SERDEC Education Journal-SEJ

Using Comprehensive Approach to Social Media and Undergraduate Students' Performance in Mogadishu, Somalia

Abdulkadir Jeilani

Ph.D. Computer Science, Mogadishu University
Email: a.jeilani@mu.edu.so / Jeilani216@gmail.com

Abstract

The study aimed to explore the approach of university students using social media and its impact on their academic performance. Using a cross-sectional survey design and simple sampling technique, a questionnaire of two-hundred seventy items was distributed to undergraduates at three universities in Mogadishu Somalia. Data were examined using multiple linear regression analysis. The findings of the study revealed that approaches to using social media and collaboration with peers have no impact on students' academic performance. However, the result identified there is a strong direct relationship between interactivity with teachers and students' academic performance.

Keywords: Approaches, Media, Interactivity, Teachers, Collaboration, Peers, Students, Academic Performance.

1. Introduction

The Internet is the world's largest social network; under Web 2.0, the growth of social networking sites has been phenomenal, with Facebook, TikTok, Telegram, WhatsApp, and Twitter emerging as prominent examples. The rapid development of social networking sites (SNSs) has resulted in an increasing number of users. WhatsApp is one of the common types of social media, which allows students to send and share their lessons and assignments, and group work via a simple and available device. Researchers from academia and business are becoming more interested in social network sites (SNSs), drawn to their capabilities and audience(Boyd & Ellison, 2007). Social networking sites and applications are widely used by students. They spend a lot of their time on these sites as a part of their daily lives(Kolhar et al., 2021). Studies revealed that among the various age groups of students, university students are among the most using social networking. Social networking sites play a very important role in education. Indeed, students are afforded multiple opportunities to improve learning and access the latest information by connecting with learning groups and other educational systems(Abebe Befekadu, 2018; Al-Rahmi et al., 2015; Habes et

al., 2020; Kolhar et al., 2021; Rasheed, 2021; Suganya et al., 2020). Thousands of students are making good use of the various network sites and platforms. Universities are now using the power of social media platforms to reach out to their students directly. Is there a need for universities and other educational institutions to use social network sites at all? Universities use social media sites to showcase the resources they have available(Amadu et al., 2018). However, despite their tremendous contributions to knowledge acquisition, there is a need to determine whether such technologies are being used to gain knowledge or for other purposes that may lead to the harmful effects of technology misuse. Spending a lot of time on social networking sites can lead to a sedentary lifestyle and a decrease in daily physical activity levels, which in turn can render them vulnerable to non-communicable diseases such as obesity, diabetes, and hypertension(Kolhar et al., 2021). Furthermore, social media also has an impact on student's mental health; which refers to their emotional, psychological, and social well-being. University students spend a lot of their time on social media both during the day and at night, and it can be contended that such technologies play an important role in their daily lives(Kolhar et al., 2021). One of the common problems is that most students do not benefit from using social media to improve their knowledge and enhance their academic performance. Despite the remarkable advantages of using social media such as WhatsApp, students have not benefited from social media in terms of knowledge. Hence, it is crucially important to determine the key factors involved in enhancing and using this social media on academic performance. Thus, in light of the aforementioned gap and the pervasive use of social media. The researcher seeks empirical evidence for the confirmation of the theoretical model and constructs outside of the developed countries. Thus, the research questions are: *(1) What are the approaches of the students using social media (2) Does social media's interactivity with teachers and peers enhance students' academic performance?*

2. Theoretical Framework and Hypotheses

2.1 Approaches to Students' Use of Social Media

Social media and technology are integral parts of daily life, and integrating the use of these into the classroom is more natural than before, given how acclimated many students are to them. social media provides a smoother, more direct communication tool between students, teachers, and parents, who can check in and ask or respond to questions. Social media allows for more e-learning opportunities as well. As remote jobs and online classes are becoming more popular, training students to work from a distance is an important lesson, and social media can help with that(Su & Huang, 2021; Tahoon, 2020; Zhao, 2021). The current generation of college students is familiar with and utilizes highly adopted social media technologies (Irwin et al., 2012). This offers new opportunities to use social media to assist student-learning in education. For instance, social media can be used to manage course activities, provide information and resources, and gain student engagement and motivation in online learning communities through interactivity and collaboration. However, the research posits an approach to students' use of social media and their academic performance.

