GENDER, AGE, ACADEMIC LEVEL AND DEPARTMENT AS CORRELATES OF STUDENTS' PERCEPTIONS OF SOCIAL NETWORKING AS LEARNING TOOL

Adedoja, Gloria Olusola
Department of Teacher Education,
University of Ibadan, Ibadan, Nigeria
sadedoja@yahoo.com

Olasunkanmi, Israel Abayomi
Department of Teacher Education,
University of Ibadan, Ibadan, Nigeria
ia.olasunkanmi@gmail.com

Abstract
Technology, over the ages is recognised as a tool for doing things in neater, faster, better and particularly easier ways. People use technology to make their operations more fascinating, interesting and motivating in all facets of human endeavour including education. The study examined the contributions of age, gender, level of study, and department as correlates of Distance learning students' perceptions of social networking technology as a collaborative learning tool. A validated 4-likert scale questionnaire on students' perception was administered to 360 participants selected through stratified sampling technique. The results of this study showed that gender, field of study, academic level and age group have significant influence on student's perceptions of social networking as a collaborative learning tool. It was recommended that both students and teachers intending to integrate social networking to enrich instructions delivery should be adequately trained and motivated to acquire needed skills and confidence.

Keywords: Social networking, collaborative learning, percentage, age, academic level, department.

Introduction

Technology has gained recognition as a tool for making and or doing things in neater, faster, better and particularly easier ways than the previous methods. The fact that people's use of technology makes operations more fascinating, interesting and motivating to engage in doing things is not just being realized, it has since assumed such a pronounced position that makes it possible for attracting and embracing it in all facets of human endeavour. According to Abimbade, Aremu and Adedoja (2003); Aleburu (2008); Olasunkanmi (2011); and Adedoja and Olasunkanmi (2012), technology has great potentials in reshaping and transforming the way in which people organize their lives, interact with one another and contribute their quota to improving their society. Indeed, a number of revolutions and upgrading the present world has and is currently experiencing cannot be disconnected from the onerous influence and various interventions that technology introduced into our system. This, in particular, is the advent of the popular phenomenon christened Information and Communication Technology (ICT).

Information is a unique factor that humans need to enable their functionality, relating with others and afford them to cope with issues and challenges in any society wherever they may find themselves (Osunrinde, 2002; Abimbade, Aremu and Adedoja, 2003 and Aleburu, 2008). The sharing and making use of such useful and meaningful information helps to avoid being deformed either psychologically or physiologically refers to the communication aspect of ICT while the means and techniques employed in disseminating the information constitute its technology facet. In addition, the Communication Technology part of ICT is predominantly responsible for processing, storing, managing and maintaining, sharing and distributing information in its various forms to end-users or consumers wherever they are located. Locating people and sharing information with them wherever they are on the globe is an interesting phenomenon for which ICT should be appreciated. In particular, the variety of its products or branches referred to as social media.

Social media refers to a broad range of online-based applications that enable people with common interests to share ideas. According to Kaplan and Haenlein (2010) in Rodriguez (2011), social media is defined as a group of internet-based applications that build on

the ideological and technological foundation of Web 2.0, and that allow the creation of user generated content. The advents of social media further developed into networks of users who though are dispersed over wide geographical locations, but with common interests are linked together, and thus communicate. As a matter of the fact, the sporadic linking among users (often called subscribers) to social media accounts resulted into what is referred to as social networking.

Social Networking

In Cecconi (2007), The New Media consortium (2008), Brown (2001) and Adedoja & Olasunkanmi (2011), social networking is described as all activities carried out within specific online services that provide free space and software tools which allow creating networks of people. In addition, Boyd & Ellison (2007) reported a number of the social networking sites in their attempt to trace the launch and re-launch dates with the social networking sites features. The sites include My Church, Facebook, Twitter, Cyworld, Windows Live Spaces, Ning, Black Planet, Bebo, YouTube, Yahoo, Flickr, Piczo, Hi5, My space, Linkedln, Sky-blog, Live journal, BlackPlanet and AsianAavenue. Some of the sites recorded in the of the top fifteen social networking sites by the Alexa Global Traffic and the U.S. Traffic Rankings, from both Compete and Quantcast documented in *eBizMBA (2013) include Pinterest, The Google+, deviantArt, Tagged, Orkut, cafemom, mylife and ask.fm. The social networking sites are* essentially used to facilitate interactions among myriads of friends, loved ones, colleagues, professionals and other subscribers who share similar interests.

