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Pre-service Teachers' Awareness and Attitude Towards User-generated Content as a Collaborative Learning Tool

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Abstract

The promotion of learners' active participation and becoming responsible for their own learning through the use of information communication technologies (ICT) is quite encouraging and exciting in the age of digital technologies. In particular, the Internet-based platforms and facilities that assist students in creating and sharing knowledge is becoming more popular today. This paper examined the University of Ibadan Pre-service teachers' awareness and attitudinal disposition toward user-generated content as a collaborative learning tool with respect to their gender and teaching subject. The sample population comprised 78(42.2%) male and 107(57.82%) female 100 level students drawn from five departments where teaching subjects are offered in the Faculty of Education. A questionnaire containing students' awareness and attitude scales (QPAAUGC), validated with Kuder Richardson 20 (reliability indices = 0.75 and 0.66 respectively) was administered to the participants. Two research questions and four hypotheses were raised and tested respectively in the study. The findings show that 63.3% of the students were aware of, and have positive attitude towards UGC. However, gender and teaching subject contributed significantly ($t_{(183)} = 2.298$, $p<.05$) and ($F_{(2,182)} = 13.020$, $p<0.05$) to students' level of awareness. Also, gender and teaching subject contributed significantly ($t_{(183)} = 2.298$, $p<.05$) and ($F_{(2,182)} = 13.020$, $p<0.05$) to students' attitude to UGC as a collaborative learning tool. Premised on the findings, this paper highlights its recommendations and conclusions.

Keywords: User-Generated content, Collaborative learning, Attitude, ICT, teacher preparation, pre-service teacher, awareness.

Introduction

In the age of digital technology, the evolution of Information Communication Technology (ICT) has brought about unique changes in virtually all aspects of human life (Osunrinde, 2002; Abimbade, Aremu and Adedoja, 2003; and Aleburu, 2008, Olasunkanmi, 2011), with particular reference to education (Trentin, 1996; Howland, Laffey and Espinosa, 1997; Barak, Waks and Doppelt, 2000; and Kolawole and Olatunji, 2006). As a matter of fact, learning with electronic devices is adding extra colours to its admirable spectra from day to day as new technologies roll into the teaching and learning industry. One of the offshoots of Web 2.0 technologies that enable creation and sharing of knowledge, anytime and anywhere is the user-generated content (UGC). It takes people from being passive consumers to active participators in creating and sharing useful ideas and information in a bid to make products better.

The concept of UGC is an Internet based technology that affords users to participate or contribute to developing a body of ideas that can be shared among a group of users with similar interest. According to Organisation for Economic Co-operation and Development, OECD (2007), UGC is one of the main features of participative webs, which are based on an Internet increasingly influenced by intelligent web services that empower the user to contribute to developing, rating, collaborating on and distributing Internet content and customizing Internet applications. Some authors refer UGC by nomenclatures like User-created content (Logistica Solutions Inc., 2008), Contenu auto-cree (OECD, 2007), Learner Generated Content (Pérez-Mateo, Maina, Guitert and Romero, 2012) and User-generated Content (Anderka, Stein, and Lipka (2012).

Furthermore, OECD (2007), defines UGC as (i) content made publicly available over the Internet, (ii) which reflects certain amount of creative effort, and (iii) which is created outside of professional routines and practices, while Daugherty, Eastin & Bright (2009) and Ellis-Christensen (2013) refer to it as media content created or produced by the general public rather than by paid professionals and primarily distributed on the Internet. From the foregoing, contributors to UGC are rather amateurs or non-professionals. Hence, learners can fit in here. Then, this opportunity could mean that proper integration of UGC into teaching and learning at the higher education level, to start with, would yield added value to instructional process. These include promoting active independent learning, increasing learners' self-efficacy and motivation, influencing pedagogical methods and collaborative learning as some of the general ICT advantages when properly integrated in education (Trentin, 1996; Howland, Laffey and Espinosa, 1997; Barak, Waks and Doppelt, 2000; and Kolawole and Olatunji, 2006; Aycock, Grarnham, and Kaleta, 2002; Gillian, 2001; Hepp, Hinostroza, Laval, and Rehbein, 2004; Wenglinsky, 1998; Foltos, 2002; World Bank, 2002 and 2008; Asogwa, 2007; Adeyanju, 2010; and Babalola, 2010).

