SOCIAL NETWORK FOR LEARNING: AL-HIKMAH UNIVERSITY UNDERGRADUATE STUDENTS' PERSPECTIVE

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Abstract

This study was carried out to investigate the awareness and utilization of social network for learning among undergraduate students at Al-hikmah University, Ilorin, Nigeria. Gender, technology background, age, level, and area of specialization are the variables involved. The descriptive survey research design was employed to draw responses with the use of self-structured questionnaire. All Al-hikmah university students are the population of the study while the target population are 200 level to 400 level students from which a sample size of 400 undergraduate students was selected via random sampling techniques from six out of seven faculties available. The instrument was validated by experts and the reliability co-efficient using a split-half test was 0.86. Four research questions and one hypothesis were used for the study. Frequency distribution, charts, and t-test were the statistical tools used to analyze the data. The findings indicated that social network is used for educational purposes with improved engagement, better understanding of the subject matter as it helps to reinforce learning with technology because 80.0% of learners were digital native. Despite the benefits, social network can interrupt personal study, distract the conventional classroom learning, loss of privacy and exposure to cybercrimes as indicated by the respondents with 82%, 68%, and 55% respectively. Hence, Tertiary Institutions should organize series of seminars, workshops, conferences to update, enlighten and encourage students and lecturers on the good and not forgetting the not too-good and disadvantages attached with the use of social network as a tool for learning and interaction.

Keywords: awareness, learning ICT, social networking, undergraduates, utilization

Introduction

Social Network is said to be a social structure comprising of a set of Social Actions such as (individual or organization) set of duo ties and other social dealings between them. The Social Network perspective comprises of a set of methods for analysing the structure of a whole social community as well as a variety of theories describing the patterns followed in these structures (Wikipedia, 2015). The study of Social Network has received significant interests from

researchers in various domains of learning especially in Education since knowledge acquiring have moved from teacher-centred to students-centred for efficiency and effectiveness. It is also becoming a vast approach in the field of technology where artificial is gaining more grounds (Barker, 2013).

The secondary and next level of Education is a bit more involved as they actively make use of Social Network within and outside the classroom environment. The teacher uses interactive boards and sometimes overhead projectors to teach while students make use of gadgets like the tablets, palmtop, I-pads and sometimes the personal computers as an add-up to the conventional classroom. Using Social Networking sites helps to create virtual images, concretize learning, emphasizing the benefits of learning with technology, they get to practise more on their own what has been learnt in class (example of such are Games and Simulation, Drill and Practices is the Scrabble) this creates an avenue for learners to gain more and at their own pace. (Groff & Haas, 2008).

However, Utilizing Social Network tools with large students' group might create a problem, challenges an advantage of increased Awareness or appreciation are complexity of typically observed behaviour in Social Learning environment which may help the Academic abilities of Undergraduates students to manage the tools (Osborne, 2012). When Social Network is discussed the term ICT cannot be overlooked, ICT is a broad term used to describe information and communications technology, it is a process of acquiring, processing, storing and distributing information by a combination of computer, cables and telecommunication tools and techniques.

Concepts and Relevance of Information and Communication Technology

Information Communication Technology is one of the various significant/important discussion in the present world. ICT comes from the combination of Information Technology and Communication Technology that is the method of storing manipulating and communicating information. It is a generally used term to describe any technology that helps with the production, manipulation, storage, communication or dissemination of information, IT applies to the expansive, complex and in exhaustive programs with electronic devices usually processing data in binary format. The use of the internet on social network by students need adequate training and skills which supposed to be from the early stage of their life. according to the study of Makinde and Bolaji (2019), it was opined that integrating the internet services in secondary schools will improve the standard of education and encourages critical thinking of the students towards their learning. This may not be possible if children are not been familiar with the nitty-gritty of the social media tool at the early stage of their learning process.

