Awareness and Level of Competency of Academic Social Networking Sites for Research among Postgraduate Students in South-West, Nigeria

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ABSTRACT

Academic social networking sites (ASNS) are technologies that facilitate academic interaction, collaboration, and deliberation among stakeholders. Research is not limited to visitations to the library for book consultations but has extended to the use of Internet resources like virtual library search engines and ASNS such as Academia, ResearchGate, Google Scholar and LinkedIn. The study examined the awareness of ASNS among postgraduate students in the Southwest, Nigeria. This study utilized descriptive research of the survey method. The population for the study consisted of all the 76,372 postgraduate students in South-west, Nigeria. A total of 1,506 respondents were drawn from the selected universities using Research Advisor's Model (2006). Data were collected using a researcher-developed structured questionnaire. The instrument was validated and tested for reliability. Descriptive statistical tools, frequency counts and percentage were employed in the analysis of the data collected. Also, inferential statistics like t-test and Analysis of Variance (ANOVA) were used to test the research hypotheses at 0.05 level of significance. The findings of the study were that: a little above half of the postgraduate students (54.6%) were aware of Academia, ResearchGate, LinkedIn, Mendeley and Google Scholar as ASNS and postgraduate students were competent in the use of ASNS for research with a grand mean score of 2.26 using a benchmark of 2.0. The study concluded that postgraduate students are aware of ASNS and are competent in using the ASNS for research purposes. Based on the findings, the study recommended that postgraduate students should engage more with ASNS for their research activities to improve their research productivity.

INTRODUCTION

Education is a light that has shown mankind in the right direction. The purpose of education is not just making a student literate but adds thinking, knowledge ability and self-sufficiency. When there is a willingness to change, there is hope for progress in any field. Education can be seen as an act or experience that has a formative effect on the mind, character, or physical ability of an individual. Education in Nigeria is adopted as an instrument "par excellence" for effecting national development National Policy on Education (Federal Republic of Nigeria, FRN 2014). Adomi and Kpangban (2015) noted that in recognizing the roles and integration of Information and Communication Technology (ICT) in education, the Nigeria government enacted a policy on computer education in 1998. The field of education has been affected by ICTs, which have undoubtedly affected learning and research (Yusuf, 2005).

ICT has been described as an essential tool in any educational system which has the potential of being used to meet the needs of individual students, promote equality of educational opportunities, offer high-quality learning materials, increase self-efficacy and independence of learning among students and improve student's development (Abolade & Yusuf, 2005). The extended use of ICT drove society into a new knowledge-base where the information plays an important role in students' satisfaction (Xin, 2010). To further facilitate better social interaction, social networking sites (SNS) have been created for online interaction and communication from one user to another.

Social Networking Sites (SNS) are web-based applications that allow individuals and organizations to create, engage and share new user-generated or existing content in digital environments through multi-way communication. It refers to websites and applications "that enable users to create and share content or to participate in social networking. They are also technologies that facilitate social interaction, make possible collaboration, and enable deliberation across stakeholders. Specifically, SNS has been used for interaction and research purposes but academic SNS have now been created for research purposes, whereby researchers can download journals, publications, discuss with researchers and collaborate with authors. Academics are increasingly using Academic Social Networking Sites (ASNS) and they are expected to have a professional online presence (Gruzd, Staves & Wilk, 2011). ASNS are platforms that allow users or people to come together around an idea or topic of interest. Kelly (2013) defined ASNS as technologies that facilitate academic interaction, make possible

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collaboration and enable deliberation across stakeholders to access journals, articles, and publications.

