

# Effect of Social Media on Students' Academic Performance in Higher Institutions of Learning in Nigeria

Araoye, Olalekan Ismaila

Department of Computer Science, Federal Polytechnic Ado-Ekiti, Nigeria

**Abstract**— *The advent of internet and global system for mobile communication (GSM) has changed traditional way of doing thing ranging from academics, economics to social life of human being. One of the major benefits derived from internet is effective and timely communication. There are many social applications today such as Facebook and WhatsApp which are deployed through GSM and are being used by Nigerian Students for interaction. The declining in performance of students in higher institution of learning in Nigeria cannot be isolated from the way students engaged themselves with some social media. Research was conducted among five (5) higher institutions of learning in Ado-Ekiti, Nigeria, to ascertain how the use of social media has affected the academic performance. The research shows that 318 (86%) of the 368 students surveyed always stays online, 314 (85%) have smart phones, (33.7%) 124 are on whatsapp. A greater percentage agreed that they spend most of their time on chatting both in the morning and at night. Many also said they chat while lectures are ongoing. This of course can have negative impact on their academic performances.*

**Keywords**— *Communication, GSM, Internet, Performance, Social media, negative effect.*

## I. INTRODUCTION

The term "Social media" is defined as the application that allows users to converse and interact with each other; to create, edit and share new forms of textual, visual and audio content, and to categorize, label and recommend existing forms of content [11]. Social media therefore indicates wide collection of Internet based and mobile services that connect people together to communicate, participate, collaboratively interact, discuss and exchange ideas in an online global community.

[20] Defined social network sites as public web-based services that allow users to develop a personal profile, identify other users with whom they have a connection, read and react to postings made by other users on the site, and send and receive messages either privately or publicly. These web based services allow individuals to construct a public or semi-public profile within a bounded system. Among the most popular are Facebook and whatsapp.

Social media are therefore associated with an increased tendency for young people to multitask, to rely on a digital juggling of daily activities and commitments [21].

Social media is generally characterized by digital platforms where users can create, share, and interact with content and each other in online collaborative spaces. More subtly, the reason with young people associated with these emerging technologies is also associated with the autonomous

nature of social media allowing students an increased control over the nature and form of what they do, as well as where, when and how they do it. Research has shown that, young people 'are not content to be passive consumers, and increasingly satisfy their desire for choice, convenience, customization, and control by designing, producing, and distributing products themselves [13].

Social media open up new ways for collaboration and discussion in that, it offers a great deal of content posting, coping, sharing and search ability by easily using online search tools. Students today use social media anywhere and at any time where internet connection is available in order to meet their educational needs [5]. Students use social media to communicate with teachers as a group outside the class and to plan school events and so on, it also allowed students to get help on school work from teachers after school, weekends and holidays for regular academic update.

## II. LITERATURE REVIEW

The impact of the internet on education is an important issue that has caught both educators' and practitioners' attention in recent years [6], [20], [10], [8].

Social media provides students a new mechanism for a familiar exercise. It provides students a direct medium by which to publicly evaluate and comment on their campus environments, institutional policies, classes, Lecturers, and administration and fellow students in a real-time mode. Social media zips through our campuses nearly unseen, dragging behind it the heavy weight of social injustices and complicated jurisprudence accumulated from decades of student speech [18].

Social media has contributed immensely to effective interaction among students of higher institution of learning all over the world. A particular question can be posted on social media e.g. on a particular whatsapp group for discussion and this will allow individual contribution to the subject matter. Lecturer can post assignment on social media of a particular class and students can submit an assignment through a dedicated channel of social media.