According to Makinde (2019), lecturers should not worry much on the design and production of materials for their classroom, the internet has a numerous quantity of resources and materials they can imbibe into their lessons. Not only does this lessen the workload but also gives room for students with diverse interest and level of retention and assimilation to catch up. It was observed that the interest and readiness can be studied by evaluating students' knowledge (George, Papachristou, Belisario, Wang, Wark, Cotic, & Musulanov, 2014), ICT

skill (Seraji & Yar Muhammadi, 2010; Anene, Imam & Odumuh, 2014), self-tutored learning (Kaur, 2014; Chu & Tsai, 2009), attitude (El-Gayar, Moran & Hawkes, 2011; Hussein, 2011) in e-learning and computer and internet efficacy (Kumar, 2017; Seraji, 2013) among others.

Efficient, effective and reliable information would be disseminated among students and teachers in the interactive systemized society through ICT. Teachers are advised to introduce ICT into their classroom to plan, deliver assess information and give instruction. Usage of social networking sites provides a venue for clients to freely express themselves and the open-access of social networking sites enables those with valid account to interact. The nature of interaction between users is often confined to the profile information that explains a user's preference to accept data (Posey, Lowry, Roberts & Ellis, 2010).

Makinde (2010) opines that since the world is moving towards the use of ICT in various areas of human activities, in order to improve on Nigeria educational system, there is need for internet resources like social networking not only as tools for information and communication but also as a course of study or discipline in higher institutions. The benefits of using the internet services include: (a) accessing information easily, (b) getting accurate information at a glance, (c) improving academic collaboration and communication, (d) improving the channel of cooperation between students and between lecturers/instructors, encouraging students' ability to identify and analyse problems and promote adequate retention of learning materials (Makinde, 2017), and (e) growing learners' learning charisma and promoting learners' self-confidence in internet service applications (Makinde, 2010).

Social Networking in Education

In an effort to promote authentic learning through usage of social network sites the educational sector thought that encouraging authentic communication by allowing these sites to be run by their peers (students should form a part of the team in charge of the pursuit). The university would play an oversight and supervisory role acting as the king behind the siege. In order to reinforce and concretize learning lecturers/tutor are beginning to provide access to relevant information including; research results, practical simulations, and other real-world or simulated data in an appropriate format. There are challenging tasks that drive the reasons to utilize, transform, apply, and reinterpret the information and lessons learnt in the traditional or online classroom.

Advancement of web technology is correlated to increase of membership of social networking and online collaborative work, a network that brings people together for a mutual aim (Acum, 2010). The social network is coming into existence and shaping the way that people communicate, interact, collaborate, work or even learn (Gulbahar & Kalelioglu, 2010). Social Network is useful to "Showcase", "Make known" "Advertise" work is done, research was done by Students, Lecturer, Researchers and the entire educational sector, also to elicit comments, seek opinion, make suggestions upon such works in other to attain operative efficiency and productive effectiveness (Thomas & Thomas, 2012).

Influence of Social Network on Learning

The impact of the internet and social network in education is a very delicate but important part of the teaching and learning process making it a critical issue in recent years. The internet is a very essential part of life, especially for enjoyment and education. It is vastly used among large community using internet for purely educational purposes, unfortunately, previous years youth, upcoming generation (teenagers) have begun the usage for majorly entertainment and unruly activities.

Tess, (2013) judged that social network serves educational goals and objectives by involving students through such informal methods as it allows students (learners) through the process of joint sense-making, collaborative learning, participatory and discussion forums. Some social network platforms are specifically created for educational environment including linked.in communication which is fully featured for educational purposes and let the user update educational documentations and make a professional connection. The influence of social network in education is numerous and can be is delicate.

Positive Influence	Negative Influence
Communication with colleagues and friends who are separated by geographical location	Attention to detail, pronunciation and grammar have declined and reduced drastically.
Suggestions, perceptions and thoughts are given over different topics among users	Students get addicted to the social network instead of spending time with family and friends.
It increases awareness among the mass with up- to- date information	The more time they spend on social network sites the less they spend socializing in person.
It helps to educate students by allowing learners and teachers on the same platform	Active involvement of students on social network sites reduces their attention span, focus consequently their academic performance declines.
They are exposed to continuously new ideas, given a big chance to create and explore	Students maintain privacy while uploading photos which may lead to criminal activities.

