

The Use of Alternative Social Networking Sites in Higher Educational Settings: A Case Study of the E-Learning Benefits of Ning in Education

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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, such as Ning in Education, 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 using Ning in Education, 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.

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, Mishra, Koehler, & Francis, 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 the ability to connect and build community in a socially and educationally constructed network (Educause Learning Initiative [ELI], 2007).

In contrast to SNS, course management systems (CMS), such as Blackboard and Moodle, tend to be very focused and lack the personal touch and networking capacity that SNSs offer. For example, instructors using CMS may pose a question in an online discussion board and each student posts a response. However, these student posts are really not interactions at all, but merely question and answer sessions. Using an SNS that is user centered, rather than class centered, such as a CMS, has the potential to increase student engagement. SNSs can actively encourage online community building, extending learning beyond the boundaries of the classroom (Smith, 2009). A comparison of typical SNS and a traditional CMS appears in Table 1.

Table 1

Comparison of SNS and CMS Tools

Tools	SNS	Traditional CMS
Forum	X	X
Blog	X	X
Media Sharing	X	
Messaging	X	X
Wiki		
RSS	X	
Chat	X	X
Calendar	X	X
Tagging	X	
Own Brand & Visual Design	X	
Realtime Activity Stream	X	
Groups	X	
Friends	X	
Profile Pages	X	
File sharing		X

While commercial SNSs, such as Facebook and MySpace, are popular, newly emerging SNSs created specifically for an educational audience provide a unique opportunity for educators to “facilitate a strong sense of community among students” and encourage “personal interactions that can lead to the creation of new knowledge and collective intelligence” (ELI, 2007, p. 2). In order to evaluate the largely unexplored educational benefits of SNSs, we surveyed graduate students enrolled in distance education courses using Ning in Education, an education-based SNS, based on their attitudes toward SNSs as productive online tools for teaching and learning. Our results suggest that education-based SNSs, such as Ning in Education can be used most effectively in distance education courses as a technological tool for improved communication among students at the higher education level.

Building Online Communities of Practice

In distance education courses, sound instructional practice includes, but is not limited to, supporting and fostering the development of communities of practice (Salmon, 2005). Higher education distance education students need a venue to connect and actively engage with other members of the class, who they often have never met in person, and activities in distance education courses need to allow for students to apply their learning to authentic educational contexts (Correia & Davis, 2008). Among the many factors that promote a sense of community in online courses, social presence has been found to be one of the most significant (Cobb, 2009; Gunawardena & Zittle, 1997; Rovai, 2002). Previous research has shown that social presence is an essential component of education and learning (Garrison, Anderson, & Archer, 2000), can be a predictor of students' perceived learning (Richardson & Swan, 2003), and is crucial toward establishing a critical community of practice (Fabro & Garrison, 1998). In distance education courses, a mutually beneficial relationship seems to exist between social presence and participation in online student discussions (DeSchryver et al., 2009); students with higher social presence tend to be more involved and engaged in such conversations (Cobb, 2009; Swan & Shih, 2005). Similarly, Bai (2003) indicates that social presence leads to reduced feelings of isolation and detachment while simultaneously encouraging student interaction and participation in online courses. However, the limited or nonexistent face-to-face interaction of distance education courses can make building a community of practice and fostering students' sense of social presence online challenging (Dawson, 2006). While technology has the ability to overcome spatial and temporal differences, it may not facilitate interaction and community (Brook & Oliver, 2003). Additionally, if course participants share few common interests or have a minimal commitment to each other or the discussion forum, interactions consist merely of the exchange of information and often diminish over time (Selwyn, 2000). These challenges are not limited to only online settings. If new identities – meaningful forms of membership and empowering means of ownership (Wenger, 1998) – are not created in the traditional, face-to-face classroom, students will be more likely to reproduce traditional communities outside the classroom. Given these challenges, it is important to investigate technologies like SNSs that have the potential to build online communities of practice (DeSchryver et al., 2009). Since both the medium and the person communicating impact social presence, for potentially both the communicator and the receiver, using an SNS like Ning may change the extent to which social presence is perceived by students (DeSchryver et al., 2009). Through the inclusion of SNSs in distance education courses, instructors and students are provided with a forum for connecting

with one another while also exchanging information. In turn, this further supports the development and fostering of both CoPs and social presence.