El-Berry (2017) defined ASNS as the virtual platform where researchers can create a personal profile, collaborate and interact with other researchers and academics with shared research interest from around the world. Similarly, Jeng, He and Jiang (2015) defined ASNS as platforms that help researchers facilitate various activities online through the use of academically inclined tools, features, and services that enable researchers to build a professional network with other researchers on ASNS. In the year 2013, ASNS became one of the most powerful sources for research through platforms like Academia.edu, Google Scholar, LinkedIn and ResearchGate (Kelly & Delasalle, 2014). Barbour and Marshall (2012) listed the characteristics provided by different ASNS, which are: high popularity, collaboration services, online personal management, research dissemination, document management capabilities and impact measurement services. With regards to research dissemination, Academia.edu, ResearchGate and Mendeley provide more tools for researchers to find communities and expose findings to a broader audience and also allow uploading publication files, follow and be followed by peers. Academia.edu and ResearchGate allow linking users' non-academic social networking sites accounts like Twitter and Facebook. Out of all the sites listed, Mendeley is the only site that facilitates uploading and managing a library of documents, as well as importing libraries and references from other services. Postgraduate education in Nigeria involves research, learning and studying for academic or professional degrees, academic or professional certificates, academic or professional diplomas, or other qualifications for which a first or bachelor's degree generally is required, and it is normally considered to be part of higher education. In Nigeria, this level is generally referred to as postgraduate school. Research is the systematic inquiry that investigates hypotheses, suggests new interpretations of data or texts, and poses new questions for future research to explore (Creswell, 2014). In research, the researcher has to choose and focus on research been conducted, find background books that give information about the topic, find articles that give information about the topic, evaluate the information found and citing the information used in research.

Research by Trochim (2012) is the investigation and writing based upon the idea of scientific inquiry. Research is not limited to visitations to the library for book consultations but has extended to the wide use of the Internet, virtual library, e-library and search engines such as Academia.edu, ResearchGate, Google Scholar and LinkedIn to access information and

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resources on research being conducted. Academic Social Networking Sites (ASNS) are platforms that facilitate academic interaction, collaboration and enable deliberation across academic stakeholders to access journals, articles, and publications. The majority of Nigerian postgraduate students are neither familiar nor skillful in employing these tools for research purposes. The visitations to the library for book consultations must be supplemented with the use of the Internet resources like the virtual library, e-library and ASNS such as Academia, ResearchGate, Google Scholar and LinkedIn, among others, to access resources on the research being conducted which can arouse students' interest in sourcing for information. However, that library-based research combined with the use of the Internet, virtual library, e-library, and core academic research search engines such as Academia.edu, ResearchGate, Google Scholar, LinkedIn, and Mendeley can greatly enhance easy access to information, materials and resources. This study thus investigated the awareness and utilization of ASNS with a focus on postgraduate students. It focused on postgraduate students' attention on the use of a more productive platform like ASNS for research purposes. Hence, this study was conducted to address the awareness and level of competency of ASNS for research among postgraduate students in South-west, Nigeria.

PURPOSE OF THE STUDY

The main purpose of this study was to investigate the access and utilization of academic social networking sites (ASNS) for research among postgraduate students in South-west, Nigeria. Specifically, this study:

1. Determined postgraduate students' awareness of ASNS for research;

2. Determined postgraduate students' level of competence in the use of ASNS for research;

3. Ascertained the influence of the field of study on postgraduate students' awareness of ASNS for research; and

4. Determined the influence of the field of study on postgraduate students' level of competence to ASNS for research.

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RESEARCH QUESTIONS

In this study, answers were provided to the following research questions:

1. To what extent are the postgraduate students aware of the use of ASNS for research?

2. What is the postgraduate students' level of competence in ASNS for research?

3. What influence does postgraduate students' field of study have on their awareness of ASNS for research?

4. What influence does postgraduate students' field of study have on their level of competence to the ASNS for research?

RESEARCH HYPOTHESES

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

H_{O1}:   There is no significant difference among postgraduate students' awareness of ASNS based on their field of study.

H_{O2}:   There is no significant difference among postgraduate students' level of competence to ASNS based on their field of study.

METHODOLOGY

This study was a descriptive research of the survey type. It was a quantitative form of research that investigated the awareness and level of competency of academic social networking sites for research in the south-west, Nigeria. The population for the study consisted of all postgraduate students in South-west, Nigeria. The target population consisted of all postgraduate students of Federal and State government universities in South-west, Nigeria which is 76,372. Six Federal and State universities were sampled for this study. Respondents were postgraduate students from Federal and State Universities in the South-west, Nigeria. The sample size for this study was 1,506 and was determined by the total number of postgraduate students from the selected universities in South-west, Nigeria. The total population of postgraduate students in the selected universities in South-west, Nigeria for the research was 76,372. Research Advisors' Model (2006) proportional sampling was used to determine the appropriate sampling size for the study based on the population of the postgraduate student in