The social network is a self-networked resource serving as a key site for sociality and identification, recognition in many people's life (Papacharissi, 2010). The indispensable changing nature of a student who is just being admitted into a tertiary institution will ultimately see the importance of the social network in the higher institute of education in a practical sense. Its attributes reflect a highly creative, collective and connected qualities application that is highly friendly, fluid and speedy in nature.

Students Utilization of Social Network for Learning

Social media is a group of interrelated internet-based applications that are built on the ideological and technological foundations of Web.2.0 and allows the creation, modification and exchange of user-generated contents (UGC). User-generated content covers a variety of media content available in different ways and forms of modern communication technology it entered into limelight of

mainstream usage in 2005, having aroused in web publicity and new media content sharing production circles.

Dessy and Dwijanto (2019) opine that learning media would be accessed through android and teacher can use PowerPoint slide to present the material at the beginning of teaching. It facilitates teacher to share knowledge. Such packaged learning materials are purposed to facilitate educating students systematically, directive, and in line with targeted objective. Learning media is presented by practising (to input the data quickly and to show the result in the form of an already selected diagram and to help them master the already learnt materials). Social media is a compartment of all digital media technology such as question and answer databases, digital video and animation, blogging, podcasting, forums, wikis, review sites, social network, mobile phones and photography.

Teachers and Professors are doing everything in and outside their reach from creating chat rooms, forums and application to extend classroom discussion to posting assignments, tests, quizzes to assist with students homework outside of the classroom, it also fosters teacher-parent communication as parents have the privilege to discuss and be updated on their wards performance in other for them to know where and when to assist and encourage their wards. Idakwo (2011) uphold the truth that the usage of social media as a means of reaching out to the world has been adopted in Nigeria.

Al-Hikmah University Contributions Towards Adequate Social Networking

Al-Hikmah University, Ilorin, Nigeria was coming into existence through Abdur-Raheem Oladimeji Islamic Foundation (AROIF), Nigeria in 2005. The University was granted License to exists as a Conventional Private University on January 7th 2005 by the Federal Government of Nigeria, FGN with License No. 010. Academic activities commenced during the 2005/2006 academic session with three (3) take-off Faculties: (Humanities, Management Sciences and Natural Sciences) and total pioneer students were 70 students spreading across the faculties.

Presently, Al-Hikmah University has seven (7) Faculties (Humanities and Social Sciences, Management Sciences, Natural and Applied Sciences, Education, Law, Health Sciences and Agricultural Sciences). It has 57 Undergraduate courses; 7 Diploma programmes and 28 Postgraduate Programmes being managed by the Postgraduate School of the University. In addition, the University also has 9 Centres which includes Diploma and JUBEB Studies, Summer Studies, ICT and Distance Learning, Part-time and Professional Studies, Remedial and Extra Moral Studies, Centre for Islamic Economics and Finance, Islamic Heritage and Community Development, Research and International Cooperation, and Entrepreneurial and Vocational.

Today, the students' population is over 4000 for both undergraduates and postgraduates and all course are duly approved and accredited by National Universities Commission, NUC. The University is among the forerunner's Nigerian universities as a conventional private university with a well-articulated mission and vision that summed up in its motto: "Learning for Wisdom and Morality".

The curriculum of the Institution is tailored towards promoting academic excellence through the use of innovative technology and also ensuring moral and spiritual uprightness of the youths irrespective of gender, religion, social and pollical affiliation, and racial or ethnic group, particularly in the face of vicious challenges posed to humanity at this digital age of the 21st century (Ibrahim, 2020).

The Al-hikmah university amongst other prestigious private institutions in Nigeria has taken into consideration the need to use the social network for learning in the institution. In an effort to make learning more fun for students, one of her centres- Centre for Research, Industrial Linkage and International Cooperation (CRIIC) organized a workshop on students' research soft skills in November 2019 for both freshers and returning students. This workshop covers major areas of social network like "Searching for Materials Online Using Search Engines and Techniques of Paraphrasing in Research; Report Formatting and Automated Referencing Using Ms Word, Mendeley And Endnote; Linking Title, Introduction, Literature Review, Analysis and Discussion in Research; and Getting Started with SPSS for Data Analysis". (See Appendix 1.). This is to enable the students apply the experience for educational related programmes, instruction, online content and context, assignments and sometimes examinations been conducted. Also, other educational applications that may be used on mobile devices/ smartphones can be easily annexed with the experience.