Virtual communities of practice constructed through SNSs enable learners to connect and collaborate on global platforms, transcending geographical boundaries (McCann, 2009). Removing these boundaries increases communication, collaboration, and engagement (McCann, 2009). In the shared forum provided by an SNS, learners can construct a shared understanding and engage and collaborate in discussions, while sharing common resources, such as readings, links, and videos (McCann, 2009). In a distance education course, SNSs provide learners with a venue for fostering and developing a community of practice through technological affordances, such as user profiles, forums, tools, and resources. Given the inherent limitations of course management systems, the use of SNSs in education settings represents a definitive shift toward social and community-based web applications that cultivate and sustain discipline-specific social networks. For today's technologically savvy students, SNSs represent improved technologies for creating a heightened sense of community resulting in the acquisition of new student knowledge and collective intelligence (ELI, 2007).

The integration and use of social networking technology as an e-learning tool seems promising for distance education. Anderson (2005) indicates that social software may be the "killer app" for distance education, given its ability to enhance social presence. According to Wheeler, Yeomans, and Wheeler (2008), SNSs "afford students unprecedented opportunities to share their ideas, celebrate their creativity and receive immediate feedback from fellow" students (p. 988). Furthermore, as noted in the ELI Horizon Report (2007), SNSs "not only attract people but also hold their attention, impel them to contribute, and bring them back time and again – all desirable qualities for educational material" (One Year or Less: Social Networking section, para. 4). The creation of social networking around academic topics provides instructors and students great flexibility for teaching and learning, including the ability to join related groups by academic subject or discipline, comment on blog entries, view photos and videos, as well as countless instructional activities created by the creator of the network (ELI, 2007).

Ning In Education: An Alternative to Traditional SNSs

Despite the growing popularity of commercial SNSs, namely Facebook or MySpace, U.S. higher education administrators have largely restricted instructors from adopting the use of SNSs in their courses. Recent popular media attention and concerns centering on student privacy and safety have influenced many educational administrators' decision to ban the use of SNSs in the classroom (Brady, 2007; George, 2006). The emergence of two education-focused social networking sites, Elgg and Ning in Education, have provided educators and students the opportunity to use social networking technologies while minimizing privacy and safety concerns commonly associated with the use of commercial SNSs. Advocates for the use of SNSs in educational communities, including Steve Hargadon, current director of the K12 Open Technologies Initiative at the Consortium for School Networking (CoSN) and founder of Classroom 2.0, encourage the use of SNSs in classroom settings. But, as education-based SNSs are relatively new, there is little research detailing how educators are using such education-based SNSs for e-learning purposes.

During the 2008 academic year, the College of Education (CED) at North Carolina State University (NCSU) reviewed several SNSs and ultimately selected Ning in Education. The CED's adoption of a SNS tool was driven by faculty requests as well as the desire to forge and maintain a professional educational network for both current and former students. Major issues,

including cost, use in education settings, and privacy were determining factors in the selection of Ning over other SNSs.

Method

Once the CED selected Ning as its SNS tool, select faculty began using it as part of their instructional practices. Our study was designed to identify and examine students' perceptions of benefits associated with using social networking technologies, such as Ning in Education network created specifically for the NCSU College of Education. Findings from this study were used to inform the CED about the use of Ning in distance education courses. Our convenience sample was drawn from graduate students enrolled in one fully asynchronous distance education instructional technology course (n=20) and two hybrid, synchronous distance education educational leadership preparation courses (n=17; n=15) during the Fall 2008 semester. Ning was used primarily as a discussion tool for students to share ideas and discuss topics covered in each of the courses. Please see Appendix A for the Instructional Overview of Ning.

At the end of the semester, participants were asked to complete an online survey asking about their attitudes toward and perceptions of Ning as an educational e-learning tool based on their course experiences (To view survey items please see Appendix B). The survey ($\alpha = .92$) was comprised 14 items asking students to rate their level of agreement on a five point Likert-scale ranging from Strongly Disagree to Strongly Agree. Likert-scale questions addressed four key themes, identified by a survey of previous research (e.g., DeSchryver et al., 2009; McCann, 2009; Wheeler, Yeomans, & Wheeler, 2008): communication, collaboration, reflection and comprehension, and convenience and comfort. In addition, the survey included three questions asking about SNS use outside of the course and six open-ended questions asking about the benefits and drawbacks of using Ning. Prior to administration, two external evaluators systematically reviewed and evaluated the survey for content validity. During this process items were reworked, removed, or added to the survey.

