

Social networking for nurse education: Possibilities, perils and pitfalls

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ABSTRACT: *In this paper, we consider the potential and implications of using social networking sites such as Facebook® in nurse education. The concept of social networking and the use of Facebook will be explored, as will the theoretical constructs specific to the use of online technology and Web 2.0 tools. Theories around Communities of Inquiry (Garrison, Anderson, & Archer, 2000), Communities of Practice (Wenger, 1998), Activity Theory (Daniels, Cole, & Wertsch, 2007) and Actor-Network theory (Latour, 1997) will be briefly explored, as will the work of Vygotsky (1978), as applies to the social aspects of learning. Boundary issues, such as if and how faculty and students should or could be connected via social networking sites will also be explored.*

KEYWORDS: social media, social networking, nursing education

Millennial or Generation Y learners constitute the majority of students commencing university-based nursing education (Amerson, 2011). This generation of learners have been referred to as 'Digital Natives' (Prensky, 2001), and arrive on campus having spent their entire lives surrounded by computers, videogames and all other tools of the digital age. However, despite their familiarity with digital technology, many lack information literacy skills (Barnes, Marateo, & Ferris, 2007) and the intellectual tools to think critically (Alexander, 2008). It is essential therefore that a variety of strategies are used to promote meaningful learning, so as to produce health professionals who can effectively draw upon evidence and think critically. Furthermore, Simpson (2006, p. 42) has stressed that the nurses of the future will be taking care of patients with 'more technology than pathology.' The imperative for nursing educationalists is to prepare students for the technological challenges ahead, as well to promote the responsible and efficacious use of technology. Thus, educational strategies that address the available interactive web based technologies, including social networking sites, are needed.

While there is literature to support the concept of social networking in education (Mazman & Usluel, 2010), it is a relatively new concept in health education, therefore extrapolation to the education literature will be necessary. In this paper, we consider the potential and implications of using social networking sites such as Facebook® in nurse education. The concept of social networking and

the use of Facebook will be explored, as will the theoretical constructs specific to the use of online technology and Web 2.0 tools. Theories around Communities of Inquiry (Garrison, Anderson, & Archer, 2000), Communities of Practice (Wenger, 1998), Activity Theory (Daniels, Cole, & Wertsch, 2007) and actor-network theory (Latour, 1997) will be briefly explored, as will the work of Vygotsky (1978), as applies to the social aspects of learning. Boundary issues, such as if and how faculty and students should or could be connected via social networking sites will also be explored.

WHAT IS SOCIAL NETWORKING?

The term 'social networking' refers to internet based services such as MySpace, LinkedIn and Facebook that allows registered users to construct a profile (public or semi-public) within a bounded system and articulate a list of other users with whom they can share a social networking connection. Users are able to view and navigate their list of connections and those made by others in the system (Boyd & Ellison, 2007). Social networking sites have been hugely popular and this is thought to be because 'sharing is a fundamental human activity' (Conole, Galley, & Culver, 2011) and social network sites are considered an easy way to 'connect in a disconnected world' (Lester & Perini, 2010, p. 68).

Social networks can be useful mechanisms for creating communities, and are able to support social learning (Hoffman, 2009). Users of social networking sites can communicate, play

games and share ideas, information, interests and artefacts in the forms of photos and videos. The 'social' in social networking can be described as communication, construction and collaboration (Dalsgaard, 2008). Four characteristics of social networking sites are persistence, searchability, replicability and invisible audiences (MacDonald, Sohn, & Ellis, 2010). Central characteristics associated with social networking sites include 'personalization and socialization' (Dalsgaard, 2008, p. 2). Personalisation is where the user chooses the look of his/her profile and the contents of his/her page, while socialisation is where the user's personal page is connected to other personal pages and thus users develop their own social network (Dalsgaard, 2008). Although groups and networks both denote a collective category, the interactions of these within social networking differ. Groups are defined as being tightly formed with shared interests and intentions, whereas networks are the more fluid form of social entity in which members can create, join and interact more informally (Conole et al., 2011).