2.2. Interactivity with teachers

At the higher level of education, more complex academic tasks are handled and the new generation of students is perceived to understand that social media and social technologies are influential to learning. Several earlier studies have shown evidence that efforts are required to start using social media to influence educational activities(Ansari & Khan, 2020; Nahar Mim et al., 2018). Teachers are urged to focus on the diverse pupils' preferred methods of learning when appropriating and using social networking. Instructors have reported that using online

technologies can encourage online discussion among students outside the classes, beyond the traditional class setting. Sometimes, teachers are out of touch and unable to understand how to utilize social software in their classrooms. Hence, the study posts there is interactivity with teachers through social media can enhance students' academic achievement.

2.3 Interactivity with peers

Collaborations with a peer Pan be interchangeable with interactivity with peers on Social Networking Sites (SNSs). Students in the same group worked collaboratively and completed course assignments and projects via social media. Social media provided an interactive learning environment for students to work as a team. These social media platforms expand the amount of time and space available for communication with classmates inside and outside of the classroom. Students share their trend-predicting studies and concepts through graphics and words, particularly through WhatsApp. Students can freely access content offered by other students with no time or space restrictions(Son et al., 2018). Social Media and Interactive Learning: social media such as Skype, LinkedIn, Twitter, Facebook, YouTube, blogs, wikis, and Blackboard are becoming influential in college student education both from within and outside the classroom. There are many different meanings of interactive learning. According to some academics, interactive learning is simply cooperative learning that involves projects, pair work, and group work. In the context of interactive learning, social media can offer a platform for students to communicate with teachers and other students. (Son et al., 2018).

2.4 Social Media and Academic Performance

Internet addiction consequently gave rise to internet usage within the last couple of decades. Posit that social media is negatively associated with the academic performance of the student and is a lot more momentous than its advantages. There are benefits and risks associated with using any social network. There have been reports regarding its effect on students' academic

performance. Some researchers investigated the result of social networking usability among college students and their academic performance. They found a poor effect and influence when the media is overused in such a way that does not academically improve learning or its process(Al-rahmi, 2013; Amadu et al., 2018; Ansari & Khan, 2020; Ukpe et al., 2015). Therefore, the research proposes students who are not using social media to collaborate with their peers and teachers are likely to get low grades and weak academic achievement.

2.5 Research Hypotheses

The researcher stated the following three hypotheses:

H1 – There is statistical significance between the approach of students' use of social media and their academic performance($p < 0.05$).
H2 - There is statistical significance between their interactivity with peers through social media and their academic performance($p < 0.05$).
H3- There is statistical significance between their interactivity with teachers through social media and their academic performance($p < 0.05$).

3. Method

A quantitative method was used in this study which provides a better and wider view of the situations in a fast and more efficient manner. This study was conducted in a real, objective, and dynamic organization, based on practical results. The population included 270 undergraduate students of Mogadishu, Somalia who used social networking sites (SNSs) or social media, 252 of them were selected based on a simple sampling technique to explore the comprehensive use of social media of student's academic achievement. A questionnaire including demographic information was applied for data collection. To ensure the reliability of the questionnaire, Cronbach's α coefficient techniques were used. The result revealed that Cronbach's α is 0.885. Thus, the reliability of the data is acceptable according to(Hair et al., 2010). A multiple linear regression analysis was conducted to evaluate the impact of the approach to using social

media, interactivity with peers, and interactivity with teachers on students' academic performance through social networking sites (SNSs).

4. Result and Discussions

In this section, the researcher introduced the normality of the data, reliability and validity, descriptive analysis of the respondents' profiles, and hypothesis test results.

4.1 Normality of the Data

Test of the normality is an important step for deciding the measures of central tendency and statistical methods for data analysis. When our data follow the normal distribution, parametric tests otherwise nonparametric methods are used to compare the groups(Mishra et al., 2019). The Kaiser-Meyer-Olkin measure of sampling adequacy is therefore suggests the sample is adequate for Factor Analysis. Bartlett's test of sphericity was significant ($<.001$) (Dziuban & Shirkey, 1974), therefore suggests the data are normally distributed.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.642
Bartlett's Test of Sphericity	Approx. Chi-Square	566.260
	Df	171
	Sig.	<.001

.

4.2 Profile of the Respondents

Table 2. shows the profile of the respondents. Female respondents made up 47.2% of the sample while males made up 52.8%. The majority of respondents were their age between 18 – 23 years (69.4%) and between 24 – 28 years (27.8%). 58.4% of the students spend a time between 5 – 7 hours per 24 hours a day, this indicates the majority of the

respondents spend a lot of time using social media entertainment and communicating with friends and families.