The subscribers to social networking websites simply open their web browsers and they are able to edit group documents, hold online meetings, swap information and data, author tools to suit their needs and then share them with members of the group as appropriate (Brown, 2001 and The New Media Consortium, 2008). Hence, the interactive features of these social networking sites can afford their use as platform for collaborative learning, a learner-centred approach that involves joint intellectual efforts by the students, or students and teachers together, working in groups to explore ideas and apply them to solve problems (Ogata & Yano, 2010 and Adedoja & Olasunkanmi, 2012)

However, many studies have tried to investigate and describe factors that may affect the use of technology for instruction. For example, Czaja, Charness, Fisk, Hertzog, Nair, Rogers & Sharit (2006) findings from the Center for Research and Education on Aging and Technology Enhancement (CREATE) on the use of technology among 1,204 individuals ranging in age from 18-91 years, indicate that the older adults were less likely than younger adults to use technology in general, computers, and the World Wide Web. Also, Morris & Venkatesh (2006) and Longe, Boateng, Longe & Olatubosun (2010) found that younger people are more disposed to technology usage than the older ones.

On gender issues, the age long assumption that males are more favourably disposed and use technology more than their female counterpart seems being monitored to prove its reliability**.** The reports of Blakley (2011) and The Huffington Post.com (2013) in their works titled "Social media and the end of gender" and "The great divide: Gender and social media marketing" respectively show a shift from the past. According to Blakley (2011), women enjoy social media for the experience it provides, viewing Facebook and Twitter as places to go and stay. Females consider social media for exactly what it was intended to be: a way to connect, communicate and share your life events with friends, while men are more likely to view social media as a **tool to get things done** rather than a way to keep in touch. The two gender types tend to choose the type of social networking sites on the basis of these assumptions. This study also considered the contributions of the academic level and the department of the participants to their perceptions of social networking as learning tool.

Research Hypotheses:

1. There is no significant difference in the perception of social networking as a collaborative learning tool between male and female Distance Learning students.
2. There is no significant difference in the perception of social networking as a collaborative learning tool among areas of specialization of Distance Learning students.
3. There is no significant difference in the perception of social networking as a collaborative learning tool among the levels of Distance Learning students.

4. There is no significant difference in the perception of social networking as a collaborative learning tool among the age groups of Distance Learning students.

Research Design

This study adopted descriptive survey of the ex-post facto design because the existing variables were investigated in the study. There was no manipulation of any variable. Therefore, the following variables were investigated in the study:

Independent Variables

The independent variables in this study are four namely:

i. Age
ii. Gender
iii. Department
iv. Academic level, and

Dependent Variable: The dependent variable for this study is the students' perception of social networking as a collaborative learning tool.

Population and Sampling Technique

The sample population for this study was 360 University of Ibadan Distance Learning, Faculty of Education students who were selected through stratified random sampling technique.

Research Instrument

The instrument used for this research is a structured 36 item-questionnaire christened Students' Attitude, Knowledge, Self-Efficacy and Perception of Social Networking (QSAKSPSN) developed by the researchers. It has two sections: Section I required respondents' personal information like Department, Level of study, Gender and Age. Section II considered perception of social networking as a collaborative learning tool.

Validation of Research Instrument

The content validity of the instrument was obtained after the draft copy was submitted to experts in the field of Educational Technology and Evaluation for their comments and assessment of items'

correlation with the objectives of the research. Their suggestions were used in modifying the questionnaire. Also, a sample of 50 distance learning undergraduate degree students apart from those used for the main study were used for final testing of the instrument. The data collected were subjected to Cronbach's Alpha co-efficient reliability with the result 0.77.

