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RESEARCH ARTICLE

USE AND ABUSE OF HAND HELD DEVICES IN SELECTED NIGERIAN PRIVATE UNIVERSITIES

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ABSTRACT

This study investigated handheld devices use and abuses in selected Nigerian private Universities. Using survey research and stratified random sampling techniques, handheld devices use and abuses questionnaire was designed and used to collect data from 300 undergraduates in two selected private universities in Ogun State. The results showed that, Android phones (55%); iPhone (33.3%); Ipad (27%) and digital camera (13%) are the most commonly used handheld devices by undergraduates. From the results, android 130(43%) and iPhone 76(25.3%) are the most frequently used handheld devices by undergraduates especially on daily basis. The findings of the results revealed that, checking and sending e-mails (75%); accessing social networking websites (Whats App, Instagram, Facebook, Twitter, MySpace) – 74.3%; searching for scholarly and academic information (71.7%) and general web browsing (68%) are the major benefits with the use of handheld devices as perceived by undergraduates. The results show that watching of pornography (52.7%) and online fraud (46%) are the major abuses of handheld devices among undergraduates. The study recommends that there should be re-orientation for undergraduates by the Universities on the implications of handheld devices abuses on their academic pursuit; universities should adopt a policy for punishing any student found indulging in any act of misusing handheld devices in the academic community. However, since students are using these devices to consume information, universities must respond and develop strategies that include mobile devices.

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INTRODUCTION

The development of handheld devices has generated amount of excitement among practitioners and academics because of results in shifting the academic environment from traditional setting to mobile learning. The trend of handheld use and abuses is now becoming the hottest technology in higher education. For the past few years, educators and students in higher education have enjoyed the many benefits of handheld devices. In order words, the use of handheld devices has overcome the limit of education flexibilities. Maginus, White and Mkenna (2000) opined that handheld devices have provided many benefits to higher education in the area of research. However, handheld devices can be carried and connect to a network anywhere, anytime anywhere using public station (e.g. Antenna). The use of mobile telephones has led to enhanced business communication, increased personal convenience including opportunities to alert rescue services in the event of a crash or breakdown. However, the use of Handheld devices have equally resulted in a way of cheating in all areas of human endeavours such as high level of examination misconduct, tagged “e-cheating” among students. Omonijo, Nnedun and Ezeokia (2011) opined that prior

invention of Information Communication Technology, the menace of examination misconduct, cheating and plagiarism compounded the problem by extending in the psyche of most Nigerian tertiary students. The habits has provided smart ways for notorious students to beat the effort of government and civil societies in cheating, plagiarism and curtailing examination fraud in Nigeria. There are different types of handheld devices among which are: Mobile Handset, I Pod, Palm top, Digital Camera, Flash disk, Game devices, Smart card, ATM, Radio, Wireless ICT Mobile device, I torch, Bar code Scanner, mobile computers, Notebook PC Ultra-Mobile PC Handheld, PC Personal digital assistant/Enterprise digital assistant Graphing calculator, Pocket computer (largely obsolete) Handheld game, Sega Game Gear etc. The fundamental idea of a handheld computer is to make data entry and access more portable. In this research two Institutions were considered as case study – Bells University and Covenant University, both in Ota Nigeria. Bells university of Technology Ota (one of the case study) is the first private university of Technology in Nigeria. The university obtained its license in June 2005. The university has a population of over 600 students and about 150 staff. To ensure uniqueness, the University offer courses that would support relevant and sustainable technology that is transferable and applicable especially in the area of biotechnology and be ICT- driven and at the cutting edge of Science and Technology.

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Covenant University (another case study) is a mission owned by the Living Faith Church worldwide. It was established in 2002 and is located in Ota, Ogun State. Presently, the population of students is over 7,000 in various disciplines and over 500 staff. However, this study investigates the use and abuses of handheld devices among students in two private Universities in Nigeria namely Bells University of Technology, Ota and Covenant University, Ota.

Research objectives

- To identify the types of handheld device used by undergraduates in Bells University of Technology and Covenant University Ota
- To determine the frequency use of Handheld devices by undergraduates in Bells University of Technology and Covenant University Ota
- To find out the benefits and associated with the use of handheld devices by undergraduates in the two universities.
- To determine the ways by which Handheld devices have been abused in two Universities.

Literature review

The evolution of handheld devices and wireless technology has resulted in radical changes in the social and economic lifestyles of modern people. However the use of handheld devices are reshaping user's daily lives in different ways. But the development of digital technologies has so far been limited to social communication and few people have regarded mobile learning as a core pedagogical activity in higher institutions of learning. Although this model has been used as a minor adjunct to learning activities such as lectures and assignments, it is still not the primary mode of delivering higher education. Currently, the instructional technology transmitted by means of mobile technology is mainly social and, to a lesser extent, economic. Against this backdrop, visionary educators, designers and developers should begin to consider the implications of these devices for the modern teaching and learning environment.