Table 2. the Profile of the Respondents

Variable	Options	Number of respondents	Percentage
Gender	Female	119	47.2
	Male	133	52.8
Age group	Less than 18 years	7	2.8
	18 – 23 years	175	69.4
	24 – 28 years	70	27.8
Hours spend on social media per 24 hours a day	Less than 2 hours	30	11
	2 – 5 hours	33	14
	5 – 7 hours	147	58.4
	7 – 9 hours	28	11.1
	More than 9 hours	14	5.6

4.3 Hypothesis Testing

In this section, the researcher tested three hypotheses. The main purpose of these tests is to identify whether to accept the formulated hypotheses or reject then. Table (3) depicts the results of the testing the three hypotheses of the study. Hypothesis 1 and 2 were not supported due to their p-values are greater than (a=0.05), while hypothesis 3 was supported because the p-value is less than (a= 0.05). Thus, we can determine the relationship between students 'interactivity with teachers through social media and their academic performance

Table 3. Summary of the Findings

Hypothesis	t-value	p-value	Decision
H1	−.634	.527	Not supported
H2	1.235	.218	Not supported
H3	2.446	.015	Supported

5. Conclusion

The study investigated three predictors; the approach of using social media, interaction with peers, and interaction with teachers for the enhancement of students' academic performance. In today's social media, several approaches are used, but the approach used by students is not a method that encourages them to improve their knowledge, so the researcher recommends students control and manage their time and use social media to improve their knowledge. The findings showed that most students use social media to chat and play games with their peers, not to exchange knowledge and work together on homework and exercises assigned by their teachers. At that point, the researcher recommends the teachers encourage the students to collaborate on their homework and exercises. The findings also reveal that interactivity with teachers plays an important role in the student's academic performance, so it is better to continue

Acknowledgment

References

Abebe Befekadu, G. H. (2018). Social Media Usage, Prevalence of Social Media Addiction, and the Relationship with Academic Performance Among Undergraduate Students of St. Mary's University Addis Ababa University School of Graduate Studies. *Academia.Edu*, 1–2.

Al-rahmi, W. M. (2013). The Impact of Social Media use on Academic Performance among university students : A Pilot Study. *Journal Of Information Systems Research and Innovation*,1–10. https://doi.org/http://seminar.utmspace.edu.my/jisri/

Al-Rahmi, W. M., Othman, M. S., & Yusuf, L. M. (2015). The role of social media for collaborative learning to improve the academic performance of students and researchers in Malaysian higher education. *International Review of Research in Open and Distance Learning*, 16(4), 177–204. https://doi.org/10.19173/irrodl.v16i4.2326

Amadu, L., Muhammad, S. S., Mohammed, A. S., Owusu, G., & Lukman, S. (2018). Using technology acceptance model to measure the use of social media for collaborative learning in Ghana. *Journal of Technology and Science Education*, 8(4), 321–336. https://doi.org/10.3926/jotse.383

Ansari, J. A. N., & Khan, N. A. (2020). Exploring the role of social media in collaborative learning the new domain of learning [Explorando el papel de las redes sociales en el aprendizaje colaborativo el nuevo dominio del aprendizaje]. *Smart Learning Environments*, 7(1), 1–16. https://n9.cl/nju00

Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210–230. https://doi.org/10.1111/j.1083-6101.2007.00393.x

Dziuban, C. D., & Shirkey, E. C. (1974). When is a correlation matrix appropriate for factor analysis? Some decision rules. *Psychological Bulletin*, 81(6). https://doi.org/10.1037/h0036316

Habes, M., Salloum, S. A., Alghizzawi, M., & Mhamdi, C. (2020). The Relation Between Social Media and Students' Academic Performance in Jordan: YouTube Perspective. *Advances in Intelligent Systems and Computing*, 1058, 382–392. https://doi.org/10.1007/978-3-030-31129-2_35

Kolhar, M., Kazi, R. N. A., & Alameen, A. (2021). Effect of social media use on learning, social interactions, and sleep

duration among university students. *Saudi Journal of Biological Sciences*, *28*(4), 2216–2222. https://doi.org/10.1016/j.sjbs.2021.01.010

Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, *22*(1). https://doi.org/10.4103/aca.ACA_157_18

Nahar Mim, F., Ashraful Islam Student, M., Kumar Paul, G., & Ashraful Islam, M. (2018). Impact of the use of social media on students' academic performance and behavior change. *International Journal of Statistics and Applied Mathematics*, *3*(1), 299–302. https://www.researchgate.net/publication/329 465967

Rasheed, I. O. (2021). *Social Media and Academic Performance of Political Science Students in Emmanuel Alayande College of Education, Oyo, Nigeria*.

