The implementation framework of social media for distance learners in Africa Nazarene University, Kenya

Mary Ooko, Collins Oduor, Africa Nazarene University, Nairobi, Kenya

Abstract. Distance education as a primary means of instruction is expanding significantly at the college and university level. Simultaneously, the growth of social networking sites (SNS), including Facebook, LinkedIn, and MySpace, is also rising among today’s college students. An increasing number of higher education instructors are beginning to combine distance education delivery with SNSs. However, there is currently little research detailing the educational benefits associated with the use of SNSs. Non-commercial, education-based SNSs have been recently shown to build communities of practice and facilitate social presence for students enrolled in distance education courses. In order to evaluate the largely unexplored educational benefits of SNSs, we surveyed graduate students enrolled in distance education courses in ANU, an education-based SNS, based on their attitudes toward SNSs as productive online tools for teaching and learning. The results of our study suggest that education-based SNSs can be used most effectively in distance education courses as a technological tool for improved online communications among students in higher distance education courses. Debates rage about the appropriateness of using social networking in teaching, with arguments ranging from waste of time and distraction from academic goals to the need to reach net generation students. This paper explores a range of current social networking choices and argues that like any tool, they should be carefully evaluated in terms of affordances and course goals. Several different tools are reviewed, and questions that might be useful for evaluation are discussed.

Keywords: Distance Learning, ICT Adoption, Social media, Social networking sites
Introduction

The use of distance education courses as a primary instructional delivery option, especially in the higher education community, is expanding at an unprecedented rate. The 9.7% growth rate in the number of college and university students enrolled in at least one online class, reported by Allen and Seaman (2007), significantly exceeded the 1.5% growth rate in the overall higher education student population during the same period. Simultaneously, the emergence and growth of commercial social networking sites (SNSs) such as Facebook, Friendster, LinkedIn, LiveJournal, and MySpace has been extensive and widespread (Boyd, Ellison, 2007). Facebook, for example, is currently the fastest growing commercial SNS in the world, with more than 300 million active user profiles (Facebook, 2009). Given the rising popularity of both distance education and SNSs, it seems logical to merge these popular two technologies with the goal of improving online teaching and learning (National School Boards Association NSBA, 2007; University of Minnesota, 2008). Research has shown that distance education courses are often more successful when they develop communities of practice (Barab, Duffy, 2000; DeSchryver et al., 2009) as well as encourage high levels of online social presence among students (Anderson, 2005). Fostering a sense of community is critically important, especially in an online environment where students often do not get the opportunity to meet face-to-face with other students or the instructor in the course. Since they facilitate the sharing of information - personal and otherwise - the technologies used in SNSs aid discussion and create intimacy among online students, as they have they ability to connect and build community in a socially and educationally constructed network (Educause Learning Initiative ELI, 2007).

Problem of research

Developing countries have many areas that have low standards and education is not left out. With poor technological infrastructure, large student populations, few schools, inaccessible reading materials, and expensive resources, gaining quality education in developing countries is usually a fete left only to the affluent. According to Hansen, there are five reasons why a college education would make one a better person: it will likely make you more prosperous; it will
give you a better quality of life; it will give you the power to change the world; it will be something you can pass on to your children; it makes you a major contributor to the greatest nation on earth. Good education is the one that provides the student with quality education; learning relevant and useful materials; good value for money and time; provides an experience. In order to create value in terms of monetary and time for the education recipient to be able to stay competitive, institutions need to adapt methods to improve and maintain certain expectations. Social media as “new” platform and technology is currently being utilized in many fields ranging from governance, entertainment, business-marketing, campaigns, and even education.

Developed countries have incorporated these advancements (social media) into their mainstream curriculum in order to provide rich, experiential education. Where these programs have been utilized successes have been documented and working programs continue to yield alumni who attest to receive better opportunities, students who have gained a competitive edge in the job market. This study will propose models that can be implemented to improve the education system for quality and value creation.