A total of fifty graduate students (n=50) fully completed the online survey, with a response rate of 96%. Of those surveyed students, 14% indicated that they already had a MySpace account and 30% had a Facebook account, with 12% indicating that they belonged to a different commercial SNS. Only 30% of the surveyed students had previously used an SNS for educational purposes. This means that for a large majority (70%) of the students, this course was the first time they had used an SNS for educational purposes.

Results

For Likert-scale items, student responses for Strongly Agree and Agree were collapsed into one response group and the same was done for Strongly Disagree and Disagree student responses (Appendix C). Seventy percent of students indicated that they agree or strongly agree that Ning allows for more frequent collaboration with peers and colleagues within a course as compared to a face-to-face course, while 82% agreed that it aids communication outside of the classroom. When comparing Ning-enhanced courses to traditional face-to-face courses, 42% of students believed that Ning allows them to communicate more effectively. With regard to reflection, 74% felt that Ning allows for more time to effectively reflect and comment on other student comments as compared to a face-to-face course. Half of the students agreed that Ning in Education was more convenient than face-to-face classes for sharing and discussing ideas.

We examined students' answers to each of the six open-ended questions for themes regarding the benefits, drawbacks, and limitations of using Ning in an educational setting. To analyze the open-ended questions, two independent raters read through all of the responses to indicate themes that were present in the responses. The themes were reviewed and placed into categories. Responses were then reexamined and rated for the presence or absence of each theme. Three themes emerged for the educational benefits of using Ning for teaching and learning: collaboration, time-efficiency, and differing viewpoints. Students felt that the use of Ning in Education afforded them, in the words of one respondent, the "convenience and ability to reflect on classmates' responses." As noted by one student, "through the use of social networking, one can benefit from the views of a variety of people from a wider geography." Other students noted the educational benefits of being able to "communicate with professionals outside of my immediate circle" and having the "time to reflect and thoughtfully respond to others." Students identified the use of Ning in Education as a significant factor in increasing collaboration and the exchange of information among students in the course as compared to traditional face-to-face courses. In addition to increased levels of collaboration, students felt that the use of Ning in Education fostered and enabled them to "connect with others who have different experiences." In terms of drawbacks associated with the use of Ning in Education, time emerged as the major theme. While some identified Ning as allowing more time to reflect, other students identified the amount of time required to stay current in the Ning network as a significant obstacle. One student stated, "It takes time to sit down and view the information . . . and respond." This thought was echoed by statements regarding the delay in responses to postings and comments, such as, "Getting a response to a question/comment may not be immediate." While some students felt that Ning in Education did not have any limitations and instead found it to be helpful, other students identified time and access as major limitations to Ning's value in helping a student to succeed academically. Several students also noted that Ning in Education was blocked at their place of employment, allowing them to access the site only from home or some other site.

Discussion

Findings from this study reinforce the results of recent studies (e.g., DeSchryver et al., 2009; Schroeder & Greenbowe, 2009) demonstrating the educational value of adopting SNSs in educational settings. A majority of participants in this study highlighted the educational advantages of SNSs, from increased levels of communication and collaboration to deeper levels of reflection. Instructors also reported observing positive effects on student engagement in the Ning course network (see Appendix B).

As noted by one instructor, "one of the greatest benefits of the Ning as the discussion tool is that it affords users the ability to upload video, images, and files within the posting itself, thus allowing students to expand and enhance their postings with additional technological tools. Also, unlike other discussion forums, all users can create a new forum. That is, students could create a forum based on personal needs or interests." Ning, as a tool, provided students with the opportunity to take ownership in their learning while also allowing students to personalize it to their needs.

While the majority of findings from this study were supportive of the use of SNSs in distance education, some results did suggest that SNSs may not fully support an online

community of practice or the development of a strong sense of social presence. More than half (54%) of the student survey participants expressed a preference for face-to-face communications over using Ning; this may be in part because this was a new experience for many students. Both faculty and students were provided with basic training in the use of Ning. It is therefore possible that the faculty and students did not know all of Ning's uses and benefits. To ensure the proliferation of Ning, teachers and faculty members will require ongoing training, support, and active involvement with both the new technologies and the communities they maintain (Kienle & Ritterskamp, 2007; Lin, F., Lin, S., & Huang, 2008; Hew & Hara, 2007). Findings from this study suggest the need for training and support for the use of SNSs in educational settings for both instructors and students.

Just as it can be especially difficult to establish a community of practice in distance education (Brook & Oliver, 2003; Selwyn, 2000), communities of practice cannot be forced, even in media that lend themselves to high levels of engagement. In addition to needing time to feel comfortable using a social networking site for educational purposes, students may need more than a semester to feel themselves a part of the community of practice available in that environment.

