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The place of Digital Nativity and Digital Immigration on Internet Accessibility and Usage by Students and Lecturers of Tertiary Institutions of Learning in Delta State, Nigeria

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Abstract

There is a scholarly divide on the propriety of the notion of digital nativity and digital immigration. In contrast, one side of the range postulates that digital nativity and digital migration influence adoption of digital technologies, the other side contends that the concept is instead an unsubstantiated over-generalization. This study interrogates the role of digital nativity and digital immigration play in Internet usage by students and lecturers of tertiary institutions of learning in Delta State, Nigeria. We adopted the Technology Acceptance Model, which explains factors that motivate people to accept and use a particular technology. We used a questionnaire to gather data from 1,200 respondents and analyze the data using descriptive and inferential statistics. We found the students and lecturers had sufficient Internet access, and there is no significant differential in their access to the Internet. However, there is a substantial difference in their frequency of using the Internet as the students tended to use the Internet more frequently than the lecturers do. Also, there are significant differences in the pattern of students' and lecturers' Internet usage. We recommend that lecturers and students should increase their accessibility to the Internet, and lecturers should increase their frequency of Internet usage.

Keywords: *Digital nativity, digital immigration, digital natives (DN), digital immigrants (DI), Internet usage, accessibility of Internet*

1. Introduction

The notion of digital nativity and digital immigration refers basically to the generational dichotomy between the people born during the new digital age of information revolution and those that the digital process met in their infancy (Prensky, 2009). The digital immigrants refer to the people who were already adults before the present-day digital technology revolution. This category of people migrated

into the modern world of digital communication that is fundamentally characterized by the Internet, digital devices, and software. The digital immigrants, according to Wang, Myers, and Sundaram (2012), were born in the pre-digital age when many could not operate the computer and telephone was rare, especially in the Third World Counties. Some digital immigrants thus regard the process and tools of digitalization as novel and a sharp deviation from the norms and value a displacement of societal routines.

Toledo (2007) posits that the digital nativity and digital immigration phenomenon is a generational gap and source of conflict between the old and the young in the digital information age. The young people are usually 30 years and below who fall within the age bracket of the digital nativity gladly see digitalization as a way of life. In contrast, many digital immigrants regard digitalization as an unnecessary radical displacement of the routine, as they tend to perceive it as a new and different way of life which they may have first to accept, adapt, learn and use.

Prensky (2001) identifies a significant dichotomy between the younger generation and the older generation concerning the acceptance and effective operation of digital technologies which are mainstreamed by the Internet. The younger people grew in the Internet and digital information revolution age while digital communication developed during the existence of the older generation. This dichotomy is usually clearly demonstrated in the two groups' perception, adoption, and application of digital tools. Thus, Nelissen and Van Den Bulck (2017) posit that the generational dichotomy tends to cause a covert and overt reluctance by the older generation to accept and use new digital technologies fully.

Anunobi and Mbagwu (2009) found that such reluctance and sometimes, subtle resistance to the use of these technologies, is more common in developing countries, especially those in Africa where the cost of procurement, maintenance, and use of new technologies are difficult to afford. Additionally, younger people seem more predisposed to using digital tools in their task performance, social activities, and recreations than the older generation does. The older generation often compares the analogue devices and processes and usually doubts the reliability of digital technologies (Zur & Zur, 2011). Another point of interest is that the digital immigrants tend to argue that digitalization is gradually eroding human intelligence and rational reasoning, and artificial intelligence is fastly replacing them. According to Autry and Berge (2016), many digital immigrants feel the younger people have been made so humanly unintelligent, and they depend on digital tools for critical reasoning, problem-solving, and task performance.

Contrarily, Li and Ranieri (2010) found that many people within the age bracket considered as digital immigrants have successfully relocated to the digital nation and have, thus become digital citizens. They tend to appreciate digitalization more than digital natives do because they witnessed the analogue era that preceded the digital age. Therefore, this category has firsthand knowledge of how the analogue tools and processes operated and the advantages of the digital era over them. Prensky (2009) suggests that nobody should doubt or be scared of digital technologies and procedures as they could make the users and the entire society smarter and wiser.

Schaan and Melzer (2015) found a significant relationship between the generational gap in the digital world, which also means the digital natives generation. Their study shows digital native students adopt and use technologies quite differently from the generations that preceded them. For instance, digital natives use MP3, instant messengers, the Internet, blogging, mobile phones, online gaming, and several other digital devices more frequently and efficiently than the older people. Autry and Berge (2011) corroborated the above assertion. They observe that the younger generation is more highly exposed to information, both at the local and global scales, than the older generation when they were of similar age. Autry and Berge (2011) further state the age group of parents of digital natives includes many of current instructors who grew up in a less technologically advanced setting.

