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Social Media Preference by Secondary Schools' Computer Science Teachers

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Abstract

This research explores the preference for social media by secondary schools teacher for the teaching of computer science in Ilorin metropolis. Questionnaires were administered to two hundred (200) respondents randomly selected from ten different secondary schools in Ilorin metropolis. A total of 174 questionnaires were returned completely filled which serve as the overall sample which gives 87% return rate. Findings from the study reveals that commonly used social media are Facebook, Twitter, Skype, Whatsapp, Blackberry Messenger, 2go, Eskimi and LinkedIn. There is a low usage of these services in most of the public and private schools due to the financial implication of procurement and installation of these facilities. Interestingly, level of awareness and acceptability based on the numerous benefits of social media on teaching and learning functions and productivity was of a high proportion. It was concluded that school administrators and parents should collaborate with educational agencies to aid in the effective implementation and funding for the procurement of sophisticated ICTs for better dissemination of social media in both public and private schools in Ilorin metropolis.

Keywords: Preference, Awareness, Facebook, Skype, Whatsapp, Teaching, Ilorin, Social media.

1. Introduction

Information and Communication Technology (ICT) has become a fashionable tool in teaching and learning in this new age of technology. Recent research, exploring the impact that ICT is having on teaching and the way students learn, has found that ICT is becoming a priority for many educational policymakers. Moreover, lots of emphasis has been laid on the use of ICT in education in Nigeria. Students are embracing these new technologies on a large scale with Google being a primary source of inquiry, Wikipedia replacing the school library and Online Social Networking (OSN) sites have dramatically changed the way the students communicate on the Internet. Due to young people's attraction to them, social networks are

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emerging as an important tool in education. Students are interacting in such networks with or without their teachers' consent or knowledge through study groups. Discussions between friends are carried out heavily among adolescents and resources are shared through online social networks.

These networking sites are also a means for students to communicate school works especially when they are absent from school. However, these services are being used in education in a non-formal way. Recent research such as that integrating online social networking in formal education can be very beneficial for students.

Objectives

The broad objective of the study was to examine the Social media preference and Secondary Schools' computer science teachers.

The specific objectives are to:

i. determine the degree of awareness of social media by secondary schools computer science teachers.
ii. find out the availability and accessibility of social media to the secondary schools computer teachers.
iii. determine the extent of use of social media for teaching computer science by the secondary schools computer teachers.
iv. identify the most preferred social media by the secondary schools computer teachers in teaching computer science.

Research Questions

i. What is the degree of awareness of social media by secondary schools computer science teachers?
ii. What is the level of availability and accessibility of social media to the secondary schools computer teachers?
iii. What is the extent of use of social media for teaching computer science by the secondary schools computer teachers?
iv. What is the most preferred social media by the secondary schools computer teachers in teaching computer science?

Social media and its Classification

Social media is the social interaction among people in which they create, share or exchange information and ideas in virtual communities and networks (Ahlqvist *et al.,* 2008). Kaplan

and Haenlein (2009) defined social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content." Furthermore, social media depend on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content. They introduce substantial and pervasive changes to communication between organizations, communities, and individuals.

Social media differ from traditional or industrial media in many ways, including quality, reach, frequency, usability, immediacy, and permanence. There are many effects that stem from internet usage. According to Nielsen, internet users continue to spend more time with social media sites than any other type of site. At the same time, the total time spent on social media in the U.S. across PC and mobile devices increased by 37 percent to 121 billion minutes in July 2012 compared to 88 billion minutes in July 2011. For content contributors, the benefits of participating in social media have gone beyond simply social sharing to building reputation and bringing in career opportunities and monetary income, as discussed in Tang, Gu, and Whinston (2012). Geocities, created in 1994, was one of the first social media sites. The concept was for users to create their own websites, characterized by one of six "cities" that were known for certain characteristics.

Social media technologies take on many different forms including magazines, Internet forums, weblogs, social blogs, microblogging, wikis, social networks, podcasts, photographs or pictures, video, rating and social bookmarking. Technologies include blogging, picture-sharing, logs, wall-posting, music-sharing, crowdsourcing and voice over IP, to name a few. Social network aggregation can integrate many of the platforms in use. By applying a set of theories in the field of media research (social presence, media richness) and social processes (self-presentation, self-disclosure), Kaplan and Haenlein (2009) created a classification scheme in their Business Horizons (2010) article, with six different types of social media:

a. collaborative projects (for example, Wikipedia),
b. blogs and microblogs (for example, Twitter),
c. content communities (for example, YouTube and DailyMotion),
d. social networking sites (for example, Facebook),
e. virtual game-worlds for example, World of Warcraft),
f. virtual social worlds (for example, Second Life).

