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Digital Devices and Digital Literacy Skills Among Library and Information Science Students in Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria

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DIGITAL DEVICES AND DIGITAL LITERACY SKILLS AMONG LIBRARY AND INFORMATION SCIENCE STUDENTS IN NIGER DELTA UNIVERSITY, WILBERFORCE ISLAND, BAYELSA STATE, NIGERIA

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Abstract
The study focused on Digital Devices and Digital Literacy Skills Among Library and Information Science Undergraduate Students in Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria. Survey design was used. The population of the study covered the 200 and 300-level students of the Department of Library and Information Science, Niger Delta University. The sample size of the study was 165. The total enumeration sampling technique was used to determine the sample size of the study. The instrument used for data collection was a self-constructed questionnaire. Descriptive statistics were used in the analysis. The findings revealed that students of LIS, Niger Delta University, use their own smartphones, laptops, and other types of digital devices. Poor information search skills, epileptic power supply, inability to provide internet connectivity with free access, inability to manage myriads of information sources, were some of the major challenges of the respondents. Arising from the findings, recommendations were made to include the provision of internet services within the school premises for easy access by students of LIS at all times so as to reduce the cost of data subscriptions for daily academic activities in order to keep pace with information creation use and knowledge sharing. Secondly, the issue of epileptic power supply should be tackled and alternatives provided.

Keywords: Digital Devices, Digital Literacy, Digital Skills, LIS, Students, Niger Delta University

Introduction

In our world today, Information Communication Technology (ICT) is the fulcrum on which our daily activities, be it for organizational or personal work or pleasure, revolves. Even the elements that rule the world (religion, commerce and politics), can no long do without ICT apparatus, gadget, infrastructure, facilities, or whatever guise they may appear. In all this, the mother of all activities, education, has embraced ICT to the fullest as it permeates all fronts of the discipline. Nwankwo, Seimode and Ismaila (2020) chipped in that, the world is in the era of information proliferation. This is as a result of information and communication technology (ICT) influx. The continue increase and use of online media and digital tools in information handling has imparted on students' academics greatly. For students to catch up and stay afloat on the same digital technology use page, the requisite digital skills are required to use digital tools effectively to navigate the world of information available for academic pursuit.

Digital devices are physical pieces of computing equipment that have an inbuilt computer or microcontroller components. There are different digital devices like a smartphone, tablets, laptops, and smartwatches among others. Nagel (2013) supported this that, laptops for learning; desktops; smartphones; small tablets; larger tablets; basic e-book readers; and netbooks are digital devices that students use in learning. Digital devices have become an integral part of the university educational system and they are changing the way undergraduate students learn. Kindra (2021) also noted that, digital literacy has also been known as information literacy or media literacy and generally, they all refer to the ability to identify, find, evaluate, and use information effectively.

For some years running now, the Joint Admissions and Matriculation Board (JAMB) only organizes Computer Base Examinations (CBE) for admission into tertiary institutions in Nigeria. The results are transmitted directly to each candidate's e-mail address which can only be access through digital devices. In Niger Delta University, students' semester results can only be accessed electronically. These alone have led to a greater number of students owning and using various digital devices like smartphones, iPads, laptops, tablets, etc.

Today, students use digital devices for learning and research activities such as reading, online quizzes, participating in discussion forums, and interacting and collaborating with their counterparts in other universities. Most LIS students in Nigeria are members of the Nigerian Library and Information Science Students Association (N-LISSA). Most students with Android or Smartphones have joined the Association and participating in online activities. Library and Information Science (LIS) students of Niger Delta University will benefit immensely if they

possess adequate digital devices and the required digital literacy skills with a proper predisposition for academic excellence.