**Research focus**

Based on the discussions above, the purpose of this study is to improve education by use of social media. In order to accomplish this, the following questions were developed:

a. Design an educational learning environment that provides educators and learners the ability to use an online system that is interactive and open to learners and easy for educators to post their content.

b. Investigate social media educational tools currently available to facilitate and supplement the effectiveness of distant education learning.

c. Determine if the educational prototype environment will improve the effectiveness of learning.
Methodology of research

General background of research

Better understanding of distance learning, traditional student satisfaction, and their relationship could provide valuable insights useful in improving both the quality of the experience and the retention rates of distance learners. The intent in conducting this research was to develop the understanding of student perceptions of distance learning and to identify possible differences with students in traditional classroom environments. Understanding the differences in student satisfaction could greatly enhance the ability of university administrators to make informed decisions relative to distance learning program improvements. The additional focus on distance learning students’ satisfaction with technology and administrative services was also valuable to make improvements and modifications in course content and delivery methodology and as well as in improving administrative services. Gay (2000) has stated that causal comparative studies identify relationships that may lead to experimental studies. Results of this studies may incentive further research into the relationship between student satisfaction in distance learning and in traditional classrooms.

Sample of research

A sample is a finite part of a statistical population whose properties are studied to gain information about the whole, and it must be representative, accessible and knowledgeable on the topic being investigated.

Simple random sampling technique will be used to select a sample of 99 students and 13 instructors, representing the 33% of the study population. Simple random sampling is used because it is a technique in which every member has an equal chance of being selected (Orodho, 2003).

<table>
<thead>
<tr>
<th>Participants</th>
<th>Total no. (N)</th>
<th>Sample (n)</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>300</td>
<td>99</td>
<td>33</td>
</tr>
<tr>
<td>Instructors</td>
<td>40</td>
<td>13</td>
<td>33</td>
</tr>
<tr>
<td>Adm. staff</td>
<td>10</td>
<td>4</td>
<td>34</td>
</tr>
</tbody>
</table>

Table 1. Sample frame
Instrument and procedures

Before the process of data collection begins, the researcher will secure a research permit from the National Council for Science and Technology in the Ministry of Higher Education, Science and Technology, through the Department of distance learning of Africa Nazarene University. Letters notifying the various institutions of the intended study will be dispatched two weeks before the researcher visits the institutions. Data will be collected using questionnaires and interview schedules in order to get the desired information. For effective administration of the questionnaires, the researcher will make a personal visit to the schools, giving relevant instructions on how to fill the questionnaires. The completed questionnaires will be collected and more information will be sought using interview schedule. Respondents will be assured of confidentiality and anonymity when reporting the findings of the study.

Data analysis

Quantitative data will be analyzed using descriptive statistics such as frequencies, means and percentages (Kombo, Tromp, 2006). Responses to the open-ended questions, which will form the qualitative data will be organized, categorized and reported in emergent themes.
Discussion

**Organizational Context**
- Top management support, organizational
- Training of the lecturers
- Readiness, IS experience
- Size

**Technological Context**
- Relative Advantage
- Compatibility
- Complexity
- Triability
- Observability

**Environmental Context**
- Industry
- Market scope
- Competitive pressure
- External IS support

**Benefits of Social Media in DL**
- Quick Access time
- Mobility
- Global reach
- Universal standard
- Increase Intractability
- Innovative learning experience

**Student factor**
- ICT knowledge and skills
- Experience with social Media

**Technological context**
Premkumar (2003) argues that there are very few studies that examine the impact of technological characteristics in the context of Universities. Rogers’ (2003) innovation diffusion theory for organizations will be used as a theoretical basis for studying the impact of technological factors on Universities' willingness to adopt ES. *Relative Advantage* is defined as “the degree to which an innovation is perceived as being better than the idea it supersedes” (Rogers 2003, pp. 229). Studies found this variable to be positively related to the adoption of IS innovations (Grandon, Pearson 2004; Kuan, Chau 2001). When an IS innovation is perceived to offer relative advantage over the firm’s current practice, it is more likely to be adopted (Lee et al., 2004). This view has support in the general innovation/diffusion research (Moore, Benbasat 1991; Tornatzky, Fleischer, 1990), and more specifically in the context of small business (Thong, 1999; Cragg, King, 1993). ES provide many benefits to adopters in terms of accommodating business growth, improving business processes and reducing business operating and administrative costs (Markus, Tanis, 2000).
In a highly competitive marketplace, these benefits make significant motivations for adopting these technologies.

**Organisational context**

The characteristics of the organisational context are the primary focus of many studies about the adoption of technology (Premkumar, 2003). *Top management support*, organisational readiness, IS experience and size are considered to be factors that influence Universities’ willingness to adopt ES. Jeyaraj et al. (2006) found that top management support is one of the best predictors of organisational adoption of IS innovations. Top management can stimulate change by communicating and reinforcing values through an articulated vision for the organisation (Thong, 1999). Many studies have found top management support to be critical for creating a supportive climate for the adoption of new technologies (Premkumar, Roberts, 1999; Grover, Goslar, 1993).

