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ORIGINAL RESEARCH

Application of Social Network Sites in the classrooms for Time Scheduling, Material Sharing and Class Collaboration

Ismail O. MURAINA[1], Imran A. ADELEKE[2], Mukaila A. RAHMAN[3]

[1]*Department of Mathematical Sciences, College of Natural and Applied Sciences Achievers University, Owo. Ondo State, Nigeria*

[2]*Department of Computer Sciences, School of Science Adeniran Ogunsanya College of Education Oto/Ijanikin, Lagos, Nigeria*

[3]*Department of Computer Science, Faculty of Science, Lagos State University, Nigeria*

Correspondence
Ismail Olaniyi MURAINA, Department of Mathematical Sciences, College of Natural and Applied Sciences Achievers University, Owo. Ondo State, Nigeria
Email:niyi2all@yahoo.com

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Abstract:

Introduction: Social Networking Sites (SNSs) are basically used for social interaction among individuals and people. Some students often use them basically to meet friend and discuss on trivial things rather than their academic issues. SNSs popularity has made researchers to look at a way to connect advantages of social networks with classroom interactions and collaboration. This could culminate into the infusion of SNSs into the classroom setting.

Aims: The study aims to identify, analyze, and classify the SNSs used by respondents in order to see how instructors could tailor their uses for academic purposes.

Materials and Methods: The study employed sample survey descriptive design approach targeting higher institution as study population. Both content validity was established through colleague in research; while construct validity was done via KMO (Kaiser-Meyer-Olkin) with 0.762. The reliability index yielded 0.788, Chronback Alpha. Responses to the questionnaire items were collated and analyzed using cross tabulation statistical tool via SPSS (Statistical Package for Social Sciences).

Results: Findings reviewed that SNSs platforms are used by students majorly for fun as well as photo, video display and information sharing, but seldom used for serious academic purposes.

Conclusion: The introduction of SNSs into classroom situation offer good advantage and opportunity for students' academic achievement if instructors could discourage and task students on their better use. The students can be challenged and guided to use SNSs to schedule classroom time, share academic materials and also engage in classroom collaboration.

Keywords: SNSs, Time scheduling, Material sharing, Class collaboration

All co-authors agreed to have their names listed as authors.

1. INTRODUCTION

Social Network Sites applications are growing immeasurably, campus administrators are exploring ways to use SNSs, and faculties are experimenting with SNS tools to support learning. At the same time, students continue to seamlessly adopt and adapt these services to their lives. It is essential that higher education put SNSs into practices because these sites are fundamentally changing the social fabric of the higher institutions. Social networks are internet based services, platforms or sites that are designed to building and reflecting social relations among persons, individuals, groups, communities. According to [1] social networking sites have different rules for establishing connections, yet many of them often allow users to see connections of other people's connection and at time suggest connections to other persons as a result of the established network. [1] mentioned some social networks websites and what they were mostly meant for, it was observed that Linkedln was majorly for establishing professional connection, Facebook for both private and professional connections while some of the social networks websites were built for a specific user base, such as cultural or political groups within a given area such as in financial markets. [1] further, stated the features of social network websites as public or semi-public profile page, including dating sites, fan sites and so on.

Though social network sites were created majorly to connect people or user together to share common things within themselves yet the study stands to see how SNSs can be infused into classroom situation where, instead of sharing ordinary photos and videos, they would be able to equally share educative materials such as classroom notes and they can also discuss extensively on some problems to solve. The below research question guides this study: Can we change the focus of SNSs from only social to academic-social?