Son, J., Sun, J., Lee, J., & Son, J. (2018). Interactive learning through social media for large size classes in the clothing and textile curriculum textile curriculum. *International Journal of Fashion Design, Technology and Education*, *0*(0), 1–11. https://doi.org/10.1080/17543266.2018.1534 002

Su, X., & Huang, J. (2021). Social media use and college students' academic performance: Student engagement as a mediator. *Social Behavior and Personality*, *49*(10). https://doi.org/10.2224/SBP.10797

Suganya, D. F. J., Kengatharan, L., & Yogendrarajah, R. (2020). Use of social media and academic performance of students: evidence from undergraduate students in University of Jaffna, Sri Lanka. *Journal of Business Studies*, *7*(2), 62. https://doi.org/10.4038/jbs.v7i2.61

Tahoon, R. (2020). Mediating Effects of Dark Personality Triad and Real and Mediated Social Interaction on Social Media Addiction and Academic Performance in University Students. *Clin Exp Psychol*, *6*, 4. https://www.iomcworld.org/abstract/mediatin

g-effects-of-dark-personality-triad-and-real-and-mediated-social-interaction-on-social-media-addiction-and-acade-57856.html

Ukpe, K. (n. d.). S. M. on Crowdfunding. R. from http://www. cs. uic. edu/~xkong/wsdm14_lu. pdf, Cheema, S.

G., & Rondinelli, D. a. (2007). From government decentralization to decentralized governance. Decentralizing Governance. Emerging Concepts and Practices, 1–20. Retrieved from http://scholar.google.com/scholar?hl=en&btn G=Search&q=intitle:From+Government+Dec entralization+to+Decentralized+Governance# 0, Fitzgerald, B. (2017, D. D. R. W. S. C. P. F. Popularity. R. from https://www. huffpost. com/entry/disappearing-romney-website_n_2117165.

Ackerson, L. K., & Viswanath, K. (2009). The social context of interpersonal communication and health. Journal of Health Communication, 14(SUPPL. 1), 5–17. https://doi.org/10.1080/10810730902806836.

Turner, R. (2012). Connecting the Dots: Social and Scientific Perspectives on Agriculture and Rural Life in Atlantic Canada. Edited by Elizabeth Beaton. (Sydney, N.S.: Cape Breton University Press, 2009. 185 p., ill. ISBN: 978-1-8970-0939-0). Scientia Can, 181. https://doi.org/10.7202/1013996ar.

Lory, B. E. H. (2010). Using Facebook to Assess Candidates During the Recruiting Process: Ethical Implications. NACE Journal, 71(1), 37–40. Retrieved from http://search.ebscohost.com/login.aspx?direct =true&db=a9h&AN=54460140&lang=pt-pt&site=ehost.

live&scope=site, carr, nicholas. (2008). Is Google Making Us Stupid? Yearbook of the National Society for the Study of Education, 107(2), 89–94. https://doi.org/10.1111/j.1744-7984.2008.00172.x.

Spears, B. A., Taddeo, C. M., Daly, A. L., Stretton, A., & Karklins, L. T. (2015). Cyberbullying, help-seeking and mental health in young Australians: implications for public health. International Journal of Public

Health, 60(2), 219–226. https://doi.org/10.1007/s00038-014-0642-y.

Valenzuela, S., Park, N., & Kee, K. (2009). Is There Social Capital in a Social Network Site?: Facebook Use and College Students' Life Satisfaction, Trust, and Participation1. Journal of Computer-Mediated Communication, 14, 875–901. https://doi.org/10.1111/j.1083-6101.2009.01474.x.

Lyndon, A., Bonds-Raacke, J., & Cratty, A. D. (2011). College students' Facebook stalking of ex-partners. Cyberpsychology, Behavior, and Social Networking, 14(12), 711–716. https://doi.org/10.1089/cyber.2010.0588.

Wang, Z., Tchernev, J., & Solloway, T. (2012). A dynamic longitudinal examination of social media use, needs, and gratifications among college students. Computers in Human Behavior, 28, 1829–1839. https://doi.org/10.1016/j.chb.2012.05.001.

Zhao, L. (2021). Social Media Addiction and Its Impact on College Students' Academic Performance: The Mediating Role of Stress. *Asia-Pacific Education Researcher*. https://doi.org/10.1007/s40299-021-00635-0