

Adoption of Social Media in Teaching Library and Information Science in Public Universities in South-South Nigeria

Jerry Eyerinmene Friday^{1*}, Diodemise Ese Ovwasa² and Gift Ihunanya Nwosu³

¹University Library, Federal University Otuoke, Bayelsa State, Nigeria.

Email: fridayjerry65@gmail.com

²University Library, Delta State University, Abraka, Delta State, Nigeria.

Email: ese.evwaras.ovwasa@gmail.com

³Rivers State College of Health Science and Management Technology, Port Harcourt, Rivers State, Nigeria. Email: giftnwjn@gmail.com

*Corresponding Author

Abstract: Social media, such as WhatsApp, Facebook, Twitter, Instagram, Telegram, and others, have become one of the most innovative web-based means of communication in the 21st century. It has enjoyed growing acceptance and adoption among people in nearly all walks of life, including professionals and academics in diverse disciplines. In recent times, studies have shown that university teachers across the world have been adopting these tools for instructional purposes. However, research seems not to have established whether lecturers who teach Library and Information Science in government-owned universities in South-South Nigeria adopt social media for teaching task. Thus, this study examined lecturers' adoption of social media in teaching Library and Information Science (LIS) in ten South-South Nigerian public universities. It intended to identify the extent of adoption, purposes for adoption, benefits derived from adoption and challenges encountered in adoption. Employing a descriptive research approach, ninety-four LIS lecturers constituted the study population while seventy-three LIS lecturers made up the sample. A questionnaire served as a tool for data gathering, after it was validated by LIS/Measurement and Evaluation university lecturers. Ninety-four questionnaire copies were distributed but seventy-three copies were

retrieved and considered amenable for analysis. This amounted to a response rate of 77.66%. Weighted mean and standard deviation were adopted to compute data. Result showed that the lecturers minimally adopted social media to teach LIS. Findings further revealed that the lecturers adopted social media to deliver lectures and to transmit course materials to students. It was also found that the lecturers' adoption of social media for teaching task enabled the lecturers to stay up-to-date; to easily communicate with and to share course materials with students; and to acquire digital skill. However, the lecturers found it difficult to apply social media for instructional activities due to unstable internet connectivity, erratic power supply and poor digital literacy.

Keywords: Adoption, Library and information science, Public universities, Social media, South-South Nigeria, Teaching.

I. BACKGROUND OF THE STUDY

The need for human beings to interact and communicate at individual, organisational, institutional, corporate, societal and other levels has grown significantly over the years. Human interaction and communication provides one of the strongest backbones for the success of

activities at individual, organisational, institutional, corporate, societal and other levels. The same thing is applicable to teaching-learning activities in educational institutions. Teaching is used here to refer to the process of transmitting practical and theoretical knowledge to an individual with a view to improving his understanding of himself, of his environment, of a process and so on. In higher institutions of learning, the teaching-learning process takes place in several fields of study at preliminary, diploma, undergraduate and postgraduate levels of study. One of these fields of study is Library and Information Science (LIS).

Library and Information Science (LIS) is a field of study that involves equipping individuals with the knowledge and skills required to man a library or information centre of any type or to be an instructor in LIS in a tertiary institution of learning. Akwang [1] defined LIS as a field of study which operates with other fields of study or as a group of academic disciplines mainly intended to groom students for occupations in the information profession. It is a course of study which is meant to enable students to develop diverse library and media-service-oriented technical competences so that libraries could employ them [2]. Students acquire these skills through teaching and practical demonstrations in institutional libraries, demonstration libraries and media centres. The skills include the ability to engage in collection development, knowledge organization (cataloguing and classification), readers' services (circulation services, reference services, reserve services), serials management and many more. In recent times, students are taught how to run a digital or electronic library, helping them to gain knowledge and skills in electronic collection development, online cataloguing and classification, automated circulation services, digital reference services, digital serials management and more. As information and technological innovations evolve, higher education teachers tend to experiment with new methods of teaching to facilitate the instructional process. One of these innovations being adopted for teaching task is Social Media.

Social Media (SM), which came alongside the advent of the Internet and the World Wide Web, and is

frequently used in place of Web 2.0 or social software, refers to diverse forms of networked technologies that promote the Internet as a means of communication, collaboration and creative expression [3]. Originated in 2004, "Web 2.0" represents the changes which led to the adoption of the World-Wide-Web as a forum for interaction as against its previous usage for dissemination. Its use for interaction purposes helped social media infrastructure to develop and emerge [4]. Social media originated as 'Friends United' in England in 1999, which was followed by 'Friendster' in 2002, 'MySpace' in 2003 and then by 'Facebook' in 2004, which was developed in America [5]. Over the years, several forms of social media have emerged. Spencer [6] observed that there are over sixty types of social media, the common forms of which include Facebook, WhatsApp, Telegram, YouTube, Twitter, Wikis, Wechat, Qzone, Instagram, Tumbir, Google +, Baidu, Tieba, Skype, Viber, Sina, Weibo, LINE, Snapchat and Blogs, etc. Kara *et al.* [7] noted that the popular contemporary social media platforms are Facebook, Twitter, YouTube, Wikipedia, Instagram and Snapchat. These social media forms fall into six classes: sharing sites, blogs/micro-blogging, social bookmarking sites, virtual/online communities, social networking sites (SNS), and virtual worlds [8]. Social media have been put to several uses over time.