2. RELATED LITERATURE

It is important to first reflect on what social network is from different perspectives before looking at social network sites. Social network according to [2] was seen as the use of mobile as well as any web-based technology to come up with highly interactive platforms, which can be of great assistance for individuals or community members to share, co-create, discuss, and modify user-generated content. In the same vein, [3] addressed social network as a group of internet-based application that builds on the ideological foundation and allows the creation and exchange of users-generated content. People see social network sites as sites or websites that enable users to create public profiles within the website in order to form relationship with other users of the said website who access their profiles. [4] said that the use of SNS is not only a mere trend, but has become part of every person's life. This is evidently shown by the many millions of users of SNS, and with every passing day, the number is increasing [5, 6]. In the last decade, many SNSs have emerged popular among Facebook, Twitter, MySpace, Google Plus, and Flicker [7, 8]

[9] explained SNSs as web-based services that allow individuals to construct profiles, display user connections, and search and traverse with that list of connections. A social network site could be seen as an online service or platform that focuses on facilitating the building of social network among people who share interest, activities and background on real life connections. Research has revealed that SNSs have been popular for years and have attracted and fascinated millions of internet users and also there are over 200 different sites that are used for social networking [10, 11]. In the use of social network sites, a member of a SNS is opportune to create his/her own personal profile, one can build an entire social network based on his/her own personal preferences. NSNs are to help people feel socially connected and part of a community, even though sitting at home with his/her personal computer [12, 13, 14]. Social network Sites help to associate with someone which allows a person to communicate in a variety of ways such as sending private and public messages, participating in online games, commenting on photos that have been posted, sharing music or movie preferences, responding to journal entries, and many more [15]. Some research evidence has shown that SNSs are not directly useful to education or classroom teaching and learning. [16] opined that social network sites are negatively associated with academic purposes of students and there are a lot of more momentous than its advantages. [17] added that among various unique distractions of every single generation, social network sites remain the major distraction of current generation. Due to this negative perception, many parents and educators have been fearful of the repercussion of having social network sites in the classroom [18]. Towards this parental and educators' view of NSNs, cell-phones have been banned from classroom and many schools do not even have anything to do with social network sites. It is high time school administrators, scholars, academicians and other educational stakeholders started introducing the use of SNSs to classroom teaching and learning by a way of sharing, sourcing, and exchanging academic materials rather than only photos and mere social matters. [19] have researched about the benefits of using social network sites (Facebook) in the classroom, he found out that most SNSs allow for both asynchronous and synchronous, open dialogues (In education), support integration of multimodal contents such as photos (Academic Images), videos, URLs, and other texts, in such a platform that many students are already familiar with. Therefore, SNSs should be channelled towards its use in sharing and exchanging relevant materials between users, also for collaborative resolutions between student to student, teacher to student, and teacher to teacher respectively.

3. MATERIAL AND METHODS

The study employed sample survey descriptive design approach. Ekiti State University and Adeniran Ogunsanya College of Education (Higher institution) students formed the target population for the study. 50 computer science students were purposefully sampled

across different levels: 100, 200,300, and 400 levels which represent 10 % of the entire population (N=5000). The students were initially asked about what they do engage in when they were on SNSs sites; at second time, after four weeks interval the same question was asked, after the researchers have informed them to get class materials shared, sourced and collaborated using any of the social network sites like WhatsApp and Facebook etc on specific topics in computer science by fixing a particular time for themselves. The reason for the two different administrations is to find out the significant difference between what students used to do on social networks before teacher engaged them purposefully to share materials and to also collaborate in order to improve their learning capability. The instrument was subjected to validation by giving it to some colleagues in the field of research and computer science to ensure its content validity; the construct validity was established with 0.762 KMO. Copies of the same questionnaire were given to some respondents to see their level of understanding of the use of words in the items of the questionnaire to establish face validity. The reliability index yielded 0.788, Chronback Alpha which showed that the instrument was reliable for use. The respondents response to the questionnaire items were collated and analyzed using cross tabulation statistical tool via SPSS.

4. RESULTS AND DISCUSSION

4.1 RESULTS

Table I shows that highest percentage of respondents (26%) watched video and also engaged in information sharing using Facebook as one of the social network sites, next are photo displaying and sharing with video sharing (14%), then those engaged in it for fun, photo and video sharing (10%). Those who did nothing also had 10% while those busy with fun and photo sharing had only 4%. After four weeks, Table I showed that the respondents engaged more on collaboration and discussion via Facebook (32%). It was also shown that 20% of the respondents used Facebook to schedule their meeting time, 14% shared materials on Facebook, 10% engaged in material sharing and collaboration with discussion, 8% engaged in academic meeting time and collaboration with discussion while the remaining 6% occupied with academic meeting time material sharing, collaboration and discussion.