Procedure for Data Collection

Copies of the questionnaires were distributed by the researcher and two assistants, mostly through lecturers handling selected general courses taken by majority of students at the various levels in the Faculty of Education. The filled questionnaires were collected on the spot to minimize missing cases.

Methods of Data analysis

The data collected were analyzed using percentages, t-test analysis, Analysis of Variance (ANOVA) and Scheffe Multiple Comparison Statistics.

Research hypothesis 1: There is no significant difference in the perception of social networking as a collaborative learning tool between male and female Distance Learning students.

Table 5: Students' Perception of Relevance of Social networking by Gender

	Gender	N	Mean	Std. Deviation	T	Df	Sig.
Perception of Relevance	Male	136	29.69	6.182	1.982	358	.048*
	Female	224	28.32	6.495			

* = significant at p<.05

Table 5 indicates that there is statistically significant difference between the perception of male and female distance learning students on social networking as a collaborative learning tool ($t_{(358)}$= 1.982, p<.05). Therefore, hypothesis one is rejected.

Research Hypothesis 2: There is no significant difference in the perception of social networking as a collaborative learning tool among areas of specialization of Distance Learning students.

Table 6: Mean scores of Students' Perception of Relevance of Social Networking by Department

Department	N	Mean	Std. Deviation	Std. Error
TEE	56	30.46	7.203	.963
LARIS	57	29.63	6.513	.863
KHE	47	27.15	5.710	.833
EME	50	27.94	5.964	.843
ADE	42	30.02	6.384	.985
SPE	33	24.91	5.642	.982
GCE	75	29.73	5.903	.682
Total	**360**	**28.84**	**6.405**	**.338**

Tables 6 presents the mean scores, while Table 7 reveals that there is statistically significant difference in the perceptions of distance learning students within the same department.

Table 7: ANOVA of Students' Perception of Social Networking by Department.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	986.991	6	164.499	4.226	.000*
Within Groups	13740.339	353	38.924		
Total	14727.331	359			

*= significant at p<.05

Also, there exists significant differences among the various departments on social networking as a collaborative learning tool ($F_{(353)}$= 4.226, p<.05).

Table 8: Scheffe Post Hoc Multiple Comparisons on Perception of Social Networking as a Collaborative Learning Tool by Students' Department

(I) Dept	(J) Dept	Mean Difference (I-J)	Std. Error	Sig.
TEE	LARIS	.833	1.174	.998
	KHE	3.315	1.234	.304
	EME	2.524	1.214	.633
	ADE	.440	1.274	1.000
	SPE	5.555*	1.369	.013
	GCE	.731	1.102	.998
SPE	TEE	-5.555*	1.369	.013
	LARIS	-4.722	1.365	.066
	KHE	-2.240	1.417	.868
	EME	-3.031	1.399	.585
	ADE	-5.115	1.451	.056
	GCE	-4.824*	1.303	.036
GCE	TEE	-.731	1.102	.998
	LARIS	.102	1.096	1.000
	KHE	2.584	1.161	.550
	EME	1.793	1.139	.870
	ADE	-.290	1.202	1.000
	SPE	4.824*	1.303	.036

*The mean difference is significant at the .05 level.

Furthermore, from the Post Hoc Multiple comparisons in Table 8, there existed significant differences in the perception of students from Special Education and Teacher Education (Mean Difference=5.555, $p<.05$), Special Education and Guidance and Counselling Education (Mean Difference=4.824, $p<.05$).

Therefore, hypothesis two is rejected.

Research Hypothesis 3: There is no significant difference in the perception of social networking as a collaborative learning tool among the levels of Distance Learning students.

