

USING SOCIAL MEDIA IN EDUCATION FOR CLASSROOM TEACHING,  
STUDENT LEARNING, AND EDUCATOR PROFESSIONAL DEVELOPMENT

by

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## ABSTRACT

The ubiquity of social media in today's highly connected society has brought about changes in our teaching and learning. Although there are negative aspects associated with increased connectivity through social media applications, there are also many positive characteristics of social media, which have the potential to engage students in a quality learning environment. Social media promote a sense of community through networking, the co-construction of knowledge through collaboration, and individualized spaces where learning can be differentiated to cater to a variety of learning needs. There are, however, issues surrounding media literacy and accessibility that must be addressed for social media to be effectively incorporated in education. Educator professional development on social media must also be adopted as some educators remain unfamiliar and uncomfortable with these emerging technologies.

This project includes a literature review of research pertaining to the positive uses of social media, the societal concerns, potential uses of social media in the classroom, and educator professional development. The product of this project presents sample blog posts to demonstrate both how educators can use social media (in this case, blog posts), and discusses through the blog posts uses of social media in the classroom and issues educators may encounter in relation to social media adoption.

The final reflection concludes the project and addresses my own social media use for personal and professional purposes, and my barriers to learning in relation to social media usage. Overall, however, findings suggest that social media have the potential to provide opportunities for teaching and learning in a formal educational setting.

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## CHAPTER 1: INTRODUCTION

Since the advent of the Internet, education, learning, and the acquisition of knowledge have changed with the growth of technology, increased access to information on the Internet, the development of collaborative spaces, and the extent of user-generated content. The popularity and reach of social media sites, such as Facebook, YouTube, Twitter, and Instagram, have only furthered this sense of collaboration and community online. These changes in technology have had a significant impact on digital literacy as different formats and modes of communication have been introduced. Not only are these programs changing our modes of communication, but also one's digital life as "Big Data" are used for data analysis to track trends, interests, and connections. For these reasons, educators must consider the implications of these technologies, and the skills and competencies 21st century learners require to participate in the digital world.

Shortly after entering secondary school in 1998, like many other Grade 9 students, I was expected to participate in library orientation activities introducing new students to "research techniques" to find information. At this time, I was taught how to use the card catalogue to find library books by topic and became accustomed to using the large, alphabetized copies of *Encyclopedia Britannica* to look up various topics. However, the rise of the Internet was changing the way students found and consumed information, requiring new strategies and skills to be taught and learned in the formal educational setting. At this time, Windschitl (1998) addressed the issues of incorporating the World Wide Web in classrooms asking, "What path should we take?" The suggestion for educational research at the time focused on the use of the Web for student inquiry, the need for qualitative research methods, and the potential of the Internet to promote this

student inquiry (Windschitl, 1998). Since then, the Internet has evolved further, requiring students to not only develop these inquiry skills, but also to become co-creators in this environment of participatory, social media. Where pre-millennium students used print copies of *Encyclopedia Britannica* to gain a basic understanding of a topic, today's students are known for making Wikipedia their first stop. This strategy is further perpetuated because search engine algorithms, such as Google's algorithms, often make Wikipedia a top search result. These technological advances require educators to again reflect on the path we should take to incorporate the use of the Internet and social media in today's formal education settings.

### **Purpose of this Project**

This project builds upon the changing dynamics of social media in the educational landscape. The purpose of this project is to demonstrate the role of social media, online learning communities, and social networking in education and learning. As Barron (2006) argues: "The questions of how, when, and why adolescents choose to learn are particularly salient now, as there has been a rapid increase in access to information and to novel kinds of technology mediated learning environments" ( p. 194). Educational research demonstrates how impactful the Internet has been on student learning and engagement. Unfortunately, many educators are not using these modes of communication to their fullest in various learning environments. The formal education system is behind the times due to a lack of educator professional development and the lack of accessibility to the technological resources. The intent of this project is to explore the educational research in the field of online learning, while providing educators with a guide in the

form of a blog to apply this knowledge in various learning contexts. Finally, a reflection is included to consider how social media have impacted and continue to impact my life.

### **Definition of Key Terms**

Social media can be defined in multiple ways as humans have socialized through various modes or mediums of communication throughout history. For the purpose of this paper, however, the focus is on digital social media made possible by Web 2.0, whereby the Internet has allowed for collaboration and user-generated content rather than passive consumption of information. Social media consist of various formats including content sharing sites such as YouTube and Pinterest, social networking sites such as Facebook and LinkedIn, wikis including Wikipedia, and blogging sites or microblogging sites such as Twitter. Dabbagh and Kitsantas (2012) define social media in this sense as "a variety of networked tools or technologies that emphasize the social aspects of the Internet as a channel for communication, collaboration, and creative expression, and is often interchangeable with the terms Web 2.0 and social software" (p. 3). This definition, however, does not distinguish between social media and Web 2.0. Kaplan and Haenlein (2010) define social media more specifically by stating, "Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content" (p. 61). This definition does differentiate among social media, Web 2.0, and User Generated Content.

Web 2.0 refers to the utilization of the web "as a platform whereby content and application are no longer created and published by individuals, but instead are

continuously modified by all users in a participatory and collaborative fashion" (Kaplan & Haenlein, 2010, p. 61). Web 2.0 is distinguished from Web 1.0, in which information was controlled by experts and academics (Dede, 2008; Greenhow, Robelia, & Hughes, 2009). In this way, Web 2.0 represents "a shift from the presentation of material by website providers to the active co-construction of resources by communities of contributors" (Dede, 2008, p. 80). Kaplan and Haenlein (2010) believe, "when Web 2.0 represents the ideological and technological foundation, User Generated Content (UGC) can be seen as the sum of all the ways in which people make use of Social Media" (p. 61). The various uses of social media are extensive as "Web 2.0 tools (e.g., Wikipedia) help large numbers of people build online communities for creativity, collaboration, and sharing" (Dede, 2008, p. 80). Social media include applications ranging from social networking sites (SNS) such as Facebook, content sharing on YouTube, microblogging on Twitter or Tumblr, social bookmarking on Delicious, as well as wikis, podcasts, blogs, and applications for sharing or expressing personal interests.

### **Theoretical Framework**

For the purpose of this project, I use a learning ecology framework. A learning ecology can be defined as a "set of contexts found in physical or virtual spaces that provide opportunities for learning" (Barron, 2006, p. 195). According to Dede (2008), Web 2.0 does not merely represent a shift in agency, but "the tacit epistemologies that underlie its activities differ dramatically from what I will call here the 'Classical' perspective – the historic views of knowledge, expertise, and learning on which formal education is based." (p. 80).

## CHAPTER 2: REVIEW OF THE LITERATURE

The use of social media as a learning tool is relevant to the field of education due to the prevalence of use amongst adolescents. Today's young people "are among the first to have grown up entirely surrounded by communication technologies" (Ahn, 2011, p. 1435). According to Statistics Canada (2012), 98.6% of Canadians between the ages of 16 and 24 use the Internet for personal use. Additionally, 84% of those aged 16–24 were likely to access the Internet via a hand-held device, and 50% of the users from this demographic spent 10 or more hours per week on the Internet (Statistics Canada, 2013). These numbers have likely increased as the statistics show significant increases in recent years. According to Statistics Canada, "The popularity of social media and the Internet as a communication tool increased from 2010 to 2012" (Statistics Canada, 2013, p. 2). In 2013, 69% of the Canadian population visited social networking sites (Canadian Internet Register Authority [CIRA], 2014). Although the numbers are not delineated by age group, Facebook is the most popular social networking site amongst Canadians, attracting more than 19 million users to the site each month (CIRA, 2014). Additionally, the top visited social networking sites used by Canadians increased significantly between 2012 and 2013 including Facebook (+8%), Twitter (+27%), LinkedIn (+38%), Tumblr (+96%), and Pinterest (+792%) (CIRA, 2014). The prevalence of social media use in today's society is apparent as more traditional media outlets are turning to these platforms. For example, in January 2014, BBC News launched "Instafax" on the Facebook-owned social networking site Instagram.

## **Forms of Social Media**

Social media and electronic forms of communication encompass a range of formats including social networking, content sharing, and blogging. This form of media is altering communication as it allows online communities of users to contribute, modify, and co-create content. The purpose of social media is to share information and content, exchange ideas, engage in dialogue through comments and personal messages, and create communities. Social media challenge traditional media in that the former have a broad reach, and their quality of content varies greatly. Corporations, organizations, and individuals are taking advantage of the various functions provided by social media.

Social media classifications are difficult because some applications have multiple functions. For example, YouTube is a video content sharing application, but users can subscribe to other user's channels and share video playlists, creating social networks. According to boyd and Ellison (2008), "as the social media and user-generated content phenomena grew, websites focused on media sharing began implementing SNS features and becoming SNSs themselves" (p. 216). The forms of social media also influence user behaviour. LinkedIn's resumé style profiles, for example, "encourages professional uses" (Ahn, 2011, p. 1437). Additionally, Twitter's purpose changed with a simple change in the question prompt from "What are you doing?" to "What's Happening?" thereby shifting Twitter's usage from more personal to public musings, therefore changing posted and shared content.

### **Content Sharing**

YouTube is a leading content sharing website through which users can upload, share, and watch a variety of video media, including video clips, music videos, podcasts,

and educational videos, all of which can be broadcast to a large online audience.

YouTube enables users to create playlists of their favourite video clips, and create channels of related content. YouTube is one of the most commonly used social media sites in the field of education. MIT and Harvard Business School grad Salman Khan developed the concept for the educational website Khan Academy, while tutoring his cousins at a distance and posting supplementary YouTube videos for the lessons.

Podcasts are online broadcasts of audio or video content that allow for lecturing to be done at an individualized pace. Podcasts can be streamed through sites like YouTube, or are often accessible for download and later viewing through other applications.

### **Collaborative Workspaces and Wikis**

Collaborative workspaces, including wikis, foster collaboration as they permit users to share information, contribute or co-create content, and engage in dialogue.

Wikipedia is a free online encyclopedia, which was built in a collaborate manner using wiki software. Wiki software permits users to create easily accessible webpages. Wiki means "quick" in Hawaiian as wiki programs "allow all users to access and edit the pages on an ongoing basis" (Luce-Kapler, 2007, p. 215). According to Chin (2012), "As a result of the interactivity inherent in wiki, students can respond/reply to the original creator and, in turn, actually take on the role of co-author" (p. 5).

### **Social Network Sites**

Social networking, made possible by Social Network Sites (SNS), is a form of social media, dominated by sites such as Facebook, Twitter, LinkedIn, and Instagram. SNS allow users to connect with friends, acquaintances, strangers, and those with similar interests. SNS allow users to share content, comment on posts, and follow other users.

Users are able to share multimedia content on SNS, yet the content is often focused on one's own identity. The pervasiveness of social networking can be demonstrated by "selfie" – a photograph taken of oneself and uploaded to an SNS – being chosen as the 2013 Oxford Dictionary Word of the Year. Instagram is a photo-based SNS, and one of the fast growing to date. boyd & Ellison (2008), believe that SNS are unique because they not only allow users to meet and network with strangers, "but rather that they enable users to articulate and make visible their social networks" (p. 211).