There are different Web 2.0-based websites that provide support for the creation, distribution and consumption of collaborative UGCs. The prominent ones identified by Dunn, Byrd, Notess, Riley and Scherle (2006) and Daugherty et al (2009) include YouTube, MySpace, Facebook, Wikipedia, Stupid Videos, Flickr, Blogger and personal Webpages. UGC has its impacts in collaborative publishing, collaborative learning, economic impact, social impact, enhancing research and development, innovation and technology, shaping business and other areas, though with challenges (OECD, 2007; and Daugherty et al, 2009). This study is concerned with using UGC to enhance collaborating learning at higher education level, particularly in teacher preparation. Therefore, it is set to find out the level of awareness and attitude of University of Ibadan would-be teachers toward UGC as a collaborative learning tool.

Collaborative learning is premised on the assumption that humans tend to learn from one another in the process of interaction. According to Gerlach (1994) and Panitz (1996) collaborative learning is based on the idea that learning is a naturally social act in which the participants talk among themselves. They assume that learning occurs through the talk. Actually, collaborative learning encompasses those educational approaches that promote joint efforts among students or students and teachers in the learning process. Meanwhile, Finkel and Monk (1983); MacGregor (1990);and Ogata and Yano (2010) suggest that students usually work in groups of two or more, mutually in search for understanding, solutions, meanings or creating a product in employing collaborative learning strategy. Thus, ensuring mutuality in teacher-learner and learner-learner interactions in collaborative learning could be strengthened with technology.

However, there are factors that present themselves as clog in wheel of integrating technology in education. These include users' awareness, gender, perceived ease of use, perceived usefulness, acceptability, academic ability, awareness and attitude (Oduwaiye, 2009) to mention a few. Learners' attitude in any learning process remains a germane issue from age to age, even in the digital era. The type of attitude (Lawson and Gerschner, 2002; Teo, 2008; Abedi, 2009 and Ogunleye, 2010) the digital natives and teachers hold about a technology matters, and should be checked accordingly as it affects their adoption and infusion of technology into teaching and learning. This study is concerned with University of Ibadan Pre-service teachers' awareness and attitude toward UGC as a collaborative learning tool.

Statement of the Problem

In the first place, there is the need to overcome the problems associated with integrating new technologies into the learning system and thereby heighten the prospects of ICT in tertiary education in Nigeria. There is also the challenge of ascertaining the awareness and attitude of pre-service teachers, whether positive or otherwise of UGC as a collaborative learning tool in University of Ibadan with respect to infusing the emerging technologies into the learning environment. In addition, there is the dearth of literature on the level of infusion of UGC technology in the Nigeria education system. This is a problem that this study seeks to address.

Research Questions

The following questions are addressed in this study:

i.   Are pre-service teachers aware of User-Generated content?

ii.   What is the attitude of pre-service teachers towards User-generated Content?

Research Hypotheses

The study tested the following research hypotheses at 0.05 level of significance:

i.   There is no significant difference between the male and female pre-service teachers' awareness with respect to User-generated Content as a collaborative learning tool.

ii.   There is no significant difference in the level of awareness of pre-service teachers' teaching subject with respect to User-generated Content as a collaborative learning tool.

iii.   There is no significant difference between the male and female pre-service teachers' attitude with respect to User-generated Content as a collaborative learning tool.

iv.   There is no significant difference in the attitude of pre-service teachers' teaching subject with respect to User-generated Content as a collaborative learning tool.

Methodology

This study adopts descriptive survey design of the ex-post facto research because none of the variables was manipulated. They were studied as found. The following variables were investigated in the study:

Independent Variables:

i.   Gender

ii.   Teaching subject

Dependent Variables

i.   Awareness of User-Generated content as a collaborative learning tool

ii.   Attitude to User-Generated content as a collaborative learning tool

Population

The population for this study was all University of Ibadan, Faculty of Education undergraduate students in 100Level. All the 185 students from the five departments involved in the study who were available to write the second semester examinations participated in the study.

