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'The School Is Not A Bubble; It Is Part Of Society': Social Media (Web 2.0) And Early 21st Century School Health Education In Australia

Seeman (2008) asserts that the introduction of modern communication technologies, such as social media (Web 2.0), are fundamentally changing the description and manipulation of health knowledge and are now the predominate lenses through which disease, treatment, education, and communication are viewed. Young & Simon (2005) define social media (Web 2.0) technology as,

"The literal fusion of multiple electronic, communications, computer, and media technologies. The art of listening, learning and sharing is being transformed through, for example, the development of social forums (Twitter, Facebook, Myspace), content sharing platforms (Wikis, Blogs, Diigo, Nigs, Google Docs) and high performance computing / advanced networking (Second Life, podcasts, instructional design, 3-D stereoscopic)" (p. 14).

From an education perspective, social media (Web 2.0) is creating opportunities and has the potential for promoting heightened student - teacher interactions, critical thinking, self directed learning, health information communication, and that posses the potential for strengthening collaborative learning environments (Rick et al, 2007; Young et al, 2005).

Web 2.0 technology possess many educational outcomes which support engagement processes necessary for heightening critical thinking amongst students these being: 1). Knowledge management. 2). Dialogue for group work, discussions /forums. 3). Sharing resources. 4). Learning how to add complexity to concepts in a given field, through systematic

engagement and analysis with work produced by more advanced students, specialists and experts (Seeman, 2008; Timpka et al, 2008). 5). Learning via Web 2.0 technologies which enable and heighten health learning environments through - multimodalities, networkability, message tailoring capabilities and temporary flexibility (Usher, 2011).

However, on a national scale, there is limited rigorous cross-sectional research investigating and comparing the types of Web 2.0 technologies Australian school health educators and their students are interacting with and using to inform pedagogy. Furthermore, there is inadequate pragmatic research indicating reasons behind contrasting patterns of Web 2.0 usage by individual school health educators and students. Therefore, from such an identified research gap, this theoretical paper seeks to present contemporary practical health examples and case studies pertaining to the implementation of social media applications to deliver early 21st century school health education.

Constructivist learning and social media (Web 2.0)

Social media applications support past theories concerning traditional approaches to epistemology and pedagogical practices. According to von Glasserfeld (1987) students locate their existence within individual subjects and see writing as a way of discovering the "authentic self," while social-epistemics regard "the subject. . . itself as a social construct that emerges through the

linguistically-circumscribed interaction of the individual, the community, and the material world" (p.47). The concept of constructive alignment is based on a social constructivist view of learning, which argues that learning is a process of 'making meaning' whereby students construct their individual sense of meaning through the learning activities in which they are engaged (Vygotsky, 1978; von Glasserfeld, 1987). Although Vygotsky focused on the role of speech and not on the role of new technologies, the fact that communication is increasingly supported by computers, e.g. e-mail, discussion boards, chat rooms, Twitter, Blogs, Wikis and Virtual Worlds, has led to his work influencing theories of learning in the information age.

Bruner (1990) further posits that educators have held a general consensus that students of all ages learn best when immersed within a culturally and socially rich environment in which scaffolding of learning can be achieved. Furthermore, where learners and peers are committed to achieving the same educational outcomes, they tend to regulate each other's performances (Houser et al, 2009; Yee et al, 2008; Jonassen et al, 1999), resulting in a positive outcome that can be facilitated through the use of shared, digital learning environments. Stemming from increasingly information-rich, networked societies is the notion that students in the early 21st century are more 'knowledge intense' and possess a heightened 'knowledge management base' in regard to current health issues and health curriculum content (Donald, 2008; Maged, 2007). The repercussions from such an increased student empowerment are that educators need to develop and implement pedagogical practices which cater for and encourage new ways of promoting pedagogy and increase students' engagement through a collaborative approach to the learning process.

Social media (Web 2.0) and school health education

From a review of the literature it has been

concluded that Australian school health educators are interacting with and using a number of common Web 2.0 technologies to deliver educational content, these being: Facebook, Wikipedia, MySpace, YouTube and various blog sites (Education.au Limited, 2009). A further finding reveals that there are 'pockets' of experimentation but no single, co-ordinated approach to establishing a 'Web 2.0 School Health Education Platform' for Australian schools. There needs to be a more synchronized approach when addressing school health education (Seeman, 2008).