Social media can be used to educate health professionals, however a contemporary problem that has now been identified is the inappropriate postings on social media by health professionals, requiring intervention and censure from employers and registration boards. More and more nurses are participating in social media (Schmitt & Lilly, 2012), while the exact number of users in Australia is unknown. Extrapolation to the American Nurses Association (2011) who found that 60% of nurses are using social media, would suggest that social media use is also popular in Australia. Evidence is emerging from media reports that the inappropriate use of social media can damage the nurse-patient relationship and the nurse's reputation (Schmitt & Lilly, 2012). Therefore, health professionals also need education about how to use all forms of social media responsibly. Many professional health professional organisations such as the Royal College of Nursing, Australia (2011) have produced a social media guide for health professionals to guide appropriate online behaviour. Social media is firmly entrenched in every-day life, and nurses need education to harness the potential of social

media which according to Ferguson (2013, p. 745) will be 'the next technological wave in health care' because of the opportunities afforded by mass communication.

WHAT IS FACEBOOK?

Facebook was founded in February 2004 by Mark Zuckerberg with co-founders Dustin Moskovitz, Chris Hughes and Eduardo Saverin and was originally developed to help the students in the dormitories at Harvard University get to know and socialise with their peers (Facebook Timeline, 2011). It is currently one of the most popular online social networking sites with over 750 million active users in 2011 (Facebook Timeline, 2011). Facebook is a social utility that helps people communicate with their friends, family and all other people in their lives (Facebook Factsheet, 2011). Lester and Perini (2010) suggest that Facebook's link with Harvard makes a strong connection with higher education.

Facebook can function in different ways depending on the preference (Selwyn, 2007), and skills of the user. Users open a free account and the search engine is able to be utilised to locate people to 'friend.' The process of 'friending' sends users connection requests which they can accept or reject. Users can decide if they want a particular person as part of their friendship network, and a person can be 'unfriended' at any time. Fundamental to the Facebook experience are its core site functions and applications, with a person's home page and profile being his/her primary communication experience (Facebook Factsheet, 2011). The home page includes news feed, which is a personalised feed of his/her friend's/connection's updates. The personalisation has been identified as being fundamental to Facebook's popularity (Selwyn, 2007). The user's profile displays information including education, interests, work and education background and contact information. The level of privacy is determined by the user, and this dictates who has access to this information (Facebook Factsheet, 2011). Facebook features other core applications that allow people to share aspects of their lives such as photos and videos, planning events, groups, and pages. Users can also communicate with one another through chat,

personal messages, wall posts, 'pokes,' or status updates (Facebook Factsheet, 2011).

Facebook has 1.11 billion monthly active users (Facebook Statistics, 2013). Facebook logged 1.13 trillion 'likes,' 219 billion photos were uploaded, and it had 618 million daily users as of December 31, 2012 (Tam, 2013). Worldwide, users install 20 million applications every day. The social and cultural influence of Facebook is evident in selection of the word 'unfriend' (defined as a verb denoting the elimination or deletion of a friend on a social networking site) as the Oxford University Press word of the year in 2009 (Skiba, 2010). Facebook Statistics (2011) claims that of the 750 million users, 50% of active users log on to their accounts every day, accounting for over 700 billion minutes per month on the site. The average user has 130 friends, is 'connected to 80 community pages, groups and events, and creates 90 pieces of content each month' (Facebook Statistics, 2011). Seventy percent of Facebook users live outside the United States. Mobile technology has had a massive impact with more than 250 million active users currently accessing Facebook through their mobile devices. It therefore comes as no surprise that subscribers who use Facebook on their mobile devices are said to be twice as active as non-mobile users (Facebook Statistics, 2011). These statistics show the potential of social media to communicate, therefore it is no surprise that those concerned with learning and teaching have now started to harness the social aspects of Facebook for educational purposes.

