

Digitally Mediated Learning and Pre-Service Teachers in Less Resourced Regions

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Abstract: *Digital technologies of today have challenged the traditional systems of education and have created potential new ways of delivery of knowledge and skills that require a critical look at learning and how it might be delivered. This study seeks to identify and describe the types of digitally mediated learning (DML) practices present at the training of teachers in less resourced regions. A qualitative analysis of pre-service teachers' online posts on a selected social media will be analysed to identify Hanging Out, Messing Around and Geeking Out - HOMAGO (Ito, et al., 2010) practices and to ascertain if any interest-driven learning occurs in this environment. Results from this study will add to existing knowledgebase of DML practices especially in teacher education.*

Keywords: digitally mediated learning, HOMAGO, social media, higher education, teacher education

1. Introduction

There is no denying the fact that digital technologies abound in today's world. As more and more people have gained access to computers and mobile phones, new uses for these technologies have arisen. Computers and electronic gadgets surround all and sundry. Even for people who do not 'actively engage' in new media, there is no running from it. Everyday common activities such as driving, making phone calls, getting directions, shopping and buying fuel are almost impossible to accomplish without engaging with some form of digital media. For the youth especially, it is commonplace to see them engaged in digital media practices constantly, irrespective of whether they own or do not own such media devices at home (Ito et al., 2010).

In the wake of the proliferation of media devices – and to a large extent, the catalyst for such widespread use of media devices – is the ease with which it has become possible to engage actively with others either through phone calls, text messaging, blogs, personal websites and other sharing websites such as Facebook. According to Selwyn (2012), social media have dominated the way digital technology is used ever since it (Social Media) was declared the 'Person of the Year' by Time Magazine. Websites such as Facebook, Twitter, YouTube and Wikipedia have become commonplace and is present in all spheres of life.

Such rampant use of technology outside of education usually compels a new agenda of research in academia (Clark, 1983; Kozma, 1991) with a focus on ways in which the prevailing social phenomena could be harnessed to better serve the needs of students and/or teaching and learning in general.

In their book *Hanging Out, Messing Around and GeekingOut (HOMAGO)*, Ito et al (2010) have sought to portray the 'pervasive and commonplace' nature of digital media, and how computers and computer based-media have been adopted by all. Ito et al (2010) show how learning has become diversified because of digital media, and with particular reference to youth, had documented several different examples (from different disciplines) of how

learning and collaboration has been facilitated by such digital media. Ito et al (2010) have advocated a model of engagement with media for learning that segments participants into three, and that these three groups of learners in a digitally mediated environment perform a different function that ultimately fosters learning. However, Ito's work concentrated on pre higher education level.

The goal of this paper is to investigate if the identities described by Ito et al manifest in the interactions of a group of Pre-Service Teachers and their social interaction activities on Facebook to ascertain if any learning activities occur in this digitally mediated environment.

Also of special interest, is to determine if pre-service teachers located in less resourced regions also exhibit such characteristics described by Ito et al, and the implications for teacher training in these regions.

Hanging Out, Messing Around and Geeking Out

The framework adopted for this study is the HOMAGO model by Ito et al (2010) in their 3-year ethnographic study on how the youth engage with digitally mediated media for learning. In an attempt to explain how young people interact with new media, Ito et al (2010) created a 'genre of participation' that describes 'differing levels of investment in new media activities in a way that integrates an understanding of technical, social and cultural patterns' (Ito et al, 2010, p. 36). The main thrust of this genre of participation categorizes participants of digitally mediated learning environments into three groups. Ito et al (2010) explain that participants who 'hang out' are interested only with being a part of the group because of a desire to belong, and are interested in getting together and being together, sharing, posting, linking and forwarding messages, and also finding workarounds for tasks. In contrast, the second group of participants, referred to as "messing around" engage more intensely with the media. Participants are interested in looking around and fishing for information, experimenting and playing with media items and a strong interest in finding the time and place to engage with the new media and

learning, even where not readily available. Ito et al (2010) further describe the last group of participants as those intent on 'Geeking Out'. This last group of participants become experts in an aspect of the media and tend to provide assistance to the other group of participants.

Closely associated with this genre of participation is the distinction that Ito et al (2010) make between friendship-driven and interest-driven participation. Ito et al. (2010) have described friendship-driven participation as the interaction among friends and peers in their everyday social lives. These interactions are transferred and/or mirrored onto youth practices online. On the contrary, interest-driven participation is fostered by a common interest in a subject specific area. What brings people together is a more specialized area of interest, and friendship is not the common denominator for association.

