

Active Learning with Smartphones and Social Media

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We are living in an increasingly technologically connected world. New technological communication methods have created a feeling for members of our culture, more specifically the student population of Generation M (the millennial or “media” generation), to be constantly connected to each other and what is happening in the world. They are feeding on a desire to know what is happening with others – whether it be their family, friends, or even people they have never “met”. While some might see this as the downfall of our society, others might see this as an opportunity to instill learning in a different way. Students (and typically students in the 10-18+ year range) generally have access to online communication tools and more rampant is their accessibility to a smartphone. Smartphones give these students a technological medium in which to communicate. While this is by far not the only means to do so, it is portable and convenient. With this ability to communicate upon a moment’s notice, students are constantly feeling the need to be “plugged in” – either to communicate or learn on their own terms. Educators are starting to see this societal trend amongst our students. Given that this is a means in how students learn about topics of interest outside of the classroom, educators should seize the opportunity to learn and embrace how smartphone communication methods could be used in educational practise.

Whether educators want to admit it or not, smartphones are penetrating deeply into the lives of students today. There are many different surveys, polls, statistics or facts that are readily available on the Internet, but generally, they tend to conclude that roughly 40-50% of all teens in Canada and the United States own a smartphone (Madden et al., 2013; Hicks, 2014). Not only are students willing to bring smartphones into schools, but an article in Education Week states that three in five Louisiana parents said that they would be willing to purchase a mobile device for their child’s education (Quillen, 2012).

Smartphones permeating into the everyday use of this generation of students, and there is a growing number of social media applications, or apps, that are frequently being used.

According to Seo et al. (2014), as of 2012, 83% of US teens engage in social media Internet usage. To go even further, if we look at these prevalent forces combined, teen smartphone *and* social media usage is understandably rising. In 2013, Facebook, arguably one of the most popularly used social media apps, revealed that 78% of Facebook usage was through mobile devices such as smartphones (Constine, 2013).

It would be axiomatic for this paper to focus on the rising statistics of youth smartphone ownership and a rising social media culture – one would only have to take a look around in public to see this. Instead, I would like to draw attention to efforts that need to be made to harness this power to an educational advantage. However, before we can look at *how* this can be beneficial, it might be prudent to take a look at the reasons *why* in the context of public education.

With a “tech savvy” generation that is eager to communicate and armed with a dizzying amount of dynamic applications as a means, educators generally see such tools as distractions. Tadros (2011) notes that many schools ban cell phones from the classroom and/or block access to social media websites such as Facebook and Twitter within a school network. Going even further with generalities, many teachers have trouble with letting go of traditional teaching methods such as using blackboards or whiteboards, a written syllabus or even tests written on paper (Tadros, 2011, pp. 85-86). Perhaps we could conclude that educators are either unwilling to be nothing more than “old dogs that can’t learn new tricks” or just too stubborn to change. If there is to be any change in educators’ attitudes towards technology, we would have to either see a willingness to be trained or wait for a new generation of teachers who have the capability to

utilize these potential learning tools. That would solve everything right? Unfortunately, there is another important issue to address. The issue in question is the current state of affairs of public education resource funding. In their education funding brief of 2014, the British Columbia Teachers' Federation (BCTF) notes that the provincial government is declaring that there will be forthcoming changes regarding the increased use of technology in schools. What the government is saying is that since the world is becoming more global with communication technologies, students need to be taught how to function in such a world. However, the BCTF also states that if this is to be realistic, funding for technology needs to increase. Without the appropriate resources, there is no capacity for this to be a reality. The majority of schools do not possess technological equipment that is up to standards (BCTF, 2014, pp. 10-11). Even if educators were willing to use social media or other current-tech tools in their teaching practice, they are hamstrung by the fact that the equipment just doesn't support what is the current standard.