The ICT, a department that oversees the ICT and student's portal has made provision to make wireless internet connection (Wi-Fi) on campus at affordable cost, this is to further explore to upgrade, reinforce and concretize their learning

The risk of Social Networking is numerous, some of which are: It gives users the opportunity to communicate without seeing one another and can damage their interpersonal communication (verbal relationship), cybercrime and fraud. Social Network makes the user see one another as "individuals" to be accused and toy instead of a person of great worth and good standard (Ahmed, Qazi, & Hargittai, 2011). Social Network can promote passions of sui generis and reduce passions of chumminess and cooperation between the users; users become remorseless to dissociation. It is in line with the above discussion that this research targets to examine the level of "Undergraduates Students Awareness, and Utilization of Social Network for learning in Al-hikmah university, Ilorin".

Research Questions
1. Are Undergraduates Students of Al-hikmah university, Ilorin aware of Social Network for Learning?
2. What is the level of Awareness of Undergraduate Students of Al-hikmah university, Ilorin on Social Network for Learning?
3. What is the rate of Utilization of Undergraduates Students of Al-hikmah university, Ilorin on Social Network for Learning based on Area of specialization?
4. What are the Disadvantages / Risks and Problems of using the social network for Learning?

Research Hypothesis

Ho1: There is no significant difference among Undergraduate Students Awareness and Utilization of Social Network for Learning based on Area of specialization.

Method

This study is a descriptive research design of the cross-sectional survey type. The population for this study comprises of the entire Undergraduates Students of Al-hikmah University, Ilorin, Nigeria. The sample size is drawn from across the area of specializations like Education, Health Sciences, Humanities & Social Sciences, Law, Management Sciences and Natural & Applied Sciences. Agricultural Sciences was not included because the programme just approved to commence on 20th January 2020 by the National Universities Commission (NUC). Also, freshers, the newly admitted students were not involved, only 200Level to 400level students were considered. The respondents were administered hard copy questionnaires by the researchers personally using a convenience sampling technique. The study was conducted specifically with 400 participants in December 2019. With regards to ethical consideration, consent of the participants was taken before they filled in the questionnaire. Participation was not compelled and anonymous. The demographic data of the respondents is indicated in Table 1.

Table 1. Demographic Profile of the Respondents (N=400)

Demographics	Respondents	Percentage (%)
Gender		
Male	244	61.00
Female	156	39.00
Age		
Less than 18 years old	60	15.00
18 to 25 years	280	70.00
26 to 35 years	40	10.00
36 or older	20	5.00
Level of Education		
200Level	116	29.00
300Level	128	32.00
400Level	156	39.00
Area of Specialization		
Education	80	20.00
Health Sciences	58	14.50
Humanities & Social sciences	94	23.50
Law	64	16.00
Management Sciences	54	13.50
Natural & Applied sciences	50	12.50

Technology Background		
Digital Native	320	80.00
Digital Migrant	80	20.00

Instrumentations

The instrument used for data collection was a self-constructed questionnaire titled "Undergraduates Students' Awareness and Utilization of Social Network for Learning". The questionnaire is divided into 2 major parts A and B. Part A is the background, demographic and personal characteristics of respondents. Part B contains questions on the Awareness and Utilization of Social network. The questionnaire was homogenously keyed on a 4 Likert type rating scale and the participants/respondents are guided to respond to each question/ item thus: Strongly Agree (SA) (4), Agree (A) (3), Strongly Disagree (SD) (2), and Disagree (D) (1). The questionnaire was distributed to the respondent (Undergraduate Students of Al-hikmah University, Ilorin, Nigeria) by the researcher and was collected immediately to ensure accurate return rate.

The instrument validity was determined first by four highly experienced lecturers of the Science Education, Computer science and Information system departments of Al-hikmah university, Ilorin before using for data collection. The reliability of the research instrument was obtained using a split-half test using the odd and even-numbered items to form the halves. The two halves were administered to a sample of students from the University not selected for the main study. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient valve of 0.86 indicated that the research instrument was reliable; hence it was adopted for getting the desired information for the study.