Table I: Facebook and Gender Cross-tabulation before and after use in Classroom

Before					After			
	Gender					Gender		
	M (%)	F (%)	Total (%)			M (%)	F (%)	Total (%)
Nothing	0.0	10.0	10.0		Do nothing	0.0	10.0	10.0
Fun	4.0	8.0	12.0		Academic Meeting Time	10.0	10.0	20.0
Photo display and sharing	6.0	8.0	14.0		Material Sharing	6.0	8.0	14.0
Video and information sharing	10.0	16.0	26.0		Collaboration and Discussion	12.0	20.0	32.0
Fun and photo sharing	4.0	0.0	4.0		Academic Meeting Time and Collaboration with Discussion	4.0	4.0	8.0
Fun and video sharing	4.0	6.0	10.0		Material Sharing and Collaboration with Discussion	8.0	2.0	10.0
Photo and video sharing	10.0	4.0	14.0		Academic Meeting Time, Material Sharing, Collaboration and Discussion	6.0	0.0	6.0
Fun, photo and video sharing	8.0	2.0	10.0					
Total	46.00	12.00	100		Total	46.00	54.00	100

Table II reports that highest percentage of respondents watched photo and video (26%) and also engaged in video sharing on WhatsApp social network type, next to this were those occupying with photo display and sharing (24%) while those busy with fun, photo display and sharing, fun, photo and video sharing had equal percentage of 14%. Others had low percentages of 6% and 2% respectively. Also, after four weeks, students' use of WhatsApp as social network site, revealed that 26% of respondents busy with collaborating and discussing, 24% engaged in material sharing, 14% were those who did nothing, used it for academic meeting time and those who used it for all. Others with low percentages (2% and 6%).

Table II: WhatsApp and Gender Cross-tabulation before and after use in Classroom

Before					After			
	Gender					Gender		
	M (%)	F (%)	Total (%)			M (%)	F (%)	Total (%)
Nothing	2.0	12.0	14.0		Do nothing	2.0	12.0	14.0
Fun	4.0	10.0	14.0		Academic Meeting Time	4.0	10.0	14.0
Photo display and sharing	12.0	12.0	24.0		Material Sharing	12.0	12.0	24.0
Video and information sharing	12.0	14.0	26.0		Collaboration and Discussion	12.0	14.0	26.0
Fun and photo sharing	2.0	0.0	2.0		Academic Meeting Time and Collaboration with Discussion	2.0	0.0	2.0
Photo and video sharing	4.0	2.0	6.0		Material Sharing and Collaboration with Discussion	4.0	2.0	6.0
Fun, photo and video sharing	10.0	4.0	14.0		Academic Meeting Time, Material Sharing, Collaboration and Discussion	10.0	4.0	14.0
Total	46.00	54.0	100		Total	46.00	54.00	100

Table III revealed that majority of the respondents did nothing on Snap Chat (56%), followed by those who engaged in video and information sharing (18%). Others had very low percentages (2%, 4%, and 6%) respectively. Also, Table X made it clear that highest percentage of respondents did nothing on Snap Chat (70%), some of the respondents engaged in collaboration and discussion (18%) while others had very low percentages (2%, 4%, 6%)

Table III: Snap Chat and Gender Cross-tabulation before and after use in classroom

