

## **Using Social Networks for Teaching and Learning in Distance Education**

### **Interactivity & Distance Education**

Distance education (DE), is a distinct form of educating in that it is underpinned by pedagogical practices and special arrangements intended to facilitate learners in successfully completing their learning goals, while being geographically and temporally distanced from the instructor and instructional institution (Peters, 2001; Holmberg, 2005; Moore & Kearsley, 2005). At the heart of the pedagogical practices used in DE, is the emphasis on “interaction treatments” (ITs) (Bernard, Abrami, Borokhovski, Wade, Tamin, Surkes & Bethel, 2009, p. 1243) or the types of interaction utilized by DE to effect the teaching and learning process and described by Bernard et al (2009) as student-content (SC), student-teacher (ST) and student-student (SS) interactions through which learning is facilitated.

Moore and Kearsley (2005), describe SC interaction as the learners interaction with course content postulated as follows “Education is a process of planned learning of some content,...Every learner has to construct his or her own knowledge through a process of personally accommodating information into previously existing cognitive structures” (p. 140). In DE, course content is designed to provide students with a means through direct interaction to construct personal knowledge.

ST interactions are a necessary component of DE. After content is presented to the learner it is the interaction with the instructor that is required to give the aforementioned content context for application, or as stated by Moore et al (2005):

“Whatever self-directed learners may do alone when interacting with the content presented, they are vulnerable at the point of application, since they do not know enough about the subject to be sure they are applying it correctly, or as intensively or extensively as is possible or desirable, or that there are potential areas of application they are not aware of. (p. 141)

At the time that Moore et al (2005) wrote about SS interactions, this type of interaction was a relatively new consideration for DE teachers. There are two forms of learner-learner (SS) interaction; one being the interaction that happens within and between groups in courses using teleconferencing technologies. And, learner-to-learner interaction that occurs in online courses where students never meet face-to-face (f2f) and their interactions either singly or as a group are solely virtual in nature. Regardless of the type, SS interactions are usually viewed by learners as engaging and motivating; and additionally, utilized by course designers and instructors to create content, especially in courses where learners are assigned project tasks e.g., creating a presentation for their peers. In these instances, learner discussions are valuable for assisting learners in thinking out and testing created content (Moore et al, 2005).

Beard and Harper, Crawford, and Wagner (as cited in Bernard et al, 2009) have remarked that SS and ST interactions, in particular, engender “social purpose and processes” (p. 1247). However, Bernard et al (2009) cite other authors (i.e. Gilbert & Moore, 1989) who draw distinctions between instructional and social interactivity; while Yacci (as cited in Bernard et al, 2009) “acknowledges that the affective benefits of interactivity are less well understood than the content benefits but that there is evidence that interactions in an online classroom provide social presence and satisfaction” (p. 1247).

Finally, it should be noted that interaction can be characterized as having symmetrical and asymmetrical qualities (Bernard et al, 2009). Taking part in a video chat, phone call, email/forum discussion are symmetrical or two-way interactions. On the other hand, viewing a

video, listening to a podcast, or reading a blog post are examples of asymmetrical or one-way interactions. Synchronous and asynchronous communications, common to DE courses, can exhibit both symmetrical and asymmetrical interactivity. Generally, speaking the more symmetrical the quality of interactivity the higher the interaction rates as effective for teaching and learning, according to Roblyer and Wiencke (as cited in Moore et al, 2005).

### **Learning Theories & The Implications for using Social Networks for Distance Education**

For this paper two learning theories will be discussed to illustrate the advantages of using social networks for teaching and learning.

First, Lev Vygotsky's (1896-1934) social constructivism essentially posits, that learning happens when the individual through interaction with more a capable individual(s) develops knowledge or skills beyond her/his current level of development (Bockarie, 2002). Vygotsky, named that moment or space in time when learning occurs in the aforementioned circumstance the *zone of proximal development* (ZPD) which he defined as:

The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Wink & Putney, as cited in Bockarie, p. 50)

The more capable peer referred to above can be a teacher, coach, mentor, another student or colleague etc. Citing Wink and Putney, Bockarie (2002) states that as a result of the instructional support received from a more capable peer, the learner co-opts the new information and then develops from the experience mechanisms that aid she/he in behaving independently when faced with a similar problem-solving situation at a future date. According to Vygotsky, via Wink and Putney, this highlights the social dynamic that underpins the learning process as a communicative progression through which learners, at various stages of development, come to

“an understanding of the operations they are performing” (Bockarie, 2002, p. 50). Furthermore, Vygotsky theorized that the cognitive structures or schema that learners develop are instigated by social activities and are rooted in language, which is also a social concept, therefore it is “through social interactions...that children learn the cognitive and communicative tools and skills of their culture” (p. 50).