**Environmental context**

Industry, market scope, competitive pressure and external IS support are considered to be factors that influence Universities’ willingness to adopt ES. It has been argued that the industry in which the firm operates influences the adoption of IS innovations (Levenburg et al., 2006; Raymond, 2001). Service industries, which rely on the processing of information, depend on information systems (Goode, Stevens, 2000).

There are hundreds of social media tools on the Web, and more are emerging every day. Social media tools take various forms, such as blogging, social networking, social bookmarking and multimedia sharing. Here are some of the most popular and well-known examples of social media tools (Zhang, 2010), social media educational tools currently available to facilitate and supplement distant education learning for their effectiveness.

1. **Blogging/micro-blogging:** Blogger, WordPress, Twitter
2. **Social networking:** Facebook, MySpace, LinkedIn, Ning
3. **Social bookmarking:** Delicious, Diggo
4. **Collaborative authoring:** Wikipedia, Google Docs, Zoho Office Suite
5. **Multimedia sharing:** Flickr, YouTube, Qik
6. **Web conferencing:** WebEx, GoToMeeting, DimDim
Conclusions

Just as social media has impacted communication among its users, organizations can implement similar social media tools in an attempt to increase the quality and quantity of knowledge transfer between their members. Many studies are currently examining the impact of social media on population. Many of these studies examine the quality of social media based communication, the impact social media have on relationships, and the impact social media have on marketing. The purpose of this study is to determine the impact social media have on knowledge transfer. There are clear advantages in using social media in distance education. With social media services, online teachers and learners can experience new and better types of communication and interaction, and they can be more connected to each other than ever before. Social media tools help online learners to feel less isolated. With social media technologies advancing, distance education will continuously evolve with the trend.

References


Allen Elaine, Seaman Jeff (2007), Online nation: Five years of growth in online learning, Needham, MA, USA, Sloan Consortium

Anderson Terry (2005), Distance learning - Social software’s killer ap? Proceedings from Conference of the Open and Distance Learning Association of Australia, Adelaide, South Australia, University of South Australia

Bai Hua (2003), Student motivation and social presence in online learning: Implications for future research, in Crawford Caroline, Willis Dee Anna, Carl森 Roger, Gibson Ian, McFerrin Karen, Price Jerry, Weber Roberta (Eds.), Proceedings from The Society for Information Technology and Teacher Education International Conference, 2714-2720, Chesapeake, VA, USA, AACE
Barab Sasha, Duffy Thomas (2000), From practice fields to communities of practice, in Jonassen David, Land Susan (Eds.), Theoretical foundations of learning environments, Mahwah, NJ, USA, Lawrence Erlbaum Associates, pp. 25-56

http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html

doi:10.1080/09523980701847115

http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html

Brady Kevin (2010), Lifting the limits on social networking sites, “The School Administrator”, V. 67, n. 2, p. 8

Brady Kevin (2007), The promises and pitfalls of social networking websites, “School Business Affairs”, V. 74, n. 9, pp. 24-28


Buechler Scott (2010), Using web 2.0 to collaborate, “Business Communication Quarterly”, V. 73, n. 4, pp. 439-443
doi:10.1177/1080569910385381

Burgess Diana (2005), What motivates employees to transfer knowledge outside their work unit? “Journal of Business Communication”, V. 42, n. 4, pp. 324-348

Chan Lai Sheung, Chow Wing S. (2008), Social network, social trust and shared goals in organizational knowledge sharing, “Information & Management”, V. 45, pp. 458-465

Chene Marie (2008), Anticorruption resource unit. Overview of corruption in Pakistan
www.u4.no/

Cobb Susan Coppley (2009), Social presence and online learning: A current view from a research perspective, “Journal of Interactive Online Learning”, V. 8, n. 3, pp. 241-254

Correia Ana-Paula, Davis Niki (2008), Intersecting communities of practice in distance education: The program team and the online course community, “Distance Education”, V. 29, n. 3, pp. 289-306

Cuban Larry (1986), Teachers and machines: The classroom use of technology since 1920, New York, USA, Teachers College Press

Dawson Shane (2006), A study of the relationship between student and communication interaction and sense of community, “Internet and Higher Education”, V. 9, pp. 153-162


