SOCIAL NETWORKS AS ICT COLLABORATIVE AND SUPPORTIVE LEARNING MEDIA UTILISATION IN NIGERIAN EDUCATIONAL SYSTEM

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Abstract

The paper investigated the social networks as ICT collaborative and supportive learning media utilisation within the Nigerian educational system. The concept of ICT was concisely explained vis-à-vis the social network concept, theory and collaborative and supportive learning media utilisation. Different types of social network are highlighted among which Facebook, Twitter, Messenger, Google use and Skype were the mostly utilised among the users particularly the students. Others were seldomly used by the users. The prospects of the social network media utilisation such as library services, classroom interaction, on-line questioning and other innovative applications viz: laboratory experiment and game for crosswords puzzle are also vividly discussed. Challenges such as erratic power supply, poor internet facilities, financial constraints and mismanagement, low bandwidth, among others are concisely explained. However, recommendations such as proper orientation for the teachers and students on the social network utilisation, among others are proffered for the improvement in the social network media utilisation by the students and teachers for the collaborative and supportive learning activities within the Nigerian Educational System.

Keywords: Social networks, Media utilisation, Collaborative and supportive learning ICT, Nigerian educational system

Introduction

Information and Communication Technology (ICT) is a revolution that involves the use of computers internet and other telecommunication technology in every aspect of human endeavour (Ajayi and Ekundayo, 2009). They posited further that, ICT is the handling and processing of information (texts, images, graphs, instruction, etc) for use, by means of electronic and communication devices such as computers, cameras, telephone, etc.

Therefore, as imperative as it were, the deployment of ICT in education (e- and mlearning) in developing countries like Nigeria has been rather very low compared to what is happening in the developed nations or necessary for significant impact due to the challenges of poverty, insecurity, political vendetta, poor technical know-how, expensive and inadequate quality of necessary hardware, poor teacher/learner competence, erratic internet and electricity facilities, cultural and policy barriers, inclement climate , inadequate local software and financial constraints and mismanagement, among others (Egunjobi, 2011). However, in Nigeria since the launching of Global System of Mobile Communication (GSM), in 2001 there has been a revolutionary and exponential change in the face of ICT in the country. Figures 1a and b show the ten top African countries with their percentages of GSM subscribers.



Fig. 1a: Bar Chart Showing the Percentages of Subscribers of ten top African Countries GSM Subscriber as at 2011 December.

Source: Africa and Middle East Telecom-Week 2011



Fig. 1b: Pie Chart showing Africa Top 10 Countries by GSM Subscribers

Source: Africa and Middle East Telecom-Week 2011

From Figs. 1a and b, the following can be deduced in hierarchy of highest GSM subscribers in Africa.

	Countries	Percentage of Subscribers
1	Nigeria	16
2	Egypt	13
3	South Africa	10
4	Morocco	6
5	Algeria	6
6	Kenya	4
7	Tanzania	4
8	Sudan	4
9	Ghana	3
10	Cote d'Ivoire	3
11	Others	31

 Table 1:
 African Countries with Ten Top GSM Subscribers

- The total African mobile subscriber base is roughly 280.7 million people (30% of total).
- Total African mobile subscriber base is expected to reach 56 million (53.5%) by 1213.
- The mobile penetration rate in South Africa is 84%
- South Africa, Nigeria, Morocco, Egypt, Algeria and Kenya constitute the key mobile markets in Africa in terms of potential growth.
- At least 15 network operators have already announced plans of introducing 3G voice and data services in Nigeria, Kenya, Tanzania, South Africa among others.
- These operators include MTN, Airtel, Etisalat, Visafone, StarCom, Globacom etc.
- SMS is being used in innovative ways such as pricing information for agricultural products, mobile banking, e-learning, m-learning and human rights abuse notifications particular in more developed countries such as USA, UK among others (Hash, 2008).

The Growth of GSM Subscription in Nigeria

In Nigeria, the growth in GSM subscription has been fuelled in large part of the country by the liberalisation effort resulting in the formation of independent regulatory body-National Communication Commission (NCC) and the increased competition in the market. These have given rise to increasingly cheap, affordable and pervasive access, ubiquity and new wave of economic and social evolution. Coupled with this, is the numerous grassroots efforts to empower the poor by providing access to knowledge, through technology thus, the beginning of a true revolution, in an area that is typically disregarded in terms of technological growth for obvious reasons. New technological environment offers endless opportunities for empowering individuals and communities through access to knowledge, means of expression and coordinated action. Mobile and social network technologies are penetrating every aspect of our life personal, social and professional (Egunjobi, 2011). Every day we witness new initiatives to leverage the potential of such social network technologies in education, government and civic society (Guttornisen and Krueger, 2010).

