Facebook: Learning Tool or Distraction?

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Abstract

The article will explore how a selected sample of secondary school students in Ontario have been using Facebook since it has become accessible to them and whether or not this use "supports the learning agenda" of classrooms as school boards have envisioned. The researchers collected both quantitative and qualitative data from 63 Ontario high school students via a questionnaire distributed through Facebook. Stating many examples of use for educational purposes, 73% of respondents reported having used Facebook for educational purposes. Of the students surveyed, only 27% said that at least one teacher had found ways to include Facebook in their lessons, and further, 77% of students believed that teachers do not support Facebook being unblocked. The results of this research point to a need for the better utilization of Facebook in classrooms and the need for school boards who choose to "embrace" the increasing popularity of social media to implement programs that better ensure teachers also feel comfortable enough to embrace this informal teaching tool. (Keywords: social media, Facebook, educational technology, Web 2.0, secondary schools, Ontario, censorship, policy)

In 2010, the Waterloo Regional District School Board (WRDSB) made the decision to "embrace" the gaining popularity of social media among students by allowing any student 13 years of age or older to access popular social media websites such as Facebook while at school. As stated by Peter Rubenschuh, the assistant to the superintendent of learning services for the WRDSB, the decision to allow students to access social media websites would provide expansive opportunities that would "support the learning agenda" of classrooms, including opportunities such as online discussions and online "extra help." This vision is shared by many of the other school boards in Ontario.

The following research is grounded within the theoretical framework that the use of Facebook moves beyond formal academic learning to include corollary aspects of learning such as effective collaboration and communication. The research endeavors to answer the following two questions:

1. How have a selected sample of secondary school students in Ontario been using Facebook since it has become accessible to students?
2. Is there congruency between the vision for the use of social media in the classroom and how students have actually been using it?

By understanding how students in this study use Facebook during class time, teachers can better target and implement strategies that use social media to "support the learning agendas" of their classrooms. By determining the congruency of a school board's vision of social media in the classroom and its current, actual use, this research will provide school boards with invaluable information that will aid future direction about the use, governance, and training related to social media implementation in secondary schools.

Literature Review

Web 2.0

"A social network is a social structure made of notes, generally individuals or organizations, which are connected by one or more specific types of interdependency. Facebook, with more than 200 million active users, and MySpace are the two largest social networks" (Harris & Rea, 2009, p.138). In May 2011 (2 years after Harris and Rea's research), Facebook has increased membership to more than 500 million users (Facebook, 2011). On average, 700 billion minutes are spent on this social networking website per month (Facebook, 2011). The challenge of using Web 2.0 technologies in the classroom is to use them in a way that enhances learning, not simply because they are available.

The increased use of virtual worlds for entertainment, socializing, and education will continue to grow (NMC, 2007). With more users acclimating to a combined virtual and physical life, educators will also need to find ways to bring these technologies into pedagogies to keep instruction relevant and applicable to the world our students are used to and will inhabit after graduation. However, simply adopting a technology and not truly understanding its potential will not suffice. We must work to improve our research in the area of Web 2.0 and virtual world technologies (Rollett, Strohmaier, Dosinger & Tochtermann, 2007). "Without it, we will be using old technologies in a 21st century world. Students will realize it because they will be ahead of us" (Harris & Rea, 2009, p.143).

Adolescent Communication and Collaboration using Online Social Networking

As of the fall of 2009, 73% of teens between the ages of 12 and 17 use social networking sites, which is an increase from 58% in 2007 (Lenhart, Purcell, Smith & Zickuhr, 2010). Further, recent research shows that 83% of teenage social networking users have added comments

to pictures that friends have posted, 77% have posted public messages to a friend's page, 71% send private messages to friends, 66% post comments to friends' blogs, and 54% send instant messages or chat through these sites (Lenhart, 2009). All of these statistics highlight the current popularity of social media among adolescents. However, although Facebook's popularity continues to surge, it is important to discuss what corollary aspects of learning Facebook can bring to (and outside of) the classroom, as doing so will move beyond the argument that one ought to adopt the medium simply because of its pervasiveness. The nature of Web 2.0 moves beyond its predecessor "read-only Web 1.0" to include " 'participatory,' 'collaborative,' and 'distributive' practices" (Greenhow et al., 2009). As both Bandura's Social Cognitive Theory (1986) and Johnson and Johnson's (1994) work on cooperative learning have illustrated, knowledge acquisition is enhanced through social learning experiences, such as group work or collaboration.