However, the boundaries between the different types have become increasingly blurred. For example, Shi, Rui and Whinston (2013) argued that Twitter, as a combination of broadcasting service and social network, classes as a "social broadcasting technology".

2. Materials and Methods

Research Design

The study adopted a survey research method, which sought information from the respondents on the variable of the study. The researcher used ten different secondary schools in Ilorin Metropolis as population for this work.

Questionnaires were administered to two hundred (200) respondents randomly selected from ten different secondary schools in Ilorin metropolis. But 174 questionnaires were returned completely filled which serve as the overall sample which gives 87% return rate. The reliability of the instrument was determined using 20 selected teachers from the selected School, and the questionnaire was administered to them, after two weeks interval, the same set of teachers were given the same questionnaire. The Pearson Product moment correlation coefficient was employed to test for correlation between the two data sets collected and the correlation coefficient of r = 0.81 indicated that there is great relationship between the two data sets, hence confirming the reliability of the questionnaire.

Method of data analysis

The responses obtained from the completed copies of the questionnaire, the analysis was done using the frequency and percentage count. Descriptive statistics was used to analyze the data collected from the respondents. The descriptive statistics include the use of percentages and frequency distributions. The data collected through the distribution of questionniare to some selected secondary school in Ilorin metropolis of Kwara State were analyzed and interpreted using frequency and percentage count methods.

3. Results and Discussion

The result of the study indicated that the proportion of male respondents was 90 (51.72%), while those of the female respondents were 84 (48.28%). The proportion of respondents from various secondary schools indicated that from School “A” respondent is 40(20%), School “B” respondent is 50(25%), School “C” respondent is 70(35%), School “D” respondent is 40 (20%), school “E” respondents is 25(12.5%), School “F” respondents is 30(15%), School “G”

respondents is 18 (9%), School "H" respondent is 17(8.5%), school "I" with 15 respondents (7.5%), School "J" respondents is 15(15%). The result also indicated that 148 respondents which make up 85.06% of the population of the study responded YES to the Statement on the awareness about the concept of social media, while 26 respondents which make up 14.94% of the population of the study responded No. It was also indicated that 90 respondents (51.72%) picked Facebook, 18 respondents (10.34%) picked Twitter, 10 respondents (5.74%) picked Skype, 30 respondents (17.24%) picked Whatsapp, 15 respondents (8.62%) picked Blackberry messenger, 6 respondents (3.45%) picked 2go, 2 respondents (1.15%) picked Eskimi, 3 respondents (1.73%) picked LinkedIn.

Questionnaires

The result of the questionnaires that were administered and returned are tabulated and analyzed in table 1.

TABLE 1: Showing return rate

Schools	**Questionnaire distributed**	**Frequency of return**	**Percentage (%)**
A	15(7.5%)	12(6%)	7.5
B	30(15%)	25(12.5%)	15
C	25(12.5%)	20(10%)	12.5
D	10(5%)	9(4.5%)	5
E	25(12.5%)	24(12%)	12.5
F	30(15%)	28(14%)	15
G	18(9%)	15(7.5%)	9
H	17(8.5%)	12(6%)	8.5
I	15(7.5%)	15(7.5%)	7.5
J	15(7.5%)	14(7%)	7.5
TOTAL	200	174(87%)	100%

Table 1 shows how questionnaire were distributed and returned in the participating schools. In school "A", 15 questionnaire were administered representing (7.5%) but a total of 12(6%) was returned, in School "B", 30(15%) questionnaires were administered but a total of

25(12.5%) was returned, School "C", 25 (12.5%) questionnaires were administered but a total of 20(10%) was returned, School "D",10(5%) questionnaires were administered but a total of 9(4.5%) was returned, school "E", 25(12. 5%) questionnaires were administered but a total of 24(12%) was returned, School "F", 30(15%) questionnaires were administered but a total of 28(14%) was returned, School "G", 18 (9%) questionnaires were administered but a total of 15(7.5%) was returned, School "H", 17(8.5%) questionnaires were administered but a total of 12(6%) was returned, school "I", 15 (7.5%) questionnaires were administered but a total of 15(7.5%) was returned, and in School "J", 15(15%) questionnaires were administered but a total of 14(7%) was returned. From the above table the percentage of School "B" and School "F" is higher than the other, because the population of the School teachers is higher than the other schools.