The Social Network Theory (SNT)

This theory was propounded by Barnes in 1954 with the acronym (SNT). The theory views the social relationships in terms of nodes and ties. To him, nodes are the individual actors within the networks, while ties are the relationship between the actors. Nodes can have many kinds of ties in between. Meanwhile, a social network is a map of all the relevant ties between the nodes under study. Also, the network can be used to determine the social capital of individual actors. However, in the conceptual framework of social network, the nodes are being displayed as the points, while the ties are shown as the lines. Fig. 2 shows a typical social network with nodes and ties.



Social network theory can also be used to explain the utilisation of social network as supportive and collaborative learning media for meaningful and effective teaching and learning process. Such social network media like Facebook, MySpace, Twitter, Messenger Google use, among others can be utilised as supportive and collaborative learning media among the students and teachers to enhance students' performance and to faster teacher's presentation during the instructional process. It will also enhance students' reading culture, language proficiency and ICT compliance through the utilisation of these social network media.

Social networks are all activities conveyed within specific internet or online services that make provision for space and software media which give opportunity for people to create networks (Cecconi, 2007). The users of the social networking websites interact by adding cronies, passing comment on profiles and involving in group discussion. For instance, the current social networks such as MySpace and Facebook attempt to assist people to explain themselves in such ways that make provision for some context, though the information provided to the public on chums of friends is still superficial and mostly related to personal interests than professional activity (Brown, 2011).

Subscribers to social networking websites just open their web browsers, get ready to edit group documents, involve on online meetings, data and information swapping and collaborating in various ways even when they are still working on their desks (The New Media Consortium, 2008). Explained further, that with the availability of programming interfaces users are allowed to author media that they need and easily adapt them to their requirements and enjoy them with others. These social networks features platforms are therefore good consideration as potential media for collaborative ad support learning media utilisation within the Nigerian educational system.

Social Networks as Supportive and Collaborative Learning Media Utilisation

A community is made up of social interaction. The word community is derived from the word "common" which underlines the basic principle of social organisation. Thus, a group of people with common interest formed a community. Therefore, many variables such as age, gender, marital status, religion, ethnicity etc. determine the status of social networking as shown in Fig. 3.



Fig. 3: Responsible Variables for Social Networking Source: WIldbit, LLC Social Networks Research Report <u>http://www.wildbit.com</u>

Therefore, based on the variables stated in Fig. 3, the following social network media can be subscribed to by the various users or subscribers in Figure 4.

	Social Networks	Frequency of Utilisation	
	Media	Mostly Utilised	Seldom Utilised
1	Bedo		*
2	Dugo		*
3	Facebook	*	
4	Flicker		*
5	Fresqui		*
6	Google use	*	
7	Hi5		*
8	Messenger	*	
9	Myspace		*
10	Nairalonge		*
11	Propeller		*
12	Reddit		*
13	Tagged		*
14	Technorati		*
15	Twacle		*
16	Twiki		*
17	Twitter	*	
18	Tumble		*
19	Skype	*	
20	Stumble		*
21	Yigg		*

Table 2: Social Network Media and Frequency of Utilisation

Source: Olasunkanmi (2012)

From figure 4, it can be inferred that only five social network media viz Facebook, Google use Messenger, Twitter and Skype are the mostly commonly utilised media according to Olasunkanmi (2012), others are seldomly used by the distance learning students of the University of Ibadan, Ibadan.

Possible Areas of Social Network Media Application into Nigerian Educational System

Library Applications

Library services can be improved through the social network SMS-based and multimedia support libraries can reach out and serve students ubiquitously by sending and receiving SMS-based library information most especially through any of the social network media e.g. Facebook, Twitter, Messenger etc. There are number of areas of library services for which SMS based messages can be helpful. Basic information alerts such as notices of book reservations, renewals and overdue reminders are well tailored with this communication medium. Further, library services can also be provided via social network SMS based systems. For example, extended text messaging reference can text SMS messages to and receive answers from libraries as reported in Hill and Sherman's (2007) research at South Eastern Louisiana University, USA as a way to further enhance the quality of services provided by libraries in tertiary institutions. In Abadina Media Resource Centre, Faculty of Education, University of Ibadan, Nigeria, students and users

of the library also have access to the activities going on in the library through the facebook social network.