Odu (2017) averred that digital skills enhance employability with recruitment being increasingly undertaken online and provide skills needed for people to gain access to workplaces. The digital tendency is related to information literacy skills suggesting that students' use of information and communication technology (ICT) is definitely a matter of digital literacy and access. It is also a prerequisite to digital predisposition, that the digital literacy skills of an undergraduate will determine his or her usage of digital facilities (Chang et. al (2012). Bawden (2008) defined digital literacy as the set of attitudes, understanding and skills to handle and communicate information and knowledge effectively, in a variety of media and formats. Bell and Shank (2008) noted that digital literacy [skills] is the ability to use digital technology, communication tools or networks to locate, evaluate, use and create information. It is the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers. It is also a person's ability to perform tasks effectively in a digital environment.

Lynch (2017) stated that, "the networked world in which students exist demands an education that prepares them to produce and consume information in a variety of formats. These formats range from text to images to multimedia. Students need a broad variety of fluencies to be prepared for the 21st-century workforce. Even jobs traditionally thought of as being technology light now require someone who has basic computer skills". For students to be well equipped in their studies (in and out of the classroom), and be ready to face the employment market after graduation, the digital literacy skills described by Lynch (2017) are paramount for a successful career.

Lynch (2017) noted that, to guide students to increased digital fluency where they can act ethically, responsibly, and productively, the following skills are paramount. Coding, having a basic understanding of HTML, and CSS; Collaboration for basic project management and group work essentials to navigate between multiple platforms; Cloud Software to store everything from photos to research projects to term papers and music; and Word Processing Software, often used in conjunction with collaboration and cloud software. Others are Screen-casting useful skill for explaining a topic as well as articulating what you are thinking; Personal Archiving to prevent information from quickly turning into a web of unfindable and not useful information; Information Evaluation for staying abreast of developments in information

literacy and to paint a holistic picture of online information trends; and Social Media Savvy to stay online always because social media serves different purposes depending on the user, the technology, and the identified need.

Despite the commonly held conception that students are digital natives, O'Neil (2014) has shown that this is not the case. Focusing on the 8 skills described above will guide students to increased digital fluency where they can act ethically, responsibly, and productively (Lynch, 2017).

Statement of the Problem

COVID-19 pandemic crisis has provided most students and lecturers and other facets of the education process, the opportunity to access to online educational materials and compulsive use of digital technologies for both educational and recreational purposes. Ogunbodede, Ambrose & Idubor (2021) noted that, most university libraries acquired extra e-resources to support online teaching and learning by providing online services. Although e-resources provide remote access to a variety of online resources, but limited access to these e-resources especially in the era of a global pandemic will greatly affect the students in terms of finding relevant materials to support their academic work. The prevailing new phenomenon ensures that many lecturers get across to their students through digital means in terms of assignment, news and instructions. Do the students possess the prerequisite digital literacy skills to access the online services provided by the university libraries? The researchers could not find any study on students of Library and Information Science (LIS) of Niger Delta University's digital skill use. It is on this note, therefore, that this paper looked at digital devices and digital literacy among LIS students of Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

Objective Of the Study

The main objective of this study is to look at Digital Literacy Skills as Determinants of Effective Usage of Digital Tools Among Library and Information Science Students in Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria. The specific objectives are to:

1. find out the types of digital devices used by NDU LIS students;
2. investigate the digital literacy skills of NDU LIS students;
3. ascertain ownership of digital devices by NDU LIS students,
4. examine the purpose for which NDU LIS students use digital devices;

5. determine the challenges faced by NDU LIS students in using digital devices.

REVIEW OF RELATED LITERATURE

Types of Digital Devices Used

Nagel (2013) stated that a study was conducted on 2,300 American students about their use of digital technologies for educational purposes. It found that only 1 percent of respondents used no digital technologies whatsoever in their studies. Most indicated they use laptops (71 percent) and/or desktops (66 percent). But significant chunks of the student population are also using less traditional computing devices. Half, according to the survey, use smartphones in their education, either in class or at home (or elsewhere). Only 21 percent are using "full-size" tablets (such as the iPad or Google Nexus 10), while slightly more (23 percent) are using small tablets, such as the iPad mini or Google Nexus 7. Basic e-readers (16 percent) and netbooks (10 percent) were the least-used devices among the respondents to the survey.