Research Instrument

The research instrument developed and employed for this research was a structured 37 item-questionnaire, tagged Students' Perception, Awareness, and Attitude towards User-generated content (QSPAAUGC) developed by the researchers with two sections, I and II. Section I is on respondents' personal

information such as Department; Teaching Subject; and Gender. Two parts of its Section II (A and B) are used for this study. Part A consists of Students' awareness of User-Generated content, while Part B contains 4-point, Likert scale format on attitude towards User-generated content.

Validation of Research Instrument

The content validity of the instrument was obtained after the draft copy was submitted to experts in the fields of Educational Technology and Educational Evaluation for their comments and assessment of items' agreement with the objectives of the research. Their suggestions were used in modifying the questionnaire. Also, a sample of 37 undergraduate students apart from those used for the main study was used for final testing of the instrument. The data collected were subjected to Kuder Richardson and Cronbach's alpha coefficient reliability with result 0.74 and 0.66 for attitude and awareness scales respectively. These suggest that the scales are reliable.

Procedure for Data Collection

The instrument was administered by the researchers with the assistance of lecturers handling teaching methodology courses taken by the 100Level students in the Faculty of Education. The completed questionnaires were collected on the spot to minimise missing cases.

Methods of Data analysis

The data collected were analysed using percentages, t-test analysis, Analysis of Variance (ANOVA) and Scheffe Multiple Comparison statistics to provide answers to the research questions and hypotheses.

Results

Research Question 1: Are undergraduate students aware of User-generated content sites?

Table 1: Frequency Distribution of Respondents' Awareness of User-Generated content.

S/N	I am aware that:	Yes	No
		Freq (%)	Freq (%)
	User-Generated content entered mainstream usage in web publishing and new media content production in Year 2005.	99 (53.5)	86 (46.5)
	User-Generated content is used for problem processing and news	135 (73.0)	50 (27.0)
	User-Generated content uses open source technologies to reduce barriers to collaboration and discovery	128 (69.2)	30.8 (57)
	User-Generated content is used for research	151 (81.6)	34 (18.4)
	User-Generated content is monitored by website administrators	134 (72.4)	51 (27.6)
	User-Generated content encourages publishing of one's own media	128 (69.2)	57 (30.8)
	User-Generated content is a conversational media	120 (64.9)	65 (35.1)
	The audience of User-Generated content is not passive	98 (53.0)	87 (47.0)
	Blogging is one of the digital media technologies used for User-Generated contents	139 (75.1)	46 (24.9)
	Digital media technologies used in User-Generated content include question-answer databases.	137 (74.1)	48 (25.9)
	User-Generated content is used for gossip	59 (31.9)	126 (68.1)
	Digital media technologies used in User-Generated content include wikis	113 (61.1)	72 (38.9)
	User-Generated content is generally created outside of professional routines and practices	101 (54.6)	84 (45.4)
	Sometimes User-Generated content can constitute only a portion of a website	110 (59.5)	75 (40.5)
	User-Generated content may be produced by non-professionals without the expectation of profit or remuneration	103 (55.7)	82 (44.3)
	Average	63.3%	36.7%

From Table 1, 63.3% of the undergraduate students had knowledge of User-Generated content as at the time of this research work while 36.7% of the respondents did not. This simply suggests that about two-third of the students' population already possess the knowledge of the existence of the Internet-based social interaction facility called User-Generated content.

Research question 2: What is the attitude of undergraduate students towards User-Generated Content?