Today's students communicate via technology, and that If you say absolutely no Facebook or texting, you are cutting off an important relationship with students technology as an online teacher use of technology via the use of a variety of tools such as skype, text, email, Facebook and twitter. Social media open up new ways for collaboration and discussion in the sense that, it offers a great deal of content posting, coping,

sharing and search ability by easily using online search tools. Students today use social media anywhere and at any time where internet connection is available in order to meet their educational needs [5]

The social network approach holds that the response of an individual is affected by the kinds of relations, or technical ties, and networks more than by the norms and attributes that an individual possesses. The social, informational, or material resources that two individuals exchange characterize their closeness. In social network analysis, these resource exchanges are termed “relations.” Some positive and negative relations are assumed to be related to an individual’s performance. Researchers empirically demonstrated that friendship and advice relations were positively related to a student’s academic performance and an employee’s job performance. On the other hand, the effects of an adversarial network were negatively related to performance [2], [12].

It is a good idea to investigate the effect that any kind of social media has on academic performance of students especially in higher institutions of learning where higher exchange of knowledge and interaction is expected.

### III. SOCIAL MEDIA AND EDUCATION IN NIGERIA.

The use of social media in education can be strange terrain for many teachers who are used to environments with distinct boundaries. These technologies can blur temporal, geographical, and hierarchical confines that often characterize communication in more formal settings.

Social media tools have shown the potential to provide spaces for more students to participate in discussions. Students who are less extroverted, lack confidence speaking in face-to-face settings, or may require more time to craft responses could benefit from the opportunities presented by social media.

In most of higher institution of learning in Nigeria, the mode of lecture delivery has been offline. Social media has not been widely deployed for teaching. This is a major deficiency in Nigerian education sector. The role of social media only known to most Nigerian Students is chatting and so the social media is either misused or abused to send node pictures.

One major concern of online education is whether the learning is effective. Many studies have been conducted to explore the effectiveness of Web-based distance learning or asynchronous learning [1], [16]. Although most studies showed that the learning outcomes of distance learning or asynchronous learning are as effective as or more effective than those of traditional face-to-face teaching [7], [17], [18], the results were not conclusive since the learning materials and goals might exert significant influence on outcomes.

For example, conceptual learning might be different from technique learning [8]. Negative effects such as decrease in group effectiveness, increase in time required to complete tasks, and decrease in member satisfaction were confirmed [3]. Students’ feeling of isolation may also become an obstacle in pure online education [9]. The adjunct mode and the mixed mode of online education should be explored in more detail because these two modes of online education could possess

the advantages of both pure online and traditional face-to-face teaching. Yet, few studies have been conducted to explore the adjunct mode of online education [8], [4], [14]. Little is known regarding the learning effectiveness of these forms of online learning.

#### A. Statement of the Problem

With increase in growth in number and use of social media among Nigerian students in their day to day communication, there is need to look at the impact this social media have in the academic performance of students be it positive or negative

#### B. Purpose of the Study

The purpose of this research is to look at effect of social media among Nigerian Students in higher Institutions of learning.

#### C. Research Questions

The research questions considered the influx of social media among Nigerian students, the use in which the social media have been subjected to, how has social media contributed to learning? and the impact on their academic performance.

#### D. Significance of the Study

This study will serve as an eye opener to higher institutions of learning in Nigeria on what the social media are being used for among Nigerian Students. It will enable them to give appropriate orientation to students and even the Lecturers on how social media can aid learning. In this regard the social media will not be misused or abused. The research also looked at how social medial can affect the academic performance of students.

### IV. STATISTICAL ANALYSIS

The result of questionnaire administered to 368 respondents drawn from five higher institutions of learning ranging from College of Education, Polytechnics to Universities in Ekiti State, Nigeria, on the use of social media and number of respondents for each level was contained in Table 1. This is followed by analysis of each question.

Table 1. Descriptive Statistics on opinions of respondents on social media.

