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IS LEARNING EFFECTIVE WITH SOCIAL NETWORKS? LET'S INVESTIGATE!

PhDc. Nil GÖKSEL CANBEK
Anadolu University
Eskişehir- TURKEY

Prof. Dr. Jace HARGIS
Chaminade University
Honolulu- USA

ABSTRACT

There is extensive literature which shares the effectiveness of collaborative learning. Instructional strategies, which have been used to guide collaboration efforts include derivatives of inquiry-based learning such as project based, problem based, experiential, service and challenge based learning. Initially, the World Wide Web allowed greater ease of connecting to educators, hence the potential for collaboration increased. The significant advantage, which was provided with the Web 2.0 era, was to accelerate the opportunities for educational innovations through social networks in which educators and learners are able to engage in a two way interaction both individually and in groups, collaboratively. The authors of this study believe that many of these innovations align directly with the premise of connectivism. In this study, Educational Social Networking Sites (SNSs) such as Twitter, LinkedIn, Classroom 2.0, Facebook, Google Plus, Plurk Educator's PLN, Sophia, Learn Central, ISTE Community, WhoTeaches Edutopia, Technology Integration in Education, The 21st Century Teacher, Better Lesson Diipo, Intel Education Teachers Engage Community, Everloop, Edudemic, K12 Advantage, Collaborative Translation and Second Life virtual worlds will be investigated in terms of educational connectedness and efficacy. Specific examples will be examined which highlight the power of social networking for effective teaching and learning within the scope of Distance Education and Open Educational Resources (OER).

Key Words: Educational Social Networking Sites (SNSs), Connectivism, Collaboration, Distance Education, OER.

INTRODUCTION

Inevitably we are in and perhaps beyond the era of Web 2.0! It is all but certain to be part of this promising era when we come across the recent advances on the web that have substantially affected the dimensions of new learning and teaching technologies in the field of distance education. The distinct advantage, which has been provided with the Web 2.0 era, is Social Network Sites (SNSs) that allow learners to interact not only as individuals and but in collaborative group studies as well. By focusing on the expediency of SNSs used in distance education, it can clearly be observed that collaborative approaches presented on project based, problem based, experiential, service and challenge based learning towards learning are becoming more effective in time.

To put that into perspective, the authors of this study support the idea that SNSs may lead new educational directions in terms of connectedness and efficacy. While leading this research on SNSs, the authors' aim is to explore the significance and potential usage of the abovementioned sites to initiate a debate for both current and further studies. This analysis will address both promises and perils of SNSs and conclude with an approach of SNSs used in educational contexts.

The study was initiated by the authors frequent encounters with their own social networks and the evolution of these programs into teaching and learning. SNSs have become many things to many people, including an ideal environment for instruction and professional development. The authors of the study have previously explored research in the area of virtual worlds, mobile learning, augmented reality and computer aided instruction. This next level of connecting these and many more technology tools seems a natural next step for investigation. The significance of this work lies in the area of humanizing what educators do online and therefore the connection of people, as opposed to connecting network of wires.

A CONSTRUCTIVIST PERSPECTIVE ON WEB 2.0 ERA

In the Web 2.0 era, the phrase "social networking sites" (SNS) is used as an umbrella term for all social media and computer-mediated communication that enables learners to construct profiles, display user connections, search and traverse within that list of connections (Davis, Deil-Amen, Rios, & Canche, 2012; Ellison, & Boyd, 2007). To another perspective, social networks, as a very old and pervasive mechanism for mediating distal interactions among people, have become prevalent in the age of the Web (Huberman, Romero, & Wu, 2008). By using SNSs, the learner communities may enhance their online connections within a flexible form of the sites in which students can be in an informal conversation, reflexive dialogue and collaborative content generation (McLoughlin, & Lee, 2010). In this regard, educational SNSs supported by Web 2.0 tools create a globally reached learning circles in which learners could regulate their personalized learning at a distance. They are also safe alternatives to indulge lecturers to collaborate with learners on a professional level through online activities that are visible to the web at large. As indicated by Baker-Doyle (2015) the progress and exchange of knowledge through networks has become a central aspect of education today. In this connection, more and more lecturers have started paying great attention on educational social networks to value social connectedness.

The foundation of social networks lies in the theory of connectivism, origins of which began with the concept of constructivism. In Piaget's view, constructivism is the view that humans generate knowledge and meaning from building and connecting prior knowledge to new conceptual frameworks (Piaget, 1970). Connectivism is a relatively recent theory of learning, which states that learning is a process connected to information sources, may reside in non-human appliances, the capacity to know more is more important than what is currently known and decision-making is itself a learning process (Siemens, 2005). This approach of a realizing that it is the journey, which is more important than the destination may result in an entirely different way to teach, learn and value what we know and can do. Historically,

success in education has been measured by the person with answers, especially those students who could answer quickly, a memorized fact in isolation. Since these facts are now readily available on any smart-device, the successful paradigm in the classroom may become the person who can find credible facts in isolation online and create a synthetic rationale by combining the facts into coherent ideas. This process of "connecting the dots (facts)" produces both potentially new knowledge as well as an educated person who can create endless sources of new knowledge through the ability to make appropriate, relevant and meaningful connections.