Before					After			
	Gender					Gender		
	M (%)	F (%)	Total (%)			M (%)	F (%)	Total (%)
Nothing	22.0	34.0	56.0		Do nothing	30.0	40.0	70.0
Fun	0.0	4.0	4.0		Academic Meeting Time	0.0	4.0	4.0
Photo display and sharing	6.0	0.0	6.0		Material Sharing	6.0		6.0
Video and information sharing	8.0	10.0	18.0		Collaboration and Discussion	8.0	10.0	18.0
Fun and photo sharing	2.0	4.0	6.0		Material Sharing and Collaboration with Discussion	2.0		2.0
Fun and video sharing	4.0	0.0	4.0					
Photo and video sharing	2.0	2.0	4.0					
Fun, photo and video sharing	2.0	0.0	2.0					
Total	46.00	54.00	100		Total	46.00	54.00	100

Table IV revealed that majority of the respondents did nothing on WeChat (60%), followed by those who engaged in video and information sharing (20%). Others had very low percentages (2%, 4%, 6%, and 8%) respectively. In the same table, the report showed that highest percentage of respondents did nothing on WeChat (68%), some of the respondents engaged in collaboration and discussion (18%) while others had very low percentages (2%, 4%, 8%)

Table IV: WeChat and Gender Cross-tabulation before and after use in Classroom

Before					After			
	Gender					Gender		
	M (%)	F (%)	Total (%)			M (%)	F (%)	Total (%)
Nothing	28.0	32.0	60.0		Do nothing	32.0	36.0	68.0
Fun	0.0	8.0	8.0		Academic Meeting Time	0.0	8.0	8.0
Photo display and sharing	0.0	4.0	4.0		Material Sharing	0.0	2.0	2.0
Video and information sharing	12.0	8.0	20.0		Collaboration and Discussion	12.0	6.0	18.0
Fun and photo sharing	2.0	0.0	2.0		Academic Meeting Time, Material Sharing, Collaboration and Discussion	2.0	2.0	4.0
Fun, photo and video sharing	4.0	2.0	6.0					
Total	46.00	54.00	100			46.00	54.00	100

Table V publicized that majority of the respondents did nothing on Google+ (42%), followed by those who engaged in photo display and sharing (18%), next were those engaged in photo and video sharing (16%). Those with video and information sharing had (14%) while those engaged in Google+ for fun had (10%). After four weeks interval, Through Google+ as one of the social network sites, the table V explained that highest percentage of the respondents occupied themselves doing nothing while they were using Google+, 18% engaged in material sharing, 16% engaged in material sharing, collaboration and discussion, 14% occupied with collaboration and discussion, while the remaining 10% of respondents busy using the site for academic meeting time.

In Instagram, 34% of respondents engaged in nothing, 32% of respondents were using or watching video and information sharing while 18%,8%,6%, and 2% of the respondents engaged in Instagram for fun, photo display and sharing, photo and video sharing, and for fun and photo sharing respectively. As well, after four weeks.

Table V: Google+ and Gender Cross-tabulation before and after use in Classroom

Before					After			
	Gender					Gender		
	M (%)	F (%)	Total (%)			M (%)	F (%)	Total (%)
Nothing	16.0	26.0	42.0		Do nothing	16.0	26.0	42.0
Fun	4.0	6.0	10.0		Academic Meeting Time	4.0	6.0	10.0
Photo display and sharing	8.0	10.0	18.0		Material Sharing	8.0	10.0	18.0
Video and information sharing	10.0	4.0	14.0		Collaboration and Discussion	10.0	4.0	14.0
Photo and video sharing	8.0	8.0	16.0		Material Sharing and Collaboration with Discussion	8.0	8.0	16.0
Total	46.00	54.00	100		Total	46.00	54.00	100

Table VI revealed that respondents engaged in Instagram did nothing relating to academics were 34%, those that engaged in class collaboration and discussion were 32%, those using the site for scheduling were just 18% while those used the site for material sharing , collaboration and discussion were having very low percentages (2%, 6%, 8%)

Table VI: Instagram and Gender Cross-tabulation before and after use in Classroom