### **Social Bookmarking**

Social bookmarking sites assist users in organizing online content by adding "bookmarked" webpages and articles, which can be tagged with keywords for later searches. Social bookmarking sites, such as Delicious, link directly to other social media applications, such as Twitter, to instantaneously save shared articles. Social bookmarking assists academics and professionals in finding relevant and current information in their field through the "social" aspect of these sites, as they permit users to see what others are reading. CiteULike is a social bookmarking site specifically catering to an academic audience by promoting itself as a space for the gathering, saving, and sharing of scholarly articles and academic references.

### **Rich Site Summary (RSS)**

RSS feeds (Rich Site Summary), also known as "Really Simple Syndication" (Kaplan & Haenlein, 2010, p. 61), is a web feed that automatically publishes updated content. Updated content may include news articles, blog posts, and other newly published pieces of information online. An RSS feed allows users "to select which content is relevant and then have it delivered directly to them for viewing at their

convenience" (Baird & Fisher, 2005, p. 15). RSS feeds assist users in getting the most up-to-date posts from their favourite websites, and aggregate updates from various sites for delivery to one's desktop or mobile devices. RSS feeds gather and update information from the Web, allowing educators to share content with students through their feed (Greenhow, Robelia & Hughes, 2009). Feedly is an RSS reader that can connect to OneNote assistive technology to help students create and maintain digital binders.

### **Blogs and Microblogs**

Blogs, originally "web logs" are online posts that enable users to engage in a discussion forum that provides immediate feedback. Vlogs are video blogs, with a similar purpose. Microblogs include Twitter and Tumblr. Twitter allows users to post 140 character text based messages, which can include pictures, videos, and links. Twitter's ubiquity is apparent as "Tweets" have been incorporated into other content such as broadcast television and the promotion of multimedia connections. Hashtags, signified by the number sign (#), are metadata tags that allow for content searches, and analysis of popular trends. Blog binders allow users to turn their blogs into a hardcopy book.

### **Games and Virtual Worlds**

Gaming and virtual worlds are forms of social media that provide an engaging narrative and ongoing feedback based on users' decisions. Games are designed using Dynamic Difficult Adjustment (DDA), which gradually increases difficulty level and "allows a game to be dynamically responsive to the player's skills and performance" (Hume, 2011, p. 199). Second Life is a popular virtual world used in the field of education.

## **Positive Aspects of Social Media**

Social media have largely been beneficial in two respects. Social media increase the ability to create community with like-minded individuals who may or may not be geographically proximate. Additionally, social media allow for greater democracy on-line by permitting users to both read and write text, unlike traditional media that are "read only."

### **Community**

Changes to social organization are occurring as social media, specifically social networking, are allowing people to connect to each other beyond the restraints of physical geography. On March 5, 2014, Facebook posted a video on its own Facebook page entitled *We Are Not Alone* stating in the tagline "Whatever you're into, somewhere out there is a group for you." During adolescence, social development is largely influenced by finding one's place within the larger community or social world (Feldman & Dinardo, 2009). This socialization process is an important component of education. According to Dewey (1938), "education is essentially a social process. This quality is realized in the degree in which individuals form a community group" (p. 58). Communities, in relational terms, are defined as "people who are tied together by webs of communication, friendship, association, or mutual support" (Griswold, 2005, p. 220). The advent of the Internet, combined with increased technological use, has assisted individual access to various communities, both locally and globally. According to Seeley Brown and Adler (2008), Web 2.0 "has shifted attention from access to information toward access to other people" (p. 18). The proliferation of blogs, wikis, and social networking sites has assisted people in connecting to others with similar interests, creating virtual communities. Social

networking sites "have allowed people with common interests to meet, share ideas, and collaborate in innovative ways" (Seeley Brown & Adler, 2008, p. 18). This sense of community promotes voice and democracy on the web as well. Where Web 1.0 was dominated by experts and corporations, Web 2.0 allows the users to control the content. As an example, Wikipedia "expressly forbids the participation of firms in its online community" (Kaplan & Haenlein, 2010, p. 60).

### **The Read-Write Web**

The Internet has the potential to change formal education drastically due to the increase in information consumption and accessibility to knowledge shared online. Web 2.0 has altered the consumption of information further, as applications and platforms have allowed the consumer to become the creator or author of the content. This exchange of ideas or dialogue, made possible by social media, is constructing what is referred to as the "read-write web" (Wellburn & Eib, 2010, p. 44). The read-write web can help students develop learning and literacy skills, as it requires individuals to engage with content. According to Alvermann (2002), "there is also evidence that adolescents are making valuable reading-writing connections in their bids to communicate in a computer-mediated world" (p. 200).

### **Concerns about Social Media**

While social media have benefits with respect to community building and the read-write web, concerns have been raised about their use. Critics cite the increase in cyberbullying as a result of the growing use of social media. Personal privacy is quite easily invaded through individuals' use of the Internet. Commercial interests have large

input into the content of certain sites, thereby acting as a marketing device. Finally, social media may encourage a shallow level of thinking focused on basic fact acquisition rather than deeper understanding.

### **Cyberbullying**

Although social media have the potential to positively influence education and learning, there are many negative aspects of social media that must be taken into consideration. The most apparent negative aspect of social media is cyberbullying as shown by the amount of attention this topic has received in recent years. In 2002, 15-year-old Ghyslain Raza from Quebec was labeled the "Star Wars Kid" and severely bullied after a video of Raza wielding a golf ball retriever like a lightsaber went viral on the Internet. On April 4, 2013, 17-year-old Nova Scotia teen Rehtaeh Parsons attempted to commit suicide and was removed from life support just days later, after she was allegedly sexually assaulted and endured harassment and humiliation via social networking sites and instant messaging services. In February of 2014, Toronto Police investigated a Twitter account through which teens' sexual activities were "exposed" to Twitter followers. These cases are considered the extremes, yet they highlight the potential malevolence made possible by the proliferation of social media. What these cases highlight is the fact that social media have produced an environment in which users are subject to the creation of a personal narrative - whether written by individuals themselves or others. This creation is particularly problematic, as online data can contribute to a stored, life-long digital narrative about individuals. Luce-Kapler, Sumara, and Iftody (2010) argue, "Of greatest concern to us, in this New Literacies world, is the

propensity with which individual stories can be appropriated and disseminated without regard for the individuals who exist as the subject of those stories" (p. 536).

### **Big data, our digital "fingerprints," and personal privacy**

Privacy, and the use of personal information provided by online users, is an issue that is often addressed in relation to the wide-spread use of social media in today's society. The extensive use of computers, smartphones, tablets, and other electronic devices that connect to the Internet has made large-scale collection of personal data possible. The amount of personal data created and collected online is growing significantly, reaching 2.8 zettabytes in 2012 (Tucker, 2013). Schmidt and Cohen (2013) argue that it is now possible for humans to have an indelible and searchable online record. The media have recently emphasized these privacy concerns, "primarily concerning the safety of younger users" (boyd & Ellison, 2008, p. 221).

Search engines and social media sites are designed with algorithms that tailor individual experiences based on stored data such as interests ("likes" on Facebook), location, shared personal demographic information, and past searches. "What modern data science is finding is that nearly any type of data can be used, much like a fingerprint, to identify the person who created it" (Tucker, 2013, p. 64). In this way, the Internet and social media are being used to "write" personal narratives, and influence one's public identity as well as one's sense of self. Within these online social environments, "one's personal, individualized consciousness emerges from ones relational and imagined identifications with others" (Luce-Kapler, Sumara, & Iftody, 2010, p. 539). The ubiquity of social media is blurring the lines between one's personal and public lives (Vanwynsberghe & Verdegem, 2013). These narratives can vary between sites, as boyd

and Ellison (2008) state: "The extent to which portraits are authentic or playful varies across sites; both social and technological forces shape user practices" (p. 220).

Collected personal data are used to individualize search results, make recommendations on social media sites, and personalize advertisements on the web. This feature is especially important to keep in mind as data analysis and algorithms are used to tailor individual experience on the Web, which can also impact individual learning experiences. This personalization and individualization of the Internet have created what is referred to as online "filter bubbles" (Pariser, 2011). The problem with these online filter bubbles is that the Internet is not neutral and can help contribute to our biases. According to Ethan Zuckerman, director of MIT's Center for Civic Media, the Internet is actually shrinking our worldview: "The problem with searching for what you want [on the Internet], is that you get exactly what you want. You don't necessarily get what you might need to know about the world" (Fowler, 2013; no page number). Critical thinking, opposing viewpoints, and debate are important components of learning, yet these algorithms or online filter bubbles are limiting our access to opposition and diversity. Friesen and Lowe (2012) conclude that, "social networking offers only a truncated capacity to foster disagreement and debate because dominant programmes and models primarily foster conviviality and 'liking'" (p. 184). This programming may have an effect on user participation in social media spaces, as some may not contribute personal views due to fear of other users' reactions (Vanwynsberghe & Verdegem, 2013).

### **Commercial interests**

Individual experiences on the Web, which are created and shaped by social media, are further influenced by commercial interests. Many social media sites have commercial

imperatives, since profits are generated via advertisements. These commercial interests make the positive educational potential of social media questionable (Friesen & Lowe, 2012). Commercial social media sites have an allegiance, first and foremost, to corporations and advertisers – not to users. Sites such as Facebook and Google have advertising profits worth billions of dollars and have a commitment to investors as publicly traded companies. According to Friesen and Lowe (2012), "Google's search service, in particular, uses complex algorithms to precisely target ads based on detailed tracking and analysis of user searchers, the content of Web pages and emails, and a range of additional information" (pp. 188–189). At the time of Facebook's Initial Public Offering in 2011, financial filings showed that "Facebook stores around 111 megabytes of photos and videos for each of its users" (Tucker, 2013, p. 65). This information is then used to personalize advertisements for Facebook users. Facebook is only one of many social media sites collecting personal data for economic purposes. Such profit-driven interests only reduce an individual's online world further. According to MIT's Ethan Zuckerman, "If you can hand people information that is comfortable and consonant with what they believe and what they want to know, people will load more web pages, and this is why we're going down this path." (Fowler, 2013, no page number).

### **Information vs. Knowledge and Understanding**

The digital age is aptly referred to as the "Information Age" owing to the accessibility of information online. Even though accessibility to information has assisted learning and the acquisition of knowledge, the question remains whether or not there are consequences as there are marked differences among information, knowledge, and understanding. There is a difference between finding facts on a topic, and having

knowledge or an understanding of the topic. However, simple fact-finding is being perpetuated further as even search engines themselves are morphing into what is known as "computational knowledge engines," such as Wolfram Alpha where the search engine itself sorts through information to answer questions.