Wang et al. (2012) also corroborate the postulation of Autry and Berge and posit that there is a significant difference between how the younger and older generations perceived and use digital tools. They assert that digital nativity and digital migration are substantial determinants of Internet accessibility and usage. They identify age and accessibility as defining characteristics of the digital

natives. The digital natives are thus more predisposed to using the Internet more than the other people do.

There is a different perspective in the conceptualization of the term, digital natives, which regards the generational dichotomy between the younger and older generations as insufficient criteria for classification of the usage of the Internet and other digital tools and process. For instance, scholars including Ferro, Helbig, and Gil-Garcia (2011), Ktoridou and Eteokleous-Grigoriou (2011), Calvani, Cartelli, Fini and Ranieri (2009), Guo, Dobson, and Petrina (2008), and Li and Ranieri (2010) postulate differently that digital nativity refers to being technology and digital savvy or being digital fluent. They thus describe digital nativity as the capability to accept and use digital technologies and processes.

In a nutshell, the capability to manipulate digital technologies efficiently and effectively qualifies a person to be referred to as a digital native. On the other hand, the inability to effectively exploit digital devices limits a person to be regarded as a digital immigrant. This study adopts the concept or perspective that defines digital nativity and digital immigration from the point of generational dichotomy. This adoption is in line with the position of several authorities who postulate that digital nativity and digital immigration refers to the younger and older generations of users of digital technologies and processes. They include Prensky (2001), Prensky (2009), Rikhye, Cook and Berge (2009), Bennett, Karvin & Maton (2008), Anderson (2008), Carr (2008), Wang et al. (2012), Jones and Czerniewicz (2010), and Nelissen and Bulck (2017). Others include Paltrey and Gasser (2008), Fister (2010); Marilee and Sprenyer (2010), and Manafy and Gautschi (2011). The term clearly defines the dichotomy or gap between the younger users and older users of digital technologies and processes.

This study covers the different tertiary institutions of learning in Delta State, Nigeria. Delta State is a significant oil-producer and has 16 tertiary institutions of learning. The institutions are eight universities (four public and four private), three polytechnics; three monotechnics and two colleges of education.

2.   Statement of the Problem

Digital tools are perceived to have a significant influence on modern communication and virtually in all human activities. However, the Internet and other digital devices of communication are relatively new, especially in Africa. For instance, the Internet became popular in Nigeria around the year 2000. After its emergence of the Internet in Nigeria and the subsequent introduction of mobile telephony in 2001, many people remained sceptical of their usage until recently (Anunobi and Mbagwu, 2009 and Ufuophu-Biri, 2013). Studies have indicated that many people, especially the older generation in Nigeria, are still either sceptical of or unable to manipulate the Internet effectively. The circumstance seems to be different with regards to the usage of the Internet by the youths.

The above scenario has led to concern about the generational gap, which different authorities regard as digital nativity and digital immigration dichotomy, as a determinant of Internet use. Many studies in other climes such as those by Prensky (2001), Prensky (2009), Rikhye, Cook and Berge (2009), Ufuophu-Biri and Ojoboh (2017), and Bennett, Karvin and Maton (2008) have shown that the idea of digital nativity and digital immigration is a determinant of Internet usage. However, there is a lacuna as to the role of digital nativity and digital immigration play in the use of the Internet among lecturers and students of tertiary institutions of learning in Delta State. There is, therefore, the need to fill the lacuna in knowledge. Hence this study investigates the differentials in Internet accessibility and Internet usage by students (DN) and lecturers (DI) of tertiary institutions of learning in Delta State, Nigeria. Specifically, we aim to:

1.   ascertain the differential in the accessibility to the Internet by students (DN) and lecturers (DI) of institutions of higher learning in the state;
2.   determine the differentials in the frequency of Internet usage by students (DN) and lecturers (DI) of tertiary institutions in Delta state Nigeria;
3.   and find out the differentials in the pattern of Internet usage by students (DN) and lecturers (DI) of institutions of higher learning in the state.

3. Research Questions

We formulated the following research question to interrogate the critical issues in this study: What is the differential in the pattern of Internet usage by students (DN) and lecturers (DI) of tertiary institutions of learning in Delta State?

4. Hypothesis

We formulated two hypotheses to test the relationship between digital nativity and digital migration among the lecturers and students.
1. There is no significant difference in the accessibility to the Internet by students (DN) and lecturers (DN) of tertiary institutions of learning in Delta State.
2. There is no significant differential in the frequency of Internet usage by students (DN) and lecturers (DI) of institutions of higher learning in Delta state.