EDUCATIONAL WEB 2.0 SITES

Based upon the connectivist theories, there have been web-based sites designed on the ideas of Web 2.0, which can be educationally constructive to lecturers and learners in sharing resources, enhancing motivation, building social interaction and reviving inert knowledge (Lu, & Churchill, 2014). Below are the examples of some well-known educational SNSs and SNSs that are additionally used (e.g. Twitter, LinkedIn, facebook, Google+) to augment online learning:

1. **Twitter** (https://twitter.com/) is a microblogging service with which users can tweet on any topic related to their current status in short posts within the 140-character word limit. It is one of the most viable milieus that is used to seek and share information across Web. The micro-tweeting platform is also used with educational purposes as a crucial part of a learning process. The lecturers may integrate virtual twitter message into their real time class activities. A list of educational hashtags can be viewed at: http://novemberlearning.com/assets/popular-education-hashtags.pdf.
2. **LinkedIn** (www.linkedin.com) was developed primarily as a professional networking site in 2003, a derivative of SNS. Their initial slogan was "Relationships Matter". The intent was to help connect professionals to job opportunities, partnerships, and other business-related work, which traditionally was accomplished through physical networking, business meetings and conferences. This site seems now to have morphed into much more, combining professional, social, educational and business. Currently, they boast over 300 million users from 200 different countries. They most recently bought Lynda.com, an online training site.
3. **Classroom 2.0** was created by Steve Hargadon and used by over 80,000 members from 200 countries, Classroom 2.0 (http://www.classroom20.com/) Wiki (http://wiki.classroom20.com) as a free, community-supported network provides resources via educational tools such as podcasts, blogging, collaborative idea maps, Google Earth, Webcasts, VoiceThread, and social bookmarking (Gee, & Levine, 2009).
4. **Facebook** was created by a group of college alumni namely Mark Zuckerberg, Eduardo Saverin, Dustin Moskovitz, and Chris Hughes to help residential college and university students, the site is served as ''. . .an online directory that connects people through social networks at colleges and universities" (Zuckerberg, 2005, p. 1). Today the site (http://www.facebook.com) is considered as one of the leaders of the social media race with more active users worldwide (Thuseethan, & Kuhanesan, 2015) To the writer, the

site allowed online users to mingle other groups who share first-hand information instantly.

5. **Google Plus** was launched in 2011 and has become one of the most well-known and popular endeavor of Google. It has been delivering functions such as posting for updated status, circles for group information sharing, sparks for videos and articles and hangouts/huddles for video chatting (Beal, 2015). The site can be reached at https://plus.google.com/.
6. **Plurk** (http://www.plurk.com/top/) has been a new way of micro-blogging based platform that let users communicate with friends promptly and efficiently. Launched on May 2008, the site's interface has been showing updates in horizontal form through a scrollable timeline which lists all the updates received in chronological order through short messages or links called Plurks, which can be up to 140 characters in length, the same as Twitter (Tu, Bau-Min et al., 2011).
7. **Educator's PLN** was built by Thomas Whitby and is a ning site dedicated to the support of a Personal Learning Network for Educators across the globe. The site (http://edupln.ning.com/) not only helps educators to share a slew of resources like downloadable podcasts but also disposes links to relevant blogs, videos, resource lists, and events (Bernard, 2011).
8. **Sophia** is similar to Facebook and Twitter social networking. The allure of Sophia (https://www.sophia.org/#popular-content) is to share and acquire knowledge through free lesson plans, private group (study) creation, and online tutoring. Educational lessons entitled as "packets" contain a particular lesson or lessons on a specific subject that can be created in a simple or a complex pattern (Dube, 2011).
9. **Learn Central** was co-founded in 1994 by Michael Ciarletta and Beth Sneddon as a learning solutions company and sponsored by Elluminate. Learn Central (http://www.learncentral.com/) is a milieu for educators to host/learn through executing high quality, cost effective learning programs and virtual conferences.
10. **ISTE Community** is the International Society for Technology and Education (ISTE), an ideal platform, which gathers communities focused and collaborate on educational technology within the innovative formats of webinars. The site can be accessed at http://iste-community.org/.
11. **WhoTeaches** (https://www.whoteaches.com/) is a social network on which students can interact with other learners and educators in order to purchase Learning Package deals from private tutors and share documents.
12. **Edutopia** was created by the George Lucas foundation, the site has been providing a learning milieu that helps educators to implement strategies including critical thinking, project-based learning, social and emotional learning, comprehensive assessment, teacher development, integrated studies, and technology integration via success story series displayed in K-12 schools. The Edutopia website can be accessed at http://www.edutopia.org/.
13. **Technology Integration in Education** was created by Greg Limperis. The site (http://www.technologyintegrationineducation.com/) is designed similarly to Classroom 2.0 gathers group discussions by empowering students to fully participate in a connected, technology-rich network.