It must be noted that e-learning will only take place in conditions that will be radically different from those educators and learners are familiar with. Providing university students with services, content instruction and information outside the traditional learning space is becoming more acceptable among education providers who predicate their services on the routine use of advanced information and communication as educators are exploring the potential of handheld technology to improve learning (Kim, Holmes, & Mims, 2005). These handheld devices include personal digital assistants (PDAs), cell phones, Black Berries, iPhones, iPods, cameras, and a variety of add-on hardware extensions (Churchill & Churchill, 2008). Meanwhile, the portability and affordability of handheld wireless computers are distinct advantages for school use. In the last few years, mobile handheld devices have emerged as a tool for teachers and students to use in K-12 and higher education settings. Perry, (2003) refer mobile handheld devices as any small machines that can be carried easily in one's palm and provide computing, as well as information storage and retrieval capabilities. Some researchers (e.g. Soloway et al., (2001) believe that such devices have the potential to revolutionize learning, allowing students to

undertake learning activities wherever they happen to be. Potential uses of hand held devices for tertiary education include a range of supplementary learning services facilitating: collaborative learning in groups, learning on the move, delivery of assignments, field trips and the delivery of synchronous and asynchronous lectures and materials. Benefits may also include improved communications for and between lifelong learners (Sharples 2000), distance learners, part-time learners and work-based learners. Survey found that many students were impressed with the size, performance and functionality of the devices and they found useful the use of the lecture notes on the handhelds.

MATERIALS AND METHODS

The research design adopted in this work was survey method analysis. This is used to seek opinions of individuals as regards a problem in which consensus of these respondents will provide the needed solution to the problem at hand (Issa, 2007). Survey research requires systematic and scientific collection of data or information from population or sample of the population through the use of interview, questionnaire, or direct observation or the combination of the stated methods. Meanwhile the population of the study (case study) are the undergraduates of Covenant University and Bells University of Technology, Ota, Ogun State, Nigeria with the total population of 7, 685 and 1, 400 respectively (as of the time the research was carried out). However, study population sample of 150 students was considered in each of the selected Universities with seven (7) colleges in total. The study employed stratified sampling technique. The population of the study will be stratified along the seven colleges in the two universities. The population of the study will be stratified as follows shown in the table below (Table 1):

Table 1. Sampled study population

S/n	Colleges	Sample
Covenant University, Ota		
1.	College of Science and Technology	90
2.	College of Development Studies	60
TOTAL		150
Bells University of Technology, Ota		
3.	College of Information sciences	35
4.	College of Management Sciences	40
5.	College of Engineering	25
6.	College of Environmental Sciences	30
7.	College of Natural Science	20
TOTAL		150

The instrument of data collection employed in the research is questionnaire. The questionnaire was structured as it provided alternative answers from which they are to select one or more answers. The questionnaire revealed the demographic data of the respondents, types of handheld device use, importance and its abuse. The method of data analysis used was frequency count and percentage for the research questions, then the regression analysis was used for the hypothesis

RESULTS ANALYSIS

Descriptive statistical tools of frequency count and percentages were used for the analysis. The Demographic data on the sampled population are analysed below. Table 2 indicates the distribution of the respondents by sex with (40.7%) representing the male respondents, while (59.3%) represents the female respondents.

Table 2. Distribution of population by gender

SEX	FREQUENCY	PERCENTAGE (%)
Male	122	40.7
Female	178	59.3
TOTAL	300	100

Table 3. Distribution by the Level of the Respondents

LEVEL	FREQUENCY	PERCENTAGE (%)
100	44	14.7
200	27	9
300	29	9.7
400	134	44.7
500	66	22
TOTAL	200	100

Table 4: Distribution by the College of the Respondents

College	Frequency	Percentage (%)
College of Science and Technology	90	30
College of Development Studies	60	20
College of Natural Science	20	6.7
College of Management Science	40	13.3
College of Information Science	35	11.7
College of Engineering	25	8.3
College of environmental studies	30	10
TOTAL	300	100

Table 5. Handheld Devices Commonly Used by Undergraduates

Handheld devices	Response	%(N=200)
Android	165	55
I Phone	100	33.3
I pad	81	27
Digital Camera	39	13
Blackberry	36	12
Pc ultra mobile	22	7.3
PDA	16	5.3
Saga game gear	8	2.7

Table 3 show distribution of the respondents by level with (14.7%) representing 100 level; (9%) representing 200level; (9.7%) are in 300 level; (44.7%) are in 400 level while (22%) represents those in 500 level. By implication, majority of the respondents are in 400 level.