The data collected were analysed using frequency percentage, mean test, inferential statistics, t-test. Frequency distribution table, pie and bar charts where appropriate in order to ensure that the research is clear and easily understandable.

Findings and Discussion

Table 1 above indicated that the age range of the majority of the respondents at 70.0% was between 18 to 25 years old, followed by respondents under the age of 18 at15.0%. It was obvious that respondents were majorly composed of millennial. The table also shows most of the respondents are in 400 level at 39.0%, closely followed by students in 300 level at 32.0% and the least are in 200 level at 29.0%. This table also shows that all three levels considered are well represented in the study. The highest number of respondents was students of humanities and social sciences who represented 23.5% and the least represented are students of natural and applied sciences who were just 12.5% of the sample. It was also revealed that most of the respondents at 85.0% are digital natives, this is no surprise given the age of majorly sampled population found to be millennial.

Research question 1:
Are Undergraduates Students of Al-hikmah University, Ilorin Aware of Social Network for Learning?

Table 2. Undergraduates Students Awareness and Use of Social Network for learning

Item	Freq.	SA (%)	A (%)	D (%)
Students Awareness of Social Network	336	83.6	14.9	1.5
Students Awareness of Social Network for learning	320	80.0	16.5	3.5
Students Use of Social Network for learning	174	43.0	37.0	20.0
I actually use social Network for my courses	174	24.0	20.0	56.0

Table 2 shows that almost all the respondents are exposed to social networking, only 1.5% of respondents indicated that they were not. 83.6% strongly agreed and 14.9% agreed they are aware and exposed to the use of social network. A huge number of respondents at 80% strongly agreed and 16.5% agreed that they are aware that social network can be used to facilitate learning. 3.5% of respondents indicated that they were not aware of the use of social network for learning. Of the 43% who strongly agreed and another 37% who agreed they are aware that social network can be used for learning, only 44% affirm they actually use social network for learning. We can be inferred from this response that the level of awareness is high but actual use is low.

Research question 2.
Is there a difference in the level of Awareness of Social Network for Learning of male and female Undergraduate Students of Al-hikmah university?

Table 3. Level of Awareness based on Gender

Item	Frequency	Percentage (SA + A) (%)
Level of Awareness Based on Gender	132	60.0

Table 3 shows that 37.0 % of respondents agree that the level of awareness of social network tools for learning is different between male and female and another 24.0% strongly agree same. So, it can be inferred that there is different level of awareness based on gender.

Research question 3
What is the rate of Utilization of Social Network for Learning of Undergraduates Students of different faculties in Al-hikmah university?
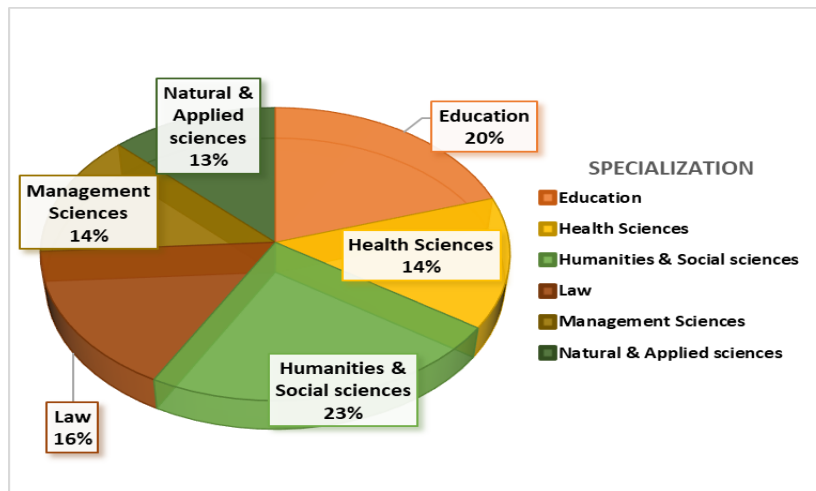
Figure 1. Pie chart showing the rate of utilization of social network based on discipline/ specialization

Figure 1 above shows the faculties/specialization and the level of utilization of social network for learning among students in each of the faculties. Students of the faculty of Humanities & Social sciences rank first with 23% rate followed by Education, 20% while students of Natural & Applied sciences use social network for learning the least with 13% rate of utilisation. Management sciences and Health sciences are at per with 14% utilization rate.

