GENDER INFLUENCE ON UNDERGRADUATES' ACCESS TO AND ATTITUDE TOWARDS THE UTILIZATION OF SOCIAL MEDIA FOR LEARNING IN NIGERIA

SAHEED O. YAHYA PhD.[1]; PROF. (MRS.) OYERONKE O. OGUNLADE[2]; & KEHINDE M. NUHU[2]
[1]Department of Curriculum and Instruction, School of Education,
Kwara State College of Education (Technical), Lafiagi, Kwara State, Nigeria.
[2]Department of Educational Technology, Faculty of Education, University of Ilorin, Nigeria
E-mail: ysolalekan2013@gmail.com, lakesideyos@yahoo.com, bleglom@gmail.com,
nuhu.km@unilorin.edu.ng
Phone No: +234-803-850-3395, +234-803-245-5690, +234-803-388-3105

Abstract
This study was carried out to investigate gender influence on undergraduates' access to and attitude towards the utilization of social media for learning in Nigeria. The study investigated the available platforms where undergraduates access social media; undergraduates' attitude towards social media for learning; influence of gender on undergraduates' access to social media for learning; and influence of gender on undergraduates' attitude towards social media for learning. The study was descriptive research of the survey method using stratified, proportional and random sampling techniques to draw a sample of 1,121 (592 males and 529 females) undergraduates from nine universities in South-west, Nigeria. The main research instrument employed for data collection was a validated adapted questionnaire. Two research questions were answered in the study. Research question one was answered using frequency count and percentage while research question two was answered using mean and rank order. Two research hypotheses were formulated and tested using t-test at 0.05 significant level, the statistical tool used for analysis is Statistical Package for Social Science (SPSS). The findings of the study indicated that majority of the undergraduates have access to smartphone and other social media devices. Similarly, the undergraduates had positive attitude towards social media for learning based on the fact that the grand mean of undergraduates' attitude towards social media for learning was 2.95 which is greater than the bench mark of 2.5. Furthermore, the findings revealed that there was significant difference in undergraduates' access to social media for learning based on gender, with t (1,121) = 2.75, p < 0.05) in favour of male and there was no significant difference in undergraduates' attitude towards social media for learning based on gender. It was recommended among others that university proprietors should increase their investment on ICT facilities for undergraduates' easy access to social media for learning and workable and friendly policy that will not be gender bias should be formulated to further strengthen undergraduates' attitude towards social media use for learning.

Keywords: access, attitude, gender, social media, utilization

Introduction
Education is generally recognized as an important component of the development process. Hence, it is referred to as knowledge or skill acquired or developed through learning processes or activities and resources that support learning (Hernandez, 2017). In addition, an educated society is the one where growth, development and innovation are achieved by the best use of Information and Communication Technology (ICT). Gender in educational research is very important because both teaching and learning involve the participation of both male and female. Khalid (2009) in a study on gender, subject and degree differences in university students' access, use and attitude towards ICT revealed a significant difference of male and female on access to and the use of computer at home and in the university with (77%) and (68%) respectively while both genders have positive attitude towards ICT. Learning is defined

as the process of bringing about proportionally permanent change in the behaviour of individuals based on the interactional experience of such individuals with the environment. The learning can take any of these forms; formal (structured) learning, non-formal learning and informal leaning (Flad, 2010). Education has been a core area where social media have become largely institutionalized with established critical mass users (Onasanya, 2014). It is therefore not a surprise that educational practitioners and theorists have explored how social media can be harnessed and used for effective communication and educational purposes (Waleed & Mohd, 2013).

Social media are types of electronic communication platforms using ubiquitous interpersonal relationships and communication, thereby enabling millions of users to actively engage in social media, text messaging, blogging, content sharing, online learning, and so on (Qingya, Wei & Yu, 2011). Henderson, Auld and Johnson (2014) asserted that social media allow ground-breaking instructional techniques in classrooms by making use of salient features of text collaborative construction, and equally constitute a number of ethical dilemmas for students and instructors, thus the need for this study.

Gender in educational research is a variable that is very salient because both genders are involved in teaching and learning. Hence in testing gender influence as it relates to belief and use of computer-based media, many studies have been conducted by researchers to study the lacuna that exist in technology use of both genders for teaching and learning. Results of these studies have shown that compared to men, women are less likely to adopt new technology and if adopted they tend to use it to a lesser degree than men (Khalid, 2009; Reinen & Plomp, 1993) respectively.