Social media have, traditionally, been used as means of sharing informal and professional information among friends, colleagues and close relations. However, teachers in higher educational institutions seem to have found it useful for instructional purposes in recent years. Ahmed *et al.* [9] observed that social media is currently a source of attraction for professional and academic disciplines as a unique forum for easing knowledge sharing besides communication. Knowledge sharing has usually taken place among professional and academic colleagues. However, university teachers, have, recently, been exploiting social media to share or impart knowledge to students. Siakas and Georgiadou [10] acknowledged that the use of social media for pedagogy is gaining momentum, with Facebook, Whatsapp, Twitter, YouTube, Skype, Instagram and Wiki and others prominently serving that purpose [11]. Its adoption in the teaching-learning process has

helped teachers to collaborate with students better; to develop online course material; and to distribute course content to students [12].

II. SIGNIFICANCE OF THE STUDY

The study would be beneficial to the following groups of people: Library and Information Science (LIS) lecturers in universities; researchers; students; and university management. It would benefit LIS lecturers in universities because it would acquaint them with knowledge of issues surrounding LIS lecturers' adoption of social media for pedagogy. Researchers and students also stand to gain from the study as the published paper would serve as valuable literature for future research in Library and Information Science. Lastly, the research would be beneficial to university management as it would inform them about issues involving lecturers' adoption of social media in teaching task. This knowledge would guide them in taking appropriate measures to plan for teaching and learning practices in universities.

III. STATEMENT OF THE PROBLEM

Recently, tertiary education teachers appear to have started harnessing the potentials of social media for teaching purposes. Whatsapp, Facebook, Twitter, YouTube, Skype, Instagram, blogs, telegram, Wiki and others are some forms of social media which seem to be commonly applied for these purposes. Teachers' utilization of these media for teaching purposes appears to enable them to easily and speedily transmit course-related information to students, to have better communication with students, to teach students outside classroom in their convenience and to have an intimate interaction with students. Researchers have attempted to unravel issues surrounding adoption of social media for teaching engagement in higher institutions of learning across the world. A close look at available literature suggests that several such studies, globally, have been conducted. While a few related studies have emanated from Nigeria, one of the countries of Africa, only one study has engaged Library and Information Science lecturers in public universities

in South-West Nigeria [13]. The studies which have engaged university teachers in South-South Nigeria, have only explored the possibility of using social media for lecturer-student communication and for assessment and related purposes [14]-[15]. A critical literature review reveals that no study specifically provides an idea of whether or not lecturers in public universities in South-South Nigeria employ social media to teach Library and Information Science. Thus, this study investigated lecturers' adoption of social media in teaching Library and Information Science in public universities in South-South Nigeria.

IV. PURPOSE OF THE STUDY

The study set out to examine lecturers' adoption of social media in teaching Library and Information Science in public universities in South-South Nigeria.

V. OBJECTIVES OF THE STUDY

The specific intentions of the study were to:

- Unravel the extent of lecturers' adoption of social media in teaching Library and Information Science in public universities in South-South Nigeria;
- Discover the purposes for which lecturers adopt social media in teaching Library and Information Science in public universities in South-South Nigeria;
- Identify the benefits lecturers derive from adopting social media in teaching Library and Information Science in public universities in South-South Nigeria; and
- Unearth the challenges encountered by lecturers in adopting social media in teaching Library and Information Science in public universities in South-South Nigeria.

VI. LITERATURE REVIEW

This part of the paper brought into focus previous studies related to the topic of the current investigation. The review was executed under the following sub-headings: Extent of Lecturers' Adoption of Social Media in Teaching Library

and Information Science in Universities; Purposes of Lecturers' Adoption of Social Media in Teaching Library and Information Science In Universities; Benefits in Lecturers' Adoption of Social Media in Teaching Library and Information Science in Universities; and Challenges in Lecturers' Adoption of Social Media in Teaching Library and Information Science in Universities.

VII. EXTENT OF LECTURERS' ADOPTION OF SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN UNIVERSITIES

Over the years, research had demonstrated the degree to which university teachers adopted social media for teaching activities. Available research findings had suggested high, moderate and low extent of use of social media for instructional purposes by this category of teachers. Roebuck *et al.* [16] found that 63 percent of 201 US higher education teachers adopted social media tools in their pedagogical activities. In the same year, the rate of its instructional use by Romanian university teachers was found to be increasing [17]. A more comprehensive study revealed that 97 percent of higher education academics made same use of social media to the extent that UK academics adopted it most (37 percent), followed by academics in Australia/New Zealand (25 percent), in the US (20 percent), in continental Europe (10 percent) and in Canada (6 percent) and lastly, academics in Ireland, in the Caribbean and in Africa, in Asia and in South America [18]. This was followed by a Malaysian study, which indicated that 70 percent of 123 Universiti Utara Malaysia lecturers had begun using social media to teach students [19]. Result generated from a study which engaged a sample of thirty-two lecturers at King Abdul-Aziz University and King Saud University, Saudi Arabia, hinted that 91 percent of these university teachers harnessed social networking sites to teach students [20]. In a subsequent research, 333 social science-inclined university lecturers with predominantly-English-speaking nationality (US, UK, Australia, Canada) and others (Germany, Switzerland, Sweden, Brazil, Spain, Romania, Denmark New Zealand,