Researchers and educators are questioning how social media, and the accessibility of information on the Internet, are affecting learning and the acquisition of knowledge. Social media have allowed for knowledge to shift from the exclusivity of vetted or published experts to a more democratic and collaborative co-construction of knowledge. Within the collaborative online spaces of social media, information is shared and debated, and various opinions are incorporated into the meaning-making process. However, the quality of the information varies greatly, requiring the reader to be critically aware of accuracy and biases presented in the information online.

There is debate as to whether or not there are epistemological changes brought about by the introduction of social media in education. Sanger (2010), a co-founder of Wikipedia, states: "Being able to read (or view) *anything* quickly on a topic can provide one with information, but actually having a knowledge of or understanding about the topic will always require critical study. The Internet will never change that" (author's italics, p. 17). Yet teachers are seeing changes in their classrooms. According to research conducted as part of the Pew American Life Project, 75% of teachers surveyed said that students were "very likely" to use Wikipedia and other online encyclopedias for research assignments, with 52% saying that YouTube and other social media sites were frequently used sources (Purcell et al., 2012, p. 4). As some teachers surveyed reported, the research process "has shifted from a relatively slow process of intellectual curiosity and discovery

to a fast-paced, short-term exercise aimed at locating just enough information to complete an assignment" (Purcell et al., pp. 3–4). Even though social media and Web 2.0 technologies allow for collaboration and the co-construction of knowledge, Sanger (2010) argues that, "reading, writing, critical thinking, and calculation, however much they can be assisted by groups, are ultimately individual skills that must, in the main, be practiced by individual minds capable of working independently" (p. 23).

### **Social Media Use in Education**

Despite there being both positive and negative aspects to social media, their presence cannot be disregarded. Current studies and new competencies required in the field of education "indicate movement toward and projections of Web 2.0 activities with potential educational value" (Greenhow, Robelia, & Hughes, 2009, p. 248). According to Baylor and Ritchie (2002), "identifying the value of technology in schools has challenged educational researchers for more than 20 years. Part of the problem is our evolving understanding of how technology accentuates student learning. Rapid changes in the technology itself also hamper research" (p. 396). It is important for research to be done to investigate how social media are being used, as well as to incorporate media literacy education (Vanwynsberghe & Verdegem, 2013). According to Greenhow, Robelia, and Hughes (2009), students in today's society "face technological competencies that emphasize the capacity for innovation, leadership, multidisciplinary collaboration, collective problem identification, and resolution in a dynamic, digital environment" (p. 248). In reference to social networking specifically, Ahn (2011) points out, "a critical theoretical concern for youth is whether and how SNS facilitate detrimental behaviors

such as bullying and interacting with strangers, versus positive outcomes such as developing wider networks or relationships" ( p. 1439). A problem with incorporating social networking technology, like other forms of social media, in education is the lack of research as, "the research literature pertaining to youth (12-18) and SNS is only just emerging" (Ahn, 2011, p. 1436).

### **Social media use by students in the classroom**

There are many aspects of social media that make this form of online learning positive and engaging. Social media applications have created an online environment in which users have become the creators rather than passive consumers, thus allowing for a read-write exchange of ideas. In terms of education, social media promote a sense of community and collaboration. These spaces are ideal for creating Personal Learning Environments (PLE) that support self-regulated learning. The multimedia aspect of these applications furthermore supports differentiated instruction, as students are able to access and connect with content in different formats. The "social" aspect of social media encourages the development of opinions, and provides immediate feedback to both educators and learners. All of these positive aspects make social media an engaging learning environment for the learner.

The problem is that, even though the incorporation of social media in the classroom offers many opportunities for learning, these applications are not being utilized to their full potential in formal education settings. Clark, Logan, Luckin, Mee, and Oliver (2009) found, "learners' use of Web 2.0 tools offers evidence that learners' negotiation of technologies in the school setting is generating a sense of 'digital dissonance' in formal learning settings" (p. 57). Results from their study demonstrate, "not only learners but

also their teachers and institutions are experiencing a sense of dissonance around learners' in- and out-of-school uses of Web 2.0 technology and related devices" (Clark, Logan, Luckin, Mee, & Oliver, 2009, p. 68).

Outside of the formal education setting, young people are using social media for a variety of purposes, but predominantly "for social, leisure or entertainment purposes, such as chatting, making arrangements, playing games, creating Web pages, sharing photos, music, personal profiles and online journals" (Clark et al., 2009, p. 62). Clark et al.'s (2009) research found that, when students did use these technologies for school purposes, "learners cite usefulness, instantaneity, efficiency and ease of use as key motivational factors" (, p. 62). According to Clark and colleagues:

Learners identify activities that could usefully be transferred to the school setting, such as peer support networks, file sharing, file transfer, interaction with teachers, and greater use of learner-centred (as opposed to teacher directed), multi-modal and interactive resources (visual images, music and other audio materials, quizzes, Web page creation, etc.). (p. 62)

According to these researchers, although students could identify uses and benefits for the incorporation of these technologies in the classroom, the evidence "suggests that while learners have access to a wide range of technologies, what they lack is an understanding of ways in which such technologies can be used critically and creatively to support their learning" (p. 67–68). Both learners and educators are failing to realize the potential uses of social media in education. For this reason, educational institutions must consider the positive elements of social media and "see that what is needed is a supportive negotiated

response through which the institution guides the learner towards a more critical, reflective appropriation of these technologies" (Clark et al., 2009, p. 68).

### **Student engagement**

Student engagement in the field of education is a topic of much focus, especially in today's society where formal education is competing with the informal learning provided by the media and Internet (Hume, 2011). According to Skinner and Belmont (1993), students are intellectually engaged when they "exert intense effort and concentration in the implementation of learning tasks; they show generally positive emotions during ongoing activity, including enthusiasm, optimism, curiosity, and interest" (p. 572). Student engagement is increased when students have a stake in, or authority over, their learning, meaning their ideas, questions, interests, and issues are discussed and taken into consideration (Loughran, 2010). Bull et al. (2008) argue that "the informal learning that occurs in the context of participatory media offers significant opportunities for increased student engagement in formal learning settings" (p. 106). However, social media are not often incorporated into formal education because teachers and education institutions may be fearful of the negative aspects that are associated with these technologies, and see them as potential risks or disruptions to classroom learning. In this way, educators "do not immediately recognize or understand the increased repertoire of practices available to learners in their engagement with them. At the same time, learners remain mostly unaware of the wider educational potentials of these resources" (Clark et al., 2009, p. 66) Yet, according to DeGennaro (2008), "in technology-mediated participation, youth are decidedly engaged and are, more often than not, involved in enveloping, distributed, fluctuating, and emergent participation" (p. 1).

### **Building collaboration, differentiated instruction, and critical media literacy**

In the field of education, "sociocultural and sociohistorical theories are based on the assumption that learning derives from participation in joint activities" (Greenhow, Robelia, & Hughes, 2009, p. 248). Social media promote joint activities as "Web 2.0 technologies enable hybrid learning space that travel across physical and cyber spaces according to principles of collaboration and participation " (Greenhow et al., p. 247). "When youth engage in these practices, their learning is both socially constructed and situated within the broader community of practice with their peers" (DeGennaro, 2008, p. 2). Action research involving Grade 7-10 students using the social networking site Ning found that "students made online friends across year levels and subject areas. Students also used the Ning for peer feedback and peer assessment" (Casey, 2013, p. 8).

The use of social media in education additionally enhances multimedia learning as these applications and platforms go beyond written text to incorporate visuals, sound, and video. This multimedia aspect supports differentiated instruction in education as multiple formats of media cater to varying learning preferences. Research on multimedia learning has found a multimedia effect in which students learn better from a combination of words with pictures, rather than text alone (Mayer, 2003). Alvermann (2002) states, "there is evidence of the effectiveness of literacy instruction that integrates print and visual texts" (pp. 199–200).

Literacy instruction is an important component of classroom teaching, and in multiple subject areas, as the ability to comprehend is required for understanding. Outside of the classroom, the widespread use of the Internet has created a ubiquitous communication system (Vanwynsberghe & Verdegem, 2013). Unfortunately, "young

people's literacy skills are not keeping pace with societal demands of living in an information age that changes rapidly and shows no sign of slowing" (Alvermann, 2002, p. 189). In today's society, literacy goes beyond reading and writing in the traditional sense, but "now included reading (or interpreting) and writing (or creating) a much broader range of texts, both print and visual" (Hume, 2011, p. 180). The use of social media in the classroom requires students to "read" various text forms, including pictures, videos, audio, and online print. These formats increasingly necessitate media literacy skills, including analysis and critical thinking. In online environments, students must be taught literacy skills to "find, navigate, access, decode, evaluate, and organize information from a globally networked information landscape" (Warlick, 2009, p. 17). Furthermore, Web 2.0 is described as a read-write web where students are not only consumers in the social media environment, but are expected to create. Greenhow, Robelia, and Hughes (2009) argue that research should examine students' media literacy skills, "especially how they navigate, understand, trust, and critically evaluate multiple types and sources of data" (p. 249).

Students must be explicitly taught the skills with which to make meaning on the web. Reading print often requires sustained concentration, whereas reading on the web can be disruptive as readers skim and scan for useful information and links. Students require skills to scan text for titles and subtitles, use text features such as highlighted hyperlinks to navigate the web, make predictions, and evaluate texts for purpose and audience to determine point of view and author's bias. Reliability and accuracy of sources must be taken into consideration as information can be created and disseminated by

anyone on the Internet. This analysis and evaluation requires critical thinking and literacy skills.

Activation of one's prior knowledge is a well known literacy strategy used by skilled readers. There may, however, be a difference in the prior knowledge required for successful navigation in online environments. The types of prior knowledge required of the learner in social media environments may be shifting, as prior knowledge of online text features and navigation may have a more significant role than simply having topic-specific prior-knowledge. For example, prior knowledge of hypertext features and navigation skills within social media spaces may be more important than prior knowledge of subject matter when searching for information online. Research conducted by Coiro (2011) found:

Some lower-knowledge students with higher online reading skills were able to use the Internet to quickly locate the background information they needed and then proceed with the online reading task. In these cases, it appeared that the Internet might introduce new possibilities for low-knowledge readers to quickly locate information to which they might not otherwise have access. (pp. 374–375)

This research demonstrates that there may be a shift in the type of knowledge required to successfully navigate the online environment. "Prior knowledge of the topic appeared to take a back seat to knowledge of how to navigate and negotiate multiple online texts when reading for information on the Internet" (Coiro, 2011, p. 375).

Baker (2010) argues that although students have access to these technologies like no other generation, "they do not necessarily possess the ethics, the intellectual skills, or the predisposition to critically analyze and evaluate their relationship with these

technologies or the information they encounter" (pp. 138–139). "Online texts often contain hidden social, economic, and political agendas that require higher degrees of critical evaluation skills than typically found in offline text comprehension" (Coiro, 2011, p. 357). Many of the hardcopy texts used in classrooms are professionally published (such as textbooks) and many not be "embedded with commercial interests to the extent that online information texts may be" (Coiro, 2011, p. 372).

