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THE USAGE AND EFFECT OF SOCIAL MEDIA NETWORKS ON STUDENTS' ACADEMIC ACHIEVEMENT IN THE CASE OF ASSOSA UNIVERSITY

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Abstract

Social media network is a phenomenon of web application which has a new science of media network based on web-based service that gives individuals the opportunity to create either a public or group profile within a bounded system. It is so easy to use and does not need skill and professionalism to use it, cheap cost, and the introduction of smart-phones leads to social media networks best to use in our daily lives. We can use Social media networks for different reasons in the community and the world. One of the main reasons is communication purpose between individuals aboard live at low cost is the primary advantage. In addition to this, it adds a list of others' profiles to those who share a connection made by others within the system. Therefore, this study was carried out to examine the usage and effect of social media on students' academic performance at Assosa University. This research adopted descriptive and explanatory research design. It also employed the use of a cross-sectional survey method using survey questionnaires that contained 20 items and focus group discussion. The sample of 382 students was selected from Assosa University using the Yemane sampling method. The data collected was analyzed using descriptive and chi-square(X²) inferential statistics via SPSS 21. Using the chi-square(X²) inferential statistics four variables are significant which include: exposure to social media, daily usage of the social media network, age, and health addiction while student relation and sex problems are not significant.

Keywords: Social Media Network, academic performance, social network effect.

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Introduction

After the introduction of computers, researchers got new opportunities on how can be used to communicate as well as send and receive data from one to another. The Advanced Research Projects Agency Network (ARPANET) was US. Department of Defense (military) project, the baseline for today's internet achievement [1]. ARPANET's early aim was to distribute military information from one place to another. After this, it began to connect many non-military organizations, including educational institutions. It attempted a huge amount of network integration called internetworking in other words ARPANET contributed a lot to the advancement of computer communication.

Tim Berners-Lee [2] began working as an independent contractor at the European Nuclear Research Center called CERN. He proposed a project based on the concept of hypertext, to facilitate sharing and updating of information among researchers. He built a prototype system called Enquire. He was given an opportunity to the World Wide Web service. He revised his first version proposal which was a "universal linked information system" totally accepted [1]. During that time [2] four developments proved critical for the birth of the Internet as we know it today: (a) the initial code for the Hypertext Transfer Protocol (HTTP), a language that enables computers to communicate with each other over the Internet; (b) the Universal Resource Identifier scheme of addresses; (c) the World Wide Web, the first web browser; and (d) the Hypertext Markup Language (HTML) for formatting web pages. The first website was at <http://info.cern.ch/>. The World Wide Web is a repository of information spread all over the world and linked together for easy access. It is made up of documents called pages that combine text, pictures, forms, sound, animation, and hypertext links into a rich communication medium.

Communication technology plays a great role in the improvement of world communication via Information and Communication Technology (ICT) [3]. The entire world was brought to the global village as one indicator of technology in communication. But as it is, technology like two sides of a coin, brings with it both negative and positive sides. It helps people to be better informed, enlightened, and keep abreast with world developments. Technology exposes mankind to a better way of doing things.

Social media or social network service is one of communication technology that makes a network with a collection of different people's attitudes on social relations, economy, politics, education, and technology in dealing with and facilitating people to express and share ideas, thoughts, and opinions with others.

The introduction of social media networks in the world changed people's way of life and increased the communication skills of the community. Besides this, it also hurts the social relationship as well as plays a great role in making the world into a global village. The significance of social media [2] in the world is: (a) removes spatial and time constraints that were inherent in traditional methods of communication; (b) provides online tools that enable one to many sharing of multimedia content; and (c) employ easy to use interfaces that enable even non-specialists to share and connect.

According to [4] the total number of social media users pinpointed Facebook 2 billion, YouTube 1.5 billion, Instagram 700 million, Twitter 323 million, WhatsApp 1.2 billion, Snapchat 255 million, Facebook Messenger 1.2 billion, and WeChat 889 million. Currently, billions of people communicate through social media networking sites. Numerous benefits have been obtained through distant communication through the use of social media networking sites.