Sharples et al. (2014) and Witecki & Nonnecke (2015) also noted that there is a range of digital devices commonly owned and used by students. These devices include laptops and smartphones or tablets and cellphones.

Ownership of Digital Devices

Nagel (2013) stated that ownership of these devices is another story. Half of all students own a laptop, while only 37 percent own a desktop. A fairly large 43 percent own their smartphones. (This implies that some of the students who use smartphones for education do not own those devices themselves.) After smartphones the ownership numbers drop off dramatically: 18 percent own small tablets; 14 percent own full-size tablets; 12 percent own basic e-books readers; and 7 percent own netbooks. A fairly significant 13 percent of students indicated they do not own any of these devices.

Aheto & Cronje (2018) noted that the issue of device ownership in higher education is becoming more of a socio-cultural issue rather than a pedagogical issue. They cited (Baddeley, 2012; Hamblen, 2011; Leye, 2007) which averred that access to educational resources like e-books from libraries is increasing due to the proliferation of computer and mobile device ownership. Device ownership and use encourages “lecturer control” and self-directed learners (Sharples et al., 2014). Convenience of getting connected to educational resources via portable devices and students’ ability to access news, calls, instant messaging, surfing, gambling, social media, and data storage, are compelling reasons for device ownership (Barry, Murphy & Drew, 2015).

As stated by Aufderheide (n.d) cited in Chang *et al* (2012), a media user, as well as ICT users, has to be capable of having a critical understanding of the scope, coverage and bias or slant of various media channels. According to Corio et al (2008), as cited in Tang and Claw (2016), the integration of many applications of ICTs, including different software systems and technology tools into the educational process and their successful use changes the content, methods and forms of training. The acquisition of digital skills in the digital era accepts a new way of intellectual capability and the ability of the user to continuously adapt to the trends posed by new technologies.

Studies have revealed that students, who are now entering, studying and graduating through higher education systems, are said to exhibit a number of new and common characteristics including a high level of digital aptitude, the ability to multitask, literacy in multiple media, constant connectivity, the need for speed in delivery of information, a culture of sharing information and a unique attitude towards education as a result of their significant level of exposure to technology over the course of their lives (Corrin, Lockyer, & Bennett, (2010).

Digital Literacy Skills

Eshet-Alkalai (2004) stated that digital types of literacy skills are: photo Visual literacy; reproduction literacy; information literacy; branching literacy; and socio-emotional literacy (Eshet, 2004, p. 94). The sixth skill, real-time thinking skill, appeared due to the creation of advanced digital environments, like multimedia games, multimedia training environments, and multimedia learning environments that requires a simultaneous response to a large number of stimuli which bombard the learner in real time and high-speed (Cohen, 2012, p. 268).

For students to be well equipped in their studies (in and out of the classroom), and be ready to face the employment market after graduation, the following digital literacy skills described by Lynch (2017) are paramount to a successful career.

Coding is a universal language and one that is useful whether a technical career is pursued or not. For example, having a basic understanding of HTML, CSS, and the like creates a shared understanding and a sense of knowing what can and cannot be done with web pages.

Collaboration in the online environment requires deliberate Students should be taught basic project management and group work essentials to navigate between multiple platforms. Utilizing tools such as Base Camp or Trello in addition to collaborative functionality through Google Docs allows a student to begin experimenting with effective online collaboration.

Cloud Software is an essential part of document management. The cloud is used to store everything from photos to research projects to term papers and music. While students are likely used to saving their pictures, they may not have the necessary processes in place to save their academic work in a way that is discoverable and accessible.

Word Processing Software is often used in conjunction with collaboration and cloud software. Google has a suite of products, but there are other options as well. Microsoft Online increasingly integrates with different storage and management solutions such as Drop Box. Each of these platforms works a little differently, and students should have the opportunity to engage with several of them.