Usher (2011) identifies four important enabling qualities that Web 2.0 technologies can potentially promote and heighten throughout health education, these are: 1). Multimodality. 2). Networkability. 3). Temporal Flexibility. 4). Message Tailoring Capabilities. The 'overlapping' of these enabling qualities, brings about a number of Health Outcome commonalities, these being 1). An increase in self-efficacy. 2). The ability to communicate and control information either synchronously or asynchronously. 3). The ability to manipulate text. 4). The ability to narrow / segment information for a particular audience, target group or individual (Usher, 2011). These enabling qualities assist students to interpret health information and apply it to their own personal situation, and hence have the potential to promote healthy behaviours and improve their overall health status (Fox et al, 2006; Murray et al, 2004).

Case Studies of Web 2.0 - Australian / International schools

By acknowledging some case studies and their unique aspects, Australian and International school health educators may be in a better position to inform their pedagogical practices concerning health education.

Case Study # 1 - (Source: Education.au Limited, 2009). An Independent School with open access to popular Web 2.0 sites - An

independent girls R-12 school in Adelaide has an innovative and pro-active approach to teaching and learning in a Web 2.0 world. Key aspects of this school's approach are: 1). Embedding use of Web 2.0 online tools into the curriculum - students make podcasts and blogs to record their investigations via documenting and reflecting on their assignments. 2). Educating students from an early age in cyber-safety and new media literacy - years 2 - 8 topics include: Internet Security, Computer Security, Identity Theft, Internet Safety and Cyber Bullying.

Case Study # 2 - Victorian Education Department provides safe versions of Web 2.0 interactive tools - This initiative will provide a comprehensive set of Web 2.0 interactive tools in-house for access by teachers and students. Within this network, Victorian students will also be able to interact with each other using Web 2.0 interactive tools - such as blogs, wikis and podcasts which are currently banned by most educational institutions due to a high risk of inappropriate use.

Case Study # 3 - TakingITGlobal - <http://www.tigweb.org/tiged/bp/> - "Making the Connection: Best Practices in Global Education and Collaborative Technologies" features 15 case studies of educators who are integrating technology into project-based approaches. The case studies demonstrate how students' social uses of technology can be leveraged for constructive learning, and how teachers are using collaborative global education practices to connect youth to social issues, causes and possible solutions.

The future of school health education: early 21st century *edutainment*

Fish (2006) identifies that *edutainment* is the combination of education and entertainment to create a more learner-centred environment; an environment of 'learning through playing'. *Edutainment* involves incorporating an educational message into popular entertainment content in order to raise awareness, increase

knowledge, create favourable attitudes and ultimately motivate students to take socially responsible action in their own lives (Kasier Family Foundation, 2004).

The use of media and technology for educational and entertainment purposes has received much attention in both academic and popular literature since the late 1970s (Kasier Family Foundation, 2004). However, with the onset of new communication technologies (Web 2.0), *edutainment* has been reintroduced and revitalised with educational potential and has become increasingly popular in the early 21st century (Bergen, 2000; Farkas, 2006, 2007; Gee, 2005; Halter, 2006; Prensky, 2006). Simplistically, the purpose of *edutainment* is education, with an integrated form of entertainment, facilitating and making the educational process more attractive for learners; it helps to hide the educational message (Prensky, 2006). From a school health educational standpoint, *edutainment* offers new ways of engaging students, creating effective and appealing learning experiences and disseminating health literature which was previously only offered through traditional forms of pedagogical practices eg. printed material, DVDs or teacher-led discussions. Pedagogical practices which support and result in a higher level of critical thinking and self-directed learning could be developed. For example: an online game to demonstrate health knowledge; a Second Life community health service (<http://healtheducations.pbworks.com/>); a web site which models different historical periods, cultures and countries associated with a health issue; a social forum (using social media/networks) that promotes sharing of health messages, personal histories and case studies.

Conclusion

Not since the invention and introduction of Web 1.0 technologies have we seen such an exciting array of emerging technologies as displayed with Web 2.0. However, relatively few school health educational settings have

effectively implement Web 2.0 technologies. There is an urgent need to present practical examples that will inform health educational environments as to the design and successful implementation of Web 2.0 applications.

School health education is at a crossroads and may remain in place unless health educators view their subject with a degree of creativity and foresight. Web 2.0 technologies have created challenges for school health education teachers, but have also provided opportunities to make deeper connections and promote collective intelligence amongst students. Moreover at present, it is hoped that this paper has flagged some of the more important concepts that contemporary and future school health educators and curriculum writers should consider when attempting to teach school health education in the early 21st century.

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