Web 2.0 tools allow users to do more than just retrieve information. Web 2.0 tools such as social networking allow users to interact, collaborate with each other and create user-generated content in an online environment. Web 2.0 has moved the passive viewing of content to interactive freedom to contribute, where real-time dialogue, debate, collaboration and interaction between participants leads to a collective intelligence (O'Reilly, 2007). Web 2.0 technologies are challenging existing learning theories, because those theories were developed when online instantaneous communication across the world, with different ethnicities and cultures with many differing viewpoints was not possible (Gunawardena et al., 2009). It has

been claimed that behaviourism, cognitivism and constructivism, to a lesser extent, are no longer appropriate theoretical constructs when considering the use of Web 2.0 tools (Gunawardena et al., 2009). The pedagogical vision of social networking is that learners need to be active participants and co-producers rather than passive consumers (McLoughlin & Lee, 2007). For social networking, educational theories that encompass online interaction, participation and collaboration with construction and dissemination of knowledge between individuals and groups are important. Effective learning is linked to participant engagement (Siemens, 2005). Connectivism (Siemens, 2005) is considered important, as knowledge is distributed within groups and networks, and learning is the process of growing and pruning social networks. These social networks are dynamic and constantly evolving (Conole et al., 2011).

A community of inquiry model, as defined by Garrison et al. (2000), although not specific to online communication or social networking, contributes to our understandings of the teaching and learning potential of social networking. Garrison et al. describe a group of learners (students and faculty) who engage in collaboration, critical discourse and reflection to construct personal meaning and confirm mutual understanding. Learning occurs when three prerequisites are achieved: Cognitive presence, teacher presence and social presence (Garrison & Anderson, 2003). Cognitive presence is the 'ability of learners to construct and confirm meaning through sustained reflection and discourse. Teaching presence is the design, facilitation, and direction of cognitive and social processes' (Garrison et al., 2000, p. 88). Teacher presence is important and it needs to be stressed that in formal online learning environments, the interaction between students and teacher is essential and has been associated with a higher sense of involvement in online learning (Gallagher-Lepak, Reilly, & Killion, 2009). Social presence is the ability of the social networking participants to identify with their networked community and communicate with others purposefully in a trusting environment. Interpersonal relationships are formed when individuals project

their personalities as part of their social networking (Garrison et al., 2000).

The Communities of Practice model as espoused by Wenger (1998) has been extensively used to support the theoretical applications of networked learning. It is a socially situated theory of learning, where learning is viewed as social participation. Wenger suggests a community of practice as a group of people informally bound together by shared interests, expertise and profession who foster learning and solve problems by sharing their ideas, knowledge and experience in creative ways (Wenger, 1998). The community of practice model consists of four domains: Learning as community, learning as meaning, learning as identity and learning as practice (Wenger, 1998). Wenger's model has provided a useful lens to view group identity and interaction and to understand how groups are formed, developed and maintained, while also giving an insight into notions of belonging, participation and boundary crossing (Conole et al., 2011).

Activity theory is a theoretical framework, with its roots in Vygotsky's (1978) psychology that seeks to understand human activities as complex and socially situated phenomena. Vygotsky's theory is one of the foundations of constructivism. Vygotsky asserts that social interaction plays a fundamental role in the process of cognitive development. This work is theoretically suitable for learning in social networks as there is a focus on the connections between people, it promotes students' active role in learning and more importantly, the sociocultural context in which they act and interact in shared experiences (Vygotsky, 1978). The roles of the teacher and student could be somewhat shifted as a teacher collaborates with his/her students in order to facilitate cognitive abilities and meaning construction in students. Learning therefore becomes a reciprocal experience for the students and teacher. Activity theory provides a framework for considering online interactions and the environment in which they occur. Enablers and constraints or constrainers can be identified by focusing on who is involved, their roles, the environment that the interaction is occurring within, and who and what are influencing the interaction (Conole et al., 2011).

Actor-network theory tries to explain how networks come together, and focuses on nodes and connections (Daniels et al., 2007). It is considered to be both evolving and dynamic and it combines properties of actors (social networkers) who do some work, since there is no action without actors. According to actor-network theory, actor-networks are potentially transient, and require constant making and maintenance. The social network relations need to be maintained or the network will dissolve. As actor-network theory focuses on networks and connections and not physical distances, it is considered a more appropriate theory to apply to technological communication and the interactions that occur in social networking (Daniels et al., 2007). When applying actor-network theory to social networking there is a need to achieve a self-sustaining critical mass user base, and Conole et al. (2011) show that over time, initial non-contributors increase their contribution as they become more confident in their ability to navigate the social networking site.