Connecting Informal and Formal Learning

"The informal learning that occurs in the context of participatory media offers significant opportunities for increased student engagement in formal learning settings. The experience with communication technologies that teenagers today possess must be tapped by educators and connected to pedagogy and content in order to address learning objectives in schools. Teacher education faculty members are experienced in this arena. We are currently at a moment in time in which the current and next generation of educators each can make a genuine contribution by working together" (Bull, Thompson, Searson, Garofalo, Park, Young & Lee, 2008, p.106).

This idea of "working together," as suggested by Bull et al., has also been reflected within the education system, where a push to foster classroom communities or a community of learners has gained strong support. This "sense of community" has been defined as a mutual interdependence among members, connectedness, trust, interactivity, and shared expectations and goals, according to McMillan and Chavis (1986). For learners to sustain meaningful educational experiences, a sense of community is a must (Garrison & Kanuka, 2004). According to Bowers-Campbell, Facebook can be used to create more communication amongst teachers and students (2008). The creation of a community of learners, or learning networks, as referred to by Dorothy Chun (1994) and Mark Warschauer (1996), levels the playing field for shy, introverted students. When a community of learners is established, such students may become more comfortable, allowing them to make greater contributions to the community. Psychologists have argued that once the characteristics of a learning community, including connectedness and trust amongst the learners, are established, such characteristics have a direct impact on the continuance of participation within the community (Whitworth & DeMoor, 2003). The American Association of School Librarians states that 21st century learners require the skills necessary to participate and collaborate within social and intellectual networks of learners, and such collaboration can take place through online learning (2007).

Technology and Education

"Although technology per se is not new to the education process of teaching and learning, education is one of the areas most heavily impacted by technology" (American Psychological Association, 2009, p. 455). Further, "The Internet and related technologies have the power to bring literature, research, information, and people from around the world directly into the classroom" (American Psychological Association, 2009, p. 456). As the 2008 Annual Report of the APA Policy and Planning Board suggested, new technologies have the capability to improve the way interaction occurs among students and instructors.

"Material can [now] be presented in more vivid ways than in the past, which may engage students more actively" (American Psychological Association, 2009, p. 456). Going "virtual" provides students with greater access to multimedia presentations (catered to various types of learning styles) and ultimately can provide students with instructional interaction outside the classroom, whereby questions could be answered, online collaboration on an assignment could occur, or students could engage in more than one class simultaneously. However, despite the capabilities for new technologies to share knowledge and connect people, technology also has challenges that we must recognize.

Most important, beyond issues of access, the benefits of technology can also be limited by how it is used (Boostin, 1980). "Knowledge is the result of cognitive work reflected in integrative, synthesizing, evaluative, and critical thinking about information. Information is the raw material, but knowledge is the foundation of education" (American Psychological Association, 2009, p. 456). When implementing new technologies in classrooms, it is of the utmost importance that teachers create a rich environment focused on promoting knowledge rather than "simply being a source of information" (American Psychological Association, 2009, p. 456).

A second challenge for educators "involves the distinction between entertainment and true intellectual engagement" (American Psychological Association, 2009, p. 456). The nature of multimedia can captivate students easily, but this visual engagement does not necessarily represent intellectual engagement (American Psychological Association, 2009, p. 456). In fact, too much multimedia stimulation can interfere with the deeper cognitive processing that is critical to learning (American Psychological Association, 2009, p. 456).

