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Gender Influence on Undergraduates' Access To And Attitude Towards The Utilization Of Social Media For Learning In Nigeria

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Abstract

The main objective of this study was to investigate gender influence on undergraduates' access to and attitude towards the utilisation of social media for learning in Nigeria. The study investigated the influence of gender on undergraduates' i. access to social media for learning and ii. attitude towards social media for learning. The study was a 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 hypotheses were formulated and tested in the study using t-test at 0.05 significant level. The findings of the study indicated 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.

Keywords*: Access, Attitude, Gender, Social media*

1. 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. However, 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 males and females. Many researchers have considered gender differences on technology devices or media use in education. For instance, Khalid (2009) in a study on gender, subject, and degree differences in university students' access, use and attitude towards ICT, revealed a significant difference between males (77%) and females (68%) on access to and the use of computer at home and in the university with both genders having a positive attitude towards ICT.

Learning is defined as the process of bringing about proportionally permanent change in the behavior 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 learning (Flad, 2010). Education has been a core area where social media have become largely institutionalized with established critical mass users (Onasanya, 2014). Therefore, It is not surprising 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 electronic communication platforms using ubiquitous interpersonal relationships and communication, enabling millions of users to actively engage in social media, text messaging, blogging, content sharing, online learning, and so on (Qingya et al., 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

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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 a 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.

Ray, Sormunen, and Harris (1999) found that there is no significant gender difference in computer anxiety. Morahan-Martin and Schumacher (1999) revealed that attitudes towards new technology, but not gender, predicted Internet and computer competencies and experiences. Ilie, Van Slyke, Green, and Lou (2005), in a study of undergraduate business students' perceptions and use of IM, discovered that women value perceptions of ease of use and visibility more than men. They found that men value perceptions of relative advantage, result demonstrability, and perceived critical mass more than women. Premkumar, Rammurthy, and Liu (2008) also revealed that among undergraduates' perceptions of IM, females exhibited much higher hedonic and social outcome beliefs and less utilitarian outcome beliefs than men. They did not find any differences for a number of other factors, including subjective norm and critical mass.

Kevin, Mei-Miao, and Magnus (2013) worked on students' attitudes towards Facebook and Twitter at the 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 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.

Similarly, David, Francis and Mildred (2013) conducted a study on teachers' and students' attitude towards using Information and Communication Technology in the implementation of Biology curriculum in selected Secondary Schools. The study revealed that majority(68.038%) of students and all teachers (100%) had positive attitude towards ICT use in implementing Biology curriculum, and that there were no statistically significant differences across gender in both teachers and students towards ICT use in the implementation of Biology curriculum even though males had a slightly higher positive attitude toward ICT use than females. However, it can be deduced from the study that attitude towards ICT use is not gender related, that both male and female students and teachers appear to be similarly motivated to the use of ICT in the implementation of the Biology curriculum. Even though teachers and students generally had positive attitudes towards ICT use, it becomes advisable to adopt more appropriate measures to help both teachers and students to further improve their attitude towards ICT use in the implementation of the Biology curriculum. This is because the technology is still new and may require advocacy for it to be fully embraced (David et al., 2013).

Hence, the gender difference issue 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 (David et al., 2013; Khalid, 2009; Wood & Li, 2005; and Ray, Sormunen & Harris 1999). Hence, the present study investigates gender influence on undergraduates' access to and attitude toward utilizing social media for learning.

2. Method

The population for the study comprised all undergraduates in Universities in the South-west. The target population was all undergraduates in selected federal, state, and private Universities located in the southwestern states of Nigeria. A stratified sampling technique was used to classify the Universities into Federal, State, and Private. Three universities were selected to represent each stratum based on the year of establishment, making a total of nine universities sampled. The total number of undergraduates from all the sampled Universities at the time of this study was 205,083. Using Israel's (2013) sample size determinant, a sample size of 1,111 was determined at a 95% confidence interval, and a 3% margin of error was recommended for a 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 analysed in the study.

The research instrument that was used to gather the relevant 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 the 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 from section B (II) was 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 four 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 ensure it was 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 the University of Ilorin, Ilorin, who share similar characteristics with the study sample but were not selected for the actual study. After the administration and retrieval of the completed instrument, the questionnaire 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 include access and attitude. The Cronbach's alpha values obtained for these variables were 0.78 and 0.89, respectively, at a 0.05 level of significance.

The copies of the research questionnaire were administered to the university's undergraduates 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 gathered from the questionnaire were analyzed using t-test. The Hypotheses were tested using independent t-test because they consist of independent variable (gender) which occurred at two levels.

3. Results and Discussion

Based on research, the results showed on Table 1 and Table 2

Table 1: T-test of Male and Female Undergraduates' access to social media for learning

Gender	No	$\bar{X}$	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 1 indicated that t (1121) = 2.75, p = .006. This means that the stated null hypothesis was rejected. This was a result of the t-value of 2.75, resulting in a .006 significance value, which was less than 0.05 alpha value. By implication, the 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 females since males had a higher mean than females in Table 1.

Table 2: t-test of Male and Female Undergraduates' attitude towards social media for learning

Gender	No	$\bar{X}$	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 2 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.

The influence of undergraduates' gender on their access to social media for learning was confirmed. There

are significant differences between male and female undergraduates' access to the use of social media for learning, with male undergraduates having more access than females. This may be a result of the curiosity of male undergraduates' in exploring ICT resources for learning compared with female undergraduates' interest in using the same for interaction and socialization majorly. This finding was supported by Khalid (2009), whose study articulated that the 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.

The influence of undergraduates' gender on their attitude towards social media for learning was confirmed with no significant difference between male and female undergraduates' attitudes towards the use of social media for learning. However, some of the earlier reviewed studies that have supported this study includes: Ray, Sormunen and Harris (1999) that found out that there is no significant gender difference toward computer anxiety; Morahan-Martin and Schumacher (1999) which found out that 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.

4. Conclusion

The result of the study indicated that gender influenced undergraduates' access to social media for learning but did not significantly influence their attitude toward social media for learning. The study recommended that university administrators should endeavor to monitor female undergraduates to take seriously the use of social media for learning so as to bridge the lacuna that exists between them and their male counterparts, and workable and friendly policy that will not be gender bias should be formulated to strengthen further undergraduates' attitude towards social media use for learning.

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