Implications and Conclusion

To date, the higher educational community has been noticeably slow in adopting social networking technologies into the curriculum. Noncommercial SNSs, like Ning in Education, provide an exciting and innovative alternative for higher education educators interested in the educational benefits associated with social networking technologies. Results from this study reveal that for a majority of students, SNSs provide significant e-learning benefits in their courses. Further research needs to focus on the e-learning benefits of these social networking sites so the higher educational community will be more likely to adopt them into the curriculum with confidence of both their effectiveness and safety. Additionally, future research needs to explore how education-based SNSs, like Ning in Education can be most effectively used both to support and enhance student learning. Findings from this study help to provide a preliminary platform for research on the use of SNSs in educational settings. Both instructors and students identified the potential benefits of using Ning in Education for teaching and learning, as well as some drawbacks. Results from this study can offer guidance and direction on how to best utilize SNSs to meet the needs of students in distance education courses.

Ozkan and McKenzie (2008) contend that educators need to engage students with a more 21st century approach to teaching and social networking technologies can provide such a venue. Education-based SNSs, such as Ning in Education, provide a viable alternative for educators hoping to expose their students to the myriad of educational benefits associated with using SNSs. Equally important, education-based SNSs address legitimate public concerns over student privacy and safety by placing reasonable and relevant limits to the creation of social networks by the students using them (Brady, 2010). Furthermore, the incorporation of SNSs into education may have an impact on the higher educational community. Based on students' responses, it is evident that they are calling for the incorporation of SNS technologies into distance educational practices. As both distance education and SNSs continue to grow, it is becoming increasingly more important to examine how distance education and SNSs can be combined most effectively to enhance student online learning.

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Appendix A

During the fall semester of 2008, Ning was utilized by one fully asynchronous distance education, instructional technology courses and two blended learning, synchronous distance education educational leadership preparation courses. All three-courses were at the graduate level and followed the traditional fifteen-week semester. The following sections highlight how Ning was used in the instructional technology courses and the ~~one~~ two sections of the educational leadership course.

Instructional Technology Course

Ning was utilized as the primary discussion tool for the fully asynchronous distance education course on 21st-century technology. A core component of this course is the integration of emerging technologies into teaching and learning practices. As an emerging social networking tool, Ning served as both a tool and an example of how social networking may be utilized in an educational context.

The course Ning network was open to all students and faculty of the College of Education, regardless of whether or not they were enrolled in the course. Within the college Ning network, each course had its own Ning site. Both faculty members and students within the college were welcome and encouraged to engage in and contribute to the discussions. This was done with the goal of developing a large community of learners. The 21st-century technology Ning included outside members with backgrounds in technology education, language arts, educational leadership, and middle grades education. The wide array of backgrounds and perspectives from educators both within and outside of the course provided for a rich educational

context. The Ning served as venue not only for sharing and discussing ideas, but also for developing and fostering collaborative connections across content areas.

The Ning was structured so that each topic covered in the course had its own forum within the site. Within each forum, students could post questions, comment on classmates' responses, and reflect on the readings. Each week, students in the course engaged in discussions co-lead by the professor and a student. Over the course of the semester, eight student-created forums emerged, addressing topics ranging from course-related assignments to lateral-entry teaching to emerging technologies. This allowed for students to create their own community of learners within the larger community.

Ning was also used to discuss, share, and reflect upon assignments within the course. In addition to being posted within the course management software, all assignments and activities were posted in Ning along with accompanying rubrics. Posting the assignment descriptions within Ning allowed students to address questions and share thoughts and ideas with the class easily. This not only clarified misunderstandings, but also aided the overall final product, as students were able to explore and discuss ideas, tools, and resources collaboratively.

Throughout the semester, students were required to post assignments on Ning and comment and offer feedback on classmates' assignments as part of their participation grade. By sharing completed assignments within the course, students were able to share and discuss ideas relating to the course topic. Ning supported the sharing of files and resources, while also providing a forum for discussing ideas. Some of the assignments also required for students to utilize Ning for group work. Ning provided students with a venue for sharing and discussing.

School Finance Course

Ning was used as an online discussion tool in two sections of the graduate-level school finance course. Both school finance courses were blended education courses in which class sessions were evenly divided between face-to-face meetings and fully synchronous, online sessions; Ning provided an asynchronous discussion tool. The two school finance course sections covered the same content.