Turkey, Netherlands, Israel, Ireland), were found to have actively adopted social media to impart knowledge to students [21]. Gichuhi *et al.* [22] found that 87.5 percent of twenty lecturers at the School of Education, University of Nairobi, Kenya, tapped from a diversity of social media outlets to transmit content to students. From the University of Dar es Salaam Sokoine University of Agriculture and Muhimbili University of Applied Sciences in Tanzania, a finding emerged that a sample of its seven lecturers made frequent utilization of social media for instructional endeavour [23]. A fairly-recent finding from a research, which examined the potentials of utilizing social media for lecturer-student communication after the COVID-19 period in Nigeria, also suggested high usage of the media for teacher-student communication by 15 lecturers of twelve Nigerian public universities and polytechnics in South-South, South-East and South-West Nigeria [15]. On the other hand, there were findings that suggested moderate use of social media for pedagogy by university teachers. Earlier, Okello-Obura and Ssekitto [24] found that 38 lecturers out of a sample of 68 academic staff of Makerere University, Uganda, utilised web 2.0 technologies for instructional purposes. In the following year, a moderate pedagogical application of social media was attributed to forty lecturers at the College of Education, Sudan University of Science and Technology [25]. The same year was associated with a finding from Nigeria, which showed that 56.4 percent of 227 lecturers from six public and private universities in North-Central Nigeria, made low utilisation of social media for academic activities [26]. An Australian research by Sutherland *et al.* [27] revealed that 49 percent of 53 academics in the Faculty of Arts, Business and Law and in the Faculty of Science, Health, Engineering, and Education at the University of the Sunshine Coast in Queensland, employed social media for teaching, with academics in the Faculty of Arts, Business and Law using the media more than their Faculty of Science, Health, Engineering and Education counterparts. Aside these findings, a number of empirical findings had shown that university teachers made little use of social media

for instructional task. One of these results indicated a low rate of instructional usage of social media by sixty-five lecturers in Sudanese universities [28]. In the same vein, 6,139 Italian university teachers were found to have displayed limited and restricted adoption of social media for instructional activities [12]. This was shared by a Nigerian finding which indicated marginal use of social media by 69 Business Education teachers in universities, polytechnics and colleges of education in five Nigerian states, with 33 percent of the lecturers adopting it as a means of instruction, while 56.5 percent, incorporating it into classroom activities [14]. Research also established that, though the degree to which 195 lecturers in the domains of Technology, Sciences and Veterinary at the University of Ibadan and Federal University of Agriculture, Abeokuta, South-West Nigeria, exploited social media for teaching task was low, there was seeming rise in the level of adoption [29]. It then unfolded that 11.7 percent of a sample of 128 lectures in the domain of education at the University of Port Harcourt, Nigeria, took advantage of WhatsApp for academic engagement [30].

VIII. PURPOSES OF LECTURERS' ADOPTION OF SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN UNIVERSITIES

Studies had identified the purposes for which university teachers adopted social media in teaching processes. Chen and Bryer [31] found that a sample of sixty-five Public Administration lecturers from twenty-eight American universities utilised Web 2.0 tools to relate with students; to coordinate learners' group networks; to promote their courses, etc. Three years later, research uncovered that Universiti Utara Malaysia lecturers harnessed social media for informal communication with students [19]. Result from Turkey indicated that 67 professors in the Faculty of Communication Sciences at Anadolu University primarily used Facebook to connect with students and to share information, and secondarily, to deliver information, reference books, group assignments and course sessions to students [32].

These findings surfaced in a subsequent study by Roebuck *et al.* [16] which showed that US higher education teachers and professors mostly used social media to communicate; to supply course content; to interact; and to collaborate as part of their teaching activities. Sixty-five lecturers in Sudanese universities were then found to have taken advantage of social media to urge learners to adopt technology during lectures; to aid learners' understanding of lectures by means of discussions; to enjoin learners to share information in the classroom; to answer learners' queries; to arrest learners' attention; to connect learners to lesson-based websites; and to exchange information with learners [28]. At Makerere University, Uganda, lecturers adopted web 2.0 tools to develop course materials; to provide online distance instruction; to make announcements to students; and to evaluate students [24]. In the ensuing year, Manca and Ranier [12] unraveled that, while Italian university teachers mainly made use of social media to visualise resources, they often adopted same media to locate content. In the following year, a Nigerian study established that 70 percent of 69 Business Education teachers in universities, polytechnics and colleges of education in five Nigerian states were enthusiastic about their students identifying innovative uses of social media while teaching problem-solving, whereas, 66 percent displayed similar interest in having their students incorporate same media into their lesson plans [14]. An accompanying investigation divulged that a sample of 47 lecturers in five Tanzanian universities adopted Web 2.0 technologies to post; to find lecture slides and tutorials; to distribute materials and so on [33]. Similar result was also obtained in Australia where 53 academics in the Faculty of Arts, Business and Law and in the Faculty of Science, Health, Engineering, and Education at the University of the Sunshine Coast in Queensland, mainly adopted social media to distribute course-related information to students, and secondarily, to assess students and gather their views [27]. In the same year, Gichuhi *et al.* [22] brought to light that all the lecturers in the School of Education at the University of Nairobi, Kenya, adopted WhatsApp to transmit course content to learners.