Research question 4.
What are the Disadvantages / Risks and Problems of using a social network for Learning?
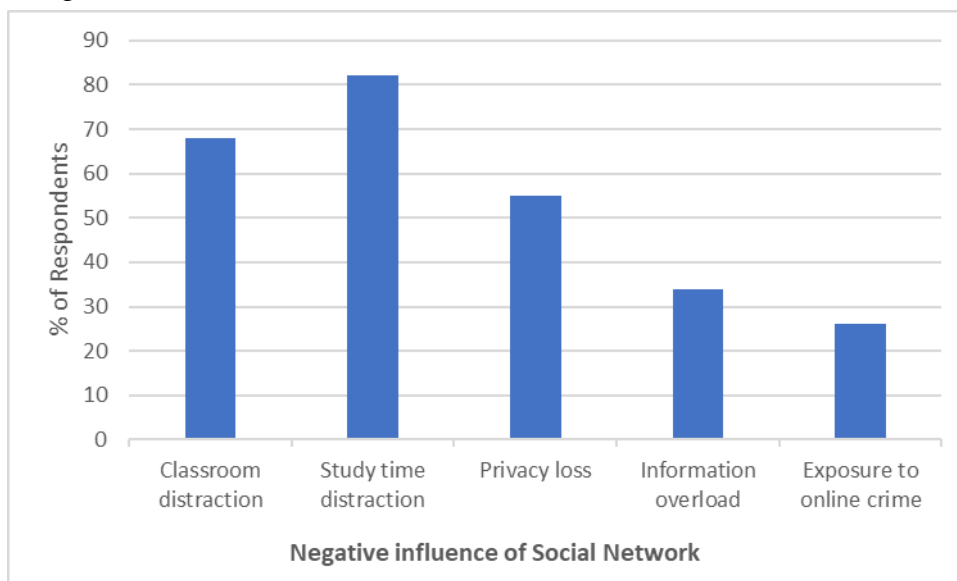

Figure 2. A chart showing disadvantages, risks and problem associated with utilization of Social Network for learning as perceived by respondents.

Figure 2 above shows the factors perceived to be risks and disadvantages of using social network for learning. 82% of respondents indicated that disruption of their personal study is a disadvantage of utilization of social network. 68% of respondents also indicate that social network can distract the conventional classroom learning. 55% of respondent also cited loss of privacy and exposure to cybercrime as a risk of using social network. 34% of respondent think utilization of social network for learning portends the challenge of information overload. While 27% of respondents think users can be exposed to online crime both as victim and as culprit in crimes like plagiarism, intellectual theft and other crimes that can result from online presence through social network.

Hypothesis Testing

H_0: There was no significant difference among Undergraduate Students Awareness and Utilization of Social Network for Learning based on Area of specialization.

Table 4**.** t-test on significant difference among Undergraduate Students Awareness and Utilization of Social Network for Learning based on Area of specialization.

	Sum of squares	Df	Mean Square	F	Sig.
Between Groups	9.772	6	1.19	2.102	.042
Within Groups	222.868	389	.570		
Total	232.640	395			

Going by the Table 4 above, since we reject the null hypothesis, we accept the alternative hypothesis. The null hypothesis was rejected because the significance value of (.042) of F(2.102) was less than alpha value of 0.05.

Discussion

It can be concluded that after this research work has been carried out there is a revealing difference between Undergraduate students' Awareness and Utilization of Social Network for learning at Al-hikmah University, Ilorin. The research works shows with substantial and concrete evidence that Undergraduate Students are aware of the use of social network for learning but are restricted in its usage because of the risks, problems and disadvantages associated to its use.

Based on Area of Specialization, some faculties have inculcated its use into their curriculum right from the basis and their students are accustomed to it. It was very challenging to judge the utilization rate by a mere response from the respondents' questionnaire but this study submits a sampled response on the utilization rate of social network for learning by faculties. All respondents agreed that social network is an online tool can be introduced to the instructional process to provide answers for snoopy mind, a platform for anyone, anytime and anywhere.

