

The Importance of Art Teacher Awareness of Students' Internet Use in Ontario School Board Classrooms

Somi Lee

Concordia University, Canada

Abstract

Using web-generated tools in art education is acknowledged as an important vehicle to facilitate in teaching art. Black and Browning (2011) assert that integrating technologies into art lessons is crucial to stimulating students' learning, their imaginations, and the creative process. In this paper, I focus on issues related to art teachers' and students' co-learning practices in K-12 education. The questions I pose are: what situations are adequate to accommodate co-learning and what do teachers need in order to prepare for this co-learning system. In the context of teacher preparation for co-learning, I argue that the importance of teachers' capabilities in monitoring students should be emphasized. Therefore, I recommend that teachers develop an ability to discern appropriate platforms and websites, and that student practices of safe and responsible use of the Internet are critical in continuing to enhance the teachers' and students' co-learning practices.

1. Introduction

In December 2013, after a semester of pre-service teacher education in North Bay, I came home to Toronto where I had the opportunity to observe and assist a grade nine visual art classroom for a week. I walked into the classroom with carefully prepared art books and prints to impress the students. The students greeted me with their beautiful smiles, which created a welcoming environment. Thanks to my teacher friend, Lita who allowed me to observe and assist her grade nine visual art classes at Emily Carr Secondary School, Ontario. However, after a brief introduction of me to students, the ambience changed all of a sudden. Students took out their hand-held devices or walked toward a computer station and started working on their project independently. This was very different from what I had imagined for a grade nine visual art class. I expected students to sit around their workstation

creating art and exchanging ideas to inspire each other. I was perplexed that what I had prepared to assist them did not align with the situation. I was lost. When I saw how the students got the information they needed from the Internet in a snap, I wanted to hide the printed handouts and art books I brought, which made me look like a person from the dinosaur era.

While I was walking from station to station to assist students, I found some students were browsing and playing computer games. I advised the students to stop playing the game and resume their projects. One student responded that he was creating his own video game for a project. I was shocked by this brilliant student's knowledge and skills but then I thought, 'was he really?' Without knowing video game coding language, I had to trust him that he was working on his project due to the fact that I was incapable of finding out the truth.

There is little doubt that digital technology implementation offers benefits to improve our learning environment [2] such as easy access to art resources through the Internet [1], rapid student interaction online [24], [27] and improvement of students' visual literacy. Despite these apparent advantages, there are legitimate reasons to worry about the digital media and new technology implementation in schools, such as cyber bullying, copyright infringement, and students' accessibility to inappropriate sources. Furthermore, there are issues related to teachers' increased workload [12], teachers' working conditions, their positions in the classroom, poor delivery of lesson content through digital technology, and the difficulty in aligning art curriculum with the technology [6]. Among many issues, I discuss the challenges associated with a teacher and student co-learning practice of digital technology implementation in art education and what art teachers can prepare to enhance the co-learning practice. The co-learning concept I discuss in this paper involves teachers learning to use web-based software and mobile apps from students in the classroom. It follows that students help their teachers learn certain digital media tools and suggest web sources that

teachers can use for educational purposes. The teacher is in the active learner position, whereas students are in mentorship positions.

2. A Recent Movement in the Ontario Education System

In order to pinpoint influential aspects of the co-learning paradigm's emergence, understanding changes in educational infrastructure is crucial. Such knowledge will give us an idea of how the current situation came about. Here is a list of recent movements in the Ontario education system that were addressed by an educational organization called People for the Education: (i) 99% of Ontario elementary and secondary schools allow students to have access to computers in school, (ii) 93% of classrooms in these schools have internet access, and (iii) the Peel District School Board encourages 153,000 public school students to bring their smartphones, iPads, tablets and laptop computers to class so that they have access to technologies when they step out of computer labs.

These numbers indicate that there has been a huge leap compared to when I was attending elementary school in late 90s, when there was not a single computer in the classrooms. Therefore, there is an increasing demand for teachers to integrate digital technology into the Ontario curriculum. Authors of the Ontario Curriculum, Grades 1–8: The Arts encourage teachers to include digital applications in their visual arts curriculum [7]. Also, Bloom's Digital Taxonomy is part of the Toronto District School Board Information Computer Technology Standards to guide teachers on how to align Bloom's Taxonomy with the Ontario Curriculum and make it relevant to a digital learning environment. Lastly, the practice of "bring your own device" (BYOD) is gradually increasing in Ontario. A finding by Chen, Gallagher-Mackay, and Kidde reveals that "58% of schools in Ontario are reporting that students are using their own devices" in school [10].