IX. BENEFITS IN LECTURERS' ADOPTION OF SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN UNIVERSITIES

Studies had demonstrated that university teachers derived a number of gains from adopting social media to teach students. A good number of studies had attested to the potentials of social media in enhancing teacher-learner communication and in building groups. In the first instance, research showed that pedagogical uses of Facebook helped two third of 67 professors in the Faculty of Communication Sciences at Anadolu University in Turkey to have easy communication with students [32]. On the other hand, social media empowered American Public Administration university lecturers to extend the boundaries of course management systems; to engage in innovative and collaborative ventures; to relate theoretical knowledge to real-life issues; and to ease constructive learning [31]. In Nigeria, the instructional use of social networking tools was found to have enabled thirty-seven Library and Information Science lecturers in South-West Nigeria to deliver online lectures; to bridge teacher-student communication gulf; and to enhance their publication output [13]. It further benefited the communication process by helping teachers to integrate multimedia and multimodal texts into the teaching process; to speedily and effortlessly distribute these teaching materials; and to build a team-learning environment [34]. Subsequent findings by Roebuck *et al.* [16] also confirmed its benefit for communication and revealed other advantages, including enabling 201 US higher education teachers and professors to share information with students; to obtain students' feedback from multiple sources; to produce more participating students; to have better students' team task, discussion opportunities, enhanced creativity and preparation for instructional activities; and to build a stronger classroom community. In the same country, allied findings were obtained in a study by An *et al.* [35] which demonstrated that instructional application of Web 2.0 technologies by 14 US university teachers offered them opportunities to interact; to communicate; to work together; to create knowledge; to develop writing and digital competence; and to handle instructional technology

easily and flexibly. The potential of using social media in creating communities also surfaced in another US study, which suggested that adopting social media for teaching task helped eight American Public Administration lecturers in building communities and in fostering team activities [32]. In a broad survey, social media pedagogical usage benefits which accrued to higher education academics in the UK, Australia/New Zealand, US, continental Europe and Canada, Ireland, the Caribbean and Africa, Asia and in South America included being opportune to network with other academics and with people or groups outside universities; helping to promote openness and to share information; to publicize and develop research and to give and receive support [18]. Ahmed *et al.* [25] reported that lecturers in the College of Education, Sudan University of Science and Technology, viewed pedagogical use of social media as vital because it helped them to locate and share educational materials with students; to promote knowledge distribution; to ease information exchange and responses with learners; to support innovative instructional strategies, etc. In Africa, the application of web 2.0 technologies for teaching assignment was reported to have empowered five Tanzanian university teachers to bring order to documents and academic materials; to link to relevant materials; to be more responsible, and to think and argue critically [34].

X. CHALLENGES IN LECTURERS' ADOPTION OF SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN UNIVERSITIES

Research had established that university teachers encountered some barriers in their attempt to utilize social media to instruct students. Roebuck *et al.* [16] found that 201 US higher education teachers and professors encountered difficulty in using social media for instructional purposes owing to issues surrounding monitoring, accountability, obligation to maintain institutional culture, information explosion and the fact that its usage is time-demanding. However, in a subsequent study, it was the task of monitoring students' social media handles while conducting online assessment that presented a challenge for University of Maryland University

College online course teachers [36]. An *et al.* [36] made known that discomfort with openness, technical problems and lack of time hindered fourteen US university instructors from adopting social media for pedagogy. In a broad survey, higher education academics in the UK, Australia/New Zealand, US, continental Europe and Canada and Ireland, the Caribbean and Africa, Asia and in South America had difficulty in putting social media to teaching uses because of privacy and plagiarism concerns; the unclear line between personal and professional use of social media; the risk of endangering their career by unwise social media usage; lack of repute; the posted content quality; time demands; mandatory use of social media; use of social media as a means of harm; excessive self-publicity by others; potential plagiarism of teachers' ideas and content commercialization [18]. As for lecturers in Sudanese universities, the primary obstacle was lack of high-speed Internet, followed by lack of smart phones that enabled fast access; absence of teacher's confidence; narrow screen coverage; technical issues; and lack of teacher development programs [28]. In another study, pedagogical use of web 2.0 technologies by Makerere University lecturers was found to have been hampered by costly Internet subscriptions or low Internet band width; lectures' technophobia; rising cybercrime cases; poor training in ICT applications; shortage of time to apply the technologies; shortage of ICT facilities for students' use; low staff strength and absence of inspiration of lecturers by the university [24]. In the year that followed, Manca and Ranier [12] revealed that a sample of 6,139 Italian university teachers were not much willing to adopt social media to teach students owing to cultural resistance; instructional issues or institutional problems; displacement of teachers' conventional roles; the management of their relations with learners; threats to their privacy; lecturers' conservatism; lack of technical facilities and support; and lecturers' perceptions of social media usage as being harmful. This year came with another research by Ahmed *et al.* [25] which discovered that the major barriers encountered by lecturers in the College of Education, Sudan University of Science and Technology in using Social Media for instructional task, included absence of courses to train them on pedagogical application