Table 10: Mean scores of Students' Perception of Relevance of Social Networking by Students' Academic Levels

Level	N	Mean	Std. Deviation	Std. Error
200 Level	120	25.95	4.938	.451
300 Level	122	30.63	5.977	.541
400 Level	118	29.92	7.145	.658
Total	360	28.84	6.405	.338

Table 11: ANOVA of Students' Perception of Relevance of Social Networking by students' Academic Level

	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Between Groups	1530.076	2	765.038	20.695	.000*
Within Groups	13197.254	357	36.967		
Total	14727.331	359			

*= significant at p<.05

Tables 10 and 11 are meant to provide answer research hypothesis 3 which is concerned with Students' Perception of Relevance of Social networking as a collaborative learning tool based on academic levels. While Table 10 presented the Mean scores of Students' Perception of Relevance of Social Networking by Students' Academic Levels, the ANOVA Table 11 revealed that there is statistically significant difference in the perception of distance learning students at the same academic level. Also, there exist significant differences in the perception of social networking as a collaborative learning tool among the three academic levels ($F_{(2,357)}$= 20.695, p<.05).

Table 12: Scheffe Post Hoc Multiple Comparisons on Perception of Social Networking as a Collaborative Learning Tool by Students' Academic Level.

(I) Level	(J) Level	Mean Difference (I-J)	Std. Error	Sig.
200 Level	300 Level	-4.681*	.782	.000
	400Level	-3.965*	.788	.000
300 Level	200 Level	4.681	.782	.000
	400Level	.716	.785	.660
400 Level	200 Level	3.965*	.788	.000
	300Level	-.716	.785	.660

*The mean difference is significant at .05 level.

Furthermore, from the Scheffe Post Hoc Multiple comparisons Table 12, there existed significant differences in the perception of 200 Level and 300 Level students (Mean Difference= 4.681, $p<.05$), and 200 Level and 400 Level students (Mean Difference= 3.965, $p<.05$). Therefore, hypothesis three is rejected.

Research hypothesis 4: There is no significant difference in the perception of social networking as a collaborative learning tool among the age groups of Distance Learning students.

Table 14: Mean scores of Students' Perception of Relevance of Social Networking by Students' Age Group

Age	N	Mean	Std. Deviation	Std. Error
16-20 years	145	28.07	6.169	.51 2
21-25 years	75	28.15	5.608	.648
26-30 years	77	28.97	7.557	.861
31-35 years	33	29.24	6.200	1.079

36 and above	30	33.47	4.470	.816
Total	360	28.84	6.405	.338

Table 14 shows the Mean scores of students' perception of relevance of social networking by students' age group.

Table 15: ANOVA of Students' Perception of Relevance of Social Networking by students' Age

	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Between Groups	771.158	4	192.790	4.904	.001*
Within Groups	13956.172	355	39.313		
Total	14727.331	359			

*= significant at p<.05

The ANOVA Table 15 reveals that, there is statistically significant difference in the perception of distance learning students within the same age group academic level. Also, there exist significant differences in the perception of social networking among the five age groups ($F_{(4,355)}$= 4.904, p<.05).

Table 16: Scheffe Post Hoc Multiple Comparisons on Perception of Social Networking as a Collaborative Learning Tool by Students' Age.

(I) Age	**(J) Age**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**
16-20 years	21-25 years	-.078	.892	1.000
	26-30 years	-.907	.884	.902
	31-35 years	-1.173	1.209	.918
	36 and above	-5.398*	1.258	.001
21-25 years	16-20 years	.078	.892	1.000
	26-30 years	-.827	1.017	.956
	31-35 years	-1.096	1.310	.951

	36 and above	-5.320*	1.354	.004
26-30 years	16-20 years	.905	.884	.902
	21-25 years	.827	1.017	.956
	31-35 years	-.268	1.305	1.000
	36 and above	-4.493*	1.349	.027
31-35 years	16-20 years	1.173	1.209	.918
	21-25 years	1.096	1.310	.951
	26-30 years	.268	1.305	1.000
	36 and above	-4.224	1.582	.132
36 and above	16-20 years	5.398*	1.258	.001
	21-25 years	5.320	1.354	.004
	26-30 years	4.493*	1.349	.027
	31-35 years	4.224	1.582	.132

*The mean difference is significant at the .05 level.