2. Methodology

Participant Selection

The criteria used to select the participants for this study were grouped into general and specific. In general, the potential participant had to: (a) have access to the Internet (b) have a Facebook Account (c) be willing to allow full access to all the postings they had made on Facebook, and (d) must have the ability to fully express their thoughts on the Facebook Wall. The next step in the participant selection was to ensure that the participant met all (5) specific criteria. These criteria were that the participant must (a) have some postings on their Facebook wall for the period under study, (b) be at the Internship stage of the teacher training program, (c) go through the Internship on full time basis (d) undergo the Internship at a government recognized school and (e) have friends on their Facebook who are also pre-service teachers.

In recruiting participants for this study we considered all pre-service teachers who were just about to begin the Internship stage of the program. To ensure that students met the general and specific requirements, we narrowed potential participants to students who were pursuing a degree in ICT. Through Facebook, requests were made to 5 students who met all the requirements. The first three students who responded positively to the request were contacted on phone, and informed about the nature of study, and to seek consent for participation.

Kingsley (pseudonym) is a 28 year-old male in year four of his studies for a degree in ICT. Kingsley joined Facebook in 2010 and has frequently visited and posted on Facebook in the last 4 years. Kingsley expressed interest and willingness to participate in the study, and met all the criteria stipulated for the study.

Frank (pseudonym) is a 39 year-old married male with 3 children. Frank is in the 4th year of his ICT degree program. Frank joined Facebook in 2010 and in the past 4 years has interacted and posted on Facebook on numerous occasions. When contacted, Frank did not have any reservations about including him in the study. He confirmed to us, through interaction, that he met all the criteria set forth in this study.

George (pseudonym), the third participant for this study, is 33 years old. George is at the Internship stage of the B.Sc Information Technology program. George met all the general criteria for the study. George willingly agreed to be a part of this study and consented to the use of his posts.

3. Data Collection

The data gathering stage of this project was grouped into two phases. First, the researchers met online for over a period of two weeks to brainstorm and determine the platform from which data will be collected, the duration for which the data will be collected, and the methods to be used in gathering the data.

Secondly, we selected Facebook as the social media platform for data collection. According to Alexa.com (2014), Facebook is the most popular and frequently-used website in Ghana. Furthermore, ITNewsAfrica (2014), reports that Ghana currently has 1, 465,560 of her citizens who are on Facebook. Again, Hampton, Goulet, Rainie, & Purcell (2011), explain that Facebook users are more likely to be trusting than other users of other social media networks; they have more close relationships; they get more social support than other people; they are more politically engaged than most people and finally Facebook revives dormant relationships than other social networks. Since this research focuses on online behaviours, it was determined that Facebook will adequately serve as a platform upon which such behaviours could be assessed (Kirschner & Karpinski, 2010).

For the purposes of this study, all posts made by participants from October 1, 2013 to December 31, 2013 were collected.

This duration was carefully selected as it was determined to be the time where participants had started their Internship, and were also away, physically, from their colleagues and support groups. This, it was assumed, would necessitate for participants to find other ways of staying in touch with their colleagues on their academic work.

From the Facebook walls of participants, all postings made between October 1, 2013 and December 31, 2013, were gathered, and with the aid of Ito et al's (2010) classifications, such posts were grouped into Hanging Out, Messing Around, or Geeking Out.

4. Data Analysis

Glaser & Strauss (1967) analytic procedures was used to conduct whole text analysis of the postings made by participants. Two phases to categorize the participants' posts into the three main classes identified by Ito et al were employed.

First, each researcher read and determined the appropriate classification for each post made by the participants for the duration selected for the study. The individual classifications were compared and appropriate adjustments were made to the classifications, as per the characteristics determined by Ito et al (2010). At periodic points at this stage of analysis, memos were created pertaining to issues that we found interesting and needed to be addressed. In

qualitative research, memos serve as a written record of analysis and help the researchers focus on key issues that need to be addressed.

5. Results and Discussion

The purpose of this study is to determine the digitally mediated learning practices that exist among pre-service teachers. Ito et al's HOMAGO framework is used as the overarching theme for identifying such practices. As such, three main categories were identified, and served as the headings for the discussion of the results.