Screencasting makes it easy for the novice video creator to make simple yet effective videos. This is a useful skill for explaining a topic as well as articulating what you are thinking. Ideal tools for teaching students how to screencast include Screencast-o-Matic and Camtasia. Through screencasting, a student can learn more about making accessible content.

Personal Archiving takes into consideration that we leave a massive digital footprint. Without a plan in place to archive this information, it can quickly turn into a web of unfindable and not useful information. Students should be taught concepts such as metadata, tagging, keywords, and categories succinctly and directly to help them start thinking about how they are represented online.

Information Evaluation has always been necessary. However, with the ease at which all people can create content and build knowledge, this skill becomes essential. Staying abreast of developments in information literacy and software engineering will paint a holistic picture of online information trends.

Social Media Savvy is important because social media serves different purposes depending on the user, the technology, and the identified need. Students need to be given instruction and an opportunity to practice using various social media. For example, students should realize that Twitter is particularly useful for staying current on the latest news in the field while Flipgrid is great at building a sense of community.

Purpose of Digital Device Uses

Undergraduate Students use digital technology for such learning activities as reading and sending email, accessing learning management systems, reading e-journals or e-books, doing online quizzes, participating in discussion forums, and so on (Jones et al., 2010; Waycott et al., 2010). Other purposes of usage of digital devices by undergraduate students of LIS could

be for assignment/term-papers, seminar presentations, arrangement for examinations, development of lecture notes, access to library e-resources and other social activities

Smith, Caruso, and Kim (2010) examined undergraduate students' use of information technology, the results showed that over 50% of participants reported owning laptop computers and internet-capable handheld devices. About one-third of participants used Web-based word processors, wikis, and SNS. Al-Shboul, Al-Saideh, and Al-Labadi (2017) examined university students' perceptions of the current level of integration of ICT in higher education. Slightly less than two-thirds of the participants either 'usually', 'most of the time' or 'always' used ICT for their learning.

Challenges to Digital Devices Use

According to Daniel, (2009) cited in Thomas and Omotoke (2015) some obstacles affecting the total implementation of e-learning with digital tools, can be seen as, Connectivity: Limited or lack of connectivity in many developing countries including Nigeria Universities impedes access to online learning e.g. (E-learning). Equipment: E-learning requires equipment that can facilitate learning, but in some of Nigeria's universities, the equipment such as computers, digital technology, and the internet is not available for proper utilization. Software: Software enables educators to design and develop learning content. These software are costly and not available for use in some of our universities, to facilitate e-learning programme. Training: No combination of connectivity, equipment and software will achieve anything if people are not trained to use them.

According to Judith (2004) cited by Thomas and Omotoke (2015), the challenges of students in e-learning classes are: Many students lack confidence and experience with digital tools; Many students lack skills in commonly used applications such as Microsoft Word, Excel, and PowerPoint which affects their programme in e-learning classes; Time management, skills ,and self - motivation also influence students' performance etc. other challenges as include, inadequate security for universities Cyber Café or no availability of cafe, inadequate e-learning experts or manpower to train both the staff and the students, internet facilities adopted in most universities are not functioning, Hardware used for classes are costly and some universities cannot afford it and inadequate supply of electricity for effective teaching and learning (Thomas and Omotoke, 2015).

Research Method

This study adopted a survey design. The population of the study was 200 and 300-level students of the Department of Library and Information Science, Niger Delta University, Wilberforce Island. Freshers were omitted from the study because at the time of this study, they were in their first semester and not considered grounded enough to be part of the study. The sample size for this study was 165, that is, the total number of 200 and 300-level students. Applying the total enumeration sampling technique, the entire population was used as the sample, considering its small size. The instrument used for data collection was the questionnaire. All the copies of distributed questionnaire were filled retrieved and found usable. Descriptive statistics were used in the analysis.