In addition, the Scheffe Post Hoc Multiple comparisons Table 16, reveals that, there existed significant differences in the perception of students in age group (16-20) years and (36 years and above) (Mean Difference= 5.398, p<.05); (21-25) years and (36 years and above) (Mean Difference= 5.320, p<.05); and (26-30) years age group and (36 years and above) (Mean Difference= 4.493, p<.05). Therefore, hypothesis four is rejected.

Discussion and Recommendations

The findings of this study showed that Distance Learning students' age contributed to the perception of the participants on social networking as collaborative learning tool. There existed significant differences in the perception of students of age group (16-20) years and (36 years and above); (21-25) years and (36 years and above); and (26-30) years age group and (36 years and above). These differences in the perception of ages 16-35 years and those above could be traced to the problem of access to university education through the University Matriculation Examination (UME) in Nigeria. At the time of this research, many young senior secondary school leavers found it very difficult to enter into university, because they could not make up to the cut-off marks of the undergraduate programme courses they chose to study. As a result, many of them resolved to undergoing degree programmes through distance learning platform. From the results, ages below 36 years

formed the larger percentage (82.5%) of the population, out of which age group 16-20 years who ordinarily should have entered into university through UME takes more than 40%.

For example, out of a total of 1,644,110 candidates applied for the 2013 Unified Tertiary Matriculation Examinations (UTME) test, 10 candidates scored 300 marks and above, while 127,017 candidates scored between 1-159 marks. About 40,692 candidates' results were invalid while about 47,974 candidates were absent. Meanwhile, 200 marks is the minimum that could make a candidate eligible for admission into major federal universities in Nigeria. Obviously, the remaining candidates who failed to gain entrance into the regular universities and colleges for higher education through this examination body are therefore compelled to subscribe to the distance learning degree programmes. Of course, majority of these candidates fall between the age of 16 and 25 years old, the age group that this study found prominent in the use of social networking. The prominent use of this age group is in line with the release of the Office of National Statistics, United Kingdom (2013) which states that there was a marked difference in use between age groups. In general, the proportion of adults recently using social networks decreased with age. In the 16 to 24 age group, 87% of respondents used social networks in the three months prior to being interviewed. This compared, for example, with only 10% of adults in the 65 and over age group. Also, it corroborates the submission of Duggan, M. & Brenner, J. (2013) which states that young adults are more likely than others to use major social media, and that the Internet users under 50 are particularly likely to use a social networking site of any kind, and those 18-29 are the most likely of any demographic cohort to do so (83%). These youmg adults in question equally form the digital natives - a term for people born in the digital era, also known as Generation X and younger (Prensky, 2001).

On gender issues, this study reveals that there is statistically significant difference between the perception of male and female distance learning students on social networking as a collaborative learning tool. This corroborates the findings of the United States demographics data (from Ad Planner) which shows there is a clear gender imbalance on many of these sites. Some are much more male dominated, and vice versa. However, when you look at all the data together, it becomes clear that women rule social media. So, the

perceptions of both gender types are different. In summary, this study showed that age group, gender, field of study and academic level had influence on student's perception social networking as a collaborative learning tool.

Based on the findings of the study, the following recommendations are proffered:

- The curriculum of the General Studies Courses should be reviewed to include the concept and practice of social networking.
- The University should work towards the integration of the more adequate social networking sites for collaborative learning among the distance learning students where applicable and suitable.
- The university should ensure working internet facilities in the Faculty of Education and other locations on campus, including students' residential areas for a commendable access to the Internet facilities that would enhance meaningful use of the social networking technology.
- Teachers of Distance Learning students should be adequately trained on how to use the social networking facilities effectively for collaborative learning strategy in providing instruction and facilitating the 21st century learners' acquisition of knowledge and skills.