Before					After			
	Gender					Gender		
	M (%)	F (%)	Total (%)			M (%)	F (%)	Total (%)
Nothing	10.0	24.0	34.0		Do nothing	10.0	24.0	34.0
Fun	8.0	10.0	18.0		Academic Meeting Time	8.0	10.0	18.0
Photo display and sharing	4.0	4.0	8.0		Material Sharing	4.0	4.0	8.0
Video and information sharing	20.0	12.0	32.0		Collaboration and Discussion	20.0	12.0	32.0
Fun and photo sharing	0.0	2.0	2.0		Academic Meeting Time and Material Sharing	0.0	2.0	2.0
Photo and video sharing	4.0	2.0	6.0		Material Sharing and Collaboration with Discussion	4.0	2.0	6.0
Total	46.00	54.00	100		Total	46.00	54.00	100

Table VII made it known that highest percentage of respondents did nothing using twitter (54%), 16% of them occupied with photo display and sharing as well as video and information sharing, 10% of them were busy with fun and 4% of the respondents were engaged in photo and video sharing. After four weeks, in the use of twitter as a social network site, table VII made it known that majority of the respondents did nothing while on it (54%). Those engaged with material sharing, and collaboration and discussion were 16%, 10% were those using it for scheduling while the remaining 4% were using it for material sharing collaboration and with discussion together.

Table VII: Twitter and Gender Cross-tabulation before and after use in Classroom

Before					After			
	Gender					Gender		
	M (%)	F (%)	Total (%)			M (%)	F (%)	Total (%)
Nothing	20.0	34.0	54.0		Do nothing	20.0	34.0	54.0
Fun	6.0	4.0	10.0		Academic Meeting Time	6.0	4.0	10.0
Photo display and sharing	6.0	10.0	16.0		Material Sharing	6.0	10.0	16.0
Video and information sharing	12.0	4.0	16.0		Collaboration and Discussion	12.0	4.0	16.0
Photo and video sharing	2.0	2.0	4.0		Material Sharing and Collaboration with Discussion	2.0	2.0	4.0
Total	46.00	54.00	100		Total	46.00	54.00	100

4.2 DISCUSSION

Tables I-VII showed the responses of the respondents before and after the researchers exposed them to some of activities relating to their academics on SNSs. The cross tabulation was done between gender of the respondents and what they do on SNSs. The results revealed that more female respondents engaged in all the selected and common SNSs (54%) than their male counterparts (46%). It was also observed from the tables that most respondents engaged in video watching and information sharing than other variables like fun, photo and video sharing. It was showed that Facebookhad highest percentage of 26%, WhatsApp had the same 26%, Snap Chat and Google+ had 18%, WeChat had 20%, Instagram had 32% while twitter had the least of 16%. Those respondents claimed not to do anything on SNSs were reported to be very high in WeChat (60%), Snap Chat (56%), twitter (54%), Google+ (42%), Instagram (34%). This serves as a limitation to this study, because they (respondents) do not do anything on those SNSs do not really clear enough whether they did not have account with those SNSs or they have account but they did not use them or carried out some expected functions on them.

5. CONCLUSION

The study looked at contributive effect of Social Network Sites in the classrooms through Time Scheduling, Material Sourcing and Class Collaboration. It was observed that the so called SNSs are regarded as sites designed only for social interactions or for exchange of social profiles from one person to the other. Through the research question formulated, the study provided answer by making it clear that those SNSs can be used to share academic materials, collaborate and discuss issues purely on

education. Apart from this, students engaged more on using social network websites than any other platforms, as teacher, we should use what the students like most to encourage them to learn quickly and logically. The teacher as an important instrument in this study should be encouraged to use SNSs with his/her students to reduce time wasting on sharing only photos, and videos that do not relate to their (students) education.

6. RECOMMENDATION

a. In order to accomplish the mission of this study, the following recommendations were observed:
b. Teachers should be encouraged to use Social Network Sites for academic purposes, so that students engagement in Social Network Sites for other reasons will be diminished
c. Proper guidance should be given to students on the use of SNSs for strictly academic reasons
d. Government should help in the area of making internet connection easy and possible with power stability

AUTHORS' CONTRIBUTIONS

'Author IOM' designed the study, performed the statistical analysis, and wrote the first draft of the manuscript. 'Author IAA' wrote and managed the literature searches and reviews and 'Author MAR' wrote the final draft, edited the work and managed the analyses of the study. All authors read and approved the final manuscript.