Academic achievement plays an important role in an individual life, to be in academic institutions or job placement. Due to this, many people are concerned with the ways they can enhance their academic achievement. The emphasis on academic excellence which is also prevalent worldwide has encouraged many studies about the conditions promoting it. As the number of students who spend time on social media sites increase, so do it negative impact on student's academic achievement with social media site ends up skipping their meals which has a health impact on them [5]. Academic achievement is the outcome of education. But today social networks play an advanced role in both negative and positive aspects of education and social interaction [6].

There is a relationship between social media usage and the academic performance of students in university. However, the darker side of technological evolution has resulted in dilemmas such as the setback of real values of life especially among students who form the majority of users interacting through the use of social networking sites.

This study was conducted in Assosa University 2011 E.C. entry regular undergraduate program only which is used to examine the usage and effect of social media networks on the academic achievement of students in Assosa University.

2. Statement of Problem

We believe that Social media networks have a great impact on the way people communicate on a daily source. However, all of the students do not have the same ability to understand why we use social media networks in our daily activities and how social media networks can help us learn.

From time to time, social media networking usage among students has become more and more popular. It is a way to make connections with different students or people not only on the campus but also with people outside of the campus. Many stakeholders are worried that students are spending too much time on social media network usage and do not have enough time to study [7].

To the extent of the information gathered, the academic performance of students is facing a lot of neglect and challenges. As a result, the educational system in Ethiopia is faced with many challenges which have certainly brought about a rapid decline in the quality of education. There is a deviation, distraction, and divided attention between social media networking activities and the academic work of teenagers [8]. It is observed that students pay more attention to social media than they do to their studies.

This study investigated the problem of Assosa University students the way of use social media network settings and, the positive and negative effects of social networks on their academic achievement. In addition to this, we have heterogeneous cultures, languages, and inhabitants that may have the ability to affect our social relations via the use of social media networks.

3. Research Question

The following research questions are raised in the study;

- To what extent do students spend their time using social media networks at Assosa University?
- For what purpose do students use social media networks at Assosa University?
- Does the social media network affect students' relations on the campus of Assosa University?
- What is the level of addictiveness of students on social media networks at Assosa University?

4. Result and Discussion

4.1. Population of the Study and Sampling

The population is the actual target from which the sample is taken to make a plausible generalization (Krueger and Newman, 2006). The population included in this study were the regular program-attending students of Assosa University in 2011 E.C. This choice has been made as it has a direct linkage in answering the objective of the study. Some regular students are considered as research participants for focus group disc

ussions and questionnaires during the data collection.

The scope and targets of the research are very vast due to the increasing trend in social media usage among in-school students in the stated university. This increases the difficulty of applying the complete enumeration method and collecting information from each person. Thus, it is important to be sampled in such a way that all characteristics shall be present simple random sampling procedure from probability sampling type for quantitative research. The qualitative section of the data was selected by using the non probability sampling type where the purposive sampling technique was the best fit to pick key discussants for the study.

Generally, the study used Yemane's sample size determination formula. The Yamane sample size determination formula was used in identifying the number of students who participated in this study for the quantitative part of the research. Respondents are picked randomly without any consideration/mixing papers with names in the small bucket and choosing one paper among different pieces of paper that has the name of the person this procedure is mainly considered as a lottery method. A total sample size of 382 students was generated by the Yemane sampling technique formula confidence interval of 95% (0.05 the error point). According to information gained from the Assosa University registrar's office, the total population for the second year and above is 6,085 and the first year is 2,184 full-time students learners 2011 E.C. So the total population for the study is 8269 in the Assosa University.

To investigate the study a questionnaire and focus group discussion were distributed. In this study, we used all regular students in Assosa University as the population of the research and a total of 382 students took to this study and 10 were not returned. Of these students, 257 were male and 115 were female students participated. For more information refer to Table 1.