Presentation of Results

Table 1: Gender Distribution of the Respondents

S/N	Gender	Number of Respondents	Percentage (%)
1.	Female	107	64.8
2.	Male	58	35.2
	Total	**165**	**100**

Table 1 shows the gender distribution of the respondents. The results show that 107 respondents (64.8%) were female, while 58 (35.2%) were male. This shows that the majority of LIS students in the Niger Delta University are female.

Table 2: Age Distribution of the Respondents

S/N	Age	Number of Respondents	Percentage (%)
1.	14-20	87	52.7
2.	21-30	71	43.1
3.	31+	7	4.2
	Total	**165**	**100**

The table shows that 87(52.7%) of the respondents are within the age bracket of 14-20 years, while 71(43.1%) are within 20-30 years of age. This goes to shows that the active age range of undergraduate students in Nigeria is 14 – 30 years. A paltry number of 7(4.2%) of the respondents are within the age bracket of 31 years and above.

Table 3: Types of Digital Devices for Learning

S/N	Digital Devices	Frequency	Percentage (%)
1.	Smart Phones	165	100%
2.	Laptop	165	100%
3.	Desktop computer	165	100%
4.	iPad	121	73.3%

5.	Notebook	75	45.5%
6.	Touch pen	51	30.9%
7.	Smart Watch	42	25.5%
8.	Digital Writing Tablet	23	13.9%
9.	Basic e-book readers	6	3.6%
10.	Netbook	5	3.0%

The table shows that Smart Phones 165(100%), Laptop 165(100%), Desktop computer 165(100%) iPad 121(73.3%), Notebook 75(45.5%), Touch pen 51(30.9%), Smart Watch 42(25.5%), Digital Writing Tablet 23(13.9%), Basic e-book readers 6(3.6%) and Netbook 5(3.0%), are the types of digital devices students used in their academic pursuit.

Table 4: Ownership of Digital Devices by LIS students in NDU

S/N	Digital Devices	Frequency	Percentage (%)
1.	Smart Phones	142	86.1%
2.	iPad	101	61.2%
3.	Laptop	68	41.2%
3.	Desktop computer	41	24.8%
4.	Tablet	6	3.6%

The table shows that Smart Phones 142(86.1%), iPad 101(61.2%), Laptop 68(41.2%), Desktop computer 41(24.8%) and Tablet 6(3.6%) are the digital devices respondents indicated their ownership of for academic pursuit.

Table 5: Digital literacy skills of undergraduate students

S/N	Digital literacy skills of LIS students in NDU	Frequency	Percentage (%)
1	I am proficient in the use of computer devices	165	100%
2	I am proficient in the use of mobile devices	165	100%
3	I can browse and locate information resources on the Internet	165	100%
4	I can install mobile applications by myself	165	100%
5	I am proficient in working with PDF documents	132	80%
6	I can attach/upload documents	131	79.4%
7	I can create, edit and print documents (Word, Excel, PowerPoint)	128	77.6%
8	I am proficient in sending and accessing emails	128	77.6%
9	I can troubleshoot mobile/computer devices	75	45.5%

From the table, it was discovered that I am proficient in the use of computer devices 165(100%), I am proficient in the use of mobile devices 165(100%), I can browse and locate information resources on the Internet 165(100%), I can install mobile applications by myself 165(100%), I am proficient in working with PDF documents 132(80%), I can attach/upload documents 131(79.4%), I can create, edit and print documents (Word, Excel, PowerPoint) 128(77.6%), I am proficient in sending and accessing emails 128(77.6%) and I can troubleshoot mobile/computer devices 75(45.5%) were items indicated by the respondents as digital literacy skills they possess.

Table 6: Purpose for use of digital devices by LIS students

S/N	Purpose for which use digital devices	Frequency	Percentage (%)
1.	Audio recording of lectures	165	100%
2.	Social networking with classmates/lecturers	165	100%
3.	Individual/group assignment (term paper)	165	100%
4.	Accessing school information and notice	165	100%
5.	Research and Personal study	165	100%
6.	Preparation for test/examination	165	100%
7.	Reading e-materials	165	100%

The data presented in the table revealed that all items, Audio recording of lectures, Social networking with classmates/lecturers, Individual/group assignment (term paper), Accessing school information and notice, Research and Personal study, Preparation for test/examination and Reading e-materials 165(100%) were indicated by all the respondents as the purposes of using digital devices in their educational endeavours.

