

**COMPUTER LITERACY AS A PREDICTOR OF LECTURER ENGAGEMENT WITH
ACADEMIC SOCIAL NETWORK: A STUDY OF STATE UNIVERSITIES IN OSUN
STATE, NIGERIA.**

By

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ABSTRACT

Academic Social-Networking Sites (ASNS) such as Academia.edu and ResearchGate are becoming very popular among academics. These platforms allow lecturers to upload their academic articles, abstracts, and links to published full-text articles and also track the reading and citation of their published articles among others. Despite this, some studies have reported low use of the academic social networking sites by lecturers. This gap could be a function of their computer literacy competence. Thus, this study examined Computer Literacy Competence (CLC) and use of Academic Social Networks (ASNs) by lecturers in state universities in Osun State, Nigeria. Two state universities are located in Osun state. These universities are Osun State University (Uniosun) and University of Ilesha. The numbers of lecturers in the two universities were known. 80% of the numbers of lecturers in the two universities were sampled. This indicates that 80% of the lecturers form the sample size. The sample size forms the basis for questionnaire administration. Therefore 210 questionnaires were administered. Findings showed a significant positive relationship between computer literacy competence and use of academic social networks by the respondents. This means that a lecturer with low level of computer literacy competence will not have the needed knowledge, skills and attitude to use academic social networks effectively. The study recommends that in order to sustain the high level of computer literacy competence of the lecturers, the management of the universities should on a regular basis organise ICT capacity building workshops.

Keywords: *Computer literacy, Academic social networks, Lecturers, State, Universities.*

INTRODUCTION

Academic social networks are social networking sites that are more specific to academics in sharing their activities, specialisations, publications and assessing other impacts of scholarly contribution (Adebayo, 2019). Academic social networks are online services that focus on supporting online research-oriented activities as well as building social networks for scholars and researchers. Lecturers use academic social networking sites to do collaborative study, academic or research work (Popoola, 2022).

There are different types of academic social networks and each academic social network offers its own combination of tools and capabilities to support research activities, communication, collaboration, and networking. Notable among them are; Google Scholar, ResearchGate, Academia.edu, Zotero, LinkedIn, Mendeley, etc. The importance of these academic social networks in enhancing research output cannot be overemphasized (Adepoju, 2017). Lecturers employ academic social networks to generate research output, identify research opportunities and disseminate finding. Academic social networks enable lecturers to create greater interaction and collaboration with other experts in their field of specialisation on a global scale (Jimenez, 2019). They provide opportunity for lecturers to benefit from the expertise of other researchers. Such platforms can provide a haven for one's ideas before, during or after the research process, raise the profile of a research and extend the reach of a research to include publications that may not have originally be considered. In addition, academic social networks enable lecturers to share content quickly and help to discuss development in research (Meishar-Tal and Piterse, 2017).

Academic social networks have the potential of transforming the techniques of information publication and sharing in the scholarly world (Ojo, 2022). Academic social

networks provide a platform for lecturers to upload full-text articles that appeared in academic journals, lectures presented at conferences, and even drafts and make them accessible to the general public. Lecturers could use academic social networks to discuss about their works and laboratories activities, as well as read papers (Ndagi, 2018). Academic social networks such as CiteULike and Mendeley offer options for users to set up state groups for collaboratively tag and annotate research papers as well as provide a medium for researchers to create a unique and general identifier, example ORCID (Open Researcher and Contributor ID). It was observed that lecturers did not take full advantage of uploading their research output through various academic social media platforms. The seemingly low use of academic social networks by lecturers could be a factor of their personal characteristics (which are personal factors or individual-based variables that include information such as age, sex (gender), income level, educational level, job levels or positions or ranks, job tenure, work experience, marital status, monthly salary, among others) and their computer literacy competence (Beech, 2019). Computer literacy competence could also affect the use of academic social networks by lecturers.

Kapur (2017) describes computer literacy competence as the knowledge and capabilities to make use of computers and other technologies in an efficient manner. Computer literacy competence can also take into account the comfort level of the individuals in making use of computer and its applications. Computer literacy competence of individuals is assessed through their ability to locate downloaded files on the computer, dexterity to operate computer keyboard, selection of directories for downloaded files on the computer, conversion of files e.g. PDF to Microsoft Word, ability to use necessary computer application software, among others. The indicators of a computer literate person include computer literacy skills and computer and literacy attitude.