5. Theoretical Framework

We adopted the *Technology Acceptance Model* (TAM) for this study. TAM explains factors that motivate people to want to adopt and use a particular technology or reluctant or decline to use it. The theory which was propounded by Fred Davis and Richard Bagozzi in 1989 takes its premise from the fact that a user of a particular technology, in this context, digital technology, has first to accept the technology. The authors of the theory claim that two factors motivate people to adopt the use of technology. They are perceived ease-of-use and perceived usefulness of the technology. It is concerned with how the potential or real user of the technology perceives the ease-of-use of the technology. It is the perception that influences the acceptance and usage. If the user perceives that there would be no difficulty in using the technology, the user is, therefore, likely to utilize the technology. The user of the technology, in addition to the perception of ease-of-use, also considers the usefulness of the technology. Questions about the benefit of the technology and its value come to play. If the user of the technology has a favourable perception of its effectiveness, the user would more likely use the technology. However, if the user has a negative perception of the technology' efficiency, the user is much less likely to utilize the technology or use it below optimal expectation. We adopted this theory because the main focus of the study is accessibility to the Internet, frequency of Internet usage, and the pattern of the utilization of the Internet which could be influenced by the users' perception of the ease-of-use and the usefulness of the Internet which is a digital information system.

6. Literature Review

Many people regard the younger generation to be highly Internet and digital tools savvy. Prensky (2001) explains that the younger generation has a good understanding of digital language. The category of people considered as digital natives were either born within the digital revolution era or were very young when the digital revolution started (Randsdell, Kent, Graillard-Kenney & Long, 2011). They thus regard the digital process of communication and task performance as the standard way of life. Zur and Zur (2011) consider the digital natives as the younger generation who are born with "digital DNA". The understanding, perception, and application of digital devices by this cohort are presumed to be significantly different and higher than those of the digital immigrants.

While supporting this assertion, Harding (2010) explains that the younger people speak and practice the language and act of computers, digitalization, and the web culture into which they were born. They are unlike the digital immigrants who have to learn the language and action of computers, digital tools of communication, and the web culture as a foreign language and culture. Wang et al. (2012) observe that the younger generation is also very fluent in digital communication and other forms of digital activities given their high capability and efficiency to express themselves in a digital domain.

Similarly, Wallsten (2005) found that digital nativity encourages Internet accessibility. However, digital nativity and Internet use have different patterns of application as more developed, and richer countries tend to have more Internet accessibility. The wealthier nations also use digital tools than the less developed and poorer countries do (Anunobi & Mbagwu, 2009). Despite the above scenario, digital natives, irrespective of whichever society they live in, tend to have more accessibility. Barron, Walter, Martin, and Schatz (2010) have shown that students who fall within the age category of digital nativity have more access to digital technology, greater interest in Internet usage and are more fluent and skilled in digital technologies than their older generation. Juny et al. (2010) maintain a similar stance with Barron et al. They posit that younger people are more eager to exploit digital technologies than their older counterparts.

However, there is the belief that in addition to digital nativity and digital immigration, other factors influence the application of digital technologies. Such factors include socio-economic status, educational status, ethnicity, and gender (Hargittai, 2008 and Ufuophu-Biri, 2020). This view is in line with that of DiMaggio, Hargittai, Celeste, and Shafer (2004) which posits that demographic variables such as economic status, cultural belief, age, and gender could also influence the exposure to and actual utilization of the Internet. Camerini, Schulz, and Jeannet (2018) found that children from low economic backgrounds could be disadvantaged in Internet accessibility and other digital technologies of communication.

Margolis et al. (2008) maintain that other demographic factors but not necessarily age play a significant role in Internet usage. They list the elements to include access to digital tools and the Internet, family background, economic status, and peer group influence. Similarly, Akman and Mishra (2010) found gender, age, and income to determine Internet usage. In this case, age as a factor is akin to the digital generational migrants divide. Contrarily, Nelissen and Bulck (2017) found generational dichotomy to be a significant determinant of the Internet and other digital tools usage. Their study showed that children often introduce new media and new digital technologies use to their parents. The parents, thus, learn from their children the use of several digital technologies and new media patterns. Nelissen and Bulck (2017) conducted a study on 187 parent-child dyad in Flander, Belgium. They found that parents agreed that their children guide and tutor them on the application of digital devices such as smartphones, tablets, and apps. The above finding suggests that the younger generation, tagged digital natives, exploit the Internet and other digital technologies of communication more than their older counterparts do.