Table 1. Number of the participant based on their gender

Gender	Frequency	Percentage
Male	257	61.9
Female	115	39.1
Total	372	100.00

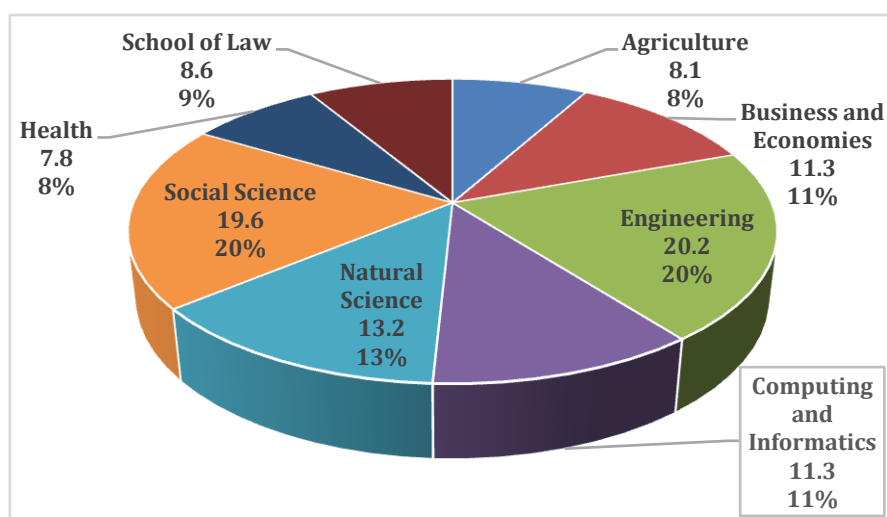
276 students from the total participant's age were from 21-25. Table 2. Illustrated thenumberof the participant based on their age.

Table 2. Numbers of participants based on age

Age	Frequency	Percent
17-20	84	22.6
21-25	276	74.2
>25	12	3.2
Total	372	100

Assosa University has seven colleges and two schools with 36 departments. Figure 1 below shows us the number of a participant in each college. Selected numbers vary depending on the seed number generated mechanism for each collage. We did not categorize the participant based on their skill and batches as well as departments.

Figure 1. Participant based on their college.



4.2. Preferable social media network in the university

There are so many social media networks available in the world. Some of them Facebook, YouTube, Instagram, Twitter, WhatsApp, Snapchat, Facebook Messenger, WeChat, and others were used for this research. When we analyze based on the use of social media networks, almost all students use social media networks in daily activities. Table 3 indicates how many students used social media networks by frequency.

Table 3. Number of users on social media networks.

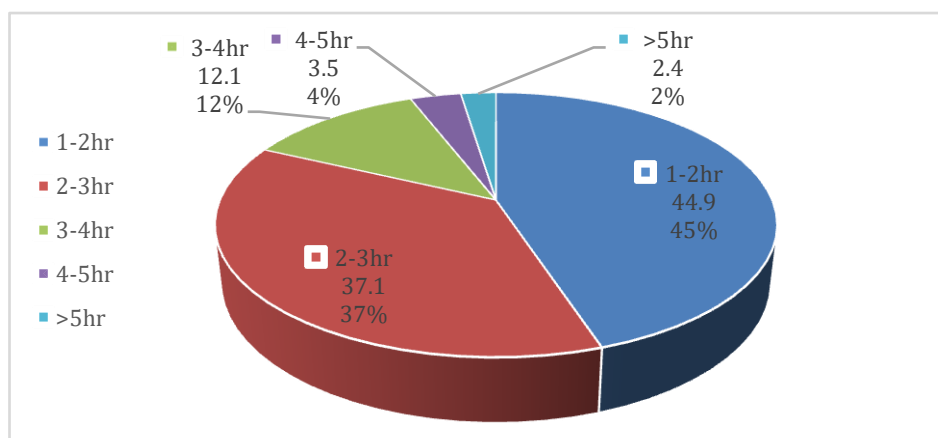
Use of social media network	Frequency	Percent
Yes	356	95.7
No	16	4.3
Total	372	100

From the experience of student usage, we also examined the most preferable social media for Assosa University students. Based on the analysis Facebook is the most preferable social media network from the other types of social media. The results in Table 4 show us individual Facebook the leading presented below using frequency.