### **Additional issues for social media in education**

The benefit of social media platforms is that they assist in providing immediate feedback and dialogue. Feedback is an important component of the learning process. However, for feedback to be effective, it must be immediate and take place during the period of learning, rather than only occurring during grading or formal assessment (Chappuis, 2009). The dialogic environment and immediacy of feedback provided by social media are apparent by the wide-spread use of comment sections or "posts" on various sites, including the more traditional media outlets online. Casey (2013) conducted Action Research using social media with Grade 7-10 students and found "When scaffolded correctly, the feedback was authentic, timely and provided supportive advice to help students improve the quality of their work" (Casey, 2013, p. 14).

An issue facing teachers and schools wanting to incorporate social media into classrooms is accessibility. Barron (2006) argues, "it has become easier for those with computer access to find resources and activities that can support their learning on their own terms. However, there are also widespread concerns about equity" (p. 194). Differencing socioeconomic backgrounds, as well as diverse backgrounds, means that students may not have the same access to technology, and social media may not be

readily accessible. Accessibility can be influenced by finances, physical social networks, family attitudes or constraints, peer groups, and material resources (Vanwynsberghe & Verdegem, 2013). Within schools, the rapid changes in technology and high costs make technology adoption difficult. Some schools and boards are exploring Bring Your Own Device (BYOD) policies, which can contribute to equity issues, in addition to issues surrounding privacy, loss or theft, or cyberbullying. The contentions surrounding BYOD can be demonstrated by the Elementary Teachers' Federation of Ontario (ETFO). In August 2013, ETFO called for the ban of cell phones and other personal electronic devices in the classroom. Such concerns must be considered in relation to BYOD policies, as research shows more young people are accessing the Internet and social media applications through their smartphones and mobile devices (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013). Clark et al. (2009) argue that "this element of dissonance is framed by a situation where young people's 'everyday' use of digital technologies is encountering a process of delegitimization as evidenced by banning of mobile phone use in schools, for example" (p. 57).

Additionally, although the issue of physical access to these devices is becoming less of an issue as more teens have access to personal electronic devices, "there are still stark differences among children and adolescents in access to learning opportunities that will help position them to use computers in ways that can promote their own development" (Barron, 2006, p. 194). Accessibility issues are further exacerbated as many schools block access to social media, including social networking sites, content sharing sites, and gaming sites. Still, according to Ahn (2011), "initial research on SNS suggests that these online communities help individuals build social capital" (p. 1439).

## **Social Media for Teacher Education**

Educators must learn how to use social media in their teaching as well as in their professional learning. In the NMC Horizon Report K–12, the advisory board identified key trends in technological adoption from the period of 2011–2016. According to the report, the key trend is how "the abundance of resources and relationships made easily accessible via the Internet is increasingly challenging us to revisit our roles as educators" (Johnson, Adams, & Haywood, 2011, p. 4). Greenhow, Robelia, and Hughes (2009) argue "to support and supervise students, teachers are expected to colearn, model, and facilitate the development of such competencies" (p. 248). This professional development must focus on teaching pedagogy and instructional design.

### **Teaching pedagogy**

The purpose of using technological tools and social media in the classroom should not necessarily focus on familiarity with specific tools and sites, because technology is constantly adapting. Instead the focus should be on a pedagogical understanding of how this technology and media facilitate teaching and learning. For example, the purpose of using a PBworks wiki in an educational setting is not to learn how to use PBworks itself, but instead to promote collaboration and foster communication. According to Tapscott (2009), "focus on the change in pedagogy, not technology . . . use technology for a student-focused, customized, collaborative learning environment" (p. 148). In a study of technology pilot projects in Ontario schools, one respondent reflected, "Just adding technology to a bland task only produces momentary benefits and fleeting interest. True engagement must be based on worthy tasks and effective pedagogy" (Beggs, Shields, Telfer, & Bernard, 2012, p. 142). The issue with incorporating effective pedagogical

practices, however, was noted by another respondent who stated, "There is learning to be done by all when it comes to connecting technology to instructional strategies and effective pedagogy" (Beggs et al., p. 142). Greenhow et al. (2009) assert "digital literacy includes knowing how and when to use which technologies and knowing which forms and functions are most appropriate for one's purposes" (p. 250).

### **Instructional Design**

Curriculum considerations must be taken into account when incorporating social media into teaching and learning. Outlining learning objectives or learning goals can help educators determine the purpose of the social media use. Clark et al. (2009) claim, "the deployment of the curriculum, in particular, needs to facilitate a more flexible response to the potentials offered by Web 2.0 and related technologies and the skill sets they engender rather than apply a proscription to their use in the school setting" (p. 68). To bridge in and out of school use of these communication technologies, "educators must consider content and the pedagogies best suited for bridging these in- and out-of-school uses of technology" (Bull et al., 2008, p. 104).

### **Professional development considerations**

The adoption of technology and social media in the classroom will require adequate educator professional development. Advances in technology have developed at an extremely fast pace, with some teachers feeling left behind due to the rate of change. Many teachers did not grow up immersed in this digital environment in the same way their students have. In February 2014, digital education company digedu conducted a survey of 600 K–12 teachers from across the United States to find out about teacher use of technology in the classroom. Of the teachers surveyed, 93% reported that technology

positively affected student engagement. However, only 50% of the teachers felt positively supported, while 46% of the teachers reported that they lacked the training needed to use the technology effectively in their classrooms (dilegedu, 2014). These issues are apparent in Canadian schools as well, as a study on technology pilot projects in Ontario schools found that implications for professional development were in the early stages, with teacher training and practice emerging as one of the three key sub-themes (Beggs, Shields, Telfer, & Bernard, 2012). One participant interviewed in the study described professional development needs by stating, "the central focus for teachers must be training and support, and not just sit-and-get" (Beggs et al., p. 145). These pedagogical challenges are addressed by Hume (2011) who believes:

Teachers learning about technology need considerably more than a single workshop where we are taught how to calibrate an interactive whiteboard or use a piece of software. We need time and opportunity to talk and plan with colleagues . . . as well as ongoing technical support. (p. 173)

Beggs and colleagues found that teachers from various pilot projects addressed "the need for the creation of a safe, collegial professional learning environment as a necessary component for teachers to be honest about their technological readiness for undertaking pedagogical challenges in various subject areas" (p. 145). While curriculum constraints may prohibit the inclusion of social media in education, this is not necessarily the case. "Regardless of the amount of technology or its sophistication, technology will not be used unless faculty members have the skills, knowledge, and attitudes necessary to infuse it into the curriculum" (Baylor & Richie, 2002, p. 398).

Professional development on the use of social media should incorporate social media as a component of these opportunities. Educators not only need to become familiar with the technologies to become comfortable with their use, but the social aspect of social media also makes these spaces ideal professional learning communities for collaborative inquiry and discussion. Professional learning communities, according to Hume (2011), "are an invaluable way of creating change by encouraging a focus on collaborative reflection and action" (p. 127). In an interview, Chris Dede, Professor in Learning Technologies at Harvard's Graduate School of Education, makes a case for the use of social media for professional development. Dede states the use of these tools is beneficial to educator professional development because it is "modeling what we want teachers to do with students, which is to create active learning situations, where everybody learns from everybody else. So the medium is reinforcing the message" (Crow, 2010, p. 14).

The incorporation of social media in education needs to be addressed in teacher education programs as well. Often, there is little attention paid to social media as an educational tool unless teacher candidates take specialized courses on media and technology. Bull et al. (2008) state, "As teacher education students graduate and enter schools, they will bring knowledge and understanding of ways in which technology, pedagogy, and content knowledge can be combined. This will only occur if teacher education faculty members serve as effective mentors" (p. 105).

One means through which in-service and pre-service education around social media can be enhanced is through a social media application specifically focusing on social media. One such possibility is a blog designed for teachers and addressing issues they are likely to encounter. The next chapter provides examples of 10 such blog posts.

## CHAPTER 3: THEORY INTO PRACTICE

### **Blog post # 1: Is social media altering the construction and acquisition of knowledge?**

#### **What is the issue?**

Over the last decade, the proliferation of social media in our daily lives has altered the way we create and consume information. These changes have prompted questions as to whether or not social media is having an effect on the way we construct and acquire knowledge. Some experts in the field of Education believe that these Web 2.0 technologies are causing vast shifts, as students are no longer passive consumers of knowledge, but active participants in the knowledge economy.

#### **What do the experts say?**

Chris Dede, Professor of Learning Technologies at the Harvard Graduate School of Education argues that Web 2.0 technologies are causing "a seismic shift in epistemology" as knowledge is now formed through collective agreement rather than "authenticated" by experts (Dede, 2008, p. 80). Larry Sanger, a co-founder of Wikipedia, on the other hand, believes that, although these technologies have allowed for increased accessibility to information and collaboration in these online learning environments, participation still requires traditional knowledge of reading, writing, and critical thinking. As an example, Sanger (2010) states, "you may post your essays online in public blogs and benefit from comments others offer, but you will not become well educated unless you engage in the essentially solitary act of writing" (p. 20). Sanger points out that, while these collaborative spaces allow students to engage in dialogue with others about subject matter, those making contributions may have "idiosyncratic ideas about the subject,"

which Sanger argues "wastes the student's time" (p. 18). Dede (2008), however, would argue that this is precisely the epistemological shift he addresses. Where "authenticated" knowledge remains largely undisputed, validation of knowledge in social media environments comes from the collaboration of the contributors where "expertise involves understanding disputes in detail and proposing syntheses that are widely accepted by the community" (p. 80).

### **What does this work mean for teachers?**

Educators must be aware that social media has created an educational environment in which the teacher is no longer the sole possessor of knowledge, which they impart to their students, since their students are now actively participating in the creation of knowledge in online environments. However, teachers must consider how student participation in social, collaborative online communities still requires traditional knowledge of reading, writing, and critical thinking. Additionally, since information in this environment is no longer created by experts, who have been vetted and edited through a peer-review process, the teaching of critical thinking and media literacy skills becomes more important than ever before.

### **For further reading**

Dede, C. (2008 May/June). A seismic shift in epistemology. *EDUCAUSE Review*, 80–81.

Retrieved from <https://net.educause.edu/ir/library/pdf/ERM0837.pdf>

Sanger, L. (2010 March/April). Individual knowledge in the Internet age. *EDUCAUSE Review*, 45, 14–24.

## **Blog Post # 2: What skills and strategies are required for comprehension and critical thinking online?**

### **What is the issue?**

In the digital world, 21st century learners must make meaning from a variety of multimodal sources requiring critical thinking and literacy skills for comprehension and understanding. Although critical thinking and literacy skills are important components of education in more traditional learning environments, the teaching of these skills is imperative to online comprehension as the quantity and quality of information on the Internet is vast. Educators must consider the skills required for successful "reading" on the Internet, and how the strategies have evolved.