A lecturer with a high level of computer literacy skills could have the abilities to effectively use of academic social networks. The skills will also be beneficial in downloading files from the platforms as well as in producing and uploading documents to academic social networks. Another indicator of computer literacy competence is computer literacy knowledge.

Lecturers use computer knowledge in teaching, to transmit knowledge or information as well as communication. They also use this knowledge in writing papers and searching of the Internet (browsing) for information. Computer literacy knowledge could be useful in the use of academic social networks. Since these academic social networks are hosted in the cloud, knowledge of how to navigate the Internet and its search features as well as the use of Boolean Logic could help lecturers in making effective use of academic social networks. Computer literacy attitude is the third indicator of computer literacy competence.

Computer literacy attitudes are inclinations and feelings, prejudices or bias, preconceived notions, ideas, fears and convictions about the use of computer and technology. Some lecturers may perceive the use of computers negatively whereas others may attach positive attributes to computer use. Positive attitudes are fundamental in utilisation of computers and may likely have effect on research endeavours (Unwana and Men, 2018). This however varies from one individual to another, some of which could be based on their upbringing, experience, education, skill, level of exposure and lots more. The attitude of lecturers towards computer literacy could encourage or deter them from learning how to explore academic social networks to their advantage. Lectures that have phobia for technology may not be open to the use of academic social networks as they could feel they can do without them. They could also feel withdrawn in asking their colleagues to guide them through because of shame or ego.

Despite the benefits of the use of ASNs by lecturers, studies have reported that some lecturers seem not to use academic social-networking sites as expected, reflecting in their low use. This could be as a function of their personal characteristics and the level of their computer literacy competence. Reports from studies have showed that age, gender, academic qualifications and designation could be important predictors of the use of ASNs. In addition, a lecturer who has high level of computer literacy competence might be favourably disposed to use academic social networks than one who has a low level of computer literacy competence. Thus, in order to empirically verify these assertions, this study examined computer literacy competence and use of academic social networks by lecturers in State universities in Osun State, Nigeria.

STATEMENT OF PROBLEM

Lecturers across universities need to go beyond their local or immediate confines. They need to be exposed to the international academic communities in relation to their researches outcomes in the form of publications for peer review by their contemporaries (Ramzam, 2019). Many ICT driven platform or academic social networks are now available for the use of the lecturers not only for the exposition of their research outputs but also for their teaching and research outputs but also for their teaching and research activities (Rhoades, 2018). In Nigeria, the use of these network services by the lecturers appears very limited. This has in turn deprived them the opportunity for global visibility including bringing the huge available information resources on these networks to bear on their teaching and the development of the bearing capacity of their students.

From literature sources and observation, the limited use or access to these network services may be linked to a number of challenges such as individual lecturers disposition towards the network services, their ICT competences skill sets. The assumptions here are that having

what may be referred as acceptable characteristics coupled with ICT skills sets can be an indication of potential to use academic social networks by the lecturers.

Accordingly the following questions can some to guide the work

- * What are the lecturer's characteristics?
- * What is the relationship between these characteristics and possession of ICT skills set?
- * To what extent can ICT skill competencies correlate with potential to use academic social network services?

OBJECTIVES

The objectives of this paper are:

- To determine the level of computer literacy competence of lecturers in state universities in Osun State;
- To find out the types of academic social networks used by lecturers in state universities in Osun State, Nigeria;
- To determine the frequency of use of academic social networks by lecturers in state universities in Osun State, Nigeria;
- To find out the challenges affecting the use of academic social networks by lecturers in state universities in Osun State, Nigeria;

HYPOTHESIS

There is no significant relationship between the computer literacy competence on use of academic social networks by lecturers in state universities in Osun State, Nigeria

SIGNIFICANCE OF THE STUDY

The findings of this study will be utmost significance to the following stakeholders; lecturers, university administrators, students and the society. This study will be of great significant to lecturers as it will unfold all the numerous benefits associated with the use of academic social networks such as their potentials in facilitating research activities, information sharing, collaboration among researchers, knowledge updates and so on. The result of this study will also motivate lecturers to visit ASNS so that they can do self-promotion and sustain social connections, acquire professional knowledge, be a part of a peer community, and interact with their peers and colleagues. It will also contribute to how academic lecturers can answer user's queries within or afar quickly.

METHODOLOGY

The methodology for this study is designed to obtain data on the personal characteristics of lecturers, their computer literacy competence and their use of academic social network in the state universities in Osun State, Nigeria.