Arguing along the same line, Nikken and Schols (2015) found that children use digital tools of communication from their younger ages and the usage becomes part of them and a way of life to them. In this way, the children become more interested and more skilled in digital media activities and digital technologies of communication. At the same time, their parents have to learn how to use the new digital technologies. It, therefore, seems that the new media of communication and the digital tools of communication occupy a prime place in the socialization process of the digital natives. Selwyn (2004) and Nelissen and Van Den Bulck (2017) also found children to be ardent media consumers and users of new media technologies who specialize in their usage more than their parents. They found the children to be skilled in handling digital devices of communication. The children use these devices for social communication, gaming, entertainment, and academic purposes.

Other studies have indicated significant digital gaps between the two generations. For instance, Correa, Straubhaar, Spencer & Chen (2015) assert that modern children are virtually exposed to digital media right from birth, unlike their parents who migrate into the digital era as aliens. Correa (2014) also advanced the concept of 'Bottom-up technology transmission' to explain how children have become instructors to their parents on digital technologies of communication. They teach the parents how to utilize the Internet, computers, mobile phones, and technology applications. Correa named his finding

Some authorities such as Ito et al. (2012), Ufuophu-Biri (2020) Livingstone (2009), Katz (2010) and Clark (2012), and Ufuophu-Biri & Ojoboh (2017) have also found that the younger generations are more interested and vaster in the application of Internet and other digital technologies of communication.

The different studies indicate that the younger people are more Internet savvy and digital technology-oriented than the older people. Zur and Zur (2011) observe that younger people are more inclined towards Internet use than older people.

Another perspective of the discourse on digital nativity and digital immigration is that people from both sides of the digital divide sometimes exhibit both characteristics of digital natives and digital immigrants. A study by Thirunarayanan, Lezcano, McKee, and Roque (2011) on 359 college students who fall within the age bracket of digital nativity indicated that they exhibited both native and immigrant behaviour. Other studies that have findings similar to the above one includes those by Salajan, Schönwetter, Dieter, and Cleghorn (2010), Benneth, Maton, and Kervin (2010), and Brown and Czerniewicz (2010). They posit that there is yet no sufficient scientific evidence to prove that the younger and the older generations possess different characteristics related to Internet usage and other digital technologies. They argue that some persons who belong to the category referred to as digital immigrants are skilled in digital technology and Internet-savvy just as the people referred to as digital immigrants.

However, being born as a digital native does not automatically make a personal computer and digital technology savvy. Also, being taken a digital immigrant does make a person automatically computer and digital tools illiterate and ignorant. There are, therefore, digital natives who are not digital tools savvy, and there are also digital immigrants who are digital tools ingenious (Rosen, 2010). Watson (2013) concludes that digital natives may not necessarily be one unified assemblage but of people influenced by various factors. Watson postulates that the ability or inability to apply digital technology is what qualifies a person to be regarded as a digital native or digital immigrant and not a generational or age factor. The implication, therefore, is that being a digital native or digital immigrant is not an automatic passport to being digital technology literate or illiterate but such classification is dependent on the individual's actual extent of digital usage capability (Rikhye, Cook and Berge (2009).

Also, some digital immigrants are ardent and professional users of the Internet and several other types of digital tools of communication. Zur and Zur (2011) identify three categories of digital immigrants concerning their extent of technology use. They are the avoiders, reluctant adopters, and enthusiastic adopters. The avoiders want to shun digital technologies or use them at the minimum rate. The reluctant adopters have come to realize the value of digital technology. They like to adopt it, but they feel like aliens and lack intuition, hence their reluctance to adopt digital technologies. The enthusiastic adopters have fully realized the potentials and benefits of digitalization, and want to belong to the digital scheme of things. They feel they have the prospects and capabilities of the digital natives. They adopt the digital tools and apply them just as the digital natives do.

Zur and Zur (2011) also identified three categories of digital natives - avoiders, minimalist and enthusiastic participants. The avoiders, though young and belong to the class of the digital natives, are not interested in digital technologies, hardly use the Internet and unlike their peers, avoid the Internet. The minimalists though realize the importance of digital technology, use it minimally and only when very necessary. The enthusiastic participants are the real active digital natives. They are digital technology dynamic, adopt the digital technology, and process wholesomely, and use them for virtually everything.

There could be more enthusiastic participants than the other categories. Zur and Zur (2011), Rosen (2010), Toledo (2007), and Ufuophu-Biri & Iwu (2014) submit that digital natives use the Internet more than their immigrant counterparts. Many digital natives tutor the digital immigrants on the techniques of using digital devices to multitask. Ransdell et al. (2011) found that younger people utilize the Internet more regularly than older people. They found that younger Americans use the Internet extensively for educational purpose and interact more effectively and more familiarly than members of the older generation. Several other studies have established a significant relationship between digital nativity, digital immigration, Internet use, and other digital technologies of communication. Such researches include those by Bayne and Ross (2007), Prensky (2009), and Byl and Taylor (2007). Their different submission is that younger people use the Internet and other forms of digital technologies to perform several tasks in significantly different ways when compared with the digital immigrant.