Keeping the current state of affairs of public education as a framework, which is again the proliferation of smartphone/social media usage and a shortfall in educational funding for technology, it is important to look for opportunities rather than give up and keep education methodologies at status quo. Students are literally walking into classrooms with portable computers in their pockets! Generally speaking, their mobile hardware is up-to-date, the students know how to use them proficiently, and no educational funding was spent to provide them to students. One counter-argument to this will be that not all students can afford smartphones, and this is quite true. However, there are ways around to ensure all students can be included in social media learning. Typically, all social media apps have accessibility on a personal computer as well. School districts would only need to purchase minimal computers to meet the needs of all

students. As well, purchasing tablets, such as an iPad, are cheaper alternatives, and are close cousins to smartphones. It is also important to note that smartphones are becoming more and more affordable, and the number of students possessing them is only going to increase. With this context in place, this paper's intent is to discuss how the usage of smartphones and social media can aid learning in the classroom.

When using a smartphone, students have an array of tools at their disposal. Combining the power of a telephone with a computer, there are many different ways to communicate and learn. Mottiwalla (2007) states that learning with smartphones "combines individualized learning with anytime and anywhere learning" (p. 2). While there may be many more different categories, students tend to use communication methods in three different domains when using a smartphone. First would be the obvious phone function. However, within this function is the ability to send text messages. Sending text messages (or texting, or SMS) is the most popular activity on a smartphone amongst students – mainly because it can be much quicker than taking the time to talk on the phone (Hicks, 2014). As aforementioned, social media is another domain that students spend much of their time, with the top three apps arguably being Facebook, Twitter and YouTube. There are many different scholarly definitions of social media, but essentially, it is software (be it networking sites, or a Web 2.0 website), which is accessed on an appropriate device that can support social interactions (Mourlam, 2013). Lastly, the third domain of a smartphone would be the ability to videoconference. Videoconferencing on smartphones can allow non-verbal communication cues to occur. Written communication through smartphones and social media lacks the ability to show "tone of voice" and non-verbal cues. Videoconferencing gives users the ability to communicate as close to face-to-face as humanly

possible. Applications such as Skype, Google Hangouts and Facetime are amongst the top ways of videoconferencing via smartphone.

In order to serve students well once they leave school and join the workforce, 21st Century Learning Skills are becoming a new teaching philosophy in education. In the literature, there are slightly different definitions of terms, but some key principles of 21st Century Learning Skills that are necessary for this topic are communication, collaboration, and the use of technology (Larmer & Mergendoller, 2010). The use of technology is a redundant feature for this discussion, so I would like to focus on communication and collaboration and how they can be achieved through smartphones and social media.

Smartphones are built on the basis of communication – that is the key component in their design and they give the user the ability to communicate with others over space and time. In a classroom, students are somewhat limited to communicating with only their classmates and their teacher. If smartphones are introduced into a classroom, students now have the ability to communicate with others. The point is that students are already communicating with others outside of class time, why not teach them to use this ability in an educational manner? Not only is communication a key skill through a technological means, but the ability to collaborate is also just as important. More and more focus must be placed on students to be able to work with others, as this is a real-world skill for which they will need to prepare, and this is the reality of the modern workplace. Using smartphones will allow students to collaborate with their peers. Granted, this is also possible through the use of computers, however, given the educational environment as aforementioned, students have smartphones in their pockets *now* and they know how to use them.

So, just how can this all be accomplished in a classroom? How can smartphones in conjunction with social media tools help students communicate and collaborate? First of all, we must admit that learning is changing. Vie (2008) predicts that the typical written essay or similar assignments will soon retreat or disappear as the way of assessing students' learning. With a focus on media content and the ability to manipulate different forms of media, she believes that this will become the new norm. Another way that learning is changing is the increased amount of informal learning that happens outside of the classroom with smartphones and social media. As Gikas & Grant (2013) note:

Informal learning is often defined as learning that results “from daily work-related, family or leisure activities” (Halliday-Wynes & Beddie, 2009, p. 3). It is often intentional but unstructured and contextualized (Marsick & Watkins, 2001). This type of learning is sometimes “unanticipated, unorganized, and often unacknowledged, even by the learner” (Jubas, 2010, p. 229). Activities such as reading, using the Internet, visiting community resources, such as libraries, museums, and zoos, and on-the-job learning are usually considered informal learning activities, though there is no conclusive definition of informal learning. During any of these activities, learners can use and access their mobile computing devices to research, investigate, or collect information to be used in their formal learning environment.