14. **The 21st Century Teacher** is a social network site that is used for helping teachers for utilizing technology in the classroom within the structure of group forums, community blogs, and other related resources.
15. **Better Lesson,** as a free provider, has been sharing 1000 resources to empower lecturers to share the highest quality Common Core-aligned lessons created. This social network site is ideal for educators to work collaboratively. The site can be accessed at http://betterlesson.com/.
16. **Diipo** is a social network that is similar to Moodle and Gaggle, which allows educators to stay connected with the learners through texting and blogging. The site can be accessed at http://diipo.com/.
17. **Intel Education Teachers Engage Community** provides regularly scheduled educational webinars and free professional development resources. Intel® Education is created for fostering educators' technology literacy. The community provides a variety of forums and collaborative groups to discuss and focus on instructional design, project-based approaches, assessment of 21st century skills and online collaboration. The Intel® Engage community can be accessed at http://engage.intel.com.
18. **Everloop** (http://www.everloop.com/) is for children under the age of 13, and safeguards against profanity, cyberbulling and other inappropriate content. The site also teaches how to network appropriately in an educational sense via various social activities offered. The site is considered as an ideal platform for children's education as it is being monitored by parents and supported by such organizations such as iSafe.
19. **Edudemic** started in April 2010 by Jeff Dunn. Edudemic has been a community-focused and resource-sharing platform, which unifies educators, administrators and learners within a social network that has lots of information on technology, education, and integration. With more than 500,000 visitors, it's become one of the well-known forum of discussion. The site could be reached at http://www.edudemic.com/.
20. **K12 Advantage** is an online milieu (http://www.k12advantage.com/) that came into existence in December 2008 and has continued to serve as a platform for archival of information supported with forums and chats for K-12 academic levels.
21. **Collaborative Translation** was created by educator James O'Reilly. Collaborative Translation is a social network site that is carried out by a group of people who are not professional translators but have a good knowledge of the specific subject (Shimohata, Kitamura, Sukehiro, & Murata, 2001).
22. **Second Life (SL)** launched in 2003 and has been used as a virtual space for training and education, a trend that has been increasing in the following years (Canbek, Mavrommati, Makridou, & Demiray, 2011). As a different type of SNS, learners interact with their avatars. Second Life, is an opportunity that embodies a community of learners in which learners and course instructors interact equally and collaboratively during the process of knowledge construction (Feldberg et. al, 2009).

SCALE OF CONNECTIVENESS BY NUMBERS

To help readers understand the scale of connectiveness, which people from around the world are currently and frequently engaged in, the authors present some of the numbers given below. As of 2015, there are:

- 750 million Facebook users worldwide;
- 100 million Twitter users worldwide;
- 230 million tweets sent per day (40% don't actively tweet, but sign in to read others' posts);
- $800 billion of new funding secured by Twitter recently;
- $8 billion of estimated valuation of Twitter; and
- $80 billion of estimated valuation of Facebook (Fiscal Times, 2011).

These numbers provide significant evidence that supports the astonishing growth in SNSs. Among the well-known educational SNSs are Twitter, LinkedIn, Facebook and Google+ for educational aims. Although initially, these sites were embraced for reasons other than educational, with this interest followed the funding to build a substantial infrastructure. Now, educators can take advantage of this stable infrastructure, as well as the large number of people who daily (if not hourly) connect from across the globe. One of the most popular sites for teacher professional development is now Twitter, which shares Open Educational Resources (OER), and Just in Time (JiT) training. The power of these approaches, especially JiT Training provides not only the facts in isolation building blocks, but presents them at a time, when they can be most effectively used. This approach is similar to Vygotsky's Zone of Proximal Development (ZPD), which is the measure of the difference between what a person can learn without instruction and what they can do with instruction. The "instruction" in this case is the ideas and resources, which the web can provide in rapid time and scale.