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each university in the zone. In all, the research instrument was distributed to a sample of 1,506 postgraduate students and 1,338 were collected and responded to correctly. Postgraduate Diploma in Education (PGDE), Masters, M.Phil./Ph.D. students were surveyed (proportional sampling) using a survey questionnaire for the selected postgraduate students. The researcher designed a questionnaire titled "awareness and level of competency of academic social networking sites for research in the south-west, Nigeria". The adapted questionnaire for this study was validated by the researchers supervisor, three lecturers from the Department of Educational Technology and the researcher's Internal/External examiner from the Department of Library and Information Science, University of Ilorin, Ilorin Nigeria, to determine the relevance and suitability of the instrument considering the clarity to the respondents, content coverage in terms of adequacy and its relevance to the stated objectives. The questionnaire was trial-tested on 50 postgraduate students (PGDE, Masters, M.Phil./Ph.D.) at the University of Ilorin. The results were 0.86 on the access to the ASNS for research and 0.98 on the utilization of ASNS for research. Therefore the instrument is reliable for the study.

RESULTS AND DISCUSSION

The four major research questions were answered using percentage meanwhile the hypothesis was tested using ANOVA.

Research Question One

To what extent are the postgraduate students aware of the academic social networking sites for research?

Table No. 1: Respondents' Awareness of Academic Social Networking Sites

S/No	Awareness of Academic Social Networking Sites *I am familiar with Academic Social Networking Sites like:*	Yes	No
1	Academia.edu	793	545
2	Mendeley	995	343
3	ResearchGate	1234	104
4	Eric.com	421	917
5	LinkedIn	908	430
6	Zotero	219	1119
7	Scholastica	268	1070
8	Google Scholar	1001	337
	Grand Mean Score	**730 (54.6%)**	**608 (45.4%)**

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The extent to which respondents are aware of the use of academic social networking sites for research was investigated and the results are presented in Table 1. Out of the 1338 respondents, 1234 were aware of Research Gate and 1001 were aware of Google Scholar. Scholastica and Zotero have the lowest of respondents with regards to the awareness of the ASNS with 268 respectively.

It was deduced that the majority of the respondents were aware that, ResearchGate, Google Scholar, Academia, Mendeley and LinkedIn are academic social networking sites that can be used for research. The grand mean score shows that 730 (54.6%) are aware of academic social networking sites while 608 (45.4%) are not aware of the available academic social networking sites.

Research Question Two

What is the postgraduate students' level of competence on academic social networking sites for research?

Table No. 2: Respondents' Level of Competence in Academic Social Networking Sites for Research

S/No	Level of Competence in Academic Social Networking Sites *I am competent in:*	Mean
1	creating ASNS account	2.84
2	logging in my ASNS account	2.84
3	signing out of my ASNS account when am not using it	2.84
4	using common icons/tools on ASNS	2.31
5	sending e-mails to my colleagues using ASNS	2.79
6	uploading papers using ASNS	2.62
7	downloading online journals using ASNS	2.83
8	sending instant messaging using ASNS	2.21
9	identifying common icons on ASNS	1.52
10	linking information to social media sites on ASNS	2.04
11	commenting on other researchers' post	1.48
12	responding to researchers post	1.98
13	using reference management tools on ASNS	1.07
14	sending videos to other researchers online	2.17
15	sharing pictures or images with other academic researchers.	2.39
	Grand Mean	**2.26**

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Respondents' level of competence in the use of academic social networking sites (ASNS) for research was investigated and the result was presented in Table 2. It established that the majority of the respondents were competent in the use of creating, logging in and signing out of ASNS account with a mean score of 2.84. Higher percentages of the respondents were also competent in using common icons/tools on ASNS as well as sending e-mails to colleagues using ASNS. The lowest mean score was the use of reference management tools on ASNS with 1.07. Postgraduate students were not competent in using the reference management tools maybe because most of them are not familiar with the reference icon on each of the ASNS. On the whole, a grand mean score of 2.26 which is above the benchmark of 2.0 (for 3-likert scale) established that most respondents are competent in the use of ASNS for research. It can be deduced that postgraduate students are competent in the use of ASNS for research purposes.