Table 4. Preferable Social Media

Social media network	Frequency	Percent
Facebook	106	28.5
YouTube	33	8.9
Instagram	3	0.8
Facebook Messenger	3	0.8
WeChat	2	0.5
More than one	225	60.5
Total	372	100.0

Daily time spent on social media networks for chatting purposes is greater than spent time to study. Figure 2 illustrates that 82 % of students spent 1-3 hours daily chatting.

**Figure 2. Daily spent time to chatting purpose**

4.3. Reason for using social media

The subject students were asked to choose the reason for which they use social media. According to the results, the major reason for using social media is for chatting and sharing knowledge, doing assignments, sharing personal information, friend friends, and as a source of recreation and relaxation with respectively of the numbers of percentages. The result is presented as follows using frequency and percent in Table 5.

Table 5. Purpose of social media

Purpose	Frequency	Percent
Chatting	242	65.1
Friend find	9	2.4
Doing assignment	38	10.2
Entertainment	8	2.2
Sharing personal information	23	6.2
Sharing my knowledge with my classmate	52	14.0
Total	372	100.0

4.4. Impact and factors of Social media on the students

To ascertain how the usage, effectiveness, and impacts of social media have positively and negatively influenced the academic work and performances of students at Assosa University, the study used twenty statements outlined in five categories, and respondents were asked to indicate their level of agreement or disagreement. The respondent responses are represented as shown below.

1. exposure of students to Social media Networks

Most students get unlimited access to social media networks at the university without time limits, this has affected students' academic performance negatively. Because around 65% of students use it for chatting purposes in our university. Of the total students around 53.2 % gain access and reduce their results from semester to semester. That means they are open to affect negatively in their academics.

23.06% of the participants responded Strongly Agree and almost half of the students 44.3% agree on that issue. Students' exposure to social media networks has a significant influence on students' academic performance as well as 23.44% disagree, 6.6% strongly disagree, and 2.6% neither agree nor disagree.

2. Use social media networks for education

Engaging in academic discussions on social media networks has positively improved students' academic achievement. 76.8% of the respondents agree on using social media networks for educational purposes. In addition to this, the use of social media networks to distribute or share knowledge with their classmate has positively affected student academics, and 79.3% agree on this situation. However, information obtained from social media to do their assignments without referring to other sources hurts their academics. That means 61.3% of respondents agree with it.

3. Usage of Social Media Networks by Age

Age has an impact on the use of social media networks in university to chat. In other words, around 60% of respondents agree that age has an impact on the use of social media. Besides, 56.7% of respondents agree that social media becomes boring when they grow older.

4. Level of addictiveness

Addiction to social media networks is a problematic issue that affects the academic performance of students in our university. Around 70.4% of respondents agree on that issue. 60% of respondents agree that online social media networks distract students from their studies. Students spend their time on social media networks are greater than students spend several hours spend to reading. That means 64.1% of respondents agree that hours spent online can never be compared to the number of hours spent reading. This level of addiction to social media networks leads students to health problems because most students skip their meal time due to online social media networks.

4.5. Analysis of Data and Testing of Hypotheses

In testing the hypotheses stated, the study used chi-square (χ^2) inferential statistics. To conduct these statistics, 95% was used as confidence interval and remain 5% error interval. That means the p-value is ≤ 0.05 . If the probability is greater than 0.05, then the variables are not significantly related else variables are significantly related.

Table 6. Daily spent time on social media networks and academic results.