PROMISES OF EDUCATIONAL SNSs

The ability of any emerging technology depends on many variables, some of the major variables include access and cost, interest and functionality, and perhaps most important is appropriateness, relevance and meaningfulness. Social Network Systems have shown promise in many areas of marketing, connecting people and ideas, and now with a stable infrastructure, many educators are realizing the potential of SNSs within and beyond the formal learning environment. Education-based SNSs have been found to be effective in online courses to enhance and clarify communications (Brady, Holcomb, & Smith, 2010). The promise of engaging learners in using SNSs was explored by Roblyer, McDaniel, Webb, Herman, & Witty (2010) who found that students were more likely to use SNSs in general and were open to using them to assist in learning. Azidieh (2012) found that SNS benefits included flexibility for learning and access; information was repeatable for additional information processing; convenience and open accessibility, which increased the amount of time attending to concepts. Others found the benefits of SNS included learner engagement,

ability to provide quick feedback and enhanced learner collaboration (Christine, Flickinger, & Chisolm, 2013).

PERILS OF EDUCATIONAL SNSs

Of course, there are potential disadvantages for using SNS for education, which may be significant depending on the outcomes for the institution, instructor, course, and learner background, as well as to their access to functional technology. Azidieh (2012) cautioned the use of SNS due to privacy issues; the false perception of real friendships; the significant amount of time, which SNS requires to main currency; and the high level of miscommunication that may occur. Other common perils for the use of SNS in education were technical issues, highly differentiated participation, and security concerns (Christine, Flickinger, & Chisolm, 2013). Several researchers have cautioned against the combination or even the perception of combining personal and academic lives (Munoz, & Towner, 2009). Students have expressed the need for a distinct separation of personal and education SNS accounts, both of which would not be visible to stakeholders from other aspects of their lives. Respecting this philosophy will allow both worlds to exist and at the same time capitalize on the amount of time that students spend online, specifically attending to their SNS. Although they are kept separate, the academic leader can utilize the powerful ability of the SNS and more importantly, the expertise, which the learner already possesses at navigating and efficiently using the SNS infrastructure. Historically, learners entered the educational arena as novice's in every sense. In the new SNS paradigm, many learners are experts at operating the learning instrument, and therefore, this sense of comfort creates an environment, where students are more apt to engage more frequently, thereby producing more potential for contact with the instructor and content-rich material.

CONCLUSION

Throughout the paper, a number of SNSs were introduced to readers in order to raise awareness for the educational promises of SNSs. With the advent of online technologies, people's presence on networks became possible. Many features of SNSs such as collaboration are salient as they are usually desired in traditional learning environments. The features of SNSs clearly indicate that they are more than profile formation, liking and sharing posts; in contrast, they are great platforms that replicate features of social learning.

The authors of this study believe that many of these innovations align directly with the premise of both constructivist and connectivist approaches that remove one way guided teaching. By providing interactive communication between SNS users, both instructors and learners may revive inert knowledge. Based upon the connectivist and constructivist approaches, the authors claim that the educational SNS's shared in this paper and designed within the frame of Web 2.0 may accelerate the opportunities for innovations in distance education. However, the authors caution that the next steps will not happen automatically. The progress will happen through deliberate actions on the part of instructors - their ability to embrace and fully understand the potential of SNS's as they pertain to education.

Identifying efficient ways for instructors to learn and find their own intrinsic motivation to engage in SNS will be a key component of whether they will be successfully integrated into an educational environment.

BIODATA AND CONTACT ADDRESSES OF AUTHORS

Nil GOKSEL CANBEK, as an instructor at School of Foreign Languages at Anadolu University (AU), Turkey, is currently a PhD student in the field of distance education. She completed her MA degree in the field of distance education at the Graduate School of Social Sciences of AU pursued her MA Degree with the study entitled "Learner-Instructor Interaction within University-Community Partnerships by Giving Samples from Second Life (SL)" in 2009. Recently she has been working on various academic works related to social networks and their potential usage in distance education, online and immersive learning, new learning technologies, Second Life in Education, Social Interaction, Augmented Reality, Mobile Augmented Reality, Mobile Web 2.0, Blogs, Collaboration Technology, Computer Mediated Distance Learning, E-learning, Mash-ups and Technological Innovation.

PhDc. Nil GOKSEL CANBEK
Anadolu University
Eskişehir- TURKEY
E. Mail: ngoksel@anadolu.edu.tr

Dr. Jace HARGIS is currently the Associate Provost and Professor at Chaminade University Honolulu. Previously, he has been a College Director in the UAE; an Assistant Provost and Associate Professor at the University of the Pacific; and a Director of Faculty Development and Assistant Professor at the University of North Florida. He has authored a textbook, an anthology and published over 100 academic articles as well as offered hundreds of national and international academic presentations. He has earned a B.S. in Oceanography from Florida Institute of Technology; a M.S. in Environmental Engineering Sciences and a Ph.D. in Science Education from the University of Florida. His research agenda focuses on how people learn with the use of emerging instructional technologies.

Prof. Dr. Jace HARGIS
Chaminade University
Honolulu- HI USA
E. Mail: jace.hargis@gmail.com

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