Hypothesis One

There is no significant difference between postgraduate students' awareness of academic social networking sites based on their field of study.

In determining whether there is any significant difference between postgraduate students' awareness of academic social networking sites based on their field of study, the null hypothesis was tested using ANOVA as shown in Table 3.

Table No. 3: ANOVA Summary for Significant Differences between Awareness based on Field of Study

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	.580[a]	3	.045	.994	.458
Intercept	13.240	1	13.240	294.686	.000
Field of study	.580	3	.045	.994	.458
Error	11.771	1334	.045		
Total	87.743	1338			
Corrected Total	12.352	1337			
a. R Squared = .000 (Adjusted R Squared = -.002)					

Table 3 reveals that F $(3, 1337) = 0.994$, $p>0.05$, for significant difference between postgraduate students' awareness of academic social networking sites based on their field of study. This was found not to be significant, meaning that there is no significant difference between postgraduate students' awareness of academic social networking sites based on their

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field of study. Since it was established that there was no significant difference between postgraduate students' awareness of academic social networking sites based on their field of study, therefore the null hypothesis which stated that there is no significant difference between postgraduate students' awareness of academic social networking sites based on their field of study was not rejected.

Hypothesis Two

There is no significant difference between postgraduate students' level of competence to academic social networking sites based on their field of study.

To determine whether there is any significant difference between postgraduate students' level of competence to academic social networking sites based on their field of study, the null hypothesis was tested by using ANOVA as shown in Table 4.

Table No. 4: ANOVA Summary for Significant Differences between Academic Social Networking Sites Level of Competence-based on Field of Study

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	.204[a]	3	.204	.150	.699
Intercept	1672.346	1	1672.346	1234.179	.000
Field of study	.204	3	.204	.150	.699
Error	378.053	1334	1.355		
Total	2306.000	1338			
Corrected Total	378.256	1337			
a. R Squared = .001 (Adjusted R Squared = -.003)					

Table 4 reveals that F (3, 1337) = 0.150, p>0.05, for significant difference between postgraduate students' level of competence to academic social networking sites based on their field of study. This was found not to be significant, meaning that there is no significant difference between postgraduate students' level of competence to academic social networking sites based on their field of study. Since it was established that there was no significant difference between postgraduate students' level of competence on academic social networking sites based on their field of study, therefore the null hypothesis which stated that there is no significant difference between postgraduate students' level of competence based on their field of study was not rejected.

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SUMMARY OF THE FINDINGS

The findings were summarized as follow:

1. Respondents were aware that Academia.edu, ResearchGate, LinkedIn, Mendeley and Google Scholar are academic social networking sites that can be used for research with 54.6%.

2. Most respondents were competent in the use of academic social networking sites for research with a grand mean score of 2.26.

3. There was no significant difference between postgraduate students' awareness of academic social networking sites based on their field of study with $f(3,1337)=0.994$ and $p<0.05$.

4. There was no significant difference between postgraduate students' level of competence to academic social networking sites based on their field of study with $f(3,1337)=0.150$ and $p>0.05$.

CONCLUSION

Academic social networking sites are platforms that build and promote academic relationships among postgraduate students, lecturers, researchers, higher institutions and other stakeholders within the academic community to discuss, collaborate and access academic materials such as journals, publications, thesis, and articles. This academic relationship is specifically targeted at enhancing research activities and other academic needs or interests among users. It offers uploading and sharing of academic publications, various forms of international collaboration, exposure and interactions among users, problem-solving through questions and answers in discussion forums and feedback, keeping up with latest research trends and discussions, as well as downloading of materials for research purposes, all of which makes academic social networking sites an exceptional avenue to promoting academic excellence and problem-solving without social vices and distractions often associated with and experienced on popular social networking sites like Facebook and Twitter.

RECOMMENDATION

Based on the findings and conclusion of this study, the following recommendations were made:

1. Universities should ensure that academic publications, training, seminars, workshops, presentations and conference proceedings are uploaded on ASNS and encourage its students to

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search for those materials. This would also help promote global reach, strengthen international relations and give room for possible collaborations with other universities around the world.

2. Researchers should further develop keen interest on researching into ASNS. Such researches, if empirically based, would go a long way in establishing their findings with clearly stated recommendations. This would thus contribute to the existing knowledge.

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