In conclusion, "Particularly because of the immediacy, vividness, and on-demand nature of technology in the classroom, satisfaction may be mistaken for achievement. Thus, more than ever, attention needs to be devoted to the scholarship of teaching and specifically to how technology inside and outside the classroom affects learning outcomes for new generations of students" (Mayer, Griffith, Jurokwitz & Rothman, 2008, p.338).

Methodology

Participants in this research consisted of both male and female secondary school students from Ontario, Canada, who actively engage with the social networking website Facebook and are over the age of consent (16 years old). In total, approximately 700,000 students attend 850 publicly funded secondary schools in Ontario (Ontario Ministry of Education, 2011). Each secondary school is governed by one of the 72 school boards in Ontario (Ontario Ministry of Education, 2011).

The primary researcher recruited participants using a snowball technique: He created a "group" called Facebook: Learning Tool or Distraction using his personal Facebook account. Using both the researcher's friend list and a relative of the researcher's friend list, the researcher added current Ontario high school students to the group with the option of opting out at any time. The researcher asked students added to the group to direct others to the Facebook page and then subsequently to the online questionnaire (provided via a link on the Facebook group page). To ensure that the results reflected Ontario student responses only, the researcher disregarded all questionnaires found to be completed by non-Ontario students (as determined through the question on the questionnaire about which school board the student was enrolled with).

Research participants completed the online questionnaire that contained questions pertaining to their use of Facebook in a classroom setting. It took approximately 20 minutes to complete. The majority of the responses provided the researcher with quantitative data in the form of 25 Likert-type scales. However, participants also had eight opportunities to provide written, qualitative responses. The researcher separated the questions into four main themes (use of facebook, facebook at school, teachers and facebook, and demographics) and subsequently presented to research participants in this manner. This mixed methodology provided the opportunity to gain both breadth and depth of responses from an online questionnaire.

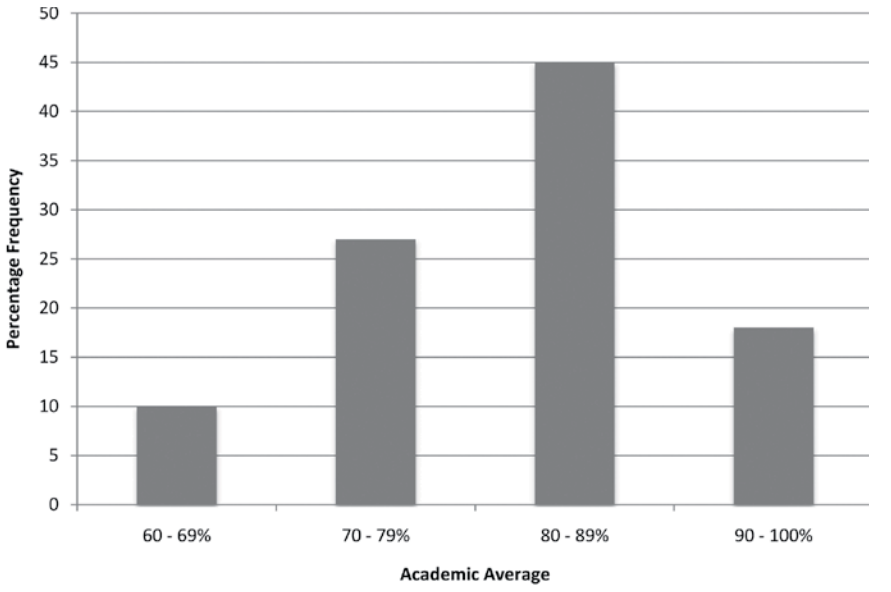

Figure 1. Academic averages of respondents.

The analysis of data employed both quantitative and qualitative methodologies. For the quantitative analysis, the researcher used frequency distributions involving simple percentages. For the qualitative data, an inductive approach to analysis provided a convenient and efficient mode to recognize main themes. The researcher colour coded all of the qualtitative responses that made mention of a particular educational use, such as "collaboration," "discussion," "asking questions," or "extra help." Once these were colour coded, the researcher reviewed the data again to find quotations that best illustrated the common themes.