Conclusion

The results gathered at the end of this research shows that a substantial number of Undergraduate students' use a social network for learning. The level of Awareness and rate of Utilization of social network for learning by Undergraduate students of Al-hikmah University has been determined, its benefits and adverse effects on students have been confirmed from the findings of this research. There are also various reasons for which students use social network either to achieve one academic pursuit or the other, to be entertained, a great avenue for them to learn at their own pace and many more have been investigated.

Social Network as earlier discussed is an online tool using cloud computing as interphase to connect people who are separated by distance geographically. For educational upgrading and improvements, it serves as a to complement traditional classroom teaching. It's a turnpike for students to take command of their teaching and learning progress as education is now students centred, where students can learn at their own pace. It could be used to concretize and reinforce the instrumentation and evaluation process to making it more effective and efficient.

Social network will go a long distance in moulding and shaping education in the nearest future as emerging technologies keep springing up every second due to endless research, the globalization and connection all over the world have helped to put information at the fingertips which are just a click away.

From the research finding, social network is seen as a source of direct motivation, support and response to the need of students whose unending demands for adequate information, Communication, disseminate, discussion and mobilization of quality information have to be met. Social network ability to educate and teach at students' pace, informative in nature, edutainment and inflaming audience and group collaborative work.

It is hereby recommended that students should accustom themselves with the numerous advantages and opportunities associated with the utilization of social network for learning. Students who are heavy users, and always online should be monitored and the time spent on social network platforms especially for entertainment should be also moderated. Rather they should use it for learning to avoid addiction and create a balanced relationship between their offline and online lives while using the platform.

Lecturers who want to be abreast of the unfolding information and upgrade happening in the educational realm should be current and well informed in the use of ICT.

Parents and School Administrators should provide, regulate and help with the provision and usage of GSM Phones, tablets, laptops and other portable gadgets that may be used as a support for notes during lectures.

Tertiary Institutions should organize series of seminars, workshops, conferences to update, enlighten and encourage students and lecturers on the good and advantages not forgetting the not too-good and disadvantages attached with the use of the social network as tool for learning and interaction. Laws should be stated to manage and regularize the content of social media which will serve as guide and measure to control what students do, access and disseminate on the social network sites.

The social network would smoothen the connection and interaction of students, lecturers and professionals in relevant fields of study. Nigeria Communication Commission should provide broadband width to improve network connectivity within the school premises to further enhance proper control of what students do on social network platforms.

References
Acum, R. (2010). Creating a culture of participation through online social networks: The case of Kaynakca. Aksüt, Mehmet; Ate, Songül; Balaban, Sevgi & Çelikkanat, Ay egül (2012). lk ve Ortaö retim Ö rencilerinin Sosyal Payla im Sitelerine li kin Tutumlari (Facebook Örne i)

Ahmed, F., Qazi, T. and Hargittai, E. (2011). A look out for academic impacts of social networking sites (SNCs): A student-based perspective. *African Journal of Business Management*, *5*(12), 5022-5031.

Anene, J., Imam, H., & Odumuh, T. (2014). Problem and prospect of e-learning in Nigeria universities. *International Journal of Technology and Inclusive Education, 3*(2), 320-327.

Barker, V. (2013). Older adolescents' motivations for social network site use: The influence of gender, group identity, and collective self-esteem. *CyberPsychology and Behavior, 12*(2), 209-213.

Chu, R., & Tsai, C. C. (2009). Self-directed learning readiness, Internet self-efficacy and preferences towards constructivist Internet-based learning environments among higher-aged adults. *Journal of Computer Assisted Learning, 25*(5), 489-501.

Dessy O., & Dwijanto, F. A. (2019). Mathematics creative thinking skill viewed from the student life skill in SAVI model-based ICT. *Journal of Educational Research and Evaluation (JERE), 8*(2), 108 – 115. Retrieved from http://journal.unnes.ac.id/sju/index.php/jere

El-Gayar, O., Moran, M.,& Hawkes, M. (2011). Students 'acceptance of tablet PCs and implications for educational institutions. *Educational Technology & Society*, *14*(2), 58–70.