Table 7: Challenges to digital devices used for academic purposes

S/N	Challenges	Frequency	Percentage (%)
1	Inability to provide internet connectivity with free access	145	87.8%
2	Inadequate information search skills	121	73.3%
3	Inability to manage myriads of information sources	97	58.7%
4	Lack of confidence and experience with digital devices	94	56.9%
5	High cost of data	72	43.6%
6	Inability to manage time spent on digital devices	66	40%
7	Inadequate training in the use of digital devices	61	36.9%

8	Lack of skill in the use of common applications on mobile devices	15	9.1%
9	Not having an internet-enabled digital device	15	9.1%
10	Epileptic power supply	15	9.1%

The table shows that Inability to provide internet connectivity with free access 145(87.8%), Inadequate information search skills 121(73.3%), Inability to manage myriads of information sources 97(58.7%), Lack of confidence and experience with digital devices 94(56.9%), High cost of data 72(43.6%), Inability to manage time spent on digital devices 66(40%), Inadequate training in the use of digital devices 61(36.9%), Lack of skill in the use of common applications on mobile devices 15(9.1%), Not having an internet-enabled digital device 15(9.1%) and Epileptic power supply 15(9.1%) are the challenges experienced by LIS students in their use of digital devises for academic purposes.

Discussion of Findings

Types of Digital Devices

The study revealed that Smart Phones, Laptop, Desktop computer, iPad, Notebook, Touch pen, Smart Watch, Digital Writing Tablet, Basic e-book readers and Netbook, are the types of digital devices students used in their academic pursuit. This finding is in line with Nagel (2013) which found out in his study on American students' use of digital devices that, most indicated use of laptops (71 percent), desktops (66 percent), smartphones, "full-size" tablets (such as the iPad or Google Nexus 10) (21 percent), small tablets, such as the iPad mini or Google Nexus 7 (23 percent), Basic e-readers (16 percent) and netbooks (10 percent) were the devices used by the respondents to the survey. In the same vein, Sharples et al. (2014) and Witecki & Nonnecke (2015) also noted that there is a range of digital devices commonly owned and used by students. These devices include laptops and smartphones or tablets and cellphones.

Ownership of Digital Devices

The analysis of data of the study revealed that Smart Phones, iPad, Laptop, Desktop computer and Tablet are the digital devices respondents indicated their ownership of for academic pursuit. This finding is in tandem with Aheto & Cronje (2018) which noted that the issue of device ownership in higher education is becoming more of a socio-cultural issue rather than a pedagogical issue, and that access to educational resources like e-books from libraries is increasing due to the proliferation of computer and mobile device ownership. The finding also aligns itself with that of Barry et al (2015) which postulated that convenience of getting

connected to educational resources via portable devices and students' ability to access news, calls, instant messaging, surfing, gambling, social media, and data storage, are compelling reasons for device ownership. This finding also corroborates the study of Corrin et-al (2010) which reveals that undergraduate students have access to a range that could relate to either the contexts of everyday life or academic study or both including desktop computers, laptop computers, electronic organizers, portable music players, digital cameras (still and/or video), mobile phones (smartphones).

Digital Literacy Skills

On digital literacy, it was discovered that, I am proficient in the use of computer devices, I am proficient in the use of mobile devices, I can browse and locate information resources on the Internet, I can install mobile applications by myself, I am proficient in working with PDF documents, I can attach/upload documents, I can create, edit and print documents (Word, Excel, PowerPoint), I am proficient in sending and accessing emails, and I can troubleshoot mobile/computer devices, were items indicated by the respondents as digital literacy skills they possess. This finding is in line with that of Eshet-Alkalai (2004) & Eshet (2004) which postulated that digital literacy skills types are: photo Visual literacy; reproduction literacy; information literacy; branching literacy; socio-emotional literacy, and real-time thinking skill.