In the same vein, on the study conducted by Khalid (2009) on undergraduates' attitude towards ICT revealed that differences are found based on gender because the number of female students having strongly positive attitudes toward ICT are fewer than male. Findings from the study equally indicated that greater part of the students have access to computers at home and in the university and gender-based analysis revealed a significant difference in male (77%) and female (68%) students on their access to computers at home and in the university.

Studies by Shashaani and Khalili (2001) showed that females had low confidence in their own ability to work with computers even though they showed strong belief in equal gender ability and competence in the use of computers. Liaw (2002) revealed that male students had more positive perceptions toward computers and web technologies than females. Wood and Li (2005) indicated that males were more willing to adopt new technologies than females. Reinen and Plomp (1993) indicated that female students knew less about information technology and enjoyed using it less than males. Allyn (2003) found that men and women use the computer for different purposes at work.

Kevin, Mei-Miao and Magnus (2013) worked on students' attitudes towards Facebook and Twitter at University of Cape Town in 2011, which they found positive. In the study, it was reviewed that Lampe, Ellison and Steinfield (2008) stated that Facebook had slowly become an important part of the lives of the students and would be missed if it had to close down and that Facebook had become a popular method for communicating between college-age users.

It can be deduced from the previous studies that gender influence requires further investigation because ICT devices may likely provide easy access for both genders to social media and since there were contrary views on previous studies on gender influence on technology adoption or use for learning as identified in the reviewed studies of (Khalid 2009;

Wood & Li 2005; and Ray, Sormunen & Harris 1999). Hence the present study seeks to investigate gender influence on undergraduates' access to and attitude towards the utilization of social media for learning.

Research Questions
(i) What are the available platforms where undergraduates can access social media for learning?
(ii) What is the attitude of undergraduates towards social media for learning?

Research Hypotheses
The following null hypotheses were tested at 0.05 level of significance:

H0$_1$: There is no significant difference in undergraduates' access to social media for learning based on gender.

H0$_2$: There is no significant difference in undergraduates' attitude towards social media for learning based on gender.

Methodology
This study adopted a descriptive survey research design. The population for the study comprised all undergraduates in Universities in South-west. The target population was all undergraduates in selected federal, state and private Universities located in the South-western states in Nigeria. Stratified sampling technique was used to classify the Universities into Federal, State and Private. From each stratum using the year of establishment, three universities were selected making a total of nine universities sampled.

The total number of undergraduates from all the sampled Universities as at the time of this study was 205,083. Using Israel's (2013) sample size determinant, a sample size of 1,111 determined at 95% confidence interval, and 3% margin of error was recommended for population of this magnitude. However, 1,219 respondents were randomly sampled for the study to cater for attrition and experimental mortality using proportional sampling technique to allocate number of respondents to each university based on the numbers of undergraduates and only 1,121 undergraduates adequately responded to the questionnaire items, their responses were analyzed in the study.

The research instrument that was used to obtain data for this study was a validated adapted questionnaire with two sections A and B. Section A deals with respondents' personal information such as name of institution and gender; while section B was divided into two (BI and BII). These are: BI. Undergraduates' access to social media for learning. BII. Undergraduates' attitude towards social media for learning. BI contained 10 items, items 1 and 2 required respondents to tick appropriately to indicate the devices they had and used to access social media, while item 3 required respondents to choose from the available options where they normally access social media and items 4 to 10 in B (I) required respondents to choose option that best explain their opinion and was graded using response modes of Always, Frequently, Sometimes and Seldom while BII contained 20 items numbered 1-20. The response mode to the items in section B (II) were graded using Likert response modes of Strongly Agree (SA), Agree (A), Strongly Disagree (SD), and Disagree (D).

The validity of the instrument was ensured by five experts from the Department of Educational Technology, University of Ilorin and three experts from the department of Computer Science, University of Ilorin. The reviewers helped to review the questionnaire to check the clarity of language and ensured it is relevant to the study. Their suggestions and corrections were noted and effected on the final draft of the instrument administered.

The reliability of the research instrument was determined by administering fifty copies of the questionnaire to randomly selected undergraduates of University of Ilorin, Ilorin who share similar characteristics with the study sample but was not selected for the actual study. After the administration and retrieval of the completed instrument, their response to the items were subjected to statistical analysis using Cronbach alpha reliability statistics to check for the instrument's internal consistency. The reliability was determined based on the dependent variables in the instrument which includes: access and attitude. The Cronbach's alpha values obtained for these variables were 0.78 and 0.89 respectively at 0.05 level of significance. This indicates that the instrument is reliable.