7. Materials and Method

A total of 1,200 respondents participated in the study. We sampled them from the 16 tertiary institutions of learning in Delta State. The sample included 800 students and 400 lecturers from eight of the 16 institutions. The eight institutions were selected using a simple random sampling technique. We subsequently sampled 100 students and 50 lecturers from each of the sampled institutions which included two public universities, two private universities, two polytechnics, one college of education, and one monotechnic. We administered the questionnaire to the respondents (lecturers who were thirty-five years and above and to students who were twenty-five years and below) with the aid of trained research assistants. We based the age categories on the period that Internet technology gained popularity and acceptance in Nigeria.

The Internet was introduced into Nigeria in 1996 and gained full access in 1999. However, it became popular in the country in 2000. The above period was approximately 20 years ago. People below 25 years were either five years old when the Internet was introduced into Nigeria or were not yet born. We thus define them as digital natives.

Meanwhile, the lecturers who are 35 years and above were already mature in the year 2000 when the Internet became available and popular in Nigeria; thus, we regard them as digital immigrants. We collected data on access to the Internet; frequency of Internet usage; and the pattern of Internet use. We retrieved a total of 1,114 copies of the questionnaire out of the 1200 we administered. The number of retrieved copies of the questionnaire accounted for 92.83%. After sampling the institutions, we distributed the questionnaire to respondents across the different faculties/schools in the institutions taking into cognizance the gender distribution of the respondent. We used ANOVA to test the hypothesis and used descriptive statistics to analyze the data for the research question.

8. Data Presentation and Analysis

In the section below, we presented and analyzed the data, using tables and graphs.

Table one: The differentials in the pattern of Internet usage by students (digital natives) lecturers (digital immigrants)

Ranks	Students Category of Internet Usage	Mean Score	Ranks	Lecturers Category of Internet Usage	Mean Score
1.	Facebook	4.5887	1.	Academic researches	4.7811
2.	Entertainment	4.5444	2.	Instant message	4.1703
3.	Instagram	4.4046	3.	Email	4.0189
4.	Seeking migration information	4.2164	4.	Health tips	3.8054
5.	Instant Message	4.2056	5.	Consumption of online media contents (Television, Radio, newspaper, magazine)	3.2838
6.	Consumption of online media contents (Television, Radio, newspaper, magazine)	4.0121	6.	Entertainment	2.8568
7.	Internet telephone	3.9946	7.	Linkedin	2.8270
8.	E-commerce	3.9180	8.	Facebook	2.6703
9.	Online banking	3.8817	9.	Online banking	2.5224
10.	Dating	3.8522	10.	Sports	2.2595
11.	Academic researches	3.8226	11.	Instagram	2.1486
12.	Other social media networks	3.5766	12.	E-commerce	2.0405
13.	Sports	3.5175	13.	Twitter	1.9838
14.	Content creation	3.4798	14.	GPS	1.8622
15.	GPS	2.9570	15.	Website development	1.6811
16.	Email	2.8602	16.	Online meetings and conferences	1.6378
17.	Online lectures	2.7742	17.	Online lectures	1.6378
18.	Searching for jobs	2.6935	18.	Internet telephone	1.6108
19.	Health tip	2.6156	19.	Other social media networks	1.5892
20.	Weather information	2.4180	20.	Content Creation	1.5405
21.	Website development	2.3683	21.	Searching for job	1.4459
22.	Online meetings and conferences	2.3173	22.	Seeking migration information	1.4027
23.	Linkedin	2.1855	23.	Dating	1.3622
24.	Twitter	1.6532	24.	Weather information	1.3216
25.	Scam	1.2500	25.	Scam	1.0000
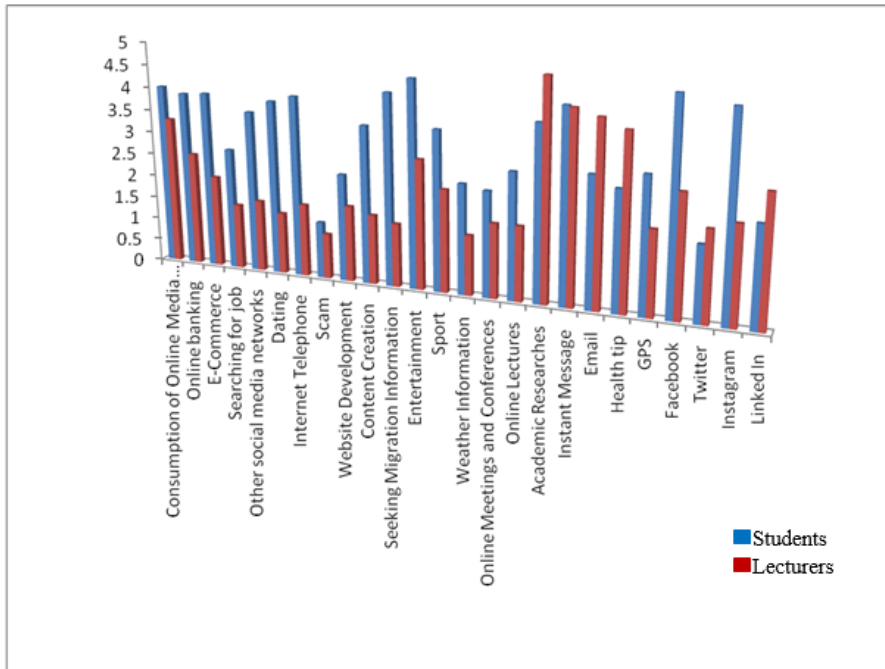
Figure 1: The differentials in the pattern of Internet usage by students (digital natives) lecturers (digital immigrants)