References

Abimbade, A., Aremu, A. and Adedoja,G.O. (2003). Providing information and communication. Technology (ICT) Environments for Teaching and Learning in this millennium: *Innovation in Theory and practice*. Nigeria. Macmillan.

Adedoja, G.O. & Olasunkanmi, I.A. (2012) social media technology in the classroom? Correlates of attitude, computer efficacy and social networking efficacy of distant learners in Ibadan. *International Journal of Applied Psychology and Human Performance*,Botswana. Vol.7, 1512-1526.

Aleburu, J.O. (2008). *Design and utilization of ICT based instructional delivery system and students' learning outcomes in computer*

appreciation course in colleges of education in Lagos. An unpublished Ph.D. Thesis of University of Ibadan.

Blakley, J. (2011) Social media and the end of gender. TED Talks. Retrieved from **http://www.ted.com/talks/johanna_blakley**, on July 11, 2013.

Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13*(1), Article 11. Retrieved from http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html, on March, 13, 2011.

Brown, K. (2011). What is networking, http://www.whatissocialnetworking.com Retrieved on March, 13, 2011.

Cecconi, A. (2007) *Social Networking*. Management and Evaluation of Instructional Technology and Distance Education Programs. Nova. Nova Southeastern University

Czaja, S.J., Charness N., Fisk A.D., Hertzog, C., Nair S.N., Rogers, W.A. and Sharit, J. (2006). Factors predicting the use of technology: findings from the Center for Research and Education on Aging and Technology Enhancement (CREATE). Psychol Aging. 2006 Jun;21(2):333-52. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/16768579, on July 11, 2013.

Duggan, M. & Brenner, J. (2013). The Demographics of Social Media Users — 2012. *Pew Research Center's Internet & American Life Project*. Retrieved on 15/07/2013 from http://www.pewinternet.org/Reports/2013/Social-media-users.aspx,

eBizMBA Inc (2013) Top 15 most popular social networking sites. *eBizMBA Inc*. Retrieved from http://www.ebizmba.com/articles/social-networking-websites, on July 11, 2013.

Longe, O., Boateng, R. , Longe, F. & Olatubosun, K.(2010). Information & Communication Technology Adoption Among Adults in South Western Nigeria: An Assessment of Usage-Phobia Factors. *Journal of Information Technology Impact*. Vol. 10, No. 1, pp. 65-86, 2010.

Morris, M.G. and Venkatesh, V. (2006) Age differences in technology adoption decision: Implications for a changing work for a

changing workforce. *Personnel psychology*. Wiley Periodicals, Inc. Volume 53, Issue 2, Pages 273–530. Retrieved from http://onlinelibrary.wiley.com, on July 11, 2013.

Office of National Statistics (2013) Part of Internet Access - Households and Individuals, Social networking: The UK as a leader in Europe Release, United Kingdom. Retrieved from http://www.ons.gov.uk/ons/rel/rdit2/internet-access---households-and-individuals/social-networking--the-uk-as-a-leader-in-europe/sty-social-networking-2012.html, on 15/07/2013.

Ogata H. & Yano Y. 2011. *Combining Social Networks and Collaborative Learning in Distributed Organizations*. http://www-yano.is.tokushima-u.ac.jp/ogata/ (Retrieved on 9/12/2011)

Olasunkanmi, I.A. (2011). Attitude, Knowledge, Computer Self-efficacy and Computer self-efficacy as correlates of Distance Learning Students' perception of Social Networking as a Collaborative Learning tool in University of Ibadan. Unpublished M.Ed. Educational Technology Dissertation, University of Ibadan, Ibadan, Nigeria.

Rodriguez, J.E. (2011) Social media use in higher education: Key areas to consider for educators. *MERLOT Journal of Online Learning and Teaching*. Vol.7, No.4, 2011.

The Huffington Post.com, Inc (2013) The great divide: Gender and social media marketing. The Huffington Post.com, Inc.

The New Media Consortium. (2008). Social Operating Systems. *The New Horizon Report*, 2nd Edition. Page 26.