Variables	n (%)
<b>Current level</b>	
ND1	28 (7.6)
ND2	81 (22.0)
HND1	19 (5.2)
HND2	21 (5.7)
100L	43 (11.7)
200L	48 (13.0)
300L	38 (10.3)
400L-above	19 (5.2)
Part 1	17 (4.6)
Part 2	35 (9.5)
Part 3	19 (5.2)
Availability on social media	
Yes	318 (86.4)
No	50 (13.6)
Ownership of smart phone	
Yes	313 (85.1)
No	55 (14.9)

Type of social media used	
Whatsapp/facebook	92 (25.0)
Whatsapp/facebook/Instagram	85 (23.1)
Whatsapp	124 (33.7)
Instagram	32 (8.7)
Facebook	21 (5.7)
Twitter	7 (1.9)
2go	1 (0.3)
Others	6 (1.6)
Always with handset in the classroom	
Yes	243 (66.0)
No	125 (34.0)
Variables	n (%)
Chatting while receiving lecture	101 (27.4)
	267 (72.6)
Chatting in the night	
Yes	282 (76.6)
No	85 (23.4)
Hours spent on chatting in the night	
1hr	110 (29.9)
2hr	111 (30.2)
3hrs	78 (21.2)
4hrs and above	69 (18.8)
Involved in chatting in the morning	
Yes	236 (64.4)
No	131 (35.6)
Hours spent on chatting in the morning	
1hr	143 (38.9)
2hr	68 (18.5)
3hrs	84 (22.8)
4hrs and above	73 (19.8)
Best social medium	
Whatsapp	117 (31.8)
Twitter	52 (14.1)
Facebook	121 (32.9)
Instagram	53 (14.4)
2go	21 (5.7)
Tinda	1 (0.3)
Highest no of hours spent on reading	
1hr	48 (13.0)
2hr	122 (33.2)
3hrs	112 (30.4)
4hrs and above	86 (23.4)
Social media has negative impact on my performances	
Yes	168 (45.7)
No	200 (54.3)
Current Academic Grade	
less than lower/third class	156 (42.4)
upper/second class	124 (33.7)
distinction/first class	88 (23.9)

A. Discussion:

From table 1, it can be discovered that 318 (86%) of the 368 students surveyed always stays online, 85% have smart phones, 124 are on whatsapp. It is also observed that many of the students prefer Whatsapp and Facebook to other social network (117 and 121 respectively). Very high percentage agreed that they spend most of their time on chatting both in the morning and night. Many also said they chat while lectures are ongoing. This of course can have negative impact on their academic performances.

B. Chi Square Analysis

Test statistic

$$\chi^2_{\alpha, (r-1)(c-1)} = \sum_{i=1}^r \sum_{j=1}^c \left( \frac{O_{ij} - E_{ij}}{E_{ij}} \right)^2$$

Where O = observed frequency

E = expected frequency

(r-1)(c-1) = degree of freedom

$\alpha$  = level of significance

C. Statement of hypothesis

Hypothesis 1

Ho: Having mobile *Present Grade* and use of social media are not related

H<sub>1</sub>: Having mobile *Present Grade* and use of social media are related

Table 2. Tests of relationship between *Present Grade* and other factors/

Factors	$\chi^2$	P-value	Status
Type of social media used	30.286	0.007	Significant
Always with handset in the class	3.679	0.159	Not significant
Chatting on social media in the night	2.935	0.569	Not significant
Hours spent in the class	11.925	0.155	Not significant
Chatting in the morning	7.957	0.241	Not significant
Best social media	31.070	0.002	Significant
Chatting when lecture is going on	8.253	0.016	Significant

D. Discussion on Table 2

It is obvious from table 2 above that certain factors such as *Type of social media used*, *Best social media*, and *Chatting when lecture is going on* contribute significantly to students performances, especially their grade in the school. However, other factors such as *Always with handset in the class*, *Chatting on social media in the night*, *Hours spent in the class*, and *Chatting in the morning*, do not contribute significantly to students performances at 0.05 level of significance.

The multiple bar charts reveal the hidden the information gathered on the field as well as the relationship that exist among the factors.