Results

To reiterate, the following research is grounded within the theoretical framework that the use of Facebook moves beyond formal academic learning to include corollary aspects of learning, such as effective collaboration and communication. The research endeavors to answer the following two questions:

1. How have a selected sample of secondary school students in Ontario been using Facebook since it has become accessible to students?
2. Is there congruency between the vision for the use of social media in the classroom and how students have actually used it?

In total, 51 completed the questionnaire in full, whereas 12 others completed parts of the questionnaire. The researcher examined simple frequency distributions using simple percentages and therefore used all responses (complete or incomplete questionnaires).

Of questionnaire respondents, 58% were female and 42% were male. Further, 90% were enrolled in university-track courses. Figure 1 outlines the self-reported, academic averages (based on their second-term report card in March 2010) of all respondents.

Figure 1, which outlines the mean grade received in respondents' academic courses (academic average), shows that, of all the students who responded to the research questionnaire, nearly half had averages between 80 and 89%, with all students having an average of at least 60%. Eighteen percent of students reported having an average in the 90–100% range.

It should also be noted that 98% of the 63 students who answered the question about how long they have been using Facebook answered between 1 and 5 or more years. The majority of these students (60%) have been using Facebook for 3–4 years. Coupled with

Table 1. Participation in Facebook Activities (Outside of School)

Activity	Participation						
	1 (Greatest)	2	3	4	5	6	7 (Least)
Check Friends' Status Updates	20%	16%	12%	16%	18%	10%	10%
Update Own Status	11%	16%	11%	24%	18%	15%	5%
Messaging	20%	8%	20%	15%	19%	10%	7%
Facebook Chat	7%	16%	20%	27%	21%	11%	2%
Look at Photos	10%	21%	27%	11%	13%	11%	10%
Applications	14%	18%	5%	5%	4%	25%	29%
Educational Purposes	14%	11%	10%	6%	5%	16%	40%

Note. Range of respondents was between 51 and 64.

Table 2. Student Use of Facebook During School Hours

Facebook Access	Frequency (Check all that apply)	Percentage
During "spare" periods	34	57
During my lunch break	31	52
During class time	25	42
Between Classes	11	18
Never	18	30

Note. 60 total respondents

the statistics that all respondents' ages lie between 16 and 18, this signals that most students who completed the research questionnaire for this study have been using Facebook since they turned 13.[1]

Students who completed the questionnaire noted being enrolled with the following Ontario school boards: Waterloo Region District School Board, Waterloo Catholic District School Board, Upper Grand District School Board, Avon Maitland District School Board, Peel District School Board, and Consiel Catholique du Nouvel-Ontario.

Use of Facebook

Table 1 illustrates students' use of Facebook outside of school, by frequency of rank. Interestingly, this table shows that respondent's main uses of Facebook outside of school include checking friends' status updates and checking messages, whereas at the opposite end of the spectrum, educational purposes and applications are ranked the lowest. As this research and Lenhart, Purcell, Smith, and Zickuhr have pointed out, adolesents are undoubtedly using social media for a range of uses.

With regard to use during class time, 52% of students said they never access Facebook during class time, 28% access Facebook one to two times per day during class, 10% access the popular social networking website three to four times per day, and 7% access Facebook seven or more times per day during class. Table 2 outlines student use of Facebook during school hours, in general. It shows that, while at school, students access Facebook most often during their "spare" periods or lunch breaks and least often during or between class time(s). Thirty percent of students reported never accessing Facebook while at school.

When asked whether students felt Facebook should be available to students during class time, 52.8% were in favour and 47.2% were against this idea. However when asked if Facebook can be used as an educational tool, 73% believed it could be. The students who believed that Facebook could be used as an educational tool cited benefits of Facebook including easier communication with classmates, quick and easy discussion forums, group collaboration, awareness campaigns, increased self-organization, and homework help. Students who answered that Facebook could not be used as an educational tool described Facebook as a distraction, "unable to teach," and uneducational.