of the media; learners' reluctance to partake owing to their discomfort with the openness with which the media were adopted; the piling amount of administration and teaching work; and lack of a plan to create and adopt Web 2.0 for instructional functions. From a broad survey involving university teachers from majorly English-speaking nations, including UK, US, Australia and others, 62 percent of a sample of 333 of these lecturers were primarily hindered by worries about cultural and social beliefs; about safeguarding their reputation on the Internet; and about protecting their privacy [21]. An Australian research then discovered that privacy, bullying and lack of time prevented 53 academics in the Faculty of Arts, Business and Law and in the Faculty of Science, Health, Engineering, and Education at the University of the Sunshine Coast in Queensland from adopting social media for teaching purposes [27]. Likewise, a Malaysian study identified the hindrances to pedagogical applications of social media by Universiti Utara Malaysia lecturers to include lecturers' fears of invasion of their privacy; perceptions of social media as a source of distraction, lecturers' lack of social media operational skill and its perceived potential danger for students [19]. Two years later, a Nigerian investigation unraveled that 69 Business Education lecturers in five Nigerian states were hesitant about using social media for pedagogy because of lecturers' fears of students' abusive use of social media; lack of expertise and ignorance of accessible teaching software and absence of tools for using social media [14]. With respect to lecturers in the educational area at the University of Port Harcourt, Nigeria, the challenge experienced with adopting WhatsApp for teaching purposes was lack of skill [31]. In the same country and in the same year, Shadrach and Abugu [37] uncovered that older teachers' low level of media literacy, security threat from the Internet, poor network, likelihood of distractions and addictions constituted critical social media instructional application barriers to lecturers in Nnamdi Azikiwe University, Awka, Anambra State, Nigeria. In a relatively-current study, lecturers in government-owned universities in Rivers State, Nigeria, who adopted social media for pedagogy, were found to have been hampered by poor Internet services, inadequacy of support

tools, social media users' diverse social-cultural backgrounds, the non-suitability of social media for all kinds of work engagements and the potential adoption of social media to modify proposed syllabus [38].

XI. RESEARCH METHODOLOGY

The study adopted descriptive research design. The choice of this design was premised on the fact that the study was meant to collect and interpret lecturers' opinions on issues bordering on their adoption of social media in teaching Library and Information Science (LIS) in public universities. This is consistent with the observation that the purpose of a survey research design is to glean and systematically describe information and facts about a given population [39]. The study population was ninety-four Library and Information Science lecturers in ten public universities in South-South Nigeria. The research made use of total enumeration sampling technique to engage a sample of seventy-three LIS lecturers. This sampling method was adopted because the population was manageable. A close-ended questionnaire was used to source for research data.

The instrument had two sections: A and B. Section A elicited information on the personal details of the study respondents, while Section B had four clusters: A, B, C and D. Cluster A dealt with "Extent of Lecturers' Adoption of Social Media in Teaching Library and Information Science"; Cluster B with "Purposes of Lecturers' Adoption of Social Media in Teaching Library and Information Science", Cluster C covered "Lecturers' Benefits in Adoption of Social Media in Teaching Library and Information Science and Cluster D covered "Challenges in Lecturers' Adoption of Social Media in Teaching Library and Information Science". Cluster A, which had fourteen items, was weighted on a four-point rating scale of "Very Great Extent (4)", "Great Extent (3)", "Low Extent (2)" and "Very Low Extent (1)". Cluster B, which contained four items, was weighted on a two-point rating scale of Agree (2) and Disagree (1). On the other hand, Cluster C and D with five and seven items respectively, were both weighted on a four-point rating scale of "Strongly Agree (4)", "Agree

(3)", "Disagree (2)" and "Strongly Disagree (1)".

Two senior Library and Information Science lecturers and a senior Measurement and Evaluation lecturer at Niger Delta University, Bayelsa State, Nigeria, attested to the validity of the instrument. However, the instrument was not pilot tested based on the position that a valid instrument tends to be reliable [39]. Ninety-four copies of the questionnaire were administered to the LIS lecturers. However, only seventy-three copies were retrieved and found amenable for data analysis, amounting to a response rate of 77.66%. Data collection spanned from 7th January, 2024 to 28th February, 2024. The data gathered were analysed by means of weighted mean and standard deviation.

Cut-off points of 2.50 for Cluster A, C and D and 1.50 for Cluster B were set for the study. It was decided that Cluster A items whose weighted means were less than 2.50 would be considered as "Low Extent" while those with means equal to or greater than 2.50 would be considered as "Great Extent". Specifically, items with means which fell within the boundaries of "3.50-4.49", 2.50-3.49, 1.50-2.49 and "0.50-1.49" would be regarded as "Very Great Extent", "Great Extent", "Low Extent" and "Very Low Extent" respectively. The aggregate mean for this cluster was also interpreted in the same way. With respect to Cluster B, items with means less than 1.50 would be viewed as "Disagreed", whereas, items with means equivalent to or greater than 1.50 would be regarded as "Agreed". For Cluster C and D, items with weighted means less than 2.50 would be considered as "Disagreed", whereas, those with means equal to or greater than 2.50 would be viewed as "Agreed". Specifically, items in cluster C whose weighted means fell into the ranges of "3.50-4.49", 2.50-3.49, 1.50-2.49 and "0.50-1.49" would be considered as "Strongly Agree", "Agree", "Disagree" and "Strongly Disagree" respectively. This decision rule was also applicable to Cluster D.

XII. DATA ANALYSIS

This part of the research paper provided a tabular layout of the findings based on the research questions raised to provide guidance for the study.