The copies of the research questionnaire were administered to the study samples through personal contact by the researcher to ensure the questionnaire items were properly filled without delay. The completed copies of the questionnaire were collected and data obtained from the questionnaire were analyzed using frequency count and percentage, mean and rank order for research questions 1 and 2 respectively while independent t-test was used to test the hypotheses because they consist of independent variable (gender) which occurred at two levels.

Results

Research Question One: What are the available platforms where undergraduates can access social media for learning?

Table 1: Available platforms for accessing social media

S/No	Platforms	Frequency	Percentage (%)
1.	Smartphone	1,046	93.30
2.	Palmtop	1,041	92.90
3.	Ipad	984	87.80
4.	Notebook	937	83.60
5.	Desktop	911	81.30
6.	Tablet	801	71.50
7.	Laptop	564	50.30

Table 1 showed that Smartphone was the device that undergraduates had access to with 1,046 (93.30%) which was closely followed by Palmtop with 1,041 (92.90%), Laptop was the least device undergraduates had access to with 564 (50.30%). By implication, majority of the undergraduates have access to these devices for social media.

Research Question Two: What is the Attitude of Undergraduates towards social media for learning?

Table 2: Mean and rank order analysis of undergraduates' attitude towards social media for learning

Item No	Attitude towards Social Media	Mean ($\overline{X}$)	Rank
15	Using social media for learning will provide opportunities of learning about other peoples' opinion on academic issues.	3.36	1st
4	The use of social media can improve my studies.	3.32	2nd
18	Using the social media will be a pleasant experience.	3.32	3rd
17	The use of social media for learning will improve undergraduates' motivation as a result of feedback obtainable on the platform.	3.30	4th

20	I will be more comfortable in using social media for learning.	3.25	5th
16	The use of social media for learning will provide equal opportunity for students irrespective of their natural disadvantages.	3.24	6th
14	Using social media will improve undergraduates' ability to express academic views without social and personal obligations.	3.24	7th
19	I prefer the use of social media for learning to traditional method.	3.22	8th
1	The use of social media exposes undergraduates to negative ideas.	3.22	9th
13	The use of social media exposes undergraduates to bad people online.	3.21	10th
11	The use of social media for learning will cause distraction to undergraduates in learning effectively.	3.18	11th
8	social media will make undergraduates to deviate from learning.	3.15	12th
9	Using social media for learning will discourage undergraduates from personal commitment to academic works.	3.07	13th
10	The use of social media for learning will make many undergraduates fail.	3.07	14th
5	I will never take a course that will force me to use social media for learning.	3.03	15th
3	social media are not relevant to my course of study.	2.45	16th
2	The use of social media will not benefit my academic development.	2.16	17th
6	Social media are not meant for learning but only for social engagements.	2.11	18th
12	Social media are for young boys and girls only.	2.09	19th
7	I never wish to have anything to do with social media.	2.00	20th
	Grand mean (X)	2.95	

Table 2 presents the mean and rank order analysis of undergraduates' attitude towards social media for learning. The result on the table revealed that items 15, 4, 18, 17 and 20 ranked as the top five items. Item 15 which stated that "using social media for learning will provide opportunities of learning about other peoples' opinion on academic issues" ranked 1st with a mean score of 3.36, item 4 which stated that "the use of social media can improve my studies" ranked 2nd with a mean score of 3.32. On the other hand, result on the table further indicated that items 3, 2, 6, 12 and 7 ranked as the least five items. Item 12 which stated that "social media is for young boys and girls only" ranked 19th with a mean score of 2.09 and item 7 which stated that "I never wish to have anything to do with social media" ranked 20th with a mean score of 2.00. Hence, the grand mean of undergraduates' attitude towards social media for learning was 2.95. Using a bench mark of 2.5, it could be inferred that the undergraduates had positive attitude towards social media for learning.

Research Hypotheses

Ho$_1$: There is no significant difference in undergraduates' access to social media for learning based on gender.

Table 3: **t-test result of male and female undergraduates' access to social media for learning**

Gender	No	$\overline{X}$	SD	df	t	Sig. (2-tailed)
Male	592	21.64	3.32	1119	2.75	.006
Female	529	21.07	3.65			
Total	1121					

Table 3 indicated that t (1121) = 2.75, p = .006. This means that the stated null hypothesis was rejected. This was as a result of the t-value of 2.75 resulting in .006 significance value which was less than 0.05 alpha value. By implication, the rejection of stated null hypothesis was established. Thus, there was a significant difference between male and female undergraduates' access to social media for learning. In other words, male undergraduates had access to social media for learning than the female since male had higher mean than female in Table 3.