Two state universities are located in Osun state. They are Osun State University (UNIOSUN) and University of Ilesha. The numbers of lecturers in the two universities were known. 80% of the numbers of lecturers in the two universities were sampled. This indicates that 80% of the lecturers form the sample size. This is explained in table 1

Table 1: Sample frame and size

Universities	Number of lecturers	Sample size
UNIOSUN	141	113
University of Ilesha	121	97
Total		210

Source: Author fieldwork, 2025

The sample size forms the basis for questionnaire administration. Therefore 210 questionnaires were administered. 4 Likert scale: Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) were used to measure the variables. Descriptive statistics (frequency counts, percentages, mean, and standard deviation) were used to analyse the data. Anova and Multiple regression were used to test the hypotheses

FINDINGS AND DISCUSSION

1. What is the level of computer literacy competence of lecturers in state universities in Osun State, Nigeria?

Table 2 presents results of the types of the level of computer literacy competence of the respondents. It the lecturers'' responses on statements intended to measure their level of computer literacy competence. In order to determine the level of computer literacy competence, a test of norm was conducted. There are six statements in the scale used to measure computer literacy competence and four measures (Strongly Agree, Agree, Disagree and Strongly Disagree). The six statements were multiplied by the four measures, which gives a score of 24. The division of 24 by 3 gives 8 . Thus, the scale between 1-24 shows that the level of computer literacy competence of the lecturers is low, the scale between 24-48.0 indicates that the level of computer literacy competence is moderate and the scale between 48.1-72 shows a high level of computer literacy competence of the lecturers. Findings showed that most of the lecturers possessed a low level of computer literacy competence

Table 2 Computer literacy competence of lecturers in state universities in Osun State, Nigeria

S/N	Computer Literacy Competence	SA	A	D	SD	Mean	S.D
		F	F %	F %	F %		

		%					
1	I know how to install software packages on my computer	335 66.1	134 26.4	21 4.1	17 3.4	3.55	.730
2	I can connect my computer to a modem of local area network	247 48.7	208 41.0	30 7.9	37 7.3	3.36	.910
3	I think computer is difficult to use	124 24.5	62 12.2	145 28.6	176 34.3	2.26	1.175
4	I know how to access the Internet and search engines through the computer	171 33.7	32 6.3	304 60.0	- -	3.54	.613
5	I can convert word document to PDF format	31 6.1	7 1.4	366 72.2	103 20.3	3.63	.662
6	The use of computer makes my work easy and fast	38 20.3	103 75.3	22 4.3	- -	3.71	.542
	Total mean				-	20.05	

Key: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD)

2. What are the types of academic social networks used by lecturers in state universities in Osun State, Nigeria?

Results (Table 3) reveals the most used academic social network by most of the lecturers ($\bar{x}=1.98$) are Academia.edu. The other academic social networks used by a high number of the respondents were; Mendeley ($\bar{x}=1.49$), LinkedIn ($\bar{x}=1.81$) and ResearchGate ($\bar{x}=1.18$). The least used academic social networks is Diigo ($\bar{x}=1.29$). This might be because Academia. Edu is easy to access and understand.

Table 3: Types of academic social networks used by lecturers

ASN	Used		Not Used		Mean	S.D
	F	%	F	%		
Linkedin	185	88.1	25	11.9	1.81	.395
Diigo	32	15.2	178	84.8	1.29	.453
Figshare	99	47.1	111	52.8	1.40	.500
Academia	179	85	31	14.7	1.98	.125
Researchgate	156	74.6	54	25.7	1.75	.395

Mendeley	110	52.4	100	47.6	1.49	.490
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Source: Author fieldwork, 2025

3. What is the purpose of use of academic social networks by lecturers in state universities in Osun State, Nigeria?

Results in Table 4 shows that most of the lecturers use the academic social networks to upload/share published works ($\bar{x}=3.54$), enhance their professional reputation and online presence ($\bar{x}=3.52$), upload abstracts of articles and/or links to journals in which they are published ($\bar{x}=3.49$), find out about new/ latest trends in my area of interest ($\bar{x}=3.48$) and promote my academic achievement and publications ($\bar{x}=3.47$).