Hypothesis 2

Ho: *Having presence on social media* and use of social media are not related

H<sub>1</sub>: *Having presence on social media* and use of social media are related

Table 3. Tests of relationship between *having presence on social media* and other factors.

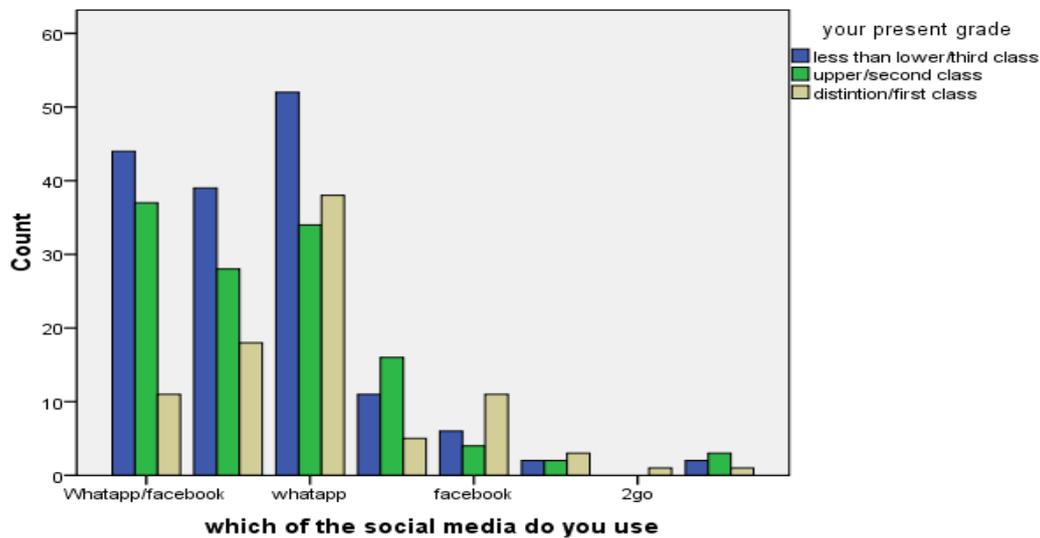
Factors	$\chi^2$	P-value	Status
Type of social media used	29.403	0.007	Significant
Always with handset in the class	14.461	0.001	Significant
Chatting on social media in the night	24.674	0.001	Significant
Hours spent in the class	6.784	0.148	Not significant
Chatting in the morning	5.696	0.127	Not significant
Best social medium	21.795	0.001	Significant
Chatting when lecture is going on	0.720	0.016	Significant

A. Discussion on Table 3

It can be seen from table 3 above that certain factors such as *Type of social media used, Best social media, Always with handset in the class, Best social medium, and Chatting on social media in the night* have significant relationship to their presence on social media. While, factors such as *Hours spent*

*in the class and Chatting in the morning*, do not have significant relationship with presence on social media at 5% level of significance.

The type of social media frequently used by the students and the academic grade of the students is shown in multiple bar charts in Figure 1.



V. CONCLUSION

Nigerian students do not know the right use of social media and how it can be applied to aid their learning. There is need to integrate the use of social media to teaching platform for its effective use in higher institution of learning in Nigeria so as not to be misused or abused by the students. The study revealed that social media are having negative influences on the academic performance among students of higher institutions of learning in Ekiti State as a result of valuable time spend on chatting in place of reading. Many of the respondents confessed that they chat while lecture goes on; which could be termed as an abuse or misuse of social media. There is need for regular orientation among Nigerian students on the right use of social media for positive impact.