Secondly connectivism has been characterized by Siemens (2004) as “a learning theory of the digital age”. Connectivism characterizes one aspect of learning as the learner’s ability, when faced with copious amounts of information, to distinguish what is worth learning and what isn’t. According to Siemen’s (2004) in our knowledge society being able to rapidly discern the significance of information is “a valuable meta-skill” that is needed as a precursor to actual learning. Additionally because of the exponential speed at which new information is developed and disseminated today, the half-life of previously known information has decreased accordingly. Thereby the author states, this means that in many circumstances action is required before new information can be made sense of in comparison to what we have previously learned; here connectivism posits that being skilled at synthesizing and recognizing the patterns of connections between diverse references is also an important skill. Siemen’s (2004) describes connectivism as:

“Connectivism is driven by the understanding that decisions are based on rapidly altering foundations. New information is continually being acquired. The ability to draw distinctions between important and unimportant information is vital. The ability to recognize when new information alters the landscape based on decisions made yesterday is also critical.

Principles of connectivism:

- Learning and knowledge rests in diversity of opinions.
- Learning is a process of connecting specialized nodes or information sources.

- Learning may reside in nonhuman appliances.
- Capacity to know more is more critical than what is currently known.
- Nurturing and maintaining connections is needed to facilitate continual learning.
- Ability to see connections between fields, ideas, and concepts is a core skill.
- Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities.
- Decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision.”  
(Siemens, 2004)

The implications and therefore the advantages for using social networks for teaching and learning can be seen in both of the learning theories cited previously. First, from the point of view of Wenger (n.d.) and Lave and Wenger (as cited in Bockarie, 2002), the social aspect of learning evinced by Vygotsky, opens up the possibility of the development of communities of practice defined by Wenger (n.d.) as:

“Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor: ... In a nutshell:

Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.

Note that this definition allows for, but does not assume, intentionality: learning can be the reason the community comes together or an incidental outcome of member’s interactions. Not everything called a community is a community of practice. A neighborhood for instance, is often called a community, but is usually not a community of practice.”

Moreover Bates and Poole (2003), notably wrote that “Networked learning...allows students to develop critical thinking skills and to construct new knowledge through argument and discussion. It also encourages the development of a community of learners, without the need for physical presence.”

With respect to connectivism, Siemens (2004) much like Morgan (2012) sees the social networks of learning as developing weak ties and communication across boundaries:

“Weak ties are links or bridges that allow short connections between information. Our small world networks are generally populated with people whose interests and knowledge are similar to ours. Finding a new job, as an example, often occurs through weak ties. This principle has great merit in the notion of serendipity, innovation, and creativity. Connections between disparate ideas and fields can create new innovations.” (Siemens, 2004)

Furthermore connectivism according to Siemens (2004) is better equipped as a learning theory to account for and address the challenges of organizational/institutional learning, through social networks and the resulting knowledge flow management activities that connects

“knowledge...with the right people in the right context in order to be classified as learning”.

This is evident in a discussion of what can obviously be likened to information silos (Morgan, 2012; Leistner, 2012) Siemens states the following:

“Information flow within an organization is an important element in organizational effectiveness. In a knowledge economy, the flow of information is the equivalent of the oil pipe in an industrial economy. Creating, preserving, and utilizing information flow should be a key organizational activity. Knowledge flow can be likened to a river that meanders through the ecology of an organization. In certain areas, the river pools and in other areas it ebbs. The health of the learning ecology of the organization depends on effective nurturing of information flow.”  
(Siemens, 2004)

### **The Challenges for the Inclusion of Social Networks in Distance Education**

A major impediment for the inclusion of technologies in education generally and social media technologies specifically involves the faculties' view of technology. Tabata and Johnsrud (2008), write that because faculty support is critical to the success of any distance education (DE) initiative it is important to apprise learning institution administrations of the concerns that either encourage or discourage faculty participation.

Generally regarding technology for education, the authors state that faculty who perceive using technologies as being viewed favorably by the administration and therefore as a positive for their work will more likely use technologies. Furthermore, as faculty using technologies become more knowledgeable about them they tend to keep using them and are more likely to explore trying different technologies (Tabata et al, 2008). The latter bodes well for the inclusion of social media in their courses.

When faculty are concerned about the amount of time it takes to learn new technologies and how that will affect their individual workloads; coupled with insufficient to non-existent work release time and instructional support for course materials development it is not surprising that they express reluctance to be involved with DE delivery and/or other related initiatives (Tabata et al, 2008).