Once learning has taken place inside the classroom with a smartphone, it does not necessarily end there. Students are still able to connect and learn with their classmates on their own time. An advantage of a smartphone is that it allows the user to learn on the move, no matter the location. (Gikas & Grant, 2013). Smartphones also allow the user to choose which way they would like to create and/or collaborate with others. Granted, in a public education

setting, the teacher might restrict the learning to a few applications in order to instruct them on how to use them proficiently. However, once familiar with a set of social media or Web 2.0 tools, students could create user-generated content with their smartphones in any manner they choose. Using such tools as blogs, wikis, collaborative documents (such as Google Docs), allow students to work seamlessly with others and construct knowledge together. Linking content to QR codes is another benefit of having smartphones in the classroom. For example, teachers could add a QR code onto the assignment which is linked to a lesson and the student could scan the code and be refreshed on how to do the assignment (perhaps a webpage, YouTube video with instructions on how to solve the math problems, etc.). This would be beneficial either for teachers who know that they are stretched thinly in a classroom when helping their students one-on-one, or for a teacher that employs a flipped-classroom model. Much can also be done with the social media app Twitter. Students can engage in lively debates, follow a renowned author or poet and it gives an opportunity for students to engage that are afraid of putting up their hand in the classroom to ask questions. In conjunction with a device such as Google Glass, an educator can see their feed while they are teaching and respond to any questions via Twitter that may arise. Using online digital story-telling tools such as Storybird or Zimmer Twins can allow students to tell a story and put graphics or animations to it. To be blunt, the possibilities are endless when using a smartphone in the classroom – there is room for more innovation, creation and collaboration as students are free to express themselves with user-generated content. Educators are also able to use a service such as Remind to text homework reminders or other messages to cellphones without having to store the contact information of their students.

To conclude this paper, I would like to demonstrate a theoretical classroom scenario using smartphones and social media/web 2.0 tools to work on a science project for grade five

students. Employing a BYOD philosophy (Bring Your Own Device) in conjunction with some school-owned laptops or tablets (for those who do not own a smartphone), students could collaborate to work on a group project on Earth's natural resources. Each group has been tasked to look at an issue with the harvesting of some of British Columbia's natural resources (oil pipeline, salmon farming, open-pit mining, etc.). Each group works together on a Google Doc, which allows them to work on a document together at the same time to collect their research. Or, if they like, they can create their own wiki on their topic. Using Twitter and/or videoconferencing apps, they can follow or engage with politicians, scientists or corporations who are involved with their topic. Using YouTube, they can access video-content that could be used for information or their final presentation. For their final presentations, they could create websites and link them with QR codes. After they present, they could create a Kahoot quiz and have the audience use their smartphones to engage in a friendly competition on the information they presented, and then engage in a post-presentation debate or pose questions with Twitter. I am sure there are more ways, but this should suffice to show that students would benefit from active learning in this manner rather than have a teacher lecture to them as they sit and listen passively.

In conclusion, the public educational landscape is changing. Students of this generation are born into a digital age and have different learning needs than their teachers and parents when they were themselves students. Tapscott (2009) calls these learning needs the 8 norms of Net Geners:

1. They want freedom in everything they do, from freedom of choice to freedom of expression
2. They love to customize, personalize

3. They are scrutinizers
4. They look for corporate integrity and openness when deciding what to buy and where to work
5. They want entertainment and play in their work, education, and social life.
6. They are the collaboration and relationship generation
7. They have a need for speed – and not just in video games
8. They are the innovators

However, not only is the student changing, but also the learning situation. Educational funding is not meeting the needs of students who need to learn the skills necessary to enter a workforce that is highly dependent on 21st Century Learning Skills. This is because public schools do not have up-to-date technological resources. Students are entering classrooms with the means in their pockets and skills necessary to learn collaboratively. It would be in the best interest of public school educators to learn and explore how different social media and Web 2.0 tools could be used to change their educational practise and engage students in meaningful and active learning.

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