THE EDUCATIONAL POTENTIAL OF SOCIAL NETWORKING

There are many potential advantages of incorporating social networking into nurse education. Lester and Perini (2010) suggest that Facebook for example, has educational potential, because of the number of students using the technology. Lester and Perini found that 99.5% of students at The University of Michigan (USA) had a Facebook profile. A key to the success of Facebook in education appears to be related to the personalisation by students, with the more personalised the profile and pages, the greater the motivation for students to participate (Griffith & Liyanage, 2008).

Social networking tools enable learners to connect and interact with a broader audience that is beyond their classroom. This has resulted in the blurring of the boundaries between formal and informal learning (Conole et al., 2011). The cited positives of social networking include student engagement, motivation, personal interaction and improved learning environment (Hoffman, 2009).

It is important to note that social networking is not the same as a learning management system (LMS). Most online instruction takes place within a LMS. A LMS such as Blackboard® is part of a university's infrastructure, and is a computer based software application for the administration and management of instructional content. Blackboard®, currently dominates the online learning market. It has been estimated that Blackboard® is used in over 31,000 institutions worldwide (Coopman, 2009). A LMS can be used to identify and assess individual and group learning, documentation of activity and participation, tracking, reporting and delivery of education courses or training programs within an e-learning framework (Coates, James, & Baldwin, 2005). Undoubtedly, many of the learning activities that can be accomplished via the LMS can also be accomplished via social networking (Ophus & Abbitt, 2009). While it is possible to run social networking software inside an LMS, anecdotal evidence suggests that universities may balk at allowing Facebook because of potential inappropriate use, but opt for education specific social networking software such as Edmodo®.

Tynes (2007) found that social networking helped students with identity exploration, enhancement of social cognitive skills, and provided social support. Time management could be enhanced by social networking sites. Working in virtual groups can provide flexibility and convenience with increased productivity, and mitigates the need for a set meeting time to be allocated and agreed as is required for groups to meet in person (Stern & Taylor, 2007).

However, social networking can also be a distraction from learning, and a major source of procrastination because it is available 24 hours per day (Stern & Taylor, 2007). On the other hand, social networking can increase the amount of time that a student is involved in learning, as connections between students could help intensify online interactions, thus framing learning as a social activity (Hoffman, 2009). Time constraints have been found to impact on social networking, and in relation to distance learners, Hoffman (2009) found that as the semester progressed and workloads increased, only the compulsory class

work related material was posted, and the personal aspects of social networking were neglected.

Schwarz (2009) sought to understand the usefulness of Facebook in the context of academic relationships, because many students no longer spend large amounts of time on campus. Schwarz (2009, p. B12) refers to Facebook as a 'cyber-hallway,' and wonders if it is another example of 'technology trumping substance.' Schwarz (2009, p. B13) concludes by suggesting that Facebook is 'part of a larger commons, a space in which we stay connected. Facebook, instant messaging and the like keep my office door open.' Lester and Perini (2010) found that social networking could enhance faculty and student interactions, thus keeping students more actively engaged. From an academic perspective, social networking sites also have the potential to be used for data collection and subject recruitment (Amerson, 2011).

THE NEGATIVE ASPECTS OF USING SOCIAL NETWORKING SITES

Despite its potential benefits, social networking has its limitations when applied in the educational context. It has been found that communicating complex ideas can be made difficult without face to face communication and the immediate feedback it provides (Stern & Taylor, 2007). While there seems to be many positive aspects for education associated with social networking, there is no evidence recognising social networking as beneficial in relation to information literacy and critical thinking skills – problems commonly identified in Generation Y learners (Sherman, 2009). There is a concern, particularly amongst university staff that Generation Y and their constant multitasking has resulted in a shallow approach to learning with a culture of needing to 'know only the minimum to get the grade.' Sadly, superficial learning means that Generation Y may be missing the opportunity to engage in more in-depth analysis (Schofield & Honore, 2009–2010). Education that targets deeper learning approaches will help Generation Y develop their analytical and critical thinking skills.