Ho₂: There is no significant difference in undergraduates' attitude towards social media for learning based on gender.

Table 4: t-test result of male and female undergraduates' attitude towards social media for learning

Gender	No	$\overline{X}$	SD	df	T	Sig. (2-tailed)
Male	592	49.89	5.62	1119	1.87	.062
Female	529	49.86	7.24			
Total	1121					

Table 4 indicated that t (1121) = 1.87, p = .062. This means that the stated null hypothesis was not rejected. This was as a result of the t-value of 1.87 resulting in .062 significant value which was greater than 0.05 alpha value. By implication, the stated null hypothesis was established. Thus, there was no significant difference between male and female attitude towards social media for learning. This implied that, both male and female undergraduates had positive attitude towards social media for learning.

Discussion
Research question 1 was used to examine the available platforms where undergraduates can access social media. The result of the finding indicated that majority of the undergraduates have access to series of social media (Facebook, WhatsApp, Friendster.) through devices like Smartphone, Iphone and tablet. This conforms to the finding of the studies conducted by (Siemens, 2005; Omotayo, 2006 & Otunla, 2013).

Siemens (2005) explained that data capabilities and Internet accessibility of mobile devices have greatly increased access to ICT use and its resources, hence creating emergence of a powerful trend for learning. Omotayo (2006) opined that major access to the Internet and all its resources is through mobile phones, laptop using modem, and various Universities' digital centre or library. Also, Otunla (2013) revealed that getting access to ICT as well as its resources may not be problem to undergraduates anymore because, many mobile phones operator now provide access through mobile phones or modems that can be connected to laptops. These results agree with the findings of the present study that undergraduates had access to social media through their mobile devices.

Undergraduates' attitude towards social media for learning was confirmed using research question 2. This was done to examine whether undergraduates' attitude was positive or otherwise, the result of the finding as shown by the mean score indicated that undergraduates

had positive attitude towards the use of social media for learning. Supporting this finding, Acar (2013) unfolded better attitude towards the use of social media for education by students from Statistics and Global Business. Kevin, Mei-Miao and Magnus (2013) revealed University students' positive attitude towards Facebook and Twitter. The result of these studies implied that undergraduates will gladly welcome the idea of using social media for learning.

Influence of undergraduates' gender on their access to social media for learning was confirmed by research hypothesis 1. The result of the hypothesis showed significant difference between male and female undergraduates' access to the use of social media for learning with male undergraduates having more access than female. This may be as a result of curiosity of male undergraduates on exploring ICT resources for learning compared with female undergraduates' interest on using same for interaction and socialization majorly. This finding was supported by Khalid (2009) whose study articulated that majority of students have access to computers at home and in the university with gender-based analysis revealing a significant difference in male (77%) and female (68%) students on their access to computers at home and in the university.

Influence of undergraduates' gender on their attitude towards social media for learning was confirmed by research hypothesis 2. The result of the hypothesis showed no significant difference between male and female undergraduates' attitude towards the use of social media for learning. However, some of the earlier reviewed studies that have supported this study includes: Morahan-Martin and Schumacher (1999) which found out that students' attitudes towards new technology had no gender difference. On the contrary, findings of (Khalid, 2009; Reinen & Plomp, 1993) showed that compared to men, women are less likely to adopt new technology and if adopted they tend to use it to a lesser degree than men. Khalid (2009) found gender difference on undergraduates' attitude towards ICT with female (68%) students having strongly positive attitudes toward ICT fewer than male (77%). Wood and Li (2005) found that males were more willing to adopt new technologies than females. Premkumar, Rammurthy and Liu (2008) discovered female undergraduates exhibited much higher hedonic and social outcome belief than men on ICT and its resources.

Conclusion

The result of the study indicated that gender influenced undergraduates' access to social media for learning but does not have significant influence on their attitude towards social media for learning. Access and attitude are two very important variables when considering social media for learning among undergraduates. The study however concluded that, effort should be made to moderate influence of gender as a variable on undergraduates' access to and attitude towards social media for learning by all stake holders. With this, there will be improved learning outcome if social media were integrated as learning tools in the Universities in South-west, Nigeria.