### **What does the research say?**

Research on literacy skills and strategies demonstrate that skilled readers actively make meaning during the reading process by using a variety of comprehension strategies. In a study of Internet reading strategies used for different reading purposes, Zhang and Duke (2008) found three strategies that skilled adult readers use across purposes. Skilled Internet readers "monitored their reading," "applied their prior knowledge about how different search engines work and which Web sites were authoritative in different fields," and "evaluated the relevance and credibility of a Web site continuously while reading" (Zhang & Duke, 2008, p. 153). While some of the strategies used for online reading looked new, some were not "new" but similar to traditional reading strategies including "evaluating, monitoring, summarizing, inferencing, and applying prior content knowledge" (pp. 154–155).

Although readers use many of the same strategies online, there is also a greater need for development of critical thinking skills in online reading environments as, "online texts often contain hidden social, economic, and political agendas that require higher degrees of critical evaluation skills than typically found in offline text comprehension" (Coiro, 2011, p. 357). Critical thinking requires a combination of both online and offline literacy skills as "only those readers who could successfully locate relevant information about the author or the publishing body on the website (i.e., online reading skills) had an opportunity to apply more conventional offline practices to evaluate the source's level of credibility" (p. 372).

### **What does this research mean for teachers?**

Teachers must explicitly teach students evidence-based literacy strategies used by skilled readers both off and online. Yet, educators must be aware that teaching strategies such as the activation of prior knowledge or the use of text features may differ in the online context. As Coiro (2011) demonstrates, topic-specific prior knowledge may come secondary to prior knowledge of online formats and the text features required to navigate hyperlinked online sources of information differ from linear print texts. Since prior knowledge strategy instruction should focus on prior knowledge of online formats and navigation of online sources, teachers should draw students' attention to the use of text features. Navigational features in online texts include the format of the text, titles and subtitles, graphics, as well as highlighted hyperlinks. Included is a sample of a webpage screenshot included in the *Planning and Preparation Guide* for the Ontario Secondary School Literacy Test and the types of questioning that would address prior knowledge, and how to use online text features for navigation:

Ontario Secondary School Literacy Test

The National Archives is a treasure house of the memory of Canada. We care for and share millions of documents of all kinds —films, maps, diaries, treaties, journals, art, government records, photographs, sound recordings and more. Many are of unique value and exceptional beauty. Some are centuries old. All reveal how we have lived in this place called Canada and enable Canadians to better understand the story of their country and of their fellow citizens.

**1** What would you click on if you wanted to know how this Web site is organized?

A Site Map \*  
B Welcome  
C Contact Us  
D Preservation

**2** What conclusion can you draw from the box labelled “Français”?

F It is about Quebec.  
G The site is bilingual. \*  
H The site is about France.  
J It is available only in Ontario and Quebec.

**3** Which of these pages could you go to from the “GAMES” page?

A War  
B Feedback \*  
C Genealogy  
D Publications

**4** Which part of the site would give information about how the National Archives keeps important old newspapers in good condition?

F Preservation \*  
G Publications  
H Living Memory  
J Digital Collections

Adapted from the Web site [www.archives.ca/08/08\\_e.html](http://www.archives.ca/08/08_e.html). Reproduced with permission of the National Archives of Canada.

(Education Quality and Accountability Office, 2014, pp. 16–17).

### For further reading

Coiro, J. (2011). Predicting reading comprehension on the Internet: Contributions of offline reading skills, online reading skills, and prior knowledge. *Journal of Literacy Research*, 43, 352–392 . doi: 10.1177/1086296X11421979.

Education Quality and Accountability Office (2014, March). *Planning and Preparation Guide: Ontario Secondary School Literacy Test*. Retrieved from [http://www.eqao.com/pdf\\_e/14/OSSLT\\_PlanningPreparationGuide\\_2014.pdf](http://www.eqao.com/pdf_e/14/OSSLT_PlanningPreparationGuide_2014.pdf)

Zhang, S., & Duke, N. K. (2008). Strategies for Internet reading with different reading purposes: A descriptive study of twelve good Internet readers. *Journal of Literacy Research*, 40, 128–162. doi: 10.1080/10862960802070491.

### **Blog Post # 3: How do I teach critical thinking and media literacy skills?**

#### **What is the issue?**

In my last post I discussed the skills required for online comprehension. Zhang and Duke (2008) found three strategies that skilled readers use during online reading for different purposes, including monitoring comprehension, applying prior knowledge of search techniques, and evaluating the sources. Research on effective literacy instruction with print text demonstrates how learners must be explicitly taught to use strategies skilled readers use. Although research is required to see if the same is true for Internet-based reading, Zhang and Duke argue "initial work suggests that the same pattern is true for reading online" (p. 157).

#### **What does the research say?**

Based on the implications of Zhang and Duke's work, I use Duke's work with Pearson as a model of effective comprehension instruction. Duke and Pearson (2008) argue teachers must model the effective use of strategies for students, and that "teacher modeling is most effective when it is explicit, leaving the student to intuit or infer little about the strategy and its application, and flexible, adjusting strategy use to the text rather than presenting it as governed by rigid rules" (p. 111). This summary of effective literacy instruction also addresses Questioning the Author (QtA) as a means for students to evaluate the text and critically engage with the text by questioning the author's purpose and message. Research on QtA shows promise as an effective form of text questioning. QtA includes questioning the author's message, as well as identifying issues with the author's presentation of the information. The purpose of this form of comprehension instruction and critical inquiry is

to assist students in developing a better understanding of texts and "most important, a critical disposition toward texts in general" (Duke & Pearson, 2008, p. 117).

### **What does this research mean for teachers?**

Teachers must model for their students effective literacy strategies and critical thinking by engaging with authentic texts on the Internet. Modeling requires teachers to show students their thinking by "thinking aloud." When evaluating sources, teachers should interrogate the author, asking questions like, "What is the author's message?" (Duke & Pearson, 2008, p. 117). Such critical evaluation of the author's intent is especially important when reading on the Internet, to prompt critical thinking about credibility and reliability of information.

### **For further reading**

Duke, N. K & Pearson, P. D. (2008). Effective practices for developing reading comprehension. *Journal of Education*, 189, 107 – 122.

Zhang, S., & Duke, N. K. (2008). Strategies for Internet reading with different reading purposes: A descriptive study of twelve good Internet readers. *Journal of Literacy Research*, 40, 128–162. doi: 10.1080/10862960802070491.

## **Blog Post #4: Should cell phone use be prohibited in classrooms?**

### **What is the issue?**

In August 2013, just weeks before the start of the new school year, the Elementary Teachers' Federation of Ontario (ETFO) passed a resolution at their annual general meeting to update the union's position on the classroom use of personal electronic devices – specifically cell phones. Labeled as a vote on banning cell phones in the classroom, this issue raised questions as to whether or not students should be allowed to use cell phones and other personal electronic devices in the classroom. Additionally, this issue has prompted debate questioning whether cell phones are useful educational tools or merely a distraction from learning.

### **What do the experts say?**

The prevalence of teenagers' cell phone use makes the issue of cell phone use in classrooms a relevant one as teens are constantly "connected." According to the Pew Research Center's Internet and American Life Project, one in four teens surveyed consider themselves "cell-mostly" internet users who access online materials through their cell and Smartphones rather than desktop and laptop computers (Madden et al., 2013, p. 2). The argument against cell phone use in classrooms is that many students are not using these devices to access the Internet for educational purposes in the classroom, but rather using them to make phone calls, send text messages, and access social media sites or games for entertainment purposes. Some educators are also hesitant to embrace cell phone use in classrooms, even when they are used for educational purposes, because students may be fact-checking the information while the teacher is delivering the lesson, consequently challenging the teacher's role as "expert" on the subject matter.

Sidneyeve Matrix, an Associate Professor of Media and Film at Queen's University, weighed in on the question "Should kids be allowed to use cell phones in the classroom?" during a segment on CTV News, stating she uses cell phones in her university classes to access PowerPoint slides and to live Tweet about the class. Matrix agrees that the problem is when students use their cell phones for other purposes, but believes that it is about finding ways to utilize students' technological skills and socially engage students with the material by building social media into the lesson plan. Cell phones are like the classroom introduction of calculators and how such tools bring about a whole new set of skills.

### **How should this issue be addressed by teachers?**

Before teachers introduce the use of cell phones for educational purposes, they must first look at board and school policies on cell phone use in the classroom. Teachers must then decide how to motivate students to use cell phones appropriately by finding ways to socially engage students with the lessons. Teachers interested in engaging their students in this way, should take advantage of the "social" aspects of social media to promote networking, community and collaboration through device usage. Teachers may, for example, create a class Twitter account where students can Tweet class relevant content and tag the classroom account, which the teacher can then "Retweet" to share with others. Facebook groups are an excellent way to build a sense of community, which students can access from their personal devices. However, due to privacy issues, teachers may instead want to engage their students using more education-friendly sites such as Edmodo since it is formatted similarly to Facebook. RSS feeds are another way teachers may utilize personal devices as they allow teachers to send out real-time updates of content to

students' desktops and applications on mobile devices. If teachers are building the use of such tools into their lesson plans, they must be aware of the equity issues surrounding "Bring Your Own Device" as students have varying levels of access to personal electronic devices. If teachers are using social media sites, such as Facebook or Twitter, to engage students with the material, they must also be aware of privacy issues.

Sample of "Scholar's Twitter practices and activities":

Theme	Theme description	Example of tweet
Information, resource, and media sharing	Sharing information, media, and other resources related to their profession	[Speaker] is discussing education and technology at [institution name]: [URL]
Expanding learning opportunities beyond the confines of the classroom	Making classroom activities/information available to others and providing opportunities for students to interact with individuals outside of the classroom	My students co-authored this remarkable article: [URL]
Requesting assistance and offering suggestions	Asking for and providing assistance to others	@user: Here is an example [URL] @user: I can also send my course schedule if you need it.

(Veletsianos, 2012, p. 342)

### For further information

CTV New (n.d.). *Cell phones in the classroom*. Available from

<http://vimeo.com/15066882>

Madden, M., Lenhart, A., Duggan, M., Cortesi, S & Gasser, U. (2013). *Teens and technology 2013*. Washington, D.C.: Pew Research Center's Internet & American Life Project. Retrieved from <http://www.pewinternet.org/Reports/2013/Teens-and-Tech.aspx>

Veletsianos, G. (2012). Higher education scholars' participation and practices on Twitter. *Journal of Computer Assisted Learning*, 28, 336–349. doi: 10.1111/j.1365-2729.2011.00449.x

## **Blog Post #5: What are the concerns relating to online privacy and our digital "fingerprints"?**

### **What is the issue?**

In recent years there has been growing concern over online privacy, as online data are used to track our every move on the Internet to shape our individual experiences, from advertisements to Google search results, essentially creating digital "fingerprints." These privacy issues are further compounded by the prevalence of social networking sites as individuals create online profiles, shaping their public and private identities. Questions are arising relating to how these issues will affect individual privacy and identity since Internet users are creating indelible online records.