Hanging Out

It is interesting to note that, for the participants surveyed, even though they indicated that they were frequent users of Facebook, a closer look at observable activities on their Facebook Walls showed infrequent activity. For the period under study, Kingsley made a total of 9 posts on his Facebook Wall, Frank made a total of 10 posts on his wall, and George made a total of 8 posts on his Facebook Wall. On the face of it, this may seem rather low, but a careful study of the environment may suggest otherwise. In less resourced regions, access to networks and Internet is rather low, and this may account for the number of posts. Also, for participants, it is likely their Facebook activities are not limited to just posts. A proposed further study (including face-to-face interviews of participants) will shed more light on this phenomenon.

Participants often engaged in hanging out activities by making postings on a wide range of topics. A common thread of posts among participants concerned words of motivation and religious quotes. Kingsley offered words of wisdom: "It takes personal commitment to live in life but not personal achievement", Frank prayed for blessings: "God turn every curses sent on my way into a blessing", and George praised God: "I bless you God for all your Grace, Favours, Mercies and all. To God be the Glory."

Other participants shared jokes and made commentary on relationships. Kingsley commented on the intricacies of love relationships and shared a joke on it

Frank, another participant also shared jokes on his Facebook Wall. He shared an interesting speech of a school principal: "A Frustrated Principal on a Monday morning at the school assembly said; Since the Genesis of This Term, Some students have been Exodusing home during break. I will use my Levitical power to Deuteronomise their Numbers. To do this, I have appointed Joshua as one of the Judges, Ruth and Samuel as Kings. To Chronicle the events is Ezra. Nehemiah and Esther will complete the Job and they shall all sing in Psalm and Speak in Proverbs. One word for the Principal"

Most of the Facebook posts reviewed were similar to the ones discussed above. Of the 27 posts, only 5 were classified outside of Hanging Out. This suggests that in less resourced regions there is a strong frequent activity online, at least, those involving hanging out activities.

Messing Around

According to Ito et al, messing around involves much more interaction with media than just mere hanging out. At this stage, the individual takes a bigger interest in seeking and sharing information, and is engaged in helping others solve problems of a technical and/or professional interest.

Very few postings on the Facebook Walls of participants for this study can be placed under this category. In such instances, some of the participants posted pictures of themselves engaged in their professional activities. Kingsley engaged in Messing Around activities by posting a picture of his internship activities. This posting prompted his other colleagues and friends to make the following comments:

- I like what you are doing
- Portfolio building in progress... well done man
- Good teacher
- What are you doing, Sir?
- At where?

Frank also posted a picture of himself in the classroom with the caption: 'Time of invigilating my students'. George engaged in Messing Around activities by searching for information online on a topic he was interested in, and continued to promote his findings by posting information and links to more details on his Facebook Wall. George's interest in Genetically Modified Foods and its implications in Africa were apparent in three separate posts he made on his Facebook Wall in the period under study. George's interest and quest to find more information on his topic of interest and to share such information is exemplified in this post:

"The GMO push in Africa is a Trojan horse for political control": An analyst says, food is a weapon and if Western multinationals control the food in Africa with GMO, they control the life, control politics. We have given our gold, timber, oil, Telecom, etc.

As if these are not enough, we are rushing to give our food also to Western multinationals to control. The Big question is why?

George depicts an example of an interest driven interaction with media, one that goes beyond just hanging around to a point where his actions seek to help others come to a better understanding of a phenomenon and maybe even promote an agenda for change in opinion or behaviour.

6. Geeking Out

In all the postings of participants analysed over the stated duration, there was no posting that could be classified as Geeking out. According to Ito et al, Geeking Out requires users of media to be adept at its use, and to be actively involved in helping others overcome their technical problems. Of the 27 postings analysed, none of them had any of the characteristics required to be considered as Geeking Out.

7. Implications of the Study

The results of this study will add to the existing knowledge base of the incidences of digitally mediated learning in teacher education. Much effort has been put in assessing the incidence and impact of digitally mediated learning on students and learning especially at the pre-tertiary level. Over the years, these groups of students have transitioned into higher education. There is much need to continue to investigate the impact that digital media has on students at this level. This study will provide an instance of a role that social media plays in learning and interaction for a group of pre-service teachers.

8. Conclusions

The classifications described by Ito et al, (2010) can be applied to pre-service teachers in less resourced regions. The participants surveyed have participated in the use of media, and in some instances have used digital media as a tool for learning. Media use, however is largely limited to hanging out, where participants use the tools that the media affords, to stay in touch with their colleagues and to share, albeit intermittently, words of encouragement, jokes and religious beliefs. In very few instances, individuals have engaged in messing around activities and have shared pictures and comments related to the activities of their internship study. The last stage of Ito et al's framework, Geeking Out, was however not present in any of the postings

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