Table 4: Purpose of use of academic social networks by lecturers

Purpose	SA		A		D		SD		Mean	SD
	F	%	F	%	F	%	F	%		
upload/ share research publications my published full-text articles	106	50.4	55	26.1	30	14.2	19	9.0	3.54	.741
promote my academic achievement and publications	97	46.1	86	40.9	18	8.5	09	4.2	3.47	.793
upload abstracts of articles and/or links to journals in which they are published	112	53.3	65	30.9	20	9.5	13	6.2	3.49	.784
enhance my professional reputation and online presence	95	45.2	77	36.6	28	13.3	10	4.7	3.52	.651
find out about new/ latest trends in my	123	58.5	74	35.2	3	1.4	10	4.7	3.48	.666

area of interest										
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Source: Author fieldwork, 2025

Key: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD)

4. What is the frequency of use of academic social networks by lecturers in state universities in Osun State, Nigeria?

Results in Table 5 shows that most of the respondents 183 (87.1%) noted that they used LinkedIn daily. The academic social networks that were also used daily were Academic.edu 170 (80.9%) and Research gate 169 (80.4%). On the other hand, the academic social networks that were never used were Diigo 141 (67.1%) and Fig share 145 (69.0%).

Table 5: Frequency of use of academic social networks by lecturers

Statement	Daily		Weekly		Monthly		Never		Mean	SD
	F	%	F	%	F	%	F	%		
Linkedin	183	87.1	20	9.5	06	2.8	01	0.4	3.98	1.090
Diigo	21	10	25	11.9	23	10.9	141	67.1	2.50	1.561
Figshare	15	7.1	22	10.4	28	13.3	145	69.0	2.69	1.594
Academia	170	80.9	21	10	15	7.1	4	1.9	4.13	.826
Researchgate	169	80.4	37	17.6	04	1.9	00	0.0	3.77	1.247

Source: Author fieldwork, 2025

5. What are the challenges affecting the use of academic social networks by lecturers in state universities in Osun State, Nigeria?

Findings revealed that the prominent challenges affecting the use of academic social networks by most of the respondents were; no/weak internet connection ($\bar{x}=3.51$), power failure ($\bar{x}=3.37$), problem of retrieving relevant data ($\bar{x}=3.10$), fear of downloading viruses ($\bar{x}=3.08$) and invasion of privacy ($\bar{x}=3.07$) (Table 6).

Table 6: Challenges affecting the use of academic social networks by lecturers

Challenges	SA		A		D		SD		Mean	SD
	F	%	F	%	F	%	F	%		
No/Weak internet connection	114	54.2	62	29.5	25	11.9	09	4.2	3.41	.823
Lack of/ Inadequate computer skills	74	35.2	102	48.5	30	14.2	04	1.9	2.90	1.034
Power failure	145	69.0	51	24.2	10	4.7	04	1.9	3.37	.837
Invasion of privacy	92	43.8	78	37.1	34	16.1	06	2.8	3.07	.909
Fear of downloading virus	86	40.9	67	31.9	47	22.3	10	4.7	3.08	1.055
Low quality of content made available	24	11.4	45	21.4	74	35.2	67	31.9	2.87	1.000
Too much self promotion by others	41	19.5	39	18.5	70	33.3	60	28.5	2.94	.980

Source: Author fieldwork, 2025

Key: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD)

Hypothesis: There is no significant influence of computer literacy competence on use of academic social networks by lecturers in state universities in Osun State, Nigeria.

Table 7 showed a coefficient of multiple correlation ($R=.219$ and Adj. R^2 of $.042$). This means that 4.2% of the variance was accounted for by computer literacy competence. The significance of the composite contribution was tested at $P<.05$. Table 7 also showed that the analysis of variance for the regression yielded F-ratio of 8.432 ($P<0.01$). The implication of this result is that the computer literacy competence was significant and the other variables not included in this model may have accounted for the remaining variance. Thus, the null hypothesis is rejected. This upholds the view of Asmi and Margan (2015), they noted that for academics to fully tap from the benefits of academic social networks, their personal characteristics should be studied. Also, Alavi,

Borzabadi and Dashtestani (2015) noted that computer literacy competence is very important because it is the ability to use computers at an adequate level for creation, communication and collaboration in a literate society.

Table 7: Contribution of computer literacy competence to use of academic social networks

Model Summary					
R	R Square	Adjusted R Square		Std. Error of the Estimate	
.229 ^a	.048	.042		16.373	
ANOVA ^a					
Model	Sum of Squares	Df	Mean Square	F	Sig
Regression	6781.526	3	2260.509	8.432	.000 ^b
Residual	134841.886	207	268.075		
Total	141623	210			

Source: Author fieldwork, 2025

DISCUSSION OF FINDINGS

1. Level of computer literacy competence of lecturers in state universities in Osun State, Nigeria

Majority of the lecturers possessed a low level of computer literacy competence. This is an indication that most of the lecturers had a little knowledge and skills associated with the use of computers. This low level of computer literacy competence might be as a result of their non-constant exposure to the use of computer and their personal efforts in this regard. This result agrees with the findings reported by Nwachukwu and Asom (2015) who examined use of computer technology for academic work by lecturers of university of Jos, Nigeria. They reported that most of their respondents had low level of computer competence.