XIII. EXTENT OF LECTURERS' ADOPTION OF SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN PUBLIC UNIVERSITIES IN SOUTH-SOUTH NIGERIA

Here, respondents were asked to indicate the extent to which they adopted social media to teach Library and Information Science on a scale of Very Great Extent, Great Extent, Low Extent and Very Low Extent. Result reveals that Library and Information Science lecturers in public universities in South-

South Nigeria adopt WhatsApp to a great extent; Telegram, YouTube and Google + to a low extent, while they adopt Facebook, Twitter, Wikis, Wechat, Instagram, Skype, Snapchat, blogs, Ozone and Tumbir to a very low extent. On the whole, the cluster mean of 1.36 falls within the range of "0.50-1.49", which was earlier set as "Very Low Extent". Hence, Library and Information Science lecturers in public universities in South-South Nigeria adopt social media for teaching processes to a very low extent. The responses are displayed in Table I.

TABLE I: MEAN RATINGS OF RESPONSES ON EXTENT OF LECTURERS' ADOPTION OF SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN PUBLIC UNIVERSITIES IN SOUTH-SOUTH NIGERIA

Sr. No.	Items	Mean	Standard Deviation	Remark
1.	Facebook	1.13	0.11	VLE
2.	WhatsApp	2.56	0.26	GE
3.	Telegram	2.33	0.23	LE
4.	YouTube	2.15	0.22	LE
5.	Twitter	1.45	0.15	VLE
6.	Wikis	0.57	0.06	VLE
7.	Wechat	1.43	0.14	VLE
8.	Instagram	1.16	0.12	VLE
9.	Skype	0.58	0.06	VLE
10.	Snapchat	1.15	0.12	VLE
11.	Blogs	1.10	0.11	VLE
12.	Qzone	0.50	0.05	VLE
13.	Tumbir	0.51	0.05	VLE
14.	Google +	2.44	0.24	LE
	Grand Mean and Standard Deviation	1.36	0.14	VLE

Key: VGE: Very Great Extent; GE=Great Extent; LE=Low Extent; VLE: Very Low Extent

XIV. PURPOSES OF LECTURERS' ADOPTION OF SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN PUBLIC UNIVERSITIES IN SOUTH-SOUTH NIGERIA

Respondents were asked to state the purposes for which they adopted social media in the instructional

process using a scale of Agree and Disagree. Finding indicates that, while Library and Information Science lecturers in public universities in South-South Nigeria apply social media to teach students in such areas as delivering lectures to students and disitubuting course content to students, they do not adopt same media to develop course content and to assess students. Responses are shown in Table II.

TABLE II: MEAN RATINGS OF RESPONSES ON PURPOSES FOR WHICH LECTURERS ADOPT SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN PUBLIC UNIVERSITIES IN SOUTH-SOUTH NIGERIA

Sr. No.	Items	Mean	Standard Deviation	Remark
1.	I use social media to develop course content.	1.15	0.12	Disagree
2.	I utilise social media to deliver lectures to students.	2.01	0.20	Agree
3.	I adopt social media to distribute course content to students.	2.23	0.22	Agree
4.	I adopt social media to assess students.	1.44	0.14	Disagree
	Mean and Standard Deviation	1.73	0.17	Agree

XV. LECTURERS' BENEFITS IN ADOPTING SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN PUBLIC UNIVERSITIES IN SOUTH-SOUTH NIGERIA

On a scale of Strongly Agree, Agree, Disagree and Strongly Disagree, respondents were asked to specify the gains they derived from adopting social media to teach Library and Information Science. Out come

indicates that adopting social media to teach students helps Library and Information Science lecturers in public universities in South-South Nigeria to stay current, to disseminate course content to students, to exchange information with students with ease and to acquire digital skills. However, the lecturers' adoption of social media for teaching processes does not make them resourceful in teaching. This is shown in Table III.

TABLE III: MEAN RATINGS OF RESPONSES ON LECTURERS' BENEFITS IN ADOPTING SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN PUBLIC UNIVERSITIES IN SOUTH-SOUTH NIGERIA

Sr. No.	Items	Mean	Standard Deviation	Remark
1	Social media usage for teaching activities enables me to have access to the latest information.	3.46	0.37	Agree
2.	Social media utilization for instruction helps me to distribute course content to students easily.	4.32	0.43	Agree
3.	Social media adoption for teaching activities facilitates my communication with students.	4.35	0.44	Agree
4.	Social media usage for instruction helps me to become a resourceful teacher.	2.47	0.25	Disagree
5.	Social media adoption for instruction enables me to acquire digital skills.	2.56	0.26	Agree
	Grand Mean and Standard Deviation	3.43	0.34	Agree

XVI. LECTURERS' CHALLENGES IN ADOPTING SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN PUBLIC UNIVERSITIES IN SOUTH-SOUTH NIGERIA

On a scale of Strongly Agree, Agree, Disagree and Strongly Disagree, respondents were asked to indicate the obstacles they encountered in adopting social media to teach Library and Information Science. It was discovered that Library and

Information Science lecturers in public universities in South-South Nigeria have problems in applying social media for teaching engagement owing to unstable Internet connectivity and electricity supply and poor digital literacy. Whereas, shortage of ICT facilities, absence of supporting policy framework, ignorance of social media and inadequate fund/poor funding do not militate against the lecturer's utilization of social media for pedagogical uses. This is conveyed in Table IV.