Table 2: Students' Attitude towards User-Generated Content

PART B: Attitude towards User-Generated content		Percentage %			
S/N		Strongly Agree	Agree	Disagree	Strongly Disagree
1.	I am interested in using User-Generated content for learning	99 (53.5)	77 (41.6)	3 (1.7)	6 (3.2)
2.	I feel that using User-Generated content for learning purposes is beneficial to me	99 (53.5)	72 (38.9)	4 (2.2)	10 (5.4)
3.	I don't believe User-Generated content could help me in learning.	24 (13.0)	18 (9.7)	59 (31.9)	84 (45.4)
4.	I feel that using User-Generated content for learning is mere waste of time	18 (9.7)	25 (13.5)	66 (35.7)	76 (41.1)
5.	I feel challenged seeing my colleagues use User-Generated content for learning	46 (24.9)	75 (40.5)	30 (16.2)	34 (18.4)
6.	I feel like using User-Generated content for learning	72 (38.9)	80 (43.2)	15 (8.1)	18 (9.7)
7.	The User-Generated content is an innovation I would like to use in learning	77 (41.6)	76 (41.1)	14 (7.6)	18 (9.7)
8.	I feel that using User-Generated content is not a serious tool in learning	22 (11.9)	25 (13.5)	70 (37.8)	68 (36.8)
9.	I will like to use User-Generated content in learning if I have sufficient access to the Internet	98 (53.0)	62 (33.5)	7 (3.8)	18 (9.7)
10.	I feel that learning will be interesting to me if I use User-Generated content	72 (38.9)	61 (33.0)	9 (4.9)	43 (23.2)

Table 2 shows that pre-service teachers have positive attitude toward User-generated content. For example, 95.1% of the respondents indicate positive interest in using User-generated content for learning; 92.4% feel that using User-generated content for learning purposes is beneficial to them; and 77.3% and 76.8% disagree with items 3 and 4, "I don't believe User-generated content could help me in learning" and "I feel that using User-generated content for learning is mere waste of time". In like manner, 82.7% agree that User-generated content is an innovation they would like to use in learning, and that with sufficient access to the Internet, 86.5% will like to use User-generated content in learning. In all, the pre-service teachers' responses to the item 1 of the questionnaire show that their attitudinal disposition to User-generated content as a collaborative learning tool is not poor, but good enough and positive. This can go a long way to enhancing their acceptance and use of the technology if it is available and suitable and friendly environment is provided for its integration.

Research hypotheses 1: There is no significant difference between male and female pre-service teachers' awareness with respect to User-generated content as a collaborative learning tool.

	N	Mean	Std. Deviation	Std. Error Mean	T	Df	P
Male	78	8.77	4.572		2.298	183	.006*
Female	107	7.11	5.033	20.695			

*= significant at p<.05

Table 2 shows that pre-service teachers' gender had influence on students' awareness of User-generated content. Gender contributed significantly ($t_{(183)}$= 2.298, p<.05) to students' awareness of User-generated content as a collaborative learning tool. Table 2 provides answers to Hypothesis 1.

Research hypothesis 2: There is no significant difference between the male and female pre-service teachers' attitude with respect to User-generated content as a collaborative learning tool.

Table 4: T-Test of Students' Attitude to User-generated content by Gender

	N	Mean	Std. Deviation	Std. Error Mean	T	Df	P
Male	78	27.65	6.013	.681	2.882	183	.004*
Female	107	24.17	9.361	.905			

*= significant at p<0.05

Table 4 shows that pre-service teachers' gender had influence on students' attitude towards User-generated content. Gender contributed significantly ($t_{(183)}$= 2.882, p<.05) to students' attitude towards User-generated content as a collaborative learning tool. Table 4 provides answers to Hypothesis 2.

Research hypotheses 3: There is no significant difference in the awareness of pre-service teachers' teaching subject with respect to User-generated content as a collaborative learning tool.

Table 5: Mean scores of Students' Awareness of User-generated content by Students' Teaching Subject

	N	Mean	Std. Deviation	Std. Error
Science	30	12.33	2.670	487
Arts	60	7.23	4.955	640
Social Science	95	7.73	5.106	524
Total	185	8.31	5.051	371

Table 6: ANOVA of Students' Awareness of User-generated content by Teaching Subject

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	587.532	2	293.766		
Within Groups	4106.284	182	22.562	13.020	.000*
Total	4693.816	18			

*= significant at p<.05

Table 5 and 6 show that pre-service teachers' teaching subject had influence on students' awareness of User-Generated Content. Teaching subject contributed significantly ($F_{(2,182)}$ = 13.020, p<0.05) to students' awareness. Tables 5 and 6 provide answers to Hypothesis 3.

Research hypotheses 4: There is no significant difference in the attitude of pre-service teachers' teaching subject with respect to User-Generated content as a collaborative learning tool.

Table 7: Mean Scores of Students' Attitude to User-Generated Content by Students' teaching Subject.