CONSENT

Consent form has been approved by all authors

REFERENCES

1. Technopedia. Social Network Sites.2017 Accessed 10th July, 2017 Available www.technopedia.com
2. Kietzmann, J. H.. Social media? Get serious! Understanding the functional building blocks of social media 2012. Accessed 10th July, 2017 Available https://pdfs.semanticscholar.org
3. Andreas M. K, Michael H. The challenges and opportunities of Social Media. ESCP Europe, 79 Avenue de la Republique, F-75011 Paris, France, 2010.
4. Picazo-Vela S, Gutiérrez-Martínez I, Luna-Reyes LF. Understanding risks, benefits, and strategic alternatives of social media applications in the public sector. Government Information Quarterly. 2012; 29(4):504–511.
5. Hollenbaugh E. E, and Ferris AL. Facebook self-disclosure: Examining the role of traits, social cohesion, and motives. Computers in Human Behavior. 2014;30(0):50–58.
6. Skeels M. M, Grudin J. When Social Networks Cross Boundaries: A Case Study of Workplace Use of Facebook and Linkedin. In: Proceedings of the ACM 2009 International Conference on Supporting Group Work. GROUP'09. ACM; 2009. p. 95–104.
7. Qiu L, Lin H, Ramsay J, Yang F. You are what you tweet: Personality expression and perception on Twitter. Journal of Research in Personality. 2012; 46(6):710–718.
8. Ku, Y.C, Chen R, Zhang H. Why do users continue using social networking sites? An exploratory study of members in the United States and Taiwan. Information & Management. 2013; 50(7):571–581.
9. Boyd, D.M. and Ellison, N.B. (2014) Social Network Sites: Definition, History, and Scholarship. 2014 Accessed 6th June, 2017 Available http://www.danah.org/papers/JCMCIntro.pdf.
10. Duven, C. J and Timm, D. M. Privacy and social networking sites 2008. Accessed 12th July, 2017 Available http://onlinelibrary.wiley.com/doi/10.1002/ss.297/full
11. Ellison NB, and Boyd DM. Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication. 2007; 13(1):210–230.
12. Tufekci, Z (2008). Grooming, gossip, Facebook and myspace: What can we learn about these sites from those who won't assimilate? 2017 Accessed 11th July, 2017 Available https://uncch.pure.elsevier.com/en/publications/grooming-gossip-facebook-and-myspace-what-can-we-learn-about-these
13. Coyle,C and Vaughn, H. Social networking: Communication revolution or evolution? *Bell Labs Technical Journal* 2008; *13 (2): 13-17*.
14. Livingstone, Sonia. Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy 2008. Accessed 12th July, 2017 Available www.eprints.lse.ac.uk/27072/
15. Terregrossa, E. F R. A & Wang, Z. Internet use among college students: Tool or toy? *Educational Review*,2010; *62*(1), 85–96.
16. Karpinski, A. C. and Duberstein, A. "A description of Facebook use and academic performance among undergraduate and graduate students", In Poster presented at the meeting of the American Educational Research Association, San Diego, CA, 2009.
17. Kist,W.. Class get ready to tweet: Social media in the classroom. Our children, 2012. Accessed 18th July, 2017 Available http://files.eric.ed.gov/fulltext/EJ991339.pdf.
18. Fewkes, A and McCabe, M Facebook: Learning Tool ir Distraction? Journal of Digital Learning in Teacher Education,2012; 28(3). Accessed 5th June, 2017 Available http//eric.ed.gov.?id=EJ972449
19. Lunas-Reyes, L F.. Dynamic modeling and simulation of socio-technical systems, particularly those related to the implementation and use of Information and Communication Technologies to improve public management and public policy, 2012.