Recommendations

The study recommended that:

(i) Government at all levels; parents and teachers should encourage undergraduates' use of mobile devices for learning. Give more supports to them on the procurement of all required facilities and good delivery mode. This will allow easy access and usage to social media as well as encourage the undergraduates to embrace social media for learning;

(ii) the university's educational policy makers should introduce the use of social media for learning into Nigerian's university curriculum, this will sustain undergraduates' positive attitude towards their use for learning;

(iii) university administrators should endeavour to monitor female undergraduates to take seriously the use of social media for learning so as to bridge the lacuna that exist between them and their male counterparts and

(iv) workable and friendly policy that will not be gender bias should be formulated to further strengthen undergraduates' attitude towards social media use for learning.

References

Acar A. (2013). Attitudes toward blended learning and social media use for academic purposes: An exploratory study. *Journal of e-Learning and Knowledge Society,* 9(3), 107-126.

Allyn, M. R. (2003). Computers, gender and pay. *Journal of Business Economic Studies,* 2 (1), 33-44.

Henderson, M., Auld, G., & Johnson, N. F. (2014). *Ethics of teaching with social media*. Paper presented at the Australian Computers in Education Conference 2014, Adelaide, 3(4), 149-178. Retrieved September 16, 2015 from http://acec2014.acce.edu.au/session/ethics-teaching-social-media Technologies.

Hernandez, R. M. (2017). Impact of ICT on education: Challenges and perspectives. *Propositosy Representaciones,* 5(1), 325-347. Retrieved January 30, 2018 from doi: http://dx.doi.org/10.20511/pry2017.v5nl.149

Kevin J., Mei-Miao C., & Magnus H. (2013). Use, perception and attitude of university students towards Facebook and Twitter. The *Electronic Journal Information Systems Evaluation,* 16 (3), 201-211, Retrieved on October 25, 2015 from www.ejise.com

Khalid, M. (2009). Gender, subject and degree differences in university students' access, use and attitudes toward Information and Communication Technology (ICT). *International Journal of Education and Development using Information and Communication Technology (IJEDICT),* 5(3), 206-216.

Lampe, C., Ellison, B., & Steinfield, C. (2008). Changes in use and perception of Facebook. *Proceedings of the 2008 ACM conference on Computer supported cooperative work* (pp. 721-730). New York: ACM.

Liaw, S. (2002). An internet survey for perceptions of computers and the world wide web: Relationship, prediction and difference. *Computers in Human Behaviour,* 15 (2),17-35.

Morahan-Martin, J., & Schumaker, P. (1999). Comparison of computer and internet competency, experiences and skills by gender. *Proceedings of the Annual Meeting of the Society for Computers in Psychology.* Los Angeles, CA.

Omotayo, B. O. (2006). A survey of internet access and usage among undergraduate students in an African University. *The International Information and Library Review* 38 (4), 215-224.

Onasanya, S. A. (2014). Social media in education. In M. O. Yusuf & S. A. Onasanya (Eds.), *Critical Issues in Educational Technology* Nigeria. Department of Educational Technology, University of Ilorin 125-141.

Otunla, A. O. (2013). Internet access and use among undergraduate students of Bowen University Iwo, Osun State, Nigeria. *Library Philosophy and Practice (e- journal).* Paper 964.Retrieved September 20, 2015 from http://digitalcommons.unl.edu/libphilprac/964

Premkumar, G., Rammurthy, K., & Liu, H. (2008). Internet messaging: An examination of the impact of attitudinal, normative and control belief systems. *Information & Management,* 4 (5), 451-457.

Qingya, W., Wei, C., & Yu, L. (2011). The effects of social media on college students. MBA student scholarship. Retrieved September 21, 2015 from http://scholarsarchive.jwu.edu/mba_student/5. Date: 27/1/2014

Ray, C. M., Sormunen, C., & Harris, T. M. (1999). Men's and women's attitudes toward computer technology: A comparison. *Office Systems Research Journal,* 17(1), 1-10.

Reinen, I. J., & Plomp, T. (1993). Some gender issues in educational computer use: Results Of international comparative survey, *Computers in Education,* 12(3), 353-365.

Shashaani, L., & Khalili, A. (2001). Gender and computers: Similarities and differences in Iranian college students' attitudes towards computers. *Computers and Education,* 37(3/4), 363-375.

Siemens, G. (2005). Connectivism: A learning theory for a digital age, *International Journal of Instructional Technology and Distance Learning,* 2(1), 3-10.

Waleed, M. A., & Mohd, S. O. (2013). The impact of social media use on academic performance among university students: A pilot study. *Journal of Information Systems Research and Innovation. Retrieved October 29, 2015 from* http://seminar.utmspace.edu.my/jisri/

Wood, W., & Li, S. (2005). The empirical analysis of technology camel. *Issues in Information Systems,* 6(2), 154-160.