We ran a frequency test on the data and extracted the mean scores to examine the pattern of Internet usage. We found that the students used the Internet, mostly for Facebook (4.5887 mean score) followed by entertainment (4.5444) and Instagram (4.4046). The above usage is different from the case of the lecturers who use the Internet, mostly for academic researches (4.7811), Instant messages (4.1703), and Email (4.0189). The least prioritized items by students and lecturers is scam which has a mean score of 1.2500 for students and a 1.000 mean score for the lecturers. Both students and lecturers also have points of convergence in the utilization of the Internet for online banking which they ranked 9th (3.8817 mean score for students and 2.5224 mean score for the lecturers) and online lectures which they rated 17 with a mean score of 2.7742 for the students and 1.6378 for the lecturers). Furthermore, the students ranked seeking immigration information (4.2164 mean score), instant messaging (4.2164 mean score) consumption of online media contents (4.0121 mean score) and Internet telephone 3.9946 and e-commerce 3.9180 as the 4th, 5th, 6th, 7th, and 8th top reasons for using the Internet.

However, this is not the case for the lecturers' ranking of the pattern of Internet usage. For them, health tips (3.8054 mean), consumption of online media contents (3.2838 mean score), and entertainment (2.8568), Linkedin (2.8270) and Facebook (2.6703) occupied the 4th, 5th, 6th, 7th, and 8th positions. To further show the differentials in the students and lecturers' usage pattern, the students ranked dating as 10th (3.8522 mean score), academic research 11th (3.8226 mean score); other social media networks as 12th (3.5766 mean score), Sports as 13th (3.5175 mean score) and content creation as 14th (3.4798 mean score). The lecturers' rankings were markedly different.

They ranked sports 10th (2.2595 mean score), Instagram 11th (2.1486 mean score), e-commerce 12th (2.0405 mean score), Twitter 13th (1.9838 mean score), and GPS 14th (1.8622 mean score). We further showed the differentials in the usage pattern in the following breakdown of the ranking. The students ranked these items as follow: GPS 15th (2.9570 mean score), Email 16th (2.8602 mean score), searching for job 18th (2.6935 mean score), health tips 19th (2.6156 mean score), weather information

20th (2.4180 mean score) and website development 21st (2.3683 mean score). Contrarily, the lecturers ranked website development 15th (1.6811 mean score), online meetings and conferences 16th (1.6378 mean score), Internet telephony 18th (1.6108 mean score), other social media networks 19th (1.5892 mean score), content creation 20th (1.5405 mean score) and searching for jobs 21st (1.4459 mean score). Finally, the students ranked online meetings and conferences 22nd (2.3173 mean score), Linkedin (2.1825 mean score), and Twitter (1.6532 mean score) as 23rd and 24th, respectively. Meanwhile, the lecturers ranked seeking migration information (1.4027 mean score), dating (1.3622 mean score), and weather information (1.3216 mean score) as 22nd, 23rd, and 24th respectively.

Hypothesis one: *There is no significant difference in the accessibility to the Internet by students (digital natives) and lecturers (digital immigrants) of tertiary institutions of learning in Delta State*

We made an effort to ascertain the variability on Internet accessibility by the students (DN) and lecturers (DI), and we presented the result in table 2. We used a Likert scale to gather the data used in testing the hypothesis. The five items were very frequently - 5 points; frequently - 4 points; occasionally - 3 points; rarely - 2 points; and never 1 point. The results show that 65.2% and 34.8% of the students responded that they have very frequent and frequent access to the Internet. The students' total mean score for Internet accessibility was 4.6519. The results further indicate that 50.3% of the lecturers have very frequent Internet accessibility.