In contrast to the instructional technology course, which used Ning as a core technological component in the course, Ning was a supplemental component in the school finance courses. Each week, the instructor placed a detailed discussion question on the Ning site encouraging discussion by class members. Despite the use of Ning as supplemental tool, the impact of Ning in creating an authentic, social network of professional educators was significant. As students became more familiar with the SNS, the quality of the discussions improved. Additionally, some students posed their own questions concerning the course, including questions on some of the course readings. Often, other students in the course would answer these questions. So, the Ning social network expanded into another source for understanding aspects of the course outside of the instructor.

Appendix B

NCSU College of Education NING Student Satisfaction Survey

1. Do you currently belong to an online social network other than Ning? If no, please skip to question #3.
 - a. No
 - b. Yes

2. If you currently belong to a social networking website, please identify which one:
(Please select all that apply)
 - a. MySpace
 - b. Facebook
 - c. Friendster
 - d. Other

3. Have you used an online social networking website for educational purposes in the past?
 - a. Yes
 - b. No

Please answer each of the following questions based on your recent use of NING for a course.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
Ning allows for me to collaborate with my peers and colleagues in my course more frequently as compared to traditional face-to-face classes.					
Ning allows for me to communicate with peers and colleagues in my course outside of the traditional classroom setting.					
Ning allows for me to communicate with peers and colleagues who I would not otherwise be able to communicate with.					
Ning allows for me to communicate more effectively					

as compared to traditional face-to-face meetings.					
Ning allows for me to have a more detailed, in depth conversation with my peers and colleagues in the course.					
Ning does not allow for me to effectively communicate with peers and colleagues.					
Ning allows for me to express my thoughts more clearly and openly.					
Ning allows for me to comment and discuss ideas with my peers and colleagues more efficiently as compared to traditional face-to-face classes.					
Ning inhibits my ability to express my thoughts and opinions.					
I feel more comfortable sharing and discussing my					

idea on Ning than I do in a traditional face-to-face classroom.					
Ning allows me more time to effectively reflect on others' comments as compared to traditional face-to-face classes.					
Compared to face-to-face classes, I am more comfortable responding to online discussions using Ning.					
Compared to face-to-face classes, I prefer using Ning to share and discuss ideas because it is convenient.					
My use of Ning facilitates a more comprehensive understanding of the topics covered and/or addressed in the class.					

4. In your opinion, what are the educational benefits of using Ning for teaching and learning?

5. In your opinion, how does the use of Ning enhance the course you are currently enrolled in?
6. In your opinion, what are the drawbacks of using Ning for teaching and learning?
7. In your opinion, what limitations does Ning have as it relates to your ability to succeed in this course?
8. In your opinion, what would you change about Ning?
9. In your opinion, Ning has the following technological restrictions?

Appendix C

Table 1			
<i>Student Responses to Items by Level of Agreement (n=50)</i>			
	Strongly Agree or Agree	Neither Agree or Degree	Strongly Disagree or Disagree
Communication			
Ning allows for me to communicate with peers and colleagues in my course outside of the traditional classroom setting.	84%	0%	4%
Ning allows for me to communicate with peers and colleagues who I would not otherwise be able communicate with.	60%	18%	12%
Ning allows for me to express my thoughts more clearly and openly.	50%	36%	14%
Ning allows for me to communicate more effectively as compared to traditional face-to-face meetings.	44%	20%	36%
Ning allows for me to have a more detailed, in depth conversation with my peers and colleagues in the course.	36%	28%	36%
Ning inhibits my ability to express my thoughts and opinions.	16%	18%	66%
Ning does not allow for me to effectively communicate with peers and colleagues.	2%	18%	72%
Collaboration			
Ning allows for me to collaborate with my peers and colleagues in my course more frequently as compared to traditional face-to-face classes.	72%	14%	14%
Convenience & Comfort			
Compared to face-to-face classes, I prefer using Ning to share and discuss ideas because it is convenient.	54%	18%	28%

Ning allows for me to comment and discuss ideas with my peers and colleagues more efficiently as compared to traditional face-to-face classes.	50%	30%	20%
Compared to face-to-face classes, I am more comfortable responding to online discussions using Ning	44%	32%	26%
I feel more comfortable sharing and discussing my idea on Ning than I do in a traditional face-to-face classroom.	32%	28%	40%
Reflection & Comprehension			
Ning allows me more time to effectively reflect on others' comments as compared to traditional face-to-face classes.	76%	12%	12%
My use of Ning facilitates a more comprehensive understanding of the topics covered and/or addressed in the class.	54%	30%	16%