Classroom Interaction and Discussion

Scornavacca, Huff and Marshall (2009) presented a Social Network SMS-based classroom interaction system which they christened TXT-2-LRN system. The system allows students to send questions or comments to the instructor's laptop or cell phone via SMS. The instructor can read the messages on the screen and decide to respond immediately or wait for later action. The instructor can also provide a quiz to the students and collect results. Students can look at the projector's screen in real-time graphics showing the results Markett (2006) also reported using short message services to encourage interactivity in classroom. His PLS TXT UR thoughts project involves students sending SMS messages in real-time via their personal computer or mobile phones in class and the lecturer can view the messages during class and online after class from the perspective of interactive message loop initiating, acknowledging, responding to and competing between students and lecturer. Tools were built to facilitate the interactivity. Bollen, Eimler and Hoppe (2004) implemented a communication and discussion tool based on sending SMS-Social Network based messages through the interface of PTAs. Discussions, collaborative work, cooperative modelling processes are supported by a SMS data base.

In yet another form of learning support, Cavus and Ibrahim (2009) reported an experiment in using SMS to support learning of technical words in which spaced repetitions of the same messages were sent on different days through a SMS-based system called social network mobile learning tool (SNTMOLT) developed by the authors.

Online Questioning

Ngambi and Brown (2009) reported on the use of an anonymous consultation tool. The dynamic frequently asked questions (DFAQ) allowed students to anonymously post questions and receive responses from both the teaching staff and the students. The interface of the Web and SMS allowed users to engage with those who were off campus through mobile phones. Users who posted questions from their cell phones received responses via SMS.

Other Innovative Applications

SMS-Social Network based laboratory environment where in a microcontroller course, students learn the concept about CPU and peripheral using the Motorola 68 HCLL microcontroller (Martinez-Torres, 2007). Game-based learning is another area for the innovative use of SMS technologies. Goh and Hooper (2007) devised an SMS crossword puzzle system. They explored the feasibility of using SMS facility of mobile phones to promote learning through the use of an SMS crossword puzzle activity in a classroom environment. A puzzle was displayed on the projector screen by the instructor and students needed to send the word through an SMS social network message.

Challenges in Social Networks Utilisation

- 1. Students in rural and remote areas may have limited or no access to high-speed connectivity.
- 2. Slow transmission speeds may hamper multimedia applications.
- 3. Screen size and resolution may make text and graphics difficult to read and navigate particularly through cell-phones.
- 4. The labour required in the development of content for social network mobile devices can be very intensive and costs may be prohibitive.
- 5. Erratic power supply: This may affect the use of the social network devices laptop, cell phones, if the power supply is not adequate and regular like in Nigeria.
- 6. Fraudulent utilisation: some subscribers of social networks use the media to involve in fraudulent practices such as duping, robbery, among others. For instance, in Nigeria a lady, Cynthia Osokogu was a victim of this circumstances and in fact, she was murdered in the process by the fraudsters, whereas, through Facebook and Twitter social network media, friends raised N6 million for breast cancer patient known as Lady Idiagbonya (Punch, 5/09/2012, pp/ 4 and 5).

Conclusion and Recommendation

Social network media have great potentials as collaborative and supportive learning media utilisation for students most especially students at different locations or distance learning students and for general studies courses with large population of students. However, the curricula for such courses should be developed and reviewed to accommodate the concept and practice of social networking within the Nigerian educational system. Also, the government should ensure adequate functioning internet facilities for students so as to enhance meaningful and effective utilisation of the social networking media. Students and teachers should be properly oriented on the utilisation of social network media facilities for meaningful effective and positive collaborative and supportive learning activities.

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FACEBOOK, TWITTER FRIENDS RAISED N6M FOR BREAST CANCER PATIENT



CYNTHIA: POLICE ARREST MORE SUSPECTS (FRAUDSTERS – FACEBOOK)



MURDERED LADY

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