Additionally, 47.0% and 2.7% of lecturers had frequent and occasional Internet accessibility, respectively. The lecturers' total mean score for Internet accessibility was 4.4432, which indicates that the lecturers also have adequate access to the Internet. The results thus show that both students (digital natives) and lecturers (digital immigrants) have sufficient access to the Internet. We further subjected the data to ANOVA test to ascertain whether or not there is a significant difference in the accessibility of the students and the lecturers to the Internet as presented in table two.

Table 2: Internet Accessibility by Respondents

	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig**
Between Group	0.00	2	0.00	.	.
Within Groups	0.00	367	0.00		
Total	0.00	369			

F- critical = 2.37

Source: Author's Computation, 2020

Table 2 presents the result for the test of hypothesis I. As indicated, the F-calculated obtained is less than the critical value of 2.37 (F-critical = 2.37). Additionally, we observed that the p-value got was below the threshold of 0.05 (at a 5% level of significance). Therefore, since the F- calculated is below the F-critical of 2.37, we could not reject the hypothesis. Impliedly, the above result is an indication that there is no significant difference in Internet accessibility between the digital natives (students) and digital immigrants (lecturers).

Hypothesis 2: *There is no significant differential in the frequency of Internet usage by students (digital natives) and lecturers (digital migrants) of institutions of higher learning in Delta state*

In testing for the differentials in Internet usage by the students (DN) and lecturers (DI), we adopted the one-way Analysis of Variance (ANOVA) and presented the result in table 3. We also used a Likert scale questionnaire in which we sought to know the duration spent on the Internet by students (digital immigrants) and lecturers (digital indigenes) 2.3% and 2.1% of the students responded that they utilized the Internet 5 hours and above and 4-5 hours daily respectively. 4.7%; 23.0% and 5.9% of the students said they operated the Internet for 2-3 hours daily; 2-1 hours daily and less than one hour daily. We found the mean score of their usage of the Internet at 2.9086 on a scale of 5, which suggests that the students use the Internet frequently but not very frequently going by the parameters of this study. The data further reveal that 1.4% and 2.4% of the lecturers use the Internet 5 hours and above and 4-5

hours daily. 15.4%; 59.2% and 21.6% use the Internet 2-3 hours daily; 2-2 hours daily and less than one hour daily, respectively.

The mean score of the frequency of the lecturers' Internet usage is 2.0270, which is less than the default average of 2.5, given that the overall scale is 5.0. The above result suggests that there may be a significant difference in the frequency of using the Internet by students and the lecturers. We subsequently subjected the data to test further using the ANOVA. We presented in table three, below.

Table 3: Differentials in the frequency of Internet Usage by the Respondents

	Sum of Squares	Df	Mean Square	F	sig
Between Group	87.147	4	21.787	27.846	0.000
Within Groups	285.580	365	0.782		
Total	372.727	369			

F-critical = 2.37

Source: Author's Computation, 2020

As indicated in table 3, the computed value of F(F-calculated) is 27.846. This value is above the table value of 2.37. Since F-calculated of 27.846 is more significant than F-critical of 2.37, we, therefore, rejected the null hypothesis. With a p-value (sig) of 0.0000, the result is significant at a 5% level of significance. With the above output, the obvious is that there is a substantial variation in Internet usage by the students (DN) and lecturers (DI).

9. Discussion of Findings

We found significant differentials in the students and lecturers' patterns of Internet usage. Both groups prioritize Internet usage in different ways. The students use it mainly for Facebook, entertainment, Instagram, seeking migration information, and instant messaging. On the other hand, the lecturers use the Internet fundamentally for academic researches, instant messaging, Email, health tips, and consumption of online media contents.

Out of the 25 parameters used to measure the respondents' pattern of Internet usage, the students and lecturers ranked three in the same way. Both groups ranked their style of the usage of online banking, online lectures, and scam equally on the 9th, 17th, and 25th positions. The two groups prioritize their usage of 22 other categories differently. The preceding indicates that there are significant differences in the students and lecturers' patterns of using the Internet.

The results further show the differences in the cumulative mean scores of students and lecturers in the usage pattern of the Internet. The students and the lecturers had total mean scores of 3.284304 and 2.298408 respectfully on a scale of 5.0. The students' mean score was higher than the lecturers' mean score of 0.985896. Additionally, the students' mean score was above the average while that of the lecturers was below the average. The findings imply that the younger and older people have significantly different patterns of using the Internet and other digital devices of communication.