TABLE IV: MEAN RATINGS OF RESPONSES ON LECTURERS' CHALLENGES IN ADOPTING SOCIAL MEDIA IN TEACHING LIBRARY AND INFORMATION SCIENCE IN PUBLIC UNIVERSITIES IN SOUTH-SOUTH NIGERIA

Sr. No.	Items	Mean	Standard Deviation	Remark
1.	Inadequate ICT facilities	2.48	0.25	Disagree
2.	Lack of supporting policy framework	1.43	0.14	Disagree
3.	Lack of awareness of social media	2.46	0.25	Disagree
4.	Unstable internet connectivity	3.34	0.33	Agree
5.	Insufficient fund/poor funding	2.47	0.25	Disagree
6.	Unstable power supply	3.45	0.35	Agree
7.	Poor digital literacy	2.57	0.26	Agree
	Mean and Standard Deviation	2.60	0.26	Agree

XVII. DISCUSSION

The study made an attempt to ascertain issues bordering on lecturers' adoption of social media for teaching Library and Information Science in public universities in South-South Nigeria. This attempt uncovered that the lecturers made very low use of social media for teaching endeavor. This result aligns with studies linking Italian university teachers with very limited pedagogical adoption of social media [12]; and Business Education teachers in tertiary educational institutions in five Nigerian states with marginal utilisation of same media for same purpose [14]. On the contrary, it disagrees with studies ascribing pedagogical applications of social media to 63 percent of 201 US higher education teachers [16] and to 70 percent of 123 Universiti Utara Malaysia lecturers [19]. It further disagrees with research associating South-South, South-East and South-West Nigerian public university and polytechnic lecturers with a high degree of utilization of same media for communication with students [15]. The very low utilisation of social media for teaching activities by the lecturers may be due to the seeming interest in using same media for knowledge and information sharing among lecturers, rather than for pedagogy.

This study also showed that the while the lecturers applied social media to impart knowledge to students in areas including delivering lectures to students and in disseminating course content to students, they did not utilise same media to develop course content and to evaluate students. The outcome is in agreement with previous studies connecting Universiti Utara Malaysia lecturers with pedagogical uses of social

media for informal communication with students [19]; Turkish Anadolu University Communication Science professors with adopting same media for disseminating information, reference books, group assignments and for holding course sessions [32]; and US higher education teachers and professors with utilising same for communication and supply of course material [16]. Although the finding concurs with the result from the Ugandan study that Makerere University lecturers adopted web 2.0 tools to make announcements to students, it disagrees with the part of the result which indicates that the lecturers also used the technologies to create course content and to assess students [24]. While the present result is also in line with the finding that academics in Arts, Business and Law and Science, Health, Engineering and Education faculties at the University of the Sunshine Coast in Queensland principally utilized social media to distribute course-related information to students, it disagrees with the part of the result that the lecturers also adopted same media to evaluate students [27]. There seems to a growing interest among the lecturers in utilizing social media to share knowledge, and this may explain why the LIS lecturers adopt social media to deliver lectures and to distribute course content to students.

The research further revealed that, in using social media to instruct students, the lecturers were able to stay aware of the latest information, to share course material to students easily, to easily communicate with students and to acquire digital skills. However, pedagogical use of same media does not enable the lecturers to become resourceful teachers. The current outcome is in line with research claiming

that instructional use of Facebook enabled Anadolu University Communication Science professors to have easy communication with their students [32]. Although the result agrees with finding by Roebuck *et al.* [16] that social media application for teaching task helped 201 US higher education teachers and professors to share information with students, it disagrees with the same finding that its instructional use improves teachers' creativity. It also bears semblance to result suggesting that Web 2.0 technology application for teaching purposes helped US university teachers to acquire digital skills [35]. Moreover, it is consistent with finding suggesting that applying social networking tools for instructional processes helped thirty-seven South-West Nigerian universities' Library and Information Science lecturers to have online classes with students and to narrow their communication gap with learners [13]. There appears to be widespread use of social media for knowledge sharing among lecturers in public universities in the study area. This could be accountable for the current result.

The study also established that the lecturers found it difficult to put social media to teaching uses because of unstable internet connectivity, irregular electricity supply and lack of digital competence, while shortage of ICT tools, lack of supporting policy framework, ignorance of social media and inadequate fund/poor funding did not hamper the lecturers' utilization of same media for pedagogy. This corresponds with findings that technical obstacles and lecturers' lack of social media operational competence posed obstacles to pedagogical utilisation of social media by US university instructors and Universiti Utara Malaysia lecturers respectively [35]; [19]. It is also in accord with the finding that Makerere University lecturers find it difficult to utilized web 2.0 tools to teach students due to low internet bandwidth and little training in ICT usage [24]. Although the result is in tune with research attributing poor inclination towards social media pedagogical usage by 6, 139 Italian university teachers to lack of technical support, it disagrees with the part of the result suggesting that lack of technical facilities also posed a challenge [12]. Lack of competence to operate social media for

teaching activities poses an obstacle to the lecturers probably because a good number of these lecturers tend to be lukewarm towards acquiring digital skills.

XVIII. CONCLUSION

The study made an incursion into lecturers' adoption of social media for teaching Library and Information Science in government-owned universities in South-South Nigeria. The investigation made bare that the lecturers minimally adopted social media to instruct students in Library and Information Science. In making use of social media for instructional activities, the lecturers applied social media to deliver lectures to students and to transmit course materials to same. This process was beneficial in enabling the lecturers to become acquainted with the most current information; to transmit course materials to students with ease; to have easy communication with students; and to acquire digital aptitude. However, the lecturers had difficulty in adopting the technologies to impart knowledge to students due to unstable internet connectivity, irregular power supply and lack of skill to operate social media for instructional task.