Beyond the question of whether students believe Facebook can be used as an educational tool, 73% of students who completed the questionnaire had used Facebook for educational purposes. They stated the following examples of use for educational purposes:

- In biology or chemistry when we have labs, we normally work in groups, so if we don't know the answer we make a group message and give our answers. I have also posted links or watched links sent to me that help with biology (respiration, the Krebs cycle, etc.).
- Asking teachers or friends about homework.
- One of the math courses at school, Advanced Functions, has a Facebook group that is lead by our teacher. The group includes all the students from all three classes which opens for the opportunity to discuss homework with classmates. Also, our teacher can send a message out to all members reminding them of a quiz or test.
- For my English exam, a group was made to discuss the reading package we were given. While at home, I participated in these discussions which helped my preparation for the exam.
- I inbox myself work to finish at home because my email is blocked.

Congruency between Vision and Use of Social Media in the Classroom

Both school boards and individual schools have policies regarding the use of Facebook within their institutions. Seventy-two percent of students questioned in this research were unaware of their school board's policies regarding the use of Facebook during class time, whereas only 47% were unaware of their school's policies. Although this number still seems high—especially because rules are put in place to guide correct and acceptable usage—the difference in understanding of the policies appears to be affected by teacher and peer influence. Where students were more aware of the policies (in schools), respondents

1 Facebook's Privacy Policy states: "If we learn that we have collected personal information from a child under age 13, we will delete that information as quickly as possible" (Facebook, 2010).

cited teacher reminders, peer reminders, assemblies about the use of Facebook, digital citizenship committees, and posters as responsible for their increased awareness.

Although a school board's vision may be to provide expansive opportunities that "support the learning agenda" of classrooms, including opportunities such as online discussions and online "extra help," it must be remembered that this vision is most effectively carried out and fostered by frontline employees—teachers.

Of the students surveyed, only 27% said that at least one teacher had found ways to include Facebook in their lessons. Figure 2 provides a breakdown of survey respondents' subjects that integrated Facebook. Subjects that respondents reported integrated Facebook most frequently include: mathematics, the arts, English, and technological education. The subject that respondents reported had the least integration of Facebook was Canadian and World Studies. It should be noted that some students did state that teachers constantly remind students how to use Facebook responsibly, and on occasion a teacher will give test and assignment reminders outside of assigned class time via Facebook. However, to the contrary, a number of students stated, "[Teachers] are all anti-Facebook."

In addition, 77% of students believe that teachers do not support Facebook being unblocked. Upon discussing the lack of support for Facebook, students state reasons for this belief, including Facebook's distractibility, older generations of teachers not understanding the benefits, the inability for teachers to monitor students' actions fully, and student misuse, among others.

Figure 3 outlines the most significant barriers to the successful use of Facebook in the classroom. Distraction of students leading to teachers not using Facebook was chosen as the most significant barrier. Student respondents considered student knowledge of how to navigate Facebook as the least significant barrier.

