonstrated that most female (61.1%) and less than half of male (45.5%) participants reported being addicted to social media. Differences between females and males were significant. The study of Bhandarkar et al. (2021) found a strong positive correlation between social media usage and the social media addiction score. The results are, therefore, similar to those of Bhandarkar et al. (2021). In addition, most female (60.3%) and male (60.6%) participants described themselves as traditional students. However, the number of participants who described themselves as web learners was very low for females and males (1.6% and 4.5%, respectively). Regarding the influence of social media on learning, more than half of females (52.4%) and males (54.5%) indicated that social media did not impact their learning. In addition, most females (79.3%, overall agree) and males (83.3%, overall agree) indicated using social media to organize their studies and leisure time. Regarding social media management skills, most female participants indicated that they have good time management skills in using social media. Furthermore, no statistical differences between genders were found in terms of the practice of social media use.

The findings about the relationship between social media usage and GPA did not reveal any statistically significant variations across various factors, including the frequency of daily usage, motivations for usage, duration of usage, and frequency of checking social media during lectures. The results showed that 70.8% of the students were constantly logged in to their social media accounts, and 22.9% reported checking their accounts twice daily. The findings indicated that most students, specifically over 70%, allocated a duration exceeding two hours to this activity on an average day. In particular, a significant % of students, amounting to 34.9%, allocated two-four hours daily for engaging with social media platforms. A total of 20.8% of the student population dedicated a daily average of four-six hours to engaging with social networks. 16.7% of students reported spending over six hours daily on social networks. Concerning the daily frequency of social media account usage, it was found that 66.1% of students indicated checking their accounts more than four times. In particular, a majority, over 85.0% of students, tended to access their accounts on more than three occasions. The results regarding the average time on social media showed that 15.6% students spent more than 45 minutes on social media. The findings indicated that a significant percentage of students, specifically 32.3%, refrained from accessing their social media platforms while attending lectures. In particular, a study revealed that 24.3% of academically underperforming students who maintained a GPA ranging from three to four allocated 15 to 30 minutes for engaging with their social media platforms. Additionally, it was observed that 21.6% of these students spent more than 45 minutes on their social media accounts. Nevertheless, the obtained results did not exhibit statistical significance. In addition to these results, nearly 60.0% of students checked their social media accounts more than once. Finally, results showed that nearly 40.0% of students checked their social media accounts while completing university assignments.

The results regarding the relationship between social media usage and GPA are inconsistent with previous research, which found that social media negatively impacts students' GPA (Junco & Cotton, 2012; Junco et al., 2010; Kalam et al., 2023; Karpinski et al., 2013; Masalimova et al., 2023; Yeboah & Ewur, 2014). For example, according to Shen's (2019) research, there is a negative correlation between the amount of time students spend on social media and their learning time and cumulative GPA. The findings align with those of AlFaris et al. (2018), who found no significant correlation between students' GPAs and social media usage. On the other hand, the study conducted by Mansour et al. (2020) found a significant correlation between social media usage and students' GPAs. The study revealed that engaging in academic discussions on social media platforms improved academic performance and increased knowledge levels among classmates. Additionally, Alshalawi's (2022) research found that most of the reviewed articles on social media networks identified a positive impact of social networks on learning performance. Most students recognized and appreciated the benefits of social networks in learning, as reported in the reviewed articles.

CONCLUSIONS & RECOMMENDATIONS

In this research, the authors examined to identify social media use and the relationship between the overall GPA score and patterns of social media use. The results show no relationship between social media use and GPA for all students. Even when social media use parallels studies or other academic activities, no statistical differences were found between social media use and academic performance in this study. The results of this study provide valuable information about the relationship between GPA scores and social media use patterns. The results of this study contribute to the literature in many ways. This study is the first to examine the relationship between GPA scores and social media usage patterns in Russia. In addition, this exploratory study examined different forms of social media use for students regarding its relationship to academic performance. While there is a growing debate/discussion among researchers and educators, the findings of this study offer new insights for university administrators and policymakers who should be thinking about social media. Using smart devices for mobile learning is a great way to contextualize and extend instruction. Social networks, such as communities of learners and practitioners, can provide valuable tools for developing, creating, and sharing knowledge. The findings of this study indicate that the exclusion of social media from the teaching process is impossible due to the students' significant affinity towards these technological tools.

University students may have difficulty regulating their use of social media, but educators and policymakers should still consider the potential benefits of these learning applications, creating and sharing knowledge. Furthermore, using suitable media within educational settings can enhance student learning and academic performance if integrated into teaching effectively. Furthermore, integrating social media platforms into the educational setting can establish a structure that promotes effective utilization within the classroom boundaries. Educators should employ caution when integrating social media platforms into the educational setting to ensure that students remain focused on their educational objectives and optimize their learning outcomes. It is important to conduct a study that objectively examines the relationship between students' use of social media and their academic performance. It also explores the particular forms of social media usage that contribute to improved learning outcomes. These findings can be utilized to integrate social media into educational practices better.

Limitations

The present study was conducted with university students in an institution and country. Hence, it is not feasible to generalize these findings to encompass all university students within the same institution and country. Furthermore, it is essential to consider the potential influence of recall bias when analyzing the self-reported GPA and endeavoring to ascertain the trends in social media utilization. In this research, the survey data relied on self-reporting, which introduced the possibility of students providing erroneous or misleading information. In addition, it should be noted that GPA is just one of several measures of academic performance. This limitation includes instances, where students may overstate or understate their engagement with social media platforms and their cumulative GPA scores. This particular factor is an additional limitation on the validity and reliability of the results. The current study did not include an in-depth exploration of the specific strategies employed by students when using social media for educational purposes. Therefore, a thorough qualitative analysis is required to address this knowledge gap. To gain a comprehensive understanding of the relationship between social media usage and the academic achievements of undergraduate students, it would be beneficial to incorporate other undergraduate students into future research efforts.

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