The finding is also in tandem with Lynch, (2017) which pin-pointed Coding, having a basic understanding of HTML, CSS, Collaboration for basic project management and group work essentials to navigate between multiple platforms. Cloud Software to store everything from photos to research projects to term papers and music. Word Processing Software is often used in conjunction with collaboration and cloud software. Screencasting useful skill for explaining a topic as well as articulating what you are thinking. Through screencasting, a student can learn more about making accessible content. Personal Archiving to prevent information from quickly turning into a web of unfindable and not useful information. Information Evaluation staying abreast of developments in information literacy and software engineering to paint a holistic picture of online information trends. Social Media Savvy to stay online always because social media serves different purposes depending on the user, the technology, and the identified need.

Purpose of Digital Device use

The data presented in the study reveals that all items, Audio recording of lectures, Social networking with classmates/lecturers, Individual/group assignment (term paper), Accessing school information and notice, Research and Personal study, Preparation for test/examination and Reading e-materials, were indicated by all the respondents as purposes of using digital devices in their educational endeavours. This finding is in agree with Jones et al. (2010) cited by Waycott et al. (2010) who found out that students use digital technology for such learning activities as reading and sending email, accessing learning management systems, reading e-journals or e-books, doing online quizzes, participating in discussion forums, and so on. The findings were in line with the study of Smith, Caruso, and Kim (2010) which examined undergraduate students' use of information technology and found that over 50% of participants reported owning/using laptop computers and internet-capable handheld devices. About one-third of participants used Web-based word processors, wikis, and SNS. Also, it supports the study of Al-Shboul, Al-Saideh, and Al-Labadi (2017) which examined university students' perceptions of the current level of integration of digital tools in higher education. Slightly less than two-thirds of the participants either 'usually', 'most of the time' or 'always' used ICT for their learning.

Challenges of Digital Devices use

The ownership of digital devices does not transcend to ease of use by the students. The result shows that Inability to provide internet connectivity with free access, Inadequate information search skills, Inability to manage myriads of information sources, Lack of confidence and experience with digital devices, High cost of data, Inability to manage time spent on digital devices, Inadequate training in the use of digital devices, Lack of skill in the use of common applications on mobile devices, Not having an internet-enabled digital device and Epileptic power supply, are the challenges experienced by LIS students in their use of digital devises for academic purposes. This confirms the study of Thomas and Omotoke, (2015) which affirms the challenges of digital literacy skill and usage by undergraduate students to include, inadequate e-learning experts or manpower to train both the staff and the students and inadequate supply of electricity for effective teaching and learning.

Conclusion

It is one thing to realize that the world has gone digital, and another to participate in the process. Education has embraced information and communication technology in all its ramifications, be it for classroom or home studies. Guided by the stated study objectives, the

study has shown that there are certain digital devices commonly owned and used by students of the Department of Library and Information Science, Niger Delta University, for educational or study purposes. Most of the students have the basic skills, although inadequate to some, to carry on with their use of the digital devices. In the face of the challenges associated with the use of the digital devices, the students are not perturbed in their quest.

Recommendations

Based on the study, the following recommendations are made:

1. Since the JAMB's digital activities, and the institution's electronic activities have led to most students owning digital devices, Internet connectivity should be made available by university authorities to students for easy accessibility at all times with no cost so as to encourage students on daily use of digital devices for educational purposes.
2. Authorities concern should encourage students at all level to update themselves with the relevant digital skills for better usage of relevant databases thereby making their information search more precise, concise and less stressful.
3. The LIS Department in collaboration with the University Library, should organize practical classes for the demonstration of digital literacy skills by LIS students to encouraged them as compulsory requirement for graduation.
4. Epileptic power supply is a nationwide problem. Authorities concern should provide an alternative power supply such as solar power, inverter, and generator plants for powering their digital devices and the devices of students.

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