REFERENCES

- [1] M. Alavi, Y. Yoo, and D. R Vogel. "Using information technology to add value to management education," *Academy of Management Journal*, vol. 40, issue 6, pp. 1310-1333, 1997.
- [2] T. T. Baldwin, M. D. Bedell, and J. L. Johnson "The social fabric of a team-based M.B.A .program: network effects on student satisfaction and performance," *Academy of Management Journal*, vol. 40, issue 6, pp. 1369-1397, 1997.
- [3] B. B. Baltes, M. W. Dickson, M. Sherman, C. C. Bauer, and J. LaGanke, "Computer mediated communication and group decision making: a meta-analysis," *Organizational Behavior and Human Decision Processes*, vol. 87, issue 1, pp. 156-179, 2002
- [4] M. Guzdial, and J. Turns " Effective discussion through a computer-mediated anchored forum", *Journal of the Learning Sciences*, vol. 9, issue 4, 2000
- [5] M. Dewing, "Social media: An introduction," *Communications of ACM*, vol. 49, issue 4, pp. 56-59, 2010.
- [6] T. Janicki and J. O.Liegle, "Development and evaluation of a framework for creating web-based learning modules: A pedagogical and systems perspective," *Journal of Asynchronous Learning Networks*, vol. 5, issue 1, 2001.
- [7] L. Motiwalla and S. Tello "Distance learning on the internet: An exploratory study," *The Internet and Higher Education*, vol. 2, issue 4, pp. 253-264, 2001.
- [8] D. Parker and A. Gemino, "Inside online learning: comparing conceptual and technique learning performance in place-based and ALN formats," *Journal of Asynchronous Learning Networks*, vol. 5, issue 2, pp. 64-74, 2001.
- [9] J. Ricketts, F. H. Wolfe, E. Norvelle, and E. H. Carpenter, Asynchronous distributed education—A review and case study," *Social Science Computer Review*, vol. 18, issue 2, pp. 132-146, 2000.
- [10] M. H. Rossman, "Successful online teaching using an asynchronous learner discussion forum," *Journal of Asynchronous Learning Networks*, vol. 3, issue 2, pp. 91-97, 1999.
- [11] N. Selwyn, "Social media in higher education" The Europa world of learning. Subrahmanyam, K., & Smahel, D. (2011). Adolescents' Digital Worlds: An Introduction. In *Digital Youth* (pp. 1-25). Springer New York, 2012.
- [12] R. T. Sparrowe, R. C. Liden, and M. L.Kraimer, "Social networks and the performance of individuals and groups," *Academy of Management Journal*, vol. 44, issue 2, pp. 316-325, 2001.
- [13] D. Tapscott, and A. D. Williams, "Wikinomics: la nueva economía de las multitudes Inteligentes," (pp. 978-8449320149), Paidós, 2007.
- [14] M. J. W. Thomas, "Learning within incoherent structures: the space of online discussion forums," *Journal of Computer Assisted Learning*, vol. 18, pp. 351-366, 2002.
- [15] A. Tolmie and J. Boyle, "Factors influencing the success of computer mediated communication (CMC) environments in university teaching: A review and case stud," *Computers and Education*, vol. 34, pp. 119-140, 2000.
- [16] J. Webster and P. Hackley, "Teaching effectiveness in technology-mediated distance learning," *Academy of Management Journal*, vol. 40, issue 6, pp. 1282-1309, 1997.
- [17] T. Wilson and D. Whitelock, "What are the perceived benefits of participating in a computer mediated communication (CMC)



- environment for distance learning computer science students,” [20] N. B. Ellison “Social network sites: Definition, history, and scholarship,” *Journal of Computer-Mediated Communication*, vol. 13, issue 1, pp. 210-230, 2007
- [18] A. D. Yakimovicz, and K. L. Murphy “Constructivism and collaboration on the Internet: case study of a graduate class experience,” *Computers and Education*, vol. 24, issue 3, pp. 203-209, 1995. [21] K. Subrahmanyam, and D. Šmahel, “Adolescents’ Digital Worlds: An Introduction. In Digital Youth” Springer New York, (pp. 1-25), 2011.
- [19] H. I. Gurcan, “Contribution of Social Media to the Students’ Academic Development,” *International Journal of Information and Education Technology*, vol. 5, issue 12, pp. 965-968, 2015.