The Integration of Mobile Technology Through Microblogging and Apps Into Nursing Curricula

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Purpose

This poster demonstrates the integration of mobile technologies into both undergraduate and graduate level nursing curricula.

Background

In the age of eHealth, nurse educators face increasing responsibility to integrate technology into their curricula. Clinicians are expected to be technologically savvy. Development of professional skills that promote the successful integration of technology into nursing care is essential. Technology is impacting nursing education and nursing schools must adapt their learning environments to ensure the use of mobile devices improves patient care (Doyle, Garrett & Currie, 2014). The term, “technology,” encompasses a broad range of platforms and devices and requires a breadth of knowledge, skills and abilities to achieve proficiency. Mobile technology incorporates the use of handheld devices for applications and networked communication (O’Connor & Andrews, 2015). This technology is reshaping clinical education by enhancing knowledge and skills, improving decision making ability, and increasing productivity and confidence (O’Connor and Andrews, 2015).

The integration of such technology aligns with the evolving theoretical framework of networked participatory scholarship. Conceptualized by Veletsianos and Kimmons (2011), networked participatory scholarship is, “the emergent practice of scholars use of participatory technologies and online social networks to share, reflect upon, critique, improve, validate and further their scholarship” (p. 768). Networked scholarship meets Boyer’s goal of broadening scholarship by fostering connection, collaboration and curations between people as opposed to institutions (Stewart, 2015).

Description

Microblogging focuses on the creation of concise nuggets of information. One of the most popular microblog platforms is the social media application, Twitter. Twitter microblogs, known as “Tweets”, are limited to 140 characters and can be liked, retweeted and shared throughout one’s network. Tweets can be categorized using hastags (#). Research demonstrates that integrating Twitter in the classroom can increase student participation/engagement, create a social presence in online courses, fosters in class and out of class discussions and develops writing skills (McAruthr & Bostedo-Conway, 2012; Ferrenstein, 2010b; Harris, 2010; Dunlap & Lowenthal, 2009).

The use of apps (applications) has increased significantly in the clinical and non-clinical environment. An app is software that is self-contained that can run through a web browser. Using mobile technology, such as apps, to look up information at the bedside rather than leave the patient’s room to find it was found to improve the quality of patient care and enhance patient safety (Johansson, Petersson & Nilsson, 2013; Koeniger-Donohue, 2008). Nursing students were found to have improved decision-making capacity and increased confidence while using mobile technology (O’Connor & Andrews, 2015).

Methods
The integration of mobile technology in the online graduate level curriculum is achieved through microblogging. Students create a dedicated Twitter account for the purpose of learning and interacting with faculty and fellow students. To mitigate risk, students sign a social media contract that outlines expectations of professional language and privacy protection. Microblogging assignments are threaded throughout the didactic coursework in the program allowing students to refine microblogging skills that support them in maintaining collegial peer relationships beyond the online classroom and to develop a professional social media presence.

The integration of iPad’s™ into an undergraduate nursing curriculum opened the door to many uses of this mobile technology. Faculty research and select apps(applications) and for student use in specific courses; students download the required apps and gain familiarity with their contents/use during class time and through independent exploration. Students also bring their iPad’s™ into the clinical environment to access tools to assist in caring for patients. They utilize different apps to access drug and disease information, develop concept maps in post clinical and to teach their patients about diseases and medications. Students build proficiency in patient education apps while patients are exposed to reliable resources to access upon discharge.

Students’ use of microblogging and apps fosters networked learning and increases exposure to resources outside of their personal domains through experiential learning. The experience fosters the development of professional mobile technology skills that can later be transferred to their clinical practice.

Educational Outcomes

The integration of mobile technology into both curricula demonstrates initial success with student results ongoing. Both programs are using surveys to assess student learning. Concepts being measured include social scholarship, ability to produce ehealth information for public consumption and the ability to connect with colleagues and patients outside of traditional settings.

Discussion

This discussion demonstrates the successful integration of mobile technologies into both undergraduate and graduate nursing curricula. Measuring learning outcomes associated with the use of mobile technologies is challenging. The growing field of social analytics may prove beneficial in overcoming this challenge. Barriers to full integration of mobile technologies into curricula include limited faculty fluency in technology skills and the rapid evolution of such technologies. This requires continuous reexamination of best practice by teaching faculty.

Title:
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**Abstract Summary:**
In the age of eHealth, nurse educators must seek innovative ways to develop technologically astute clinicians. The integration of mobile technology into nursing education through microblogging and apps in clinical settings provides experiential learning to develop this professional skill.

**Content Outline:**
I. Integration of mobile technologies into both undergraduate and graduate level

A. Technology is reshaping clinical education

   B. Conceptual framework-networked participatory scholarship

II. Description

   1. Microblogging in the classroom
   2. Use of apps (applications) in the clinical setting

III. Methods

   1. Microblogging assignments threaded throughout the graduate coursework
   2. Apps (applications) in clinical settings focused on patient teaching.

IV. Conclusion

   1. Educational Outcomes
      1. Concepts being measured to assess student learning.
   2. Discussion
      1. Successful integration of mobile technology into both graduate and undergraduate learning environments.
      2. Barriers to full integration.

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**Author Summary:** Shelly Smith is an Assistant Professor at Virginia Commonwealth University's School and currently serves as the DNP Program Director. Dr. Smith enjoys teaching systems leadership across the curriculum. She is passionate about creating a connected learning experience for students in a virtual classroom through innovative teaching strategies. She was recently recognized by the Virginia Nurses Association with an honorable mention as one of Virginia’s Top 40 under 40 nurses.

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**Author Summary:** Dr. Hallowell has worked as a Pediatric Nurse Practitioner since 1996. Her focus has been on children and adolescents with chronic illness. Her DNP research focused on the development of a transition program for adolescents who had undergone a heart transplant. Her passion is working with both undergraduate and graduate students to foster a love of learning. Dr. Hallowell is honored to be a part of the wonderful faculty at LC.