XIX. RECOMMENDATIONS OF THE STUDY

In the light of the outcome of the research, it was suggested that:

- Nigerian government should take steps to improve power supply in the country. Solar systems could be installed in the country to boost electricity supply.
- Public universities should install Wide Area Networks to strengthen Internet connectivity on campuses. University management could collaborate with Internet Service Providers such as MTN, GLO, Airtel and others to have a strong network and Internet connectivity.
- Library and Information Science lecturers in public universities in South-South Nigeria should undergo training in digital literacy and in innovative instructional techniques. They could undertake regular digital pedagogical training to develop or enhance their skill to effectively adopt social media for instructional activities.

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APPENDIX A: QUESTIONNAIRE ON
LECTURERS' ADOPTION OF SOCIAL MEDIA
IN TEACHING LIBRARY AND INFORMATION
SCIENCE IN PUBLIC UNIVERSITIES IN SOUTH-
SOUTH NIGERIA

Section A: Demographic Data of Respondents

Institutional Affiliation: The table below reflects the probable public universities in South-South Nigeria in which you teach Library and Information Science. Please use a tick (√) to indicate your university in the table:

Sr. No.	Name of Institution	Response
1.	University of Port Harcourt	
2.	University of Benin	
3.	University of Calabar	
4.	University of Uyo	
5.	Niger Delta University	
6.	Cross Rivers State University of Science and Technology	
7.	Ambrose Ali University	
8.	Rivers State University	
9.	Delta State University, Abraka	
10.	University of Agbor, Delta State	

Section B: Lecturers' Adoption of Social Media in Teaching Library and Information Science in Public Universities in South-South Nigeria

Cluster A: Extent of Lecturers' Adoption of Social Media in Teaching Library and Information Science in Public Universities in South-South Nigeria

The four-point rating scale in the following table, symbolized by VGE, GE, LE and VLE, which stand for Very Great Extent (4), Great Extent (3), Low Extent (2) and Very Low Extent (1) respectively, indicates the extent to which you might have adopted

the itemized social media in teaching Library and Information Science. Kindly use a tick (√) to rate the extent to which you have adopted each of these media using the scale.

Sr. No.	Items	VGE	GE	LE	VLE
1.	Facebook				
2.	WhatsApp				
3.	Telegram				
4.	YouTube				
5.	Twitter				
6.	Wikis				
7.	Wechat				
8.	Instagram				
9.	Skype				
10.	Snapchat				
11.	Blogs				
12.	Qzone				
13.	Tumbir				
14.	Google +				

Cluster B: Purposes of Lecturers' Adoption of Collaborative Technologies in Teaching Library and Information Science in Public Universities in South-South Nigeria

The two-point rating scale of Agree (2) and Disagree (1) in the table underneath shows the purposes for which you have possibly adopted and not adopted collaborative technologies in teaching Library and Information Science. Please use a tick (√) to indicate the purposes for which you have adopted and not adopted these technologies using the scale.

Sr. No.	Items	Agree	Disagree
1.	I use social media to develop course content.		
2.	I utilise social media to deliver lectures to students.		
3.	I adopt social media to distribute course content to students.		
4.	I adopt social media to assess students.		

Cluster C: Benefits in Lecturers' Adoption of Social Media in Teaching Library and Information Science in Public Universities in South-South Nigeria

The four-point rating scale in the table underneath, SA, A, D and SD, which represent Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1), indicates your agreement with the listed benefits you derive from using social media for instructional activities. Please use a tick (✓) to show the benefit (s) peculiar to you.

Sr. No.	Items	SA	A	D	SD
1.	Social media usage for teaching activities enables me to have access to the latest information.				
2.	Social media utilization for instruction helps me to distribute course content to students easily.				
3.	Social media adoption for teaching activities facilitates my communication with students.				
4.	Social media usage for instruction helps me to become a resourceful teacher.				
5.	Social media adoption for instruction enables me to acquire digital skills.				

Cluster D: Challenges in Lecturers' Adoption of Social Media in Teaching Library and Information Science in Public Universities in South-South Nigeria

The four-point rating scale in the following table, abbreviated as SA, A, D and SD, which stands for Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1) respectively, reveals the potential obstacles you have faced in utilizing social media to teach Library and Information Science. Please use a tick (✓) to express your challenges by means of the four-point rating scale.

Sr. No.	Items	SA	A	D	SD
1.	Inadequate ICT facilities.				
2.	Lack of supporting policy framework.				
3.	Lack of awareness of social media.				
4.	Unstable internet connectivity.				
5.	Insufficient fund/poor funding.				
7.	Unstable power supply.				
8.	Poor digital literacy.				

APPENDIX B: DISTRIBUTION OF RESPONDENTS OF THE STUDY

Sr. No.	Names of Universities	Number of Respondents	Percentage of Respondents
1.	University of Port Harcourt	7	9.589%
2.	University of Benin	7	9.589%
3.	University of Calabar	8	10.959%
4.	University of Uyo	6	8.219%
5.	Niger Delta University	8	10.959%
6.	Cross Rivers State University of Science and Technology	9	12.329%
7.	Ambrose Ali University	8	10.959%
8.	Rivers State University	7	9.589%
9.	Delta State University, Abraka	7	9.589%
10.	University of Agbor	6	8.219%
	Total	73	100%