2. Types of academic social networks used by lecturers in state universities in Osun State

Results revealed that the most used academic social networks by most of the lecturers Academia.edu, Google Scholar, LinkedIn and ResearchGate. The least used academic social networks were; Bibsonomy, FrontiersIn, Pronetos and Diigo. This shows that the lecturers were more familiar with Academia.edu, Google Scholar, LinkedIn and ResearchGate. This might be as a result of the emphasis placed on these academic social networks by the management of the institutions in ensuring that their visibility online is sustained. The result of this study concurs with that of Sheikh (2016) who carried out a study on awareness and use of academic social networking websites by the lecturers of Comsats Institute of Information Technology, Islamabad Pakistan and reported that the most used academic social networks were; LinkedIn, ResearchGate, Academia.edu and Mendeley.

3. Purpose of use of academic social networks by lecturers in state universities in Osun State, Nigeria

Majority of the lecturers used the academic social networks to acquire more professional knowledge. The other reasons why majority of the respondents used the academic social networks were; upload/share published works, collaborate with other researchers, enhance their professional reputation and online presence, search for recruitment opportunities, write theses and dissertations and interact with other scholars in their fields. This reveals that the academic social networks have proved valuable to the professional activities of the lecturers in the state universities. The finding of this study corresponds with that of El-Berry (2015) who conducted a study on awareness and use of

academic social networking sites by the academic staff at the South Valley University, Egypt. They reported that most of the respondents used academic social networks to access recommended papers, contacting their peers, discuss, tracking metrics, share links to their papers and discovering jobs.

4. Challenges affecting the use of academic social networks by lecturers in state universities in Osun State, Nigeria

The prominent challenges affecting the use of academic social networks by most of the respondents were; no/weak internet connection, power failure, problem of retrieving relevant data, fear of downloading viruses and invasion of privacy. Most of these challenges are infrastructural and ethical issues that seem to affect not only use of academic social networks but also other Information and Communication Technology tools especially within the Nigerian environment. The findings of this study corroborates that of Opesanwo and Mabawonku (2016) who studied the influence of use of social media on research productivity of lecturers in two selected universities in South-west, Nigeria and reported that a major challenge affecting use of the social media were that privacy issues.

SUMMARY OF FINDINGS

Results revealed that the most used academic social networks by most of the lecturers Academia.edu, LinkedIn and ResearchGate. The least used academic social networks were; Fig share and Diigo. The prominent challenges affecting the use of academic social networks by most of the respondents were; no/weak internet connection, power failure, problem of retrieving relevant data, fear of downloading viruses and invasion of privacy. The computer literacy competence to the use of academic social networks was significant. This is an indication that

personal characteristics and computer literacy competence should be taken into consideration in order to enhance the use of academic social networks by lecturers.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

- The use of academic social networks can be promoted if the management of the universities ensure that ratings from some of the academic social networks like linkedin, Academia and ResearchGate will contribute certain percentage to the promotion of lecturers especially the h index and i10-index. This will ensure that all the lecturers use these academic social networks.
- In order to tackle the challenge of power failure, alternatives like solar, gas and even wind should be seriously considered by the management of the universities. This will end the erratic nature of power supply.
- Challenges like problem of retrieving relevant data, fear of downloading viruses and invasion of privacy can be addressed if the lecturers have a high level of digital literacy skills. This will enable them to retrieve relevant information from the academic social networks and they will as much as possible evade viruses and also be conscious of cyber stalkers who seek to invade privacy online.

CONCLUSION

In this digital age, the use of academic social networks is very important to academic fulfilment of the lecturers. However, in order to use the academic social networks effectively, the lecturers need to possess a high level of computer literacy competence. It would be very difficult for a lecturer who does not have knowledge of computer use and who does not have the skills and the appropriate attitude towards computer use to effectively use academic social networks. In

addition, age, gender and educational qualifications of the lecturers also impact on how effective the academic social networks will be used by the lecturers. Therefore, computer literacy competence and demographic factors like age, gender and academic qualifications are significant determinants of use of academic social networks by lecturers.

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