The use of social networking sites has meant that private lives have moved into a more public forum (Lester & Perini, 2010). Problems

identified with the use of social networking sites include security, privacy, inappropriate content, cyber-bullying (Griffith & Liyanage, 2008), posting of obscene/illegal activities and online predators (Stern & Taylor, 2007). Griffith and Liyanage (2008) refer to the positives of academic staff learning about their students by viewing their social networking sites. Hoffman (2009) found that appropriate teacher self-disclosure mediated through social networking could increase student motivation, and make for a more relaxed classroom atmosphere, potentially impacting positively on student outcomes. Schwarz (2009) raises several pertinent questions about whether staff and students should form social networking connections, and if staff or students would want the other to access their private sites. Common sense and good judgement is essential as is the nature of material that is posted, as site postings may be viewed by all connections and possibly beyond, to the connections of those to whom one is connected.

Social networking has provided personal and sometimes intimate information for potentially anyone to retrieve, and so it is important that students understand the ramifications of material they post online this includes how their digital identity can impact on their future careers. Students may feel that information posted on their social networking site is private and confidential with little comprehension as to how information may be disseminated through the internet. Indeed, Lehavot (2009) considers inappropriate disclosures to be an ethical dilemma that can impact on a student's later career. It has been claimed that absolute separation of online personal and professional identities is nearly impossible (Mostaghimi & Crotty, 2011); however, an electronic self-audit via search engines might be useful to determine the amount of personal information available on the internet (Mostaghimi & Crotty, 2011).

The internet was primarily designed as a public instrument. Privacy as it relates to the internet is a subjective state, meaning that individuals can expect a degree of privacy only when they exercise specific precautions, therefore management of information by the user becomes a matter of paramount importance. Tyma (2007) suggests

there is a dialectic tension about concealing and revealing of private information that must be constantly negotiated, because a certain amount of information exchange needs to occur in order for individuals to become members of a network or community. MacDonald et al. (2010) outline the importance of being careful about individual postings and high privacy settings. Without high privacy settings, information can be accessed by unintended viewers, taken out of context and used in the future in ways that may well have been quite unintended. Nurses need to have an understanding of the intended versus unintended audience. Clear limits should exist for the nurse about who should and should not be friended, and what nurses and other health care professionals can or should share online, as staff have been reprimanded for inappropriate postings and for disclosure of patient information (Mostaghimi & Crotty, 2011). The crossing of professional boundaries on social networking can have repercussions for the nurse's professional reputation. In fact, the implications are that inappropriate social networking interactions can influence how patients perceive the health care system and the staff within it (Mostaghimi & Crotty, 2011).

More worrying is that material can still be accessed if the user has deleted the material or deactivated their account. There is already evidence that prospective employers have vetted potential employee's Facebook accounts, and that this has had an influence on employment (Lehavot, 2009). This use of Facebook might be somewhat dubious ethically, but it certainly is not illegal. Research by MacDonald et al. (2010) found photos showing medical graduates intoxicated, showing or describing offensive behaviour or depicted students belonging to groups that might bring the individual or profession into disrepute. Foulger, Ewbank, Kay, Popp, and Carter (2009) also speak of the consequences of publishing personal information on a social networking site. They highlight the story of a student teacher who was dismissed from his intern teaching placement as a result of information published on his MySpace page that was deemed by others as inappropriate and immoral.

It is noteworthy that some employers are now checking Facebook sites as part of their pre-employment due diligence, with one third of applicants being rejected for employment because of what was posted on their Facebook site. This means that organisations are discriminating on the basis of personal information discovered through social networking sites (Du, 2007). Clearly, this needs to be a timely reminder for nurses, and the Royal College of Nursing, Australia (2011) have produced a social media guide for nurses. Nurses like other professionals face the risk of professional misconduct and possible dismissal for posting inappropriate information and pictures on social media (Russo, Squelch, & Varnham, 2010).