### **What does the research say?**

There is growing concern regarding online privacy as personal information is collected, shared with corporations, and used for data analysis. This information is found and collected through search engines and social media activity. Much of our online activity is tracked to deliver advertisements, and tailor online experiences. In other words, "most of the free services available online involve a trade off: In return for being able to access services online for free, information is collected about users to deliver targeted advertising" (Madden et al., 2012, p. 6). Livingstone (2008) reveals that, although many teenagers attempt to protect their privacy online by setting their social networking profiles to "private," "it is the case that teenagers may disclose personal information with up to several hundred people known only casually" (p. 404).

According to research as part of the Pew Internet and American Life Project, online privacy is a significant concern for parents of teens, as 81% of parents surveyed were

concerned about advertiser access to personal information, with 69% of parents expressing concern over how their children's online activity would impact education and employment opportunities (Madden et al., 2012). Livingstone (2008) expresses concerns about "internet literacy," however, as teenagers in her study had difficulty navigating privacy settings on social networking sites and "a fair proportion of those interviewed hesitated to show how to change their privacy settings, often clicking on the wrong options before managing this task, and showing some nervousness about the unintended consequences of changing settings" (p. 406).

### **What does this research mean for teachers?**

Teachers must be aware of these issues if they are engaging their students with online tasks, specifically the use of social media. First, teachers must consider parental concerns and ensure that they are not unintentionally sharing students' personal information online. When utilizing social media sites and applications in the classroom, teachers must make sure that they are using the privacy functions to lock access so the accounts are not open to public access. Sites such as Twitter and PBworks wiki have privacy settings that can be set so only those who request access – and are permitted access by the administrator – can view the content, and participate in discussion. Second, teachers should be addressing the issue of Internet literacy, as young people have difficulty navigating online environments and protecting their privacy. Students must be taught how to be critically aware of their actions online. Media Smarts is a Canadian website that offers lesson plans on the topic of online privacy and safety for different grade levels. An excellent resource for awareness about our digital fingerprint and online "filter bubbles" is Eli Pariser's TED Talk entitled *Beware online "filter bubbles"*.



### For further reading

Johnson, M. (2012). *Privacy and Internet life: Lesson plan for intermediate classrooms*.

Retrieved from [http://mediasmarts.ca/sites/default/files/pdfs/lesson-plan/Lesson\\_Privacy\\_Internet\\_Life.pdf](http://mediasmarts.ca/sites/default/files/pdfs/lesson-plan/Lesson_Privacy_Internet_Life.pdf)

Livingstone, S. (2008). Taking risky opportunities in youthful content creation:

Teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media & Society*, 10, 393–411.

Madden, M., Cortesi, S., Gasser, U., Lenhart, A., & Duggan, M. (2013). *Parents, teens, and online privacy*. Washington, DC: Pew Research Center's Internet & American

Life Project. Retrieved from [http://www.pewinternet.org/files/old-media/Files/Reports/2012/PIP\\_ParentsTeensAndPrivacy.pdf](http://www.pewinternet.org/files/old-media/Files/Reports/2012/PIP_ParentsTeensAndPrivacy.pdf)

Pariser, E. (2011). *Beware online "filter bubbles"*. Retrieved from

[http://www.ted.com/talks/eli\\_pariser\\_beware\\_online\\_filter\\_bubbles](http://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles)

## **Blog Post #6: How do we address the growing issue of cyberbullying?**

### **What is the issue?**

Cyberbullying is a growing concern in today's society. Bullying has always been an issue requiring attention from educators, but cyberbullying presents additional concerns as the reach of technology means that the perpetrators have greater presence than ever before.

Where bullying traditionally took place in schools and public spaces, today's young people are being bullied via new forms such as text messages, instant messaging, and social media applications, meaning the victims are finding it more difficult to find escape from their tormenters.

### **What do the experts say?**

Cyberbullying has been an issue in Canada for over a decade, with major cases making the headlines. In 2003, 15-year-old Ghyslaine Raza from Quebec became a victim of cyberbullying known as the "Star Wars Kid" after a video of him brandishing a golf ball retriever like a lightsaber went viral. More recently, in April 2013, 17-year-old Rehtaeh Parsons of Nova Scotia committed suicide after she was allegedly sexually assaulted and "endured relentless harassment and humiliation after a picture of the assault was circulated at school and on social media" (Haykowsky, Ross, & Lundrigan, 2013, p. 1).

In response to Rehtaeh Parsons' suicide, the Nova Scotia legislature passed Bill 61, also known as the Cyber-Safety Act. This piece of legislation, which holds cyberbullies liable for their actions, defines cyberbullying as any form of electronic communication "that is intended or ought reasonably be expected to cause fear, intimidation, humiliation, distress or other damage or harm to another person's health, emotional well-being, self-esteem or reputation" (Haykowsky, Ross, & Lundrigan, 2013, p. 1).

Luce-Kapler, Sumara, and Iftody (2010) state "of greatest concern to use, in this New Literacies world, is the propensity with which individual stories can be appropriated and disseminated without regard for the individuals who exist as the subject of those stories" (p. 536). They argue that, within the online world, "there are no boundaries to the interpretations, uses, and misuses that can occur to the subject of the story" (p. 537).

### **What role do teachers have in addressing and preventing this problem?**

Luce-Kapler, Sumara, and Iftody (2010) argue that educators must teach what they call "ethical know-how" and empathy (p. 539). They believe that this awareness and sensitivity can be taught by teaching young people "the capacity to attend and respond to the place we inhabit in the moment, aware of our own mind and imagining those of others" (p. 540). School boards, schools, and teachers are responsible for educating students about bullying, no matter the form of bullying. This responsibility includes the definition of what constitutes bullying, as well as the consequences relating to both perpetrators and victims of bullying.

### **For further reading**

Haykowsky, T., Ross, M., & Lundrigan, S. (2013, September). *Search for solutions to cyber-bullying continues*. McLennan Ross LLP. Retrieved from [http://www.mross.com/law/digitalAssets/10/10872\\_TRH\\_Search\\_for\\_Solutions\\_for\\_Cyber-bullying\\_Continues\\_Sept\\_2013.pdf](http://www.mross.com/law/digitalAssets/10/10872_TRH_Search_for_Solutions_for_Cyber-bullying_Continues_Sept_2013.pdf)

Luce-Kapler, R., Sumara, D., & Iftody, T. (2010). Teaching ethical know-how in new literary spaces. *Journal of Adolescent & Adult Literacy*, 53, 536–541. doi: 10.1598/JAAL.53.7.1

**Blog Post #7: What is "sexting" and what should educators do to address this issue?****What is the issue?**

In February 2014, "sexting" made national headline in Canada as 15 students from Napanee District Secondary School in Limestone District School Board were suspended and interviewed by Ontario Provincial Police after exchanging nude photos of female students. Sexting is a growing problem among teenagers and is extremely problematic due to its sexual nature, links to cyberbullying, and the fact that it can be considered criminal behaviour as the distribution or possession of child pornography if those involved are under the age of 18.

**What do the experts say?**

Sexting is defined as "sending and receiving sexually explicit messages, or nude or seminude photographs or videos electronically" (Katzman, 2010, p. 1). Sexting usually occurs via text messaging with cell phones, but can take place through various forms of electronic communication. Katzman (2010) argues that sexting is most likely a popular phenomenon with today's teens due to a combination of the prevalence of electronic communication and that adolescence is a stage characterized by "the emergence of sexual feelings and sexual experimentation; and the development of one's own value system and refinement of moral and sexual values" (Katzman, 2010, p. 1). The danger with sexting is that, once the sexually explicit material is sent, it can be stored and disseminated by others.

In reference to the abovementioned Napanee Secondary School case, Krishna Burra, the Superintendent of Safe and Caring Schools for Limestone District School Board, stated,

"I'm not shocked or surprised. Unfortunately, this type of phenomenon is too common among some of our young people" (CBC News, 2014).

### **How should this issue be addressed by teachers?**

Teachers must teach their teenage students about the dangers of sexting. "Teens need to be aware that they can be arrested, charged and convicted for possessing and distributing child pornography, even when the pornography they are sending is of themselves" (Katzman, 2010, p. 2) .

### **For further reading**

CBC News. (2014, February 14). *Napanee students suspended over nude photos*.

Retrieved from <http://www.cbc.ca/news/canada/ottawa/napanee-students-suspended-over-nude-photos-1.2537868>

Katzman, D. K. (2010). *Sexting: Keeping teens safe and responsible in a technologically savvy world*. Canadian Paediatric Society. Retrieved from <http://www.cps.ca/documents/position/sexting>

## **Blog Post # 8: How can teachers utilize wikis in the classroom?**

### **What are wikis?**

Wikis are online collaborative spaces where multimodal forms of information can be posted, shared, edited, and commented on. Wikipedia, an online encyclopedia, is one of the most widely known and used wikis in the world. Wikipedia allows contributors and experts in various fields to provide content on a range of subject matter, dispute the accuracy of the information, and incorporate differing viewpoints on the topics. Wiki applications, such as PBworks, have made the creation of wikis more accessible for personal, business, and educational uses.

### **What does the research say?**

Wikis are being utilized in all levels of education due to their accessibility, interactive nature, and capacity to incorporate content in different forms, in a website-like format. For her research on Information and Communication Technology use in English Language Arts classrooms, Chin (2012) chose to focus on the use of wikis specifically because "teachers and students are able to produce web-based multimodal text with relatively little knowledge of hypertext mark-up language (html) that underlies most webpage creation" (p. 4). Since today's young people spend much of their time finding and creating information on the Internet, the use of wikis for educational purposes allows students to practice and gain competencies in an online environment. Students need to learn the skills required to participate in hypertext environments to develop their digital literacy skills. Chin (2012) found that "writing creatively using hypertext software like wiki, expanded the students' compositional choices. They were able to express their ideas using text, information found on the Internet, links and images" (pp. 188–189).

Chin (2012), however, points out how most curriculum documents do not require teachers to educate their students on multimodal skill development, and that "there are still no clear guidelines on how to teach these skills" (p. 31). Teachers interested in integrating wiki use in the classroom should first engage in professional development to become comfortable with the technology themselves. Chin's (2012) study of wiki use by two teachers in Grade 6 classrooms also found teachers limited modeling of wiki use to be an issue, which could be attributed to teacher lack of comfort with the technology. Chin (2012) acknowledges that lack of confidence and comfort is often a barrier to the teacher's own learning and integration of technology use in the classroom. Educators must reflect on the purpose of integrating wiki use in the classroom, and go beyond using the technology simply as a new way to present information.

### **How should teachers utilize wikis in the classroom?**

Chin (2012) makes the case that, while many teachers do attempt to integrate technology in the classroom, "they are not engaging their students in meaningful applications of digital literacy skills" (p. 43). Instead, the focus of wiki use should be on the capabilities the format offers to students such as collaboration, peer feedback, debate, discussion, and connection-making across texts. Chin's (2012) research found that not only did students in the study use the wiki to create texts, but they also made use of the comment functions of the wiki by "reading and commenting on their friends' texts and finding links to connect their thinking to create even newer texts" (p. 189). Teachers should consider the use of wikis as Personal Learning Environments (PLEs) where students can create personal wikis to share their interests and expertise with others. PLEs are "student-designed learning approaches that encompass different types of content – videos, apps,

games, social media tools, and more – chosen by a student to match his or her personal learning style and pace" (Johnson, Adams, & Haywood, 2011, p. 8). PLEs have a student-centered focus, while also allowing students to apply their digital literacy skills in context.