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	100.053 ^a	35	.000

Table 6 illustrates that the P-value is 0.00 and that implies that spending time on social media networks significant influence on the academic achievement of students.

Table 7. Uses of social media networks and exposure of students.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	42.428 ^a	16	.000

Table 7 the above shows that the P-value is 0.00 which implies use of social media networks students significantly influenced exposure students in our university.

Table 8. Social media network and students' academic achievement.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	109.238 ^a	16	.000

As we show in Table 8 the above p-value is 0.00 that implies student's relationship to the social media network significantly influenced students' academic achievement at our university

Table 9. Age and usage of social media.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	45.339 ^a	16	.000

Table 9 above shows that the p-value is 0.00 which implies age significantly influences on usage of social media networks.

Table 10. Daily spent of time on social media and level of addictiveness.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.030 ^a	7	.008

Table 10 the above show that the p-value is 0.008 that implies daily spending time on social media network significantly influences students' level of addictiveness.

5. Review

According to Boyd & Ellison (Boyd, 2007), "Social networking sites are web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system". Helou and Rahim (Oye, 2012), also defined online social networks (OSNs) "as virtual communities which allow people to connect and interact with each other on a particular subject or to just "hang out" together online. Social media sites around the globe provide users with several options to interact with each other through entertainment, chats, gossips, and games". Through these social network platforms, students can meet to interact with each other on various topics and interests.

Social networks have become an integral part of student social life (Deng, 2013). These networks have become important as they serve as platforms for users to interact and relate with their peers. Social networks are now been seen as learning platforms or communities that could be utilized to enhance student engagement and performance. A study conducted by Roberts and Foehr (Roberts, 2008), in the United States about student extracurricular activity, rather suggested that new media, such as Facebook, Twitter, etc. replace or enhance other leisure

activities, but do not take away time from the youth. In other words, they were of the view that the time spent by students on social network sites is the same time that normally use for extracurricular activities and therefore does not take away their productive time for studies. Negussie and Ketema (Negussie, 2014), a study in Ethiopia also indicated that there is no significant relationship between time spent on social networks such as Facebook with students' grade point average (GPA). This was also consistent with a study by Ahmed and Qazi (Ahmed, 2011) who conducted a study in Pakistan among six universities. They discovered that there is not much difference between time spent on social media networks and students' academic performance.

Conversely, several researchers and studies have also found a negative impact that social network participation has on students' academic performance. In the study of Kirschner and Karpinski (Kirschner, 2010), they found a "significant negative relationship between Facebook use and academic performance. Facebook users reported lower mean GPAs and also reported spending fewer hours per week studying on average than Facebook nonusers. A majority of students claimed to use Facebook accounts at least once a day". Malaney (Malaney, 2005), found that 8.9% of students in 2000, and 4.4% in 2003, reported that their grades had suffered as a result of too much time spent on the Internet as well as on social media networks.

6. Conclusion

Acquiring information both locally and internationally from friends, lectures or experts is no longer a struggle as compared to the olden days and the internet is the ultimate master behind this success.

"Social media is a useful servant but a dangerous master" and can also be "described as a two-edged sword" As such, users especially students must be alert about its dangers and be prudent in its utilization.

Everything in the world has positive and negative side effects on human beings. The same social media network has positive and negative side effects on the community. The nature of social media as a useful servant but a dangerous master" and a two edge sword has been revealed in the findings of the study that, despite the benefits that students can harness in academic performance and achievement from social media networks such as sharing of information, building relationship, partaking in group discussions from near and far among others, there is to some extent addiction and distraction of attention caused by the use of social media which could have serious consequences on the academic life, performance, achievement and effectiveness of students.