Interestingly, all of these changes have emerged in the last decade, which indicates that these changes were tremendous and rapid. Each and every aspect could have impacted and helped to develop the co-learning system. I believe it is important for teachers to be aware of these changes, as this will allow them to determine the possible direction of educational change, and they can prepare themselves for these current and future changes. A teacher's awareness should be associated with their abilities. In the context of co-

learning, a teacher's abilities and willingness to learn play significant roles.

As an attempt to measure the ability of art teachers' to monitor students in the classroom, I offer a set of questionnaires to teachers in order to determine their competency and their readiness for the digital technology environment. Based on these questions, teachers can examine their level of familiarity with digital technology and the related issues. Then, I suggest approaches to teach students the safe and responsible use of the Internet as well as recommending ways teachers can protect students' identities and prevent their artworks from being shared. These recommendations are created in the hope of enhancing the teachers' and students' co-learning practice in digital media and technology infused learning environment.

3. The relationship between Students Safety and Teacher Monitoring

My teaching experiences at elementary schools and my academic background in education motivated me to consider the issues of rapid transformation education system as well as the impact it has on art teachers. I noticed that school administrators, school districts, and pre-service teacher education programs support the use of digital technology in classrooms to prepare our students for "future roles and occupations in society" [28]. One such example is Ottawa-Carleton District School Board:

"It is important for us to recognize that technology plays a significant and rapidly changing role in the business and learning of our school district. On the learning side, technology has an increased impact on classroom practices and on our ability to further engage students through the development of rich learning tasks which emphasize collaboration, creativity and critical thinking" [21].

I noted that art teachers' position as co-learners in the classroom has been advocated by many scholars, school boards, school administrators, and practiced by educators due to the fact that it helps students strengthen their cooperative skills, builds trust between participants, [6] and improves student engagement [8]. It is not surprising that this belief reached art education in the context of harnessing digital media and new technology in schools. Many scholars and educators agree and support teachers being co-learners in classrooms. For instance, Lin [16] claims that teachers can develop their technology competencies through learning along with students. Also, from an interview

by Delacruz [12] with practicing teachers, some teachers learn from their students. In the aspect of teachers' position as co-learners in the classroom, Black and Browning assert [7] that "teachers do not have to know everything about the software; they need only be willing to take a creative approach to technology and learn from their students".

However, I am not entirely confident with these advocates' standpoints. Asides from the bright prospects they identify, the challenge for art teachers is to ensure their students are safe when using digital media and new technology while teachers are learning along with students. Unfamiliarity with digital media and new technology is different from unfamiliarity with other teaching subjects such as math and language arts. I interpret the notion of teacher and student co-learning as a teacher taking students into the science lab without knowing safety rules prior and finding out the science results and safety issues along with the students during the experiments while handling tools and chemicals.

Due to the fact that digital media and new technology could be connected to the world outside the classroom globally [9], teachers are expected to ensure that their students are not exposed to websites that contain undesirable sources [12], [25]. Then, how do art teachers assure that the platform and digital media are secure? It is possible that these teachers unknowingly expose their students to non-secure situations. For instance, cyberspace can be where students are placed in a dangerous position; "Criminal activities such as identity theft; and inappropriate contact (online and offline) from stranger[s]" can occur [11] Furthermore, Madejski, Johnson, Belovin [6] found that social network settings reveal shortcomings; every 65 participants were forced to share their undesired postings without them knowing it was being shared. Would art teachers be aware of this fact when allowing their students to find resources online? And would they have the capability to take action when they find out? In the context of security and safe use of Internet, how would teachers make co-learning ideal?

I argue that the teachers should be able to manage this type of issue. Thereby they can protect students and prevent students from being exposed to undesirable situations and being capable to take action when events happen, such as cyber-bullying, identity theft, and artworks circulating online without their will and consent. For instance, it is currently common for art classes to display students' artwork online. Ideally, art teachers should understand students' creation can also be protected by copyright [29]. "...the student's guardian or teacher must authorize the further use of a

student's work, such as its use in a school publication, a teaching workshop, a student exemplar, or in a Web posting" [29].