The Australian Health Practitioner Regulation Agency (AHPRA, 2010) requires that 'a registered health practitioner must notify the Board if, in the course of practising their profession, they form a reasonable belief that another registered health practitioner, and more recently student has behaved in a way that constitutes notifiable conduct.' Notifiable conduct would include practising the profession while intoxicated by alcohol or drugs, or placing the public at risk of harm, not necessarily while undertaking their paid employment, because of a significant departure from professional standards, such as drink-driving or drug taking (AHPRA, 2010). In the United Kingdom there is guidance for professional conduct from the United Kingdom Nursing and Midwifery Council (UKNMC, 2012) that outlines appropriate behaviour for student nurses and midwives that highlights the impact that a private life can have on professional life, however mandatory reporting is not mentioned.

In Australia, any nurse academic or educationalist who saw something questionable on a student's social networking site, such as photos involving illicit drugs, or anything that raised questions his/her suitability to be a registered nurse, would be obliged to make a mandatory report. Furthermore, the maintenance of professional boundaries between nurses and patients could be threatened when a nurse's personal information is freely available on the internet. The notion of e-professionalism refers to the behaviours and communications in online

settings. Digital natives may be often ethically and professionally naïve, and therefore there needs to be guidelines for professionals that advise on the extent and type of online revelation which is acceptable (Royal College of Nursing, Australia, 2011).

IMPLICATIONS FOR NURSE EDUCATION

With the increasing use of clinical information systems in hospitals and clinical decision support systems, nursing graduates possessing a good sense of technology will be better prepared for the work place and effective evidence based patient care (Kennedy, Terry, Judd, & Gray, 2008; Maag, 2006). However, 'harnessing' of students' attitude toward a professional disposition in the use of these tools is where nursing academics may have their major challenge. For as students arrive at university steeped in their own peer and mentoring communities such as Facebook students may already believe that they know how best to use these tools. For the educator the question may be, just how do I 'harness the power of the crowd' for the purposes of learning? (Anderson, 2007). In other words teachers need to find ways of getting inside the student's head to better understand how students use and think about these tools and clearly more research is needed here.

RECOMMENDATIONS

There is an imperative for nurse educators to become more IT relevant and competent. Prensky (2001) not only pointed to the supposed natural technological affinity and literacy of the Digital Natives, he also expressed concern at an apparent lack of technological literacy among educators. He labelled lecturers in higher education 'Digital Immigrants'; foreigners in the digital world of the millennial or Generation Y learners. As a result of this disparity, educators need to adjust their pedagogical models to suit the new kind of learner they are encountering. Educators need to also consider the educational theories that are relevant for the digital world, and include them in every aspect of curriculum development and course design. Commentators on this field have noted the increasing widespread attention of teachers to educational design. Educational design is crucial

in the learning process and there is considerable research to show that it is the *design* of the activity not the *method* of delivery that has an impact on learning (Glen & Moule, 2006; Ratka, 2010). The social networking tools may provide the platform for learning, but effective planning is required by educationalists toward design within the curriculum and attention given to issues of privacy and plagiarism detection in order to achieve authentic nursing knowledge as an outcome. Furthermore, there is an onus to ensure that the online environment remains as safe as possible for student users (Andrew, Cleary, & Jackson, 2012), and so academics drawing on such technology need to be mindful of the potential for negative behaviours such as cyber-bullying, and to act swiftly if such behaviour is detected.

CONCLUSION

Web 2.0 technologies are challenging traditional notions of teaching and learning. Facebook and social networking tools have advantages and disadvantages that should be addressed before considering their adoption into education. Social networking tools can facilitate and expand discussions beyond the traditional classroom and provide collaborative ways for student and teacher interaction. The incorporation of social networking sites can facilitate and stimulate collaboration and sharing by providing supportive and collaborative learning environments, however such technologies need to be carefully evaluated in terms of their pedagogical intent and student learning outcomes. Students need to understand the significance of their digital footprint and be mindful of their postings and their privacy settings. In professions such as nursing that are overseen by statutory bodies caution needs to be exercised before teacher and students have access to each other's social networking sites.

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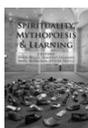
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