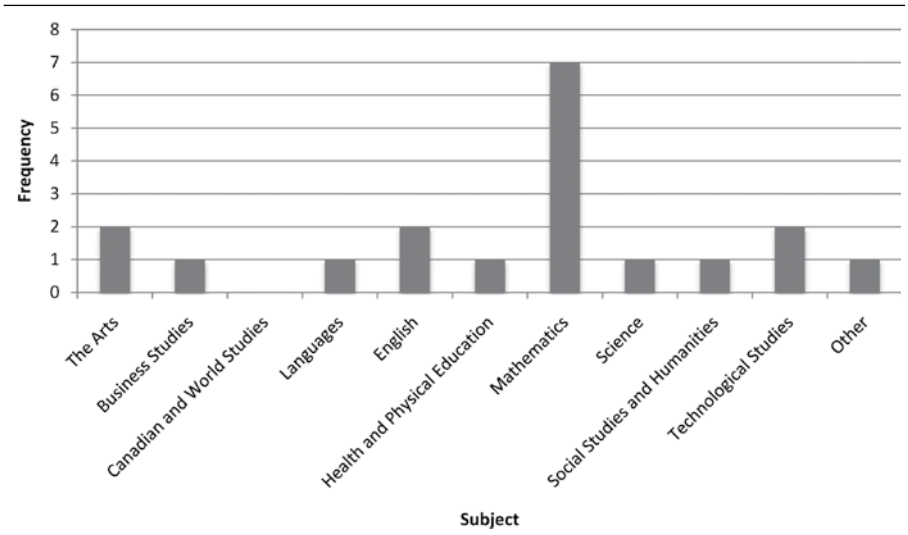

Figure 2. Subjects that integrate Facebook.

Discussion and Conclusions

Use of Facebook

Between 2009 and 2011, the number of Facebook users worldwide increased by 150%. As 73% of teens between 12 and 17 were reportedly using social networking websites in 2009, and that number is sure to have risen since then, it should come as no surprise that today's classroom lexicon contains words with changed meaning, including post, message, tag, poke, and inbox. As Facebook becomes unblocked on school computers, teachers' understanding of how students are actually using social media, when provided with the opportunity, will allow them to gain a better understanding of how their students use Facebook during class time. By gaining this knowledge, teachers can better target and implement strategies that use social media to "support the learning agendas" of their classrooms.

As both the Annual Report of the APA Policy and Planning Board (2008) and Garrison and Kanuka (2004) have suggested, new technologies have the capability to improve the way interaction occurs among students and instructors, fostering a necessary sense of community. As the research results previously highlighted show, 48% of students log on to Facebook at least once during class time, and even more students access the popular social media website during their "spare" periods or lunch breaks. The latter two times of access (lunch and spare periods) have, in the past, been regarded as times when teachers and students can remain mutually exclusive of one another. From a pedagocial perspective, knowing that increased reminders to do something increases the chances of it happening, another reminder sent to students, via a medium they are using, at times when students tend to mismanage their time well, seems logical.

Beyond the classroom, the benefits that using Facebook could have are many, including collaboration, participation, and communication. The results of this study produced student responses that repeatedly cited such benefits, including collaboration, extra help, homework discussion, or self-organization, as reasons for using Facebook. The fact that 73% of students answered yes when asked if they have used Facebook for educational purposes goes against the hypothesis that students are not using Facebook to "support the learning agenda" of the classroom. In fact, many respondents provided in-depth examples of how they have used it for educational purposes.

Consistent with research conducted by the American Psychological Association, many respondents also discussed the challenge of Facebook's lack of "distinction between entertainment and

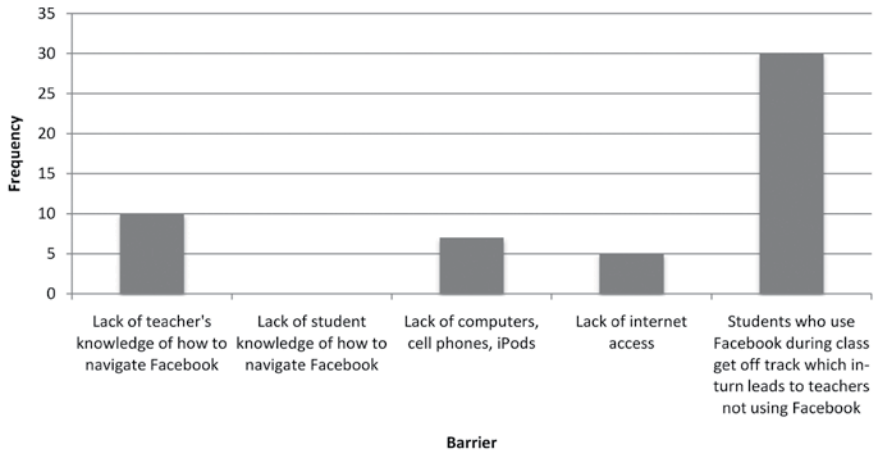

Figure 3. Barriers to the successful use of Facebook in the classroom

true intellectual engagement"—in other words, distractability (American Psychological Association, 2009, p. 456). Perhaps if students and teachers used Facebook differently, it would become less distracting. Interestingly, when asked whether Facebook should be available to students at school, the results were inconclusive, with 28 in favour and 25 against. Students *were* conclusive when they were asked if it should be used more often: Respondents were in favour, perhaps because of the growing trend toward social networking or simply because it is what teenagers know and use on a daily basis. Regardless, students' more in-depth use and understanding results in a better appreciation for and recognition of Facebook's potential corollary uses in education.