TABLE 2: Distribution of respondents on the basis of their teaching experience.

Age	**Frequency**	**Percentage (%)**
0 – 5	71	40.8
6 – 10	70	40.2
11 – 15	20	11.5
16 & Above	13	7.5
TOTAL	174	100%

Table 2 indicated that the teaching experience of majority of the secondary school teachers were within the age range of 0 – 5 years. So, 40.8% of the respondents are within these years of teaching experience while the remaining 59.2 % cover all other years of teaching experiences (6 – 10 years, 11 – 15 years, 16 years and above).

TABLE 3: The distribution of respondents on the basis of class taught

Level	**Frequency**	**Percentage (%)**
JSS 1	30	17.24
JSS 2	26	14.94
JSS 3	23	13.22
SSS 1	56	32.18
SSS 2	21	12.07
SSS 3	18	10.35
Total	174	100.0%

Table 3 shows how questionnaire were distributed to the respondents on the class they teach, JSS 1 teachers are 30(17.24%), JSS 2 teachers are 26(14.94%), JSS 3 teachers are 23(13.22%), SSS 1 teachers are 56(32.18%), SSS 2 teachers are 21(12.07%), SSS 3 teachers are 18(10.35%). Obviously from the above table it clearly shows that respondent from SSS 3 are very few, because in most of the schools visited have few teachers to teach the class. Also SSS 1 has the highest respondent, because they have more than enough teachers to teach the class.

TABLE 4: Type of social media used by teachers

Variable	**Group**	**Frequency**	**Percentage (%)**
Which type of social media.	Facebook	90	51.72
	Twitter	18	10.34
	Skype	10	5.74
	Whatsapp	30	17.24
	Blackberry messenger	15	8.62
	2go	6	3.45
	Eskimi	2	1.15
	LinkedIn	3	1.73
TOTAL		174	100%

The study proceeded to inquire whether respondents (table 4) know the types of social media, 90(51.72%) respondents picked Facebook, 18(10.34%) respondents picked Twitter, 10(5.74%) respondents picked Skype, 30(17.24%) respondents picked Whatsapp, 15(8.62%) respondents picked Blackberry messenger, 6(3.45%) respondents picked 2go, 2(1.15%) respondents picked Eskimi, 3(1.73%) respondents picked LinkedIn. This result suggests that despite the fact that majority of the respondents picked Facebook and Whatsapp, meaning that they have not heard about the other types of social media before.

TABLE 5: Social media increases in productivity

Variable	**Response**	**Frequency**	**Percentage (%)**
Using social media increases my productivity.	Strongly Disagree	42	24.14
	Disagree	36	20.69
	Agree	50	28.74
	Strongly Agree	46	26.44
TOTAL		174	100%

The table 5 indicates the area where using social media increases their productivity. 42 (24.14%) of the respondents strongly disagree, 36(20.69%) respondents disagree, 50(28.74%) respondents agree, and the remaining 46(26.44%) strongly agree. From above, it can be deduced that they have different views concerning the question.

TABLE 6: Question on my interaction with social media is clear and understandable.

Variable	Response	Frequency	Percentage (%)
My interaction with social media is clear and understandable.	Strongly Disagree	35	20.11
	Disagree	51	29.31
	Agree	31	17.82
	Strongly Agree	57	32.76
TOTAL		174	100%

The table 6, when respondents were asked whether their interaction with social media is clear and understandable. 35 (20.11%) respondents strongly disagree, 51 (29.31%) respondents disagree, 31 (17.82%) respondents agree, 57 (32.76%) respondents strongly agree on the question asked.

TABLE 7: How to become more skillful at using social media.