	N	Mean	Std. Deviation	Std. Error
Science	30	24.17	10.011	1.825
Arts	60	18.63	9.422	1.216
Social Science	95	23.81	9.579	983
Total	185	22.19	9.862	725

Table 8: ANOVA of Students' Attitude to User-Generated Content by Teaching Subject

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1125.689	2	562.844	6.109	.003*
Within Groups	16768.689	182	92.136		
Total	17894.378	184			

*= significant at p<.05

Table 7 and 8 show that pre-service teachers' teaching subject had influence on students' awareness of User-Generated Content. Teaching subject contributed significantly ($F_{(2,182)}$ = 13.020, p<0.05) to students' awareness. Tables 7 and 8 provide answers to Hypothesis 4.

Discussion of Findings

The findings of this study show that undergraduate students are aware of User-generated content technology. This may be traceable to a number of factors such as their teaching subject and gender. From the results, more than two-third of the pre-service teachers who participated in this study claim to have contributed to User-Generated Content sites. An oral interview with one of the participants showed that he was not only aware of the UGC sites, he has also contributed to one of them namely, Wikipedia.

In addition, the findings of this study show that students have positive attitude toward User-generated content. This finding corroborates the claims of

Olaboopo, (1999); Ogunnaike, (2002); Odiaka, (2002) Maduabuchi (2008) who assert that learners' attitude towards learning tools, technology and media resources positively affect the integration of technology for instructional purpose. Also, it supports the observations of Ayanniyi, (2009) that the attitude exhibited by learners to the learning process readily predicts the importance students attached to that learning process and of course, what they stand to benefit from that learning situation. In actual sense, the process might involve the use of teaching and learning technologies. This may be because the students get frustrated and learning ceases to be immediate and interesting when they display negative attitudinal disposition to a tool meant for their instruction. Of course, they would not be able to get the best from the instruction as their line of assimilation and interest would have become altered and consequently the objectives of such an instruction however brilliant it may be is defeated.

Though, the uncertain claim that the male gender is better disposed to technology than their female counterparts exists, yet it does not always hold. However, students' attitude to the User-Generated Content technology received significant contributions from gender and teaching subject. The positive attitude reported in this study may be traceable to the fact that most young people of the twenty-first century already see themselves as owners of ICT, particularly the online-based technologies, irrespective of students' gender and teaching subject. They are both considered as referred to as digital natives.

Conclusion and Recommendations

In conclusion, the findings of this study show that most undergraduate students of the Faculty of Education at the University of Ibadan are aware of User-Generated Content sites. A closer look at the particular types they had knowledge of shows that majority of the students were only familiar with very few of those sites such as Wikipedia and YouTube. Also, the study reveals that though some undergraduate students claimed to have been using User-Generated content for getting information, the good percentage had never contributed to any of the User-Generated content sites listed in the study.

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

i.   The curriculum of the General Studies courses should be reviewed to include the concept and practice of User-generated content.

ii.   The University should improve on working Internet facilities in the Faculty of Education and other locations on campus, including students' residential areas for enhanced accessibility to Internet facilities that would meaningfully enhance the use of user generated technology.

iii.   Educators of pre-service teachers should be adequately trained on how to employ or handle the User-generated content technology effectively for collaborative learning strategy.

Limitations of the Study

This study was limited to five departments in the Faculty of Education at University of Ibadan because of consideration for teaching subjects. The study focused only on those who have teaching subjects and were involved in further study.

Suggestions for Further Studies

The following areas pose a challenge for further researches:

i.   First, this study could be replicated in other faculties at the University of Ibadan on a larger scale in order to ascertain the generalisability of the findings in this study.

ii.   An intervention or experimental study could be undertaken to ascertain the effectiveness of integration of User-generated content for collaborative learning among pre-service teachers in some specific teaching methodology and educational foundation courses the undergraduate level or any other level like the Postgraduate Diploma (PDGE) courses.

iii. This study can be replicated among the teachers of both undergraduate and postgraduate programmes in University of Ibadan and other universities.

iv.   This study can as well be replicated by carrying out a comparative study among different universities running teacher preparation programmes.

v.   More researches should be carried out in the area of impact of other intervening variables such as socio–economic background, personality type, and teacher–factors on students' type in teacher preparation programmes.

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