Congruency between Vision and Use of Social Media in the Classroom

As per the Acceptable Use of Digital Technology Procedure Manual of the Upper Grand District School Board, it is the responsibility of the school board to update digital technology; "provide in-service for staff on the use of digital technology and assist in the provision of resources to help staff teach students appropriate use of digital technology;" and "determine whether use should be granted, limited, or revoked" (Upper Grand District School Board, 2010, p. 1). Beyond the school board, schools themselves are responsible for ensuring "school staff has access to professional development in the effective use of digital technology for educational purposes" and for providing "students users with instruction in the proper use of digital technology" (Upper Grand District School Board, 2010, p. 1). User responsibilities highlight respect, protection, and responsibility of use.

The Waterloo Region District School Board's Acceptable Use Procedure for technological property outlines board responsibilities including promoting acceptable use, developing rules, providing filtering protection, and ensuring suitable levels of privacy and security (Waterloo Region District School Board, 2008). Outlined in this same policy document, schools are responsible for providing access, monitoring student use, and dealing with abuse (Waterloo Region District School Board, 2008). Users are, once again, to use technology respectfully, with caution, and responsibly. WRDSB's Acceptable Use Procedure does not mention the ongoing need for the in-servicing of teachers on the use of digital technology.

If in fact the statistics about adolescent use of Facebook stand true, then the statistics from this research that only 27% of students reported having at least one teacher who included Facebook in their lessons must be called into question. As Mayer, Griffith, Jurokwitz, and Rothman stated in 2008, "more than ever, attention needs to be devoted to the scholarship of teaching and specifically to how technology inside and outside the classroom affects learning outcomes for new generations of students" (p. 338). Upon looking at some of the responses by students in the study at hand, there appears to be a disconnect between school board and student.

Although some students responded that they are using Facebook for discussions, group collaboration, etc., when asked if they felt that teachers support Facebook being unblocked, the large majority of students (77%) answered no. As stated previously, some students attributed this belief to barriers including Facebook's distractibility, older generations of teachers not understanding the benefits, teachers' inability to monitor students' actions fully, and student misuse. To reiterate, when implementing new technologies in classrooms, it is of the utmost importance that teachers create a rich environment focused on promoting knowledge rather than "simply being a source of information" (American Psychological Association, 2009, p. 456).

It is the responsibility of a school board and teachers/principals (as instructional leaders) to address barriers to their visions/policies to create rich learning environments. The implications of not understanding the use, governance, and training related to social media implementation in secondary schools at the board level will only trickle down and end up affecting Ontario students. To date, many school boards have recognized the trend. However, maintaining lofty visions without proper implementation results in putting the students and teachers at odds.

To conclude, student use of Facebook when at school does seem to be congruent with school boards' visions of enhancing the learning agenda. However, the school boards and teachers do not appear to be responsible for this congruency, but rather the students who are adapting to an institution lacking new technology in a contemporary world. Going forward, school boards who choose to embrace the gaining popularity of social media must implement programs that ensure teachers also feel comfortable enough to embrace it. Giving students a little more freedom and trust in a less controlled environment may be the key.

Again, the research outlined in this study fits with other current research in this field, but there is still much research to be done. The researchers limited the data used in this study to a self-selected group of Facebook users. A deeper analysis, including the use of a larger sample size, on teacher perceptions of Facebook and more qualitative research about how Facebook has been used in classrooms, would be beneficial for this field of research.

Author Notes

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