### **For further reading**

Chin, J. A. (2012). *The challenge of using wikis in school: The experiences of two grade six teachers*. Retrieved from

[http://qspace.library.queensu.ca/bitstream/1974/7309/1/Chin\\_Jane\\_A\\_201206\\_PhD.pdf](http://qspace.library.queensu.ca/bitstream/1974/7309/1/Chin_Jane_A_201206_PhD.pdf)

Johnson, L., Adams, S., & Haywood, K. (2011). *The NMC horizon report: 2011 K-12 edition*. Austin, TX: The New Media Consortium. Retrieved from

<http://www.nmc.org/pdf/2011-Horizon-Report-K12.pdf>

## **Blog Post # 9: What are the benefits of YouTube and video content sharing in the classroom?**

### **What is the issue?**

YouTube is a content sharing community allowing users to upload, share, and watch videos with a range of visual content including personal videos, music videos, movie clips, and educational videos. YouTube is one of the most widely used forms of social media in classrooms, as educators use this application to differentiate instruction and provide visual and audio content to students.

### **What do the experts say?**

YouTube started as a video sharing site for users to upload their home videos for distribution, "primarily to enable users to share personal objects—experiences and observations—with the world" (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011, p. 245). YouTube is an excellent resource for educational use due to the variety and scope of content on the site. According to Kaplan and Haenlein (2010), "YouTube serves over 100 million videos per day" (p. 63).

YouTube permits educators to easily share multimedia content with students, which helps students who learn better from different formats beyond writing text and listening to the teacher lecture. According to Duffy (2008), "YouTube is increasingly being used by educators as a pedagogic resource" (p. 124).

YouTube is one of the more accessible social media applications in schools, and does not have the same privacy risks associated with other social networking sites. YouTube users are only required to provide basic personal information such as the join date and shared videos (Kaplan & Haenlein, 2010). Some schools, however, have content-blocking on the

school Internet making YouTube inaccessible in classrooms. In this case, teachers should try other similar resources such as TeacherTube or Khan Academy. Educators need to be cautious of uploading and sharing content on YouTube because "content communities carry the risk of being used as platforms for the sharing of copyright-protected materials" (Kaplan & Haenlein, 2010, p. 63).

### **How should teachers incorporate this content in the classroom?**

YouTube is best used in classrooms to engage students and differentiate instruction, since teachers are able to share content in visual and audio forms with students. Students can use YouTube to make "playlists" or archive subject-related content. Salman Khan, the founder of Khan Academy developed the idea for his now widely accessed educational website after posting tutorial videos on YouTube while tutoring his cousins at a distance. Teachers may create similar sites by having students upload content. YouTube then moves beyond a means of accessing content to one of creating content.

### **For further reading**

Duffy, P. (2008). Engaging the YouTube Google-eyed generation: Strategies for using web 2.0 in teaching and learning. *The Electronic Journal of e-Learning*, 6, 119–130. Retrieved from [www.ejel.org](http://www.ejel.org).

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53, 59–68. doi: 10.1016/j.bushor.2009.09.003

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54, 241–251. doi: 10.1016/j.bushor.2011.01.005

## **Blog Post # 10: How can Twitter be used for social networking and microblogging in education?**

### **What is the issue?**

The use of social networking sites (SNS) such as Facebook, Twitter, and Instagram has been growing substantially over the last decade, yet many educators are hesitant to incorporate these applications into their teaching. Twitter, however, offers many opportunities to educators as it functions not only as an SNS, but also as a microblogging application. Twitter allows users to post content in various formats, but Tweets are limited to 140 characters each.

### **What does the research say?**

Twitter is an SNS that allows users to "follow" other users including friends, celebrities, news sources, corporations, and academics. In the field of education, Twitter users can network with those in related fields, or engage with those interested in the same subject matter. Those scholars using Twitter for educational purposes can "create their own individual and unique networks in which learning occurs" (Veletsianos, 2012, p. 337).

"Twitter serves as an emerging and evolving network of scholar-learners where scholarly practices may be created, refined, performed, shared, discussed, and negotiated" (p. 337).

Twitter is not only an SNS, but also a driving force in microblogging, "centered around exchanging short messages that are mostly real-time status updates, so as to create an 'ambient awareness' of issues" (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011, p. 244). Kietzmann, et al. (2011) declare that "Twitter, then, is more about conversation than identity" (p. 244). Veletsianos' (2012) study found scholars used Twitter "to make

classroom activities/ information available to others and to provide opportunities for students to interact with individuals outside of the classroom" (p. 343).

### **How can teachers use Twitter in the classroom?**

Educators should use Twitter for both of its functions, as an SNS and a microblog. As an SNS, Twitter can be used in a class to follow experts in the topic of study. For example, those studying politics may follow Noam Chomsky, while students in an English classroom may follow Margaret Atwood, as both of these public figures are avid Tweepers. Secondary sites such as Listorious can provide educators with "details of key experts on topics on Twitter" (Kietzmann, et al, 2011, p. 249).

As a microblog, Twitter can be used to provide real-time updates of content to be shared in the class. Much of today's online content has a built-in feature linking to Twitter permitting easy and instantaneous postings to one's Twitter account to share the content with followers. Twitter is excellent for developing literacy skills such as summarizing or finding the main idea as Tweets are limited to 140 characters. Twitter allows for the incorporation of various forms of media including pictures, videos, and sounds clips, allowing for differentiated instruction.

### **For further reading**

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media.

*Business Horizons*, 54, 241–251. doi: 10.1016/j.bushor.2011.01.005

Veletsianos, G. (2012). Higher education scholars' participation and practices on Twitter.

*Journal of Computer Assisted Learning*, 28, 336–349. doi: 10.1111/j.1365-2729.2011.00449.x

## CHAPTER 4: REFLECTIONS

My personal use of various social media applications demonstrates usage for different purposes. I use the social networking sites of Facebook and Instagram primarily for personal functions to connect and communicate with friends, share pictures, and tell others about my interests. My use of Twitter started with similar usage with a personal and private Twitter account, but after realizing the potential usage and reach of Twitter as a microblog, I soon started a secondary open, public account to share articles, political views, and local events with my followers.

From a teaching context, my use of social media in the classroom was limited to the use of wikis through the site PBworks and the use of YouTube for sharing visual and audio content in my classes. I have had the opportunity to use PBworks wikis in various contexts in both secondary and university classrooms. In the secondary context, I created two different wikis. One was used to prepare students for the Ontario Secondary School Literacy Test (OSSLT) by sharing exemplars, sections of the test, and reading strategies. The students participated by using the comments function to ask questions, to which I could reply and clarify these questions for all of the students. To ensure privacy and help students feel comfortable with commenting and asking questions, I used a function in PBworks that generates usernames and passwords for the class, so I was the only user able to personally identify the other users. The second wiki created for the secondary school setting was used to organize class content for a Grade 9 Academic English class. The purpose of the wiki was inspired by Universal Design to provide access to class notes and handouts to all students, not just the students with Individual Education Plans (IEPs), who required copies of the notes and handouts.

PBworks was also used in the university environment during my time working as a teaching assistant in a Bachelor of Education class. The wiki was used to share information about the class, post readings, and engage students in discussion. The students were expected to post articles to share with others in the class, submit assignments, and engage in dialogue with others in the class using the comment function. In the university context, wiki users were not anonymous, and the students were expected to create their own username and password, and were identifiable through their University email address.

Like many teachers, YouTube was the most commonly used form of social media in my classes. YouTube is a more widely used social media application in classrooms since it does not have the same privacy concerns associated with the use of other social media applications. The major concern I found with the use of YouTube was related to the Internet personalization discussed in the Literature Review. Since I was using my personal laptop connected to the projector in the class, the Internet experience was not neutral in regards to the advertisements, since personal data on the Internet are used to personalize advertisements. Since I am a student, and still in my late 20s, this demographic information is used to individualize advertisements on YouTube, and many of the advertisements that played before video clips on YouTube were for alcohol based on my demographic information. I unfortunately have no choice or control over the advertisements that play on YouTube, but advertisements for alcohol have no place in a classroom, especially when the students are under the age of 18. The best option to avoid this situation, when using YouTube for educational purposes, is to avoid using personal devices to ensure more advertisement neutrality.

For the product of this project, I had my first experience with blogging. My hesitation with blogging was grounded in a fear of sharing my views and opinions on the Internet in a public forum since doing so can have permanence and elicit debate. These fears were rooted, firstly, from my experience sharing my political views through microblogging on Twitter and experiencing responses from acquaintances who questioned my views and opinions shared on Twitter. My hesitation to start blogging was further impacted after reading the Straumsheim (2014) article entitled "Is Blogging Unscholarly?" since it addressed some the concerns I had already considered. Straumsheim (2014) discusses how the International Studies Association proposed to prohibit members who were associated with scholarly journals from blogging (the International Studies Association has since enacted a new policy to garner feedback due to backlash). The purpose of the proposal, according to the association, was to strengthen the Code of Conduct to address issues of professional responsibility on personal blogs (Straumsheim, 2014).

Another issue I found with both microblogging (on Twitter) and personal education blogs is keeping up-to-date and relevant content. While exploring other education blogs, I found that some were not updated on a regular basis, were neglected, or were abandoned completely. Those considering education blogging must be committed to the task, which can be difficult when added to a teaching schedule. Another consideration to keep in mind is which blogging site best suits the blogger's and audience's needs, while ensuring that the content is accessible to the desired audience. It will be interesting to see how these issues apply to my own blogging. In the future, I hope

to have the opportunity to try live-Tweeting course content to engage students and connect with experts in the field of study.

Looking back at the challenges I faced in completing this project, I have considered some suggestions for those wanting to incorporate different forms of social media in their teaching. For those interested in blogging, I would suggest having someone vet and edit blog posts to check for understanding and ensure professionalism. I propose having a second set of eyes look over the pieces of writing before they are posted in the online world, because once the information is available on the Internet, it can be disseminated and commented on, with little control on the part of the author.

Social media have also created some challenges for me in terms of finishing this project. I personally faced many challenges in completing this project, with one of my many distracters being social media. While learning more about various forms of social media, their potential uses, studying their algorithmic patterns, and building my social networks, I spent quite a bit of time exploring these applications. For example, in using Twitter as a microblog, rather than simply a personal social network, I had to Tweet multiple times per day and be aware of the "peak" times for Tweets to be seen on other users' feeds, so that I could build a following.

Despite the barriers and potential concerns with social media use, I believe that social media is not going away, and their influence in society is only growing, as these applications are being incorporated into other forms of more traditional media. Through this project, I have provided the means for educators to reflect on the issues surrounding the incorporation of social media in the classroom, and how it could be effectively used to promote teaching and learning.