Table 6. Frequently Use of Handheld Devices by Undergraduates

Handheld devices	Daily	Weekly	Fourthly	Monthly	Quarterly	Never
Android	130(43%)	4(1.3%)	-----	6(2%)	35(11.7%)	125(41.7%)
I phone	76(25.3%)	12(4%)	3(1%)	2(0.7%)	7(2.3%)	200(66.7%)
Ipad	38(12.7%)	6(2%)	1(0.3%)	1(0.3%)	8(2.7%)	246(82%)
Digital camera	34(11.3%)	44(14.7%)	23(7.7%)	11(3.7%)	13(4.3%)	175(58.3%)
Blackberry	22(7.3%)	12(4%)	2(0.7%)	-----	9(3%)	255(85%)
Pc ultra mobile	23(7.7%)	13(4.3%)	3(1%)	3(1%)	3(1%)	255(85%)
PDA	10(3.3%)	9(3%)	6(2%)	2(0.7%)	3(1%)	270(90%)
Saga game gear	4(1.3%)	8(2.7%)	6(2%)	3(1%)	2(0.7%)	277(92.3%)

Table 7. Benefits of Use of Handheld Devices

Benefits of Use of Handheld Devices	Response	%(N=200)
To check and send e-mails	225	75
Social networking	223	74.3
Searching for scholarly and academic information	215	71.7
To download or listen to music	204	68
General web browsing	202	67.3
Searching for researcher materials using search engines	202	67.3
To call friends and acquaintance	164	54.7
To participate in a news and discussing group	120	40
To play game	119	39.7
For online dating	41	13.7

The table (Table 4) shows distribution by the college of the respondents. (30%) are from College of Science and Technology; (20%) are from College of Development Studies; (6.7%) are from College of Natural Science; (13.3%) are from College of Management Science; (11.7%) are from College of Information Science; (11.7%) are from College of Engineering while (10%) are from College of environmental studies. Table 5 above shows the type of handheld devices used by undergraduates in Bells University of Technology and Covenant University. From the results, Android (55%); I Phone (33.3%); Ipad (27%) and digital camera (13%) are the most commonly used handheld devices by undergraduates in Bells University of Technology and Covenant University. Other type of handheld devices used by undergraduates include: Blackberry (12%); Pc ultra-mobile (7.3%); PDA (5.3%) and Saga game gear (2.7%). Table 6 above shows frequency of use of handheld devices by undergraduates in Bells University of Technology and Covenant University. From the results, Android 130(43%) and iPhone 76(25.3%) are the most frequently used handheld devices by undergraduates especially on daily basis. However, the frequency of use of digital camera 34(11.3%); blackberry 22 (7.3%); Saga game gear 4(1.3%); PDA 10(3.3%) and Pc ultra mobile 23(7.7%) is relatively low.

Table 7 above indicates the associated benefits inherent in the use of handheld devices among in Bells University of Technology and Covenant University. From the results, checking and sending e-mails (75%); accessing social networking websites (facebook, twitter, MySpace); searching for scholarly and academic information (71.7%) and general web browsing (68%) are the major benefits with the use of handheld devices as perceived by undergraduates. Other benefits include: searching for researcher materials using search engines (67.3%); calling friends and acquaintance (54.7%); participating in a news and discussion group(40%); playing game (39.7%) and online dating (13.7%). Table 8 shows the way through which undergraduates' abuses handheld devices. The results show that watching of pornography (52.7%) and online fraud (46%) are the major abuses of handheld devices among undergraduates.

Table 8. Abuses of Handheld Devices by Undergraduates

Abuses of Handheld Devices	Response	%(N=200)
Watching of pornography	158	52.7
Online fraud	138	46
Threatening peoples' lives with messages	136	45.3
Excessive use /addiction	129	43
Sending of provocative message and pictures	124	41.3
Plagiarism	122	40.7

Other abuses include: threatening peoples' lives with messages (45.3%); excessive use /addiction (43%); sending of provocative message and pictures (41.3%) and Plagiarism (40.7%).

Conclusion

The high penetration of handheld devices is evident on university campuses among undergraduates. Casual observation shows that the average university student has a mobile phone, while considerably fewer own a PDA (Personal Digital Assistant) or a laptop computer. Farmer (2003) observes that many of the students entering university now are younger than the microcomputer or personal computer. These students have grown up with computers, and technology has continued to evolve and enhance their lives. Technology has transformed how students interact with each other and their lecturers. Students can now communicate face to face, over the phone, and via email, SMS and online discussion areas. Many universities now use SMS to communicate with students about enrolment and exam results, which is only efficient and effective because of the high level of mobile phone ownership amongst this group. Although using mobile technologies in this way can support students in their studies, these low-end applications support administrative functions rather than teaching and learning. In contrast, we believe that the value of m-Learning (i.e., using mobile technologies to support teaching and learning) lies in integrating mobile technologies with the current e-learning environments in which universities have made major investments. This in turn requires capitalizing on the commonplace nature of these devices to promote communication, collaboration and learning. However, this can only be achieved by understanding and accepting the limitations of mobile technologies and making sensible decisions about how to use them.

Mobile technologies have developed at an alarming pace over the past few years. As more users purchase smart phones with internet capabilities, universities have been pushed to think about mobile devices when developing solutions for their constituents.

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