The lack of training, technical and institutional support can also be deterrents that prevent faculty from completely buying-in. It is suggested by Tabata et al (2008), that institutional policy makers insure that faculty receives training either through in-house means or through outsourced facilities, in which case faculty should be given monetary or other support as warranted to take advantage of training opportunities. Additionally, the institutions information and communications technology infrastructure and technical support services should be reliable and quick to respond respectively.

Tabata et al (2008), admonish that “the lack of rewards and incentives, and the omission of technology and innovative instruction as part of promotion and tenure reviews, may influence faculty decisions whether to adopt new technologies or engage in distance education”.

Moreover, with respect to social media technologies faculty express great concern that their

having a web presence will be very damaging to their professional reputations; likewise, they are apprehensive about cyber-security and privacy issues (Chen & Bryer, 2012).

Finally, many faculty hold a dim view of the instructional efficacy of DE in comparison to traditional courses and for this reason tend to oppose it (Tabata et al, 2008). This perception, could possibly spillover into the very real faculty views regarding the instructional and ethical issues surrounding social media use e.g. students not being able to separate learning uses of social media from entertainment or casual usage, cyberbullying, and marginalization of students due to befriending unevenly (Chen et al, 2012).

### **Best Practices for using Social Media for Distance Education**

Blankenship (2011) citing Rheingold, suggests the following social media literacies, which in my opinion could be used as best practices for use in DE by teachers and students.

- 1. Attention:** Having the ability of discern what is deserving of one's attention when using various social media and when moving from social media to "real world" events. This I think gets back to Siemens (2004) stipulation that learners become skillful at evaluating what information is worth learning.
- 2. Participation:** Knowing how to be a "good participant" in other words, knowing how and when to post to a forum in a way that is informative, helpful and appropriate.
- 3. Collaboration:** Online communities exists for collaboration, behaviour that exhibits selfish disregard for others opinions and contributions destroys trust and erects a roadblock to collaboration activities.
- 4. Network awareness:** Knowing how to use a particular social media network.



- 5. Critical consumption:** This refers to information literacy, or the ability to validate the veracity of sources of information and information itself.

## Bibliography

- Bates, A.W. & Poole, G. (2003). *Effective teaching with technology in higher education: Foundations for success*. San Francisco: Jossey-Bass.
- Bernard, R.M., Abrami, P.C., Borokhovski, E., Wade, C.A., Tamim, R.M., Surkes, M.A. & Bethel, E.C. (2009). A meta-analysis of three types of interaction treatments in distance education. *Review of Educational Research*, 79(3), 1243-1289. Retrieved from <http://www.jstor.org/stable/40469094>
- Blankenship, M. (2010). How Social Media Can and Should Impact Higher Education. *Hispanic Outlook*, 11-12. Retrieved from <https://www.wdhstore.com/hispanic/data/pdf/nov29-howsocial.pdf>
- Bockarie, A. (2002). The potential of Vygotsky's contributions to our understanding of cognitive apprenticeship as a process of development in adult vocational and technical education. *Journal of Career and Technical Education*, 19(1), 47-66. Retrieved February 7, 2015 from Open Access E-Journals database.
- Chen, B. & Bryer, T. (2012). Investigating Instructional Strategies for Using Social Media in Formal and Informal Learning. *The International Review of Research in Open and Distance Learning*, 13(1), 87-104. Retrieved April 1, 2015 from <http://www.irrodl.org/index.php/irrodl/article/view/1027/2115>
- Holmberg, B. (2005). *The evolution, principles, and practices of distance education*. Germany: Bibliotheks-und Informationssystem der Universitat Oldenburg.
- Leistner, Frank. (2012). *Connecting Organizational Silos*. Hoboken, NJ: John Wiley & Sons, Inc.
- Moore, M., & Kearsley, G. (2005). *Distance education: A systems view*. Belmont, CA: Thomson Wadsworth.
- Morgan, J. (2012). *The collaborative organization*. New York: McGraw Hill.
- Peters, O. (2001). *Learning and teaching in distance education: Analysis and interpretations from an international perspective*. New York: Routledge.

Ingah Davis-Crawford  
Research Paper  
Distance Education & Social Media  
4/3/2015

Siemens, G. (2004). Connectivism: A learning theory for the digital age. *elearnspace*. Retrieved from <http://www.elearnspace.org/Articles/connectivism.htm>.

Tabata, L.N. & Johnsrud, L.K. (2008). The impact of faculty attitudes toward technology, distance education, and innovation. *Research in Higher Education*, 49(7), 625-646. Retrieved April 1, 2015 from Academic Search Premier database.

Wenger. E., (n.d). *Communities of practice: A brief introduction*. [PDF]. Retrieved March 3, 2015, from <http://wenger-trayner.com/theory/>.