These findings further confirm those of Anunobi and Mbagwu (2009), Nelissen and Van Den Bulck (2017), Wang et al. (2012), Harding (2010), Selwyn (2004), Correa (2015), Ito et al. (2012), Livingstone (2009), Katz (2010) and Clark (2012). They posit that the digital natives have significant different orientations towards the use of the Internet and other digital devices of communication and that the presumed generational digital divide has considerable influence on the usage pattern of digital technologies of communication.

In testing hypothesis one, in which we sought to ascertain the differentials in the accessibility of the students and lecturers to the Internet, we found no significant differentials. The value of the F-calculated was below the F-critical value of 2.37. Additionally, we examined the students' mean scores

(4.6505) and lecturers' mean scores (4.1216) and found no significant difference in their cumulative mean scores. Both mean scores for the accessibility to the Internet were high. The findings of this study thus imply that there is no significant difference between students and lecturers' access to the Internet.

Another implication is that the students and lecturers have adequate access to the Internet. The finding further confirms those of Margolis (2008), Nelissen and Bulck (2017), Akman and Mishra (2010), DiMaggio, (2017), Thirunarayanan (2011), Salajan (2010), Benneth et al. (2010) Brown and Czerniewicz (2010). Their findings suggest that the younger and older people have equal and adequate access to the Internet and that the widely presumed generational dichotomy does not have a significant correlation with Internet accessibility.

Our findings, however, deviate from those of Autry and Berge (2011), Wallsten, (2005) Barron et al. (2010), Juny et al. (2010), Prensky (2009), and Byl and Taylor (2007). They found a significant relationship between digital nativity and digital immigration on one part and access to the Internet.

Meanwhile, we found that being a digital native or digital immigrant could be a significant predictor/correlate of the frequency of Internet usage among students and lecturers of the institution of higher learning in the state. The outcome of the mean scores and ANOVA results indicated that there is a significant difference in the frequency of using the Internet between students and lecturers. The students had a mean score of 2.9086 over an overall score of 5.00 score, which shows that they use the Internet frequently. However, the mean score for the lecturers was 2.0270 over a score of 5.00, which is below the average of 2.500. The finding thus suggests that they do not use the Internet frequently as the students do.

The result of the ANOVA test further shows that there is a significant difference between students and lecturers frequency of Internet usage. For instance, the computed value of F (27.846) is more than the table value of (2.37). We could therefore conclude from the findings that the presumed divide between digital natives and digital immigrants have a significant influence on the frequency of Internet usage by the students and lecturers of institutions of higher learning in the state. This finding corroborates the findings and postulations of Prensky (2001, 2009), Randell et al. (2011) Schaan and Melzer, 2015, Zur and Zur, 2011, Nikken and Schols (2015), Correa (2014) which hold that being a digital native or digital immigrant could determine an individual's frequency of Internet usage. The finding, however, deviates from those of Rosen (2010) and Watson (2013) which suggest no relationship between generational dichotomy and Internet usage.

The study also reaffirms the assumptions of the Technological Acceptance Theory, which holds that the perceived ease of use and perceived usefulness of a technology determine a person's acceptance of the technology. The students' and lecturers' adequate accessibility to and usage of the Internet are indications of their favourable perception of the Internet as regards their perceived ease-of-use and usefulness. The theory is, therefore adopted for this study.

10. Conclusion

We set out to ascertain if there are significant differentials in students' and lecturers' accessibility to the Internet and their usage pattern of the Internet. We also set to determine if there are differentials in the frequency of their usage of the Internet. The fundamental objective was to find out if the idea of digital nativity and digital immigration applies to the students and lecturers of tertiary institutions of learning in Delta State. We found no significant differentials in the students and lecturers' accessibility to the Internet. We, therefore, concluded that the students and lecturers have adequate Internet accessibility with no significant difference between their levels of accessibility.

However, the study found a significant differential in the frequency of the students and lecturer' usage of the Internet. Based on the results, we, therefore concluded that the digital natives (students) use the Internet more frequently than the digital immigrants (lecturers). In essence, there are significant differences in their frequency of Internet usage in favour of the students. Based on the findings, we also conclude that being a digital native or digital immigrant plays a significant role in the prioritization of the purpose for the students and lecturers use the Internet. In essence, there are

substantial differentials in the purpose for which the lecturers and students use the Internet. Therefore, we could conclude that the concept of digital natives and digital immigrants applies to the students and lecturers of tertiary institutions of learning in Delta State, Nigeria.

11. Recommendations

1. We find the students' and lecturers' adequate accessibility to the Internet very encouraging and recommend that they sustain the moment and possibly improve on it.
2. There is an imbalance in the frequency of the lecturers and students' Internet usage. The lecturers' use of the Internet is below average. We recommend that they should increase their use of the Internet.

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