George, P. P., Papachristou, N., Belisario, J. M., Wang, W., Wark, P. A., Cotic, Z., & Musulanov, E. M. (2014). Online eLearning for undergraduates in health professions: A systematic review of the impact on knowledge, skills, attitudes and satisfaction. *Journal of Global Health*, *4*(1), 1-17.

Groff, J., & Haas, J. (2008). Today's Technologies, Tomorrow's learning. Learning and leading with technology. ISTE (International Society for Technology in Education), 1.800.336.5191 (U.S. & Canada) or 1.541.302.3777 (Int'l), iste@iste.org, www.iste.org.

Gülbahar, Y. & Kalelioglu, F. M. (2010). Use of flickr for language teaching. IETC - April 26-28, 2010 Istanbul, Turkey.

Hussein, I. (2010). *Measuring students' e-readiness for e-learning at Egyptian faculties of tourism and hotels*. The 6th International Scientific Conference on E-Learning and Software for Education. Bucharest, Romania, 2010.

Ibrahim M. T. O. (2020). Historical background of Al-hikmah university. Retrieved from https://www.alhikmah.edu.ng/historical-background/

Idakwo, L. (2011). The use of media among Nigeria youths. Retrieved from: http://www.slideshare. net/ goldlami/the-use-of-social- media- among-Nigeriayouth2. Accessed on December 17, 2011.

Kaur, N. (2014). Teacher-Led initiatives in supporting learner empowerment among Malay tertiary learners. *Malaysian Journal of Learning and Instruction*, *11*, 101-126.

Kumar, A. (2017). E-learning and blended learning in orthodontic education. *APOS Trends in Orthodontics*, *7*(4), 188.

Makinde, S. O. & Bolaji, H. O. (2019). Appraisal of internet services usage by secondary school teachers for professional development in Lagos, Nigeria. *International Journal of Indonesian Education and Teaching, 3*(2), 138-148.. DOI: https://doi.org/10.24071/ijiet.2019.030201. Accessed December 8, 2019, from http://e-journal.usd.ac.id/index.php/IJIET

Makinde, S. O. (2010). Effect of availability and level of use of internet services on the professional development of academic staff in tertiary educational institutions in Lagos State, Nigeria. Unpublished Master degree (M.Ed.) Thesis, Science & Technology Education Department, University of Lagos, 2.

Makinde, S. O. (2017). Effects of a developed flipped classroom package on senior secondary school students' performance in Mathematics in Lagos, Nigeria. Unpublished Ph.D. Thesis, University of Ilorin, Ilorin, Nigeria. 86-90.

Makinde, S. O. (2019). The flipped classroom: A twirl on pedagogy. *International Journal of Research and Scientific Innovation (IJRSI), 6*(5), 130-134. Available online at www.rsisinternational.org

Osborne, A. A. (2012). *People power. 15 social media. The Guardian*, pp. 38.

Papacharissi, Z. (2010). *A networked self: Identity, community, and culture on social network sites.* Routledge.

Posey, C., Lowry, P.B., Roberts, T.L., & Ellis, T.S. (2010). Proposing the online community self-disclosure model: The case of working professionals in France and the U.K. Who use online communities? *European Journal of Information Systems, 19*(2), 181–195.

Seraji, F. (2013). Identification and categorising the skills needed for the virtual student. *Journal of Training and Learning Researches*, *2*, 75-90.

Seraji, F., & Yar Mohammadi, M. (2010). Preparation and readiness assessment validate incoming e-Learning courses. *Journal of Educational Measurement*, *2*(32), 127-149.

Tess, P. A. (2013). The role of social media in higher education classes (real and virtual)–A literature review. *Computers in Human Behavior*, *29*(5), A60-A68. Thomas, M., & Thomas, H. (2012). Using new social media and Web 2.0 technologies in business school teaching and learning. *Journal of Management Development, 31*(4), 358-367.

Wikipedia (2015). Social media. Retrieved May 15, 2015, http://wn.wikiperidia.org/wiki/social_mediea.