## REFERENCES

- Ahn, J. (2011). The effect of social network sites on adolescents' social and academic development: Current theories and controversies. *Journal of the American Society for Information and Science Technology*, *62*, 1435–1445. doi: 10.1002/asi
- Alvermann, D. E. (2002). Effective literacy instruction for adolescents. *Journal of Literacy*, *34*, 189–208. doi: 10.1207/s15548430jlr3402\_4
- Baird, D. E., & Fisher, M. (2005). Neomillennial user experience design strategies: Utilizing social networking media to support "always on" learning styles. *Journal of Educational Technology Systems*, *34*. doi: 10.2190/6WMW-47L0-M81Q-12G1
- Barker, F. W. (2010). Media literacy: 21st century literacy skills. In H. H. Jacobs (Ed.), *Curriculum 21: Essential education for a changing world* (pp. 133–152). Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).
- Barron, B. (2006). Interest and self-sustained learning as catalysts of development: A learning ecology perspective. *Human Development*, *49*, 193–224. doi: 10.1159/000094368
- Baylor, A. L., & Ritchie, D. (2002). What factors facilitate teacher skill, teacher morale, and perceived student learning in technology-using classrooms? *Computers & Education*, *39*, 395–414.
- Beggs, P., Shields, C., Telfer, S., & Bernard, J. L. (2012). *A shifting landscape: Pedagogy, technology, and the new terrain of innovation in a digital world*. Retrieved from Curriculum Services Canada website:

[http://curriculum.org/storage/251/1349272509/A\\_Shifting\\_Landscape\\_October\\_2012.pdf](http://curriculum.org/storage/251/1349272509/A_Shifting_Landscape_October_2012.pdf)

boyd, d. m., & Ellison, N. B. (2008). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communications*, *13*, 210–230. doi: 10.1111/j.1083-6101.2007.00393.x

Bull, G., Thompson, A., Searson, M., Garofalo, J., Park, J., Young, C., & Lee, J (2008). Connecting informal and formal learning: Experiences in the age of participatory media. *Contemporary Issues in Technology and Teacher Education*, *8*, 100–107.

Canadian Internet Registration Authority [CIRA]. (2014). *The Canadian Internet*. Retrieved from <http://cira.ca/factbook/2014/the-canadian-internet.html>

Casey, G. (2013). Social media in the classroom: A simple yet complex hybrid environment for students. *Journal of Educational Multimedia and Hypermedia*, *22*, 5–24.

Chappuis, J. (2009). *Seven strategies of assessment for learning*. Boston, MA: Pearson Education.

Chin, J. A. (2012). *The challenge of using wikis in school: The experiences of two grade six teachers*. Retrieved from [http://qspace.library.queensu.ca/bitstream/1974/7309/1/Chin\\_Jane\\_A\\_201206\\_PhD.pdf](http://qspace.library.queensu.ca/bitstream/1974/7309/1/Chin_Jane_A_201206_PhD.pdf)

Clark, W., Logan, K., Luckin, R., Mee, A., & Oliver, M. (2009). Beyond Web 2.0: Mapping the technology landscapes of young learners. *Journal of Computer Assisted Learning*, *25*, 56–69. doi: 10.1111/j.1365-2729.2008.00305.x

- Coiro, J. (2011). Predicting reading comprehension on the Internet: Contributions of offline reading skills, online reading skills, and prior knowledge. *Journal of Literacy Research, 43*, 352–392 . doi: 10.1177/1086296X11421979.
- Crow, T. (2010). Learning, no matter where you are (Q&A with Chris Dede). *Journal of Staff Development, 31*, 10–17.
- Dabbagh, N., & Kitsantas, A. (2012). Personal Learning Environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *Internet and Higher Education, 15*, 3–8. doi: 10.1016/j.iheduc.2011.06.002
- Dede, C. (2008, May/June). A seismic shift in epistemology. *EDUCAUSE Review*, 80–81. Retrieved from <https://net.educause.edu/ir/library/pdf/ERM0837.pdf>
- Dewey, J. (1938). *Experience and education*. New York, NY: Touchstone.
- digedu (2014). *Technology use in the classroom: A study*. Retrieved from <http://digedu.com/technology-use-classroom-study/>
- Duffy, P. (2008). Engaging the YouTube Google-eyed generation: Strategies for using Web 2.0 in teaching and learning. *The Electronic Journal of e-Learning, 6*, 119–130. Retrieved from [www.ejel.org](http://www.ejel.org).
- Feldman, R. S., & Dinardo, A. (2009). *Essentials of understanding psychology* (3rd ed.). Toronto, ON: McGraw-Hill Ryerson.
- Fowler, J. L. (2013, October 29). How the Internet is shrinking our worlds. *Harvard Kennedy School*. Retrieved from [http://www.hks.harvard.edu/news-events/news/articles/how-the-internet-is-shrinking-our-worlds?utm\\_campaign=socialflow&utm\\_source=twitter&utm\\_medium=social](http://www.hks.harvard.edu/news-events/news/articles/how-the-internet-is-shrinking-our-worlds?utm_campaign=socialflow&utm_source=twitter&utm_medium=social)

- Friesen, N., & Lowe, S. (2012). The questionable promise of social media for education: Connective learning and the commercial imperative. *Journal of Computer Assisted Learning*, 28, 183–194. doi: 10.1111/j.1365-2729.2011.00426.x
- Greenhow, C., Robelia, B., & Hughes, J. E. (2009). Learning, teaching, and scholarship in a digital age: Web 2.0 and classroom research: What path should we take now? *Educational Researcher*, 38, 246-259. doi: 10.3102/0013189X09336671
- Griswold, W. (2005). Technology, community, and global culture. In R. B. McNeal & K. A. Tiemann (Eds.), *Intersections: Readings in sociology* (pp. 220–239). Boston, MA: Pearson Custom Publishing. (Reprinted from *Cultures and societies in a changing world*, pp. 138–153, by W. Griswold, 1994, Thousand Oaks, CA: Pine Forge Press.
- Hume, K. (2011). *Tuned out: Engaging the 21st century learner*. Toronto, ON: Pearson Canada.
- Johnson, L., Adams, S., & Haywood, K. (2011). *The NMC horizon report: 2011 K-12 edition*. Austin, TX: The New Media Consortium. Retrieved from <http://www.nmc.org/pdf/2011-Horizon-Report-K12.pdf>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53, 59–68. doi: 10.1016/j.bushor.2009.09.003
- Loughran, J. (2010). *What expert teachers do: Enhancing professional knowledge for classroom practice*. London, UK: Routledge.
- Luce-Kapler, R. (2007). Radical Change and wikis: Teaching new literacies. *Journal of Adolescent & Adult Literacy*, 51, 214–223.

- Luce-Kapler, R., Sumara, D., & Iftody, T. (2010). Teaching ethical know-how in new literary spaces. *Journal of Adolescent & Adult Literacy*, 53, 536–541. doi: 10.1598/JAAL.53.7.1
- Madden, M., Lenhart, A., Duggan, M., Cortesi, S & Gasser, U. (2013). *Teens and technology 2013*. Washington, D.C.: Pew Research Center's Internet & American Life Project. Retrieved from <http://www.pewinternet.org/Reports/2013/Teens-and-Tech.aspx>
- Mayer, R. E. (2003). The promise of multimedia learning: Using the same instructional design methods across different media. *Learning and Instruction*, 13, 125 – 139.
- Ontario Ministry of Education. (2010). *Growing success: Assessment, evaluation and reporting in Ontario's schools : Covering Grades 1 to 12*. Toronto, ON: Ministry of Education.
- Pariser, E. (2011). *The filter bubble: How the new personalized web is changing what we read and how we think*. New York, NY: The Penguin Press.
- Purcell, K., Rainie, L., Heaps, A., Buchanan, J., Friedrich, L, Jacklin, A., Chen, C., & Zickuhr, K. (2012, November 1). How teens do research in the digital world. *Pew Internet and American Life Project Report*. Retrieved from [http://www.pewinternet.org/files/old-media/Files/Reports/2012/PIP\\_TeacherSurveyReportWithMethodology110112.pdf](http://www.pewinternet.org/files/old-media/Files/Reports/2012/PIP_TeacherSurveyReportWithMethodology110112.pdf)
- Sanger, L. (2010, March/April). Individual knowledge in the Internet age. *EDUCAUSE Review*, 45, 14–24.

- Schmidt, E., & Cohen, J. (2013). *The new digital age: Reshaping the future of people, nations and business*. London, UK: John Murray Publishers.
- Seeley Brown, J. & Adler, R. P. (2008). Minds on fire: Open education, the long tail, and learning 2.0. *EDUCAUSE Review*. Retrieved from <http://open.umich.edu/oertoolkit/references/mindsonfire.pdf>
- Skinner, E. A., & Belmont, M. J., (1993). Motivation in the classroom: Reciprocal effects of teacher behaviour and student engagement across the school year. *Journal of Educational Psychology*, 85, 571–581. doi: 10.1037/0022-0663.85.4.571
- Statistics Canada. (2012) *Table 358-0154 - Canadian Internet use survey, Internet use, by location of use, household income and age group for Canada and regions, occasional (percent)*, CANSIM (database). Retrieved from <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3580154&pattern=358-0152..358-0158&tabMode=dataTable&srchLan=-1&p1=-1&p2=31>
- Statistics Canada. (2013, October 28). *Individual Internet use and e-commerce, 2012*. Retrieved from <http://www.statcan.gc.ca/daily-quotidien/131028/dq131028a-eng.pdf>
- Straumsheim, C. (2014, January 29). Is blogging unscholarly? *Inside Higher Ed*. Retrieved from <http://www.insidehighered.com/news/2014/01/29/international-studies-association-proposes-bar-editors-blogging#sthash.4dSZ4ZKS.dpbs>
- Tapscott, D. (2009). *Grow up digital: How the net generation is changing your world*. Toronto, ON: McGraw Hill.
- Tucker, P. (2013, July/August). Has big data made anonymity impossible? *MIT Technology Review*, 116(4), 64–66.

- Vanwynsberghe, H., & Verdegem, P. (2013). Integrating social media in education. *CLCWeb: Comparative Literature and Culture*, 15. doi: <http://dx.doi.org/10.7771/1481-4374.2247>
- Warlick, D. F. (2009). *Redefining literacy 2.0* (2nd ed.). Columbus, OH: Linworth Books.
- Wellburn, E. & Eib, B. J., (2010 ). Imagining multi-roles in Web 2.0 distance education. In G. Veletsianos (Ed.), *Emerging technologies in distance education* (pp. 41–60). Edmonton, AB: Athabasca University Press. Retrieved from <http://www.icde.org/filestore/News/2004-2010/2010/G.Veletsianose-bookEmergingTechnologies.pdf>
- Windschitl, M. (1998). The WWW and classroom research: What path should we take? *Educational Researcher*, 27(1), 28-33. doi: 10.3102/0013189X027001028
- Zimmerman, B. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41, 64–70. doi: 10.1207/s15430421tip4102\_2