DeSchryver Michael, Mishra Punya, Koehler Matthew, Francis Andrea (2009), Moodle vs. Facebook: Does using Facebook for discussions in an online course enhance perceived social presence and student interaction? In Crawford Caroline, Willis Dee Anna, Carlsen Roger, Gibson Ian, McFerrin Karen, Price Jerry, Weber Roberta (Eds.), Proceedings from The Society for Information Technology and Teacher Education International Conference, Chesapeake, VA, USA, AACE, pp. 329-336


George Alison (2006), Living online: The end of privacy? “New Scientist”, V. 2569, pp. 50-51 [Electronic version]

Godwin Stephen, Thorpe Mary, Richardson John (2008), The impact of computer mediated interaction on distance learning, “British Journal of Educational Technology”, V. 30, n. 1, pp. 52-70

Gunawardena Charlotte, Zittle Frank (1997), Social presence as a predictor of satisfaction within a computer mediated conferencing environment, “American Journal of Distance Education”, V. 11, n. 3, pp. 8-26

Hart Jane (2008), A guide to social learning: How to use social media for formal and informal learning http://c4lpt.co.uk/handbook/index.html


Mason Robin, Rennie Frank (2008), *E-learning and social networking handbook: Resources for higher education*, New York, USA, Routledge

McCann Kimble Handyside (2009), *Virtual communities for educators: An overview of supports and best practices*. Proceedings from Technology, Colleges, and Community Conference Honolulu, HI, University of Hawai at Manoa, pp. 137-142 [Electronic version]


O’Donnell Victoria, Tobbell Jane (2007), *The transition of adult students to higher education: Legitimate peripheral participation in a community of practice? “Adult Education Quarterly”, V. 57, n. 4, pp. 312-328

Ozkan Betul, McKenzie Barbara (2008), *Social networking tools for teacher education*. Proceedings of Society for Information Technology and Teacher Education International Conference, pp. 2772-2776

Reed Diane, McNergney Robert (2000), *Evaluating technology-based curriculum materials*, “ERIC Digest” (ED449118), Washington DC, USA, ERIC Clearinghouse on Teaching and Teacher Education  


Salmon Gilly (2005), *E-moderating: The key to teaching and learning online*, New York, USA, Routledge Falmer

Schroeder Jacob, Greenbowe Thomas (2009), *The chemistry of Facebook: Using social networking to create an online community for the organic chemistry laboratory*, “Innovate”, V. 5, n. 4 [Electronic version]


Smith Bethany (2009), *Use of online educational social networking in a school environment*, Raleigh, NC, USA, North Carolina State University [Unpublished master’s thesis]

http://www.ifets.info/journals/5_3/storey.html

Swan Karen, Shih Li Fang (2005), *On the nature and development of social presence in online course discussions*, “Journal of Asynchronous Learning Networks”, V. 9, n. 3, pp. 115-136

University of Minnesota (2008), Educational benefits of social networking sites, “ScienceDaily”
http://www.sciencedaily.com/releases/2008/06/080620133907.htm


http://www.uwyo.edu/edleadsupport/docs/YoungAERA07.pdf

Zhao Yong, Lei Jing, Yan Bo, Lai Chum, Tan Sophia (2005), What makes the difference? A practical analysis of research on the effectiveness of distance education, “Teachers College Record”, V. 107, n. 8, pp. 1836-1884

Sintesi

L’Arab Open University (AOU) è uno dei primi atenei della regione araba ad aver offerto corsi in modalità telematica, per le tre facoltà in cui si articola l’ateneo: Information Technology and computing, Business administration e Linguistica. Per l’erogazione dei corsi l’ateneo ha scelto di utilizzare il sistema open access Moodle, facilmente adattabile alle diverse esigenze dei corsi e supportato da una forte community di utenti e sviluppatori. L’interesse della ricerca si è concentrato sull’utilizzo degli strumenti di comunicazione disponibili, sia in forma sincrona sia asincrona, e sulla loro utilità per le attività didattiche. Pur mantenendo una scelta di blended learning, l’ateneo ha rilevato che sia nella forma sincrona - in cui è necessaria la partecipazione del docente per animare la discussione - sia nella forma asincrona - che richiede maggiore attenzione nella realizzazione dei materiali di supporto
ai forum ma non la partecipazione dei docenti - gli studenti hanno partecipato attivamente alla comunicazione a distanza su Moodle, con una propensione in generale per la modalità asincrona dei forum, soprattutto nell’ambito del college di ITC, mentre gli studenti di Linguistica hanno utilizzato in modo consistente anche le forme sincrone su Chat e messaggistica istantanea.