Variable	**Response**	**Frequency**	**Percentage (%)**
It is easy for me to become more skillful at using social media	Strongly Disagree	57	32.76
	Disagree	31	17.82
	Agree	35	20.11
	Strongly Agree	51	29.31
TOTAL		174	100%

The table 7, where the respondents were asked questions on whether it is easy for them to become more skillful at using social media. 57 (32.76%) respondents strongly disagree, 31 (17.82%) respondents disagree, 35 (20.11%) respondents agree, 51 (29.31%) strongly agree. From the respondent's answers, means using social media will not make them become more skillful.

TABLE 8: Usefulness of social media and teaching computer science.

(A) Variable	**Response**	**Frequency**	**Percentage (%)**
I will find social media useful in my teaching.	Strongly Disagree	40	23.00
	Disagree	45	25.86
	Agree	54	31.03
	Strongly Agree	35	20.11
TOTAL		**174**	**100%**
(B) Variable	**Response**	**Frequency**	**Percentage (%)**
Social media makes teaching more interesting.	Strongly Disagree	34	19.54
	Disagree	47	27.01
	Agree	29	16.67
	Strongly Agree	64	36.78
TOTAL		**174**	**100%**

(C) Variable	**Response**	**Frequency**	**Percentage (%)**
Using social media helps me to receive good evaluation from the management.	Strongly Disagree	68	39.07
	Disagree	40	23.00
	Agree	35	20.11
	Strongly Agree	31	17.82
TOTAL		**174**	**100%**
(D) Variable	**Response**	**Frequency**	**Percentage (%)**
The school management has supported the use of social media.	Strongly Disagree	50	28.74
	Disagree	45	25.86
	Agree	30	17.24
	Strongly Agree	49	28.16
TOTAL		**174**	**100%**

In part A of Table 8, where the respondents were asked whether they will find social media useful in their mode of teaching. 40(23.00%) respondents choose Strongly Disagree, 45(25.86%) respondents choose Disagree, 54(31.03%) respondents choose Agree, and 35(20.11%) respondents choose Strongly Agree. This result indicates that majority will find social media useful in their teaching.

In part B of Table 8 revealed that 93(53.45 %) of the respondents majorly agreed that social media makes teaching more interesting; while the remaining 81(46.55 %) of the respondents disagreed on it that it will make the teacher to be lazy.

In part C of Table 8, when respondents were asked whether social media helps them receive good evaluation from the management. 68(39.07%) respondents strongly disagree, 40 (23.00%) respondents disagree, 35(20.11%) respondents agree, 31(17.82%) respondents

strongly agree. Therefore, it can be concluded that majority of the respondents strongly disagree on it.

In part D of Table 8 revealed that majority of the respondents 95(54.60%) disagreed that the school management supporting the use of social media, while the remaining 79(45.40%) of the respondents agreed that the school management agreed on the use of social media in teaching.

4. Conclusion

From the above discussions, three main theoretical frameworks were thoroughly reviewed and constructively critiqued to identify the gaps. Additional factors of ICT infrastructure conditions, policies and culture were considered to fill the gap. Upon data collection from the selected public and private schools of study; the study revealed that, all factors were influencing the adoption of social media for teaching with the exception of culture and trust. Policies, budgeting and command of language were identified to have a negative influence on the adoption of social media for the purposes of teaching.

Likewise, this study has clearly revealed that although teaching professionals in the study area are aware of the usefulness of ICTs (social media) to the teaching profession, the access, usage and volume of ICTs is low. The teaching professionals are handicapped because there are some core ICT enabled equipment and services like internet facilities, computers (desktop, laptop, palmtops etc.) that are not available for use within the schools environment and which some of them(teachers and students) cannot afford by themselves.

Recommendations

For social media to be adopted by the schools in Ilorin metropolis of kwara state, the following are the recommendations based on the finding and analysis of the study:

i. The ICT infrastructure of the school would have to be improved. The speed of the internet should be enhanced, a much more robust network infrastructure should be established because students are particular with how secured the system is. Therefore, if ICT infrastructure is enhanced students and teachers would have a sustained interest in the use of the social media's for learning purposes

ii. The students should give high priority to social media and ready to take advantages of social media.

iii. The school administrators should build upon the positive attributes that these social media have, such as the ability for students to join students group or meet others from school. This can be done by giving classroom presentations on the risks and benefits of social media as well as highlighting the problematic behaviors associated with these media.

iv. School counselors should also communicate with parents about their children through internet medium at home; they also should hold meetings to educate parents on the issues that occur online.

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