7. Recommendation

In the light of the findings, the following recommendations are made;

1. Seminars should be organized in the various colleges or schools to enlighten and aware students more about the possible implications of social media usage on their academic performance and achievement.
2. Students should make sure that they use these social networking sites carefully to ensure that they do not become detrimental to their academics.
3. Teachers/lecturers can adopt new strategies by channeling assignments or discussions on social media platforms to help instruct the habit of using these sites for academic work.
4. Students must minimize the time they spend on social media to avoid being obsessed with these sites for unnecessary chatting.
5. The university ICT director should also restrict access to certain social media sites that may be prone to distracting students' attention during the main time of class hours as a means of minimizing their use.

8. Acknowledgement

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Assosa University

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11. Conflict of Interest

There is no conflict of Interest

12. Informed Consent

We are permitted to publish our work.

13. Ethical Statement

This research was funded by ASU to study the relationship between social media networks and student academic results.

14. Author Contribution

Yimenu A. and Ashagerech M. Data collectors, data pre-processing conduct, and review the manuscript. Cheru H., Abebe S., Yimer A. and Biniyam W.analyzed the data and wrote this manuscript.

15. References

1. S. A. D. J.WETHERALL, COMPUTER NETWORKS, Amsterdam: Pearson Education, 2011.
2. J. N. FOTIS, "THE USE OF SOCIAL MEDIA AND ITS IMPACTS ON CONSUMER BEHAVIOUR: THE CONTEXT OF HOLIDAY TRAVEL," *BOURNEMOUTH UNIVERSITY*, pp. 16-67, MAY 2015.
3. O. PETER, "SOCIAL MEDIA AND ACADEMIC PERFORMANCE OF STUDENTS IN UNIVERSITY OF LAGOS," *Researchgate*, pp. 1-70, January 2015.
4. J. Constine, "Facebook now has 2 billion monthly users," June 2017. [Online]. Available: <https://techcrunch.com/2017/06/27/facebook-2-billion-users/>. [Accessed 04 October 2018].
5. S. O. Mensah, "THE IMPACT OF SOCIAL MEDIA ON STUDENTS' ACADEMIC PERFORMANCE- A CASE OF MALAYSIA TERTIARY INSTITUTION," *IJELT*, pp. 15-19, November 2016.
6. V. R. A. P. Patil, "Use of Social Media in Education Positive and Negative Impact on the Students," *International Journal on Recent and Innovation Trends in Computing and Communication*, pp. 281-284, January 2016.
7. M. M. M. A. K. a. F. Waqas Tariq, "The Impact of Social Media and Social Networks on Education and Students of Pakistan," *International Journal of*

- Computer Science Issues*, pp. 407-409, July 2012.
8. P. P. Deka, "A Study on Impact of Social Media on Educational Efforts in Guwahati City, Assam," *International Journal of Advanced Research in Education Technology*, pp. 90-94, Sept. 2015.
9. D. M. a. E. N. B. Boyd, "Social network sites: Definition, history, and," *Journal of Computer-Mediated Communication*, 1(13), 11. Retrieved July 1,, 2007.
10. N. D. M. A. H. a. R. N. Z. Oye, "Model of Perceived Influence of," *International Journal of Computers*, pp. 24-29, 2012.
11. L. a. T. N. J. Deng, "From Moodle to Facebook: Exploring Students' Motivation," *Computers and Education*, 68, 167-176, 2013.
12. D. a. F. U. G. Roberts, "Trends in media use.," 4 December 2008. [Online]. Available: http://www.ijhssnet.com/journals/Vol_4_No_10_1_August_2014/16.pdf.
13. N. a. K. G. Negussie, "Relationship between Facebook Practice and Academic," *Asian Journal of Humanities and Social Sciences*, pp. 1-7, 2014.
14. I. a. Q. T. F. Ahmed, "A Look Out for Academic Impacts of Social Networking Sites:" *African Journal of Business Management*, pp. 5022-5031, 2011.
15. P. A. a. K. A. C. Kirschner, "Facebook and academic performance," *Computers*, pp. 1237-1245, 2010.
- 16.** G. D. Malaney, "Student Use of the Internet. *Journal of Educational Technology Systems*," pp. 53-66, 2005.