4. Teaching Students Responsible Use of the Internet

Students are vulnerable, can easily become victims and may be exposed to dangerous situations online [19], [23]. On the other hand, they can also be transgressors [19], [23]. Out of many, I will share one related incident during my pre-service education at an elementary school classroom in Ontario. There was a regular computer lab time for students to Google to find sources for their projects. There was one student connected to an illegal movie download website with a list of illustrations which hyperlinked to the movie clips. This student found this inappropriate source relevant because it was related to his project topic. Although this was a minor example, this student almost violated two regulations. Firstly, he had access to inappropriate contents for 7th grader. Secondly, he was developing a habit of copyright infringement where he planned to edit the images into his project. When teachers are not equipped with the readiness to oversee what students do online and stop undesirable actions, such performance will be continued without the student recognizing the breaking of regulations. In order to prevent this from happening, I suggest one of the qualities from Craig Roland's guideline [25]. Art teachers should be aware of Creative Commons licensing, both as content consumers and content providers.

"With multimedia projects becoming increasingly popular in art classrooms, teachers and students need to be aware that the use of copyright-protected materials without permission from the copyright holder restricts their ability to distribute or publish their work online" [25].

There are tons of resources out there; gathering appropriate materials using free online sources makes considerable demands of teachers' expertise. Since teachers choose which materials will be used in classrooms are chosen based on their professional judgment, teachers should develop an ability to discern appropriate platforms and websites from less reliable resources and have an ability to model responsible use of the Internet and sources for their students. In both cases, learning Creative Commons licensing can be fundamental. Having a full understanding for Creative Commons licensing, teachers will be better able to

assist students and avoid liability as students get carried away with copyright infringement practices. In the art classroom, when art teachers can distinguish what artifacts on the Internet their students could edit, share, and distribute or what artifacts restrict such performances from users. As students also need to acquire the knowledge on responsible use of the Internet [15], having them learn Creative Commons licensing, especially in art classes, will foster students' responsible use of the Internet and they will learn to respect the sources and the creators. Thus, it is important for teachers to model for students a safe and responsible use of the Internet [12] to create meaningful lessons in using web-generated tools.

5. Ways Art Teachers can Promote Safe Use of the Internet in Art Classrooms

Besides copyright infringement issues, there are concerns regarding students security and privacy [24]. In the aspect of safe use of the Internet, I focus on students' identity protection online and on their unwanted artworks being circulated and used without their knowledge.

I have registered on many Social Networking groups for art teachers, mostly on Facebook. From there, it is not hard to find teachers posting their students' works, in progress or already completed. Some pictures show that students are holding their artwork with big smiles on their faces. From these pictures and teachers' explanations about the pictures, it is not hard to discern which cities these students live in, which schools they attend and what grade they are in. The groups I am involved in are not only for practicing art teachers. Anyone who is interested (or even without an interest) in art education can join the group. In this vein, teachers are distributing information that discloses students' identities and artwork. This will only complicate in protecting students and threatening their safety online. I assert that such conduct should be discouraged.

There are many other methods teachers can use to safely share their students' artwork and still have their students identity protected: (a) using platforms that supports creative common license such as Flickr, (b) using invitation only platforms such as Flickr and Basecamp, (c) advising their students to use user IDs in these selected sites instead of using their full names, and (d) watermarking students works when posting their students' artwork publicly to prevent others from editing and distributing. For example, Flickr is a picture-sharing platform, which sustains Creative

Common Licensing and healthy information sharing practices. When teachers open up their sites, they can choose the privacy setting as invitation only, so that they can keep the photos private and only make it accessible to the people in the group. This way, teachers and students can collaboratively learn the process of sharing their artwork, exchanging feedback, and presenting their artwork on their online gallery.

In the education field, Canadian copyright law has been employed throughout the nation. "*Teachers and students may use and modify copyrighted works for educational purposes*" [18]. However, it seems to apply differently to the Ontario K-12 education system. For example, teachers can make copies and hand them out to students for an educational purpose under fair dealing [18]. This works for schools' budgets because they don't have to buy an expensive textbook for every student.

Art teachers should ensure that students develop a habit of reading terms and conditions when using art gallery contents. For example, the Art Gallery of Ontario clearly indicates that "you may not modify, copy, distribute, transmit, display, perform, reproduce, publish, license, create derivative works from, transfer, or sell any Content. Reproduction of the Content except as specifically provided in this paragraph is prohibited without the express written authorization of the AGO or the copyright owner. Any publication or commercial use of the Content is strictly prohibited. Copying, redistribution or exploitation of the Content for personal or corporate gain is not permitted" [4].

Teachers can be good role models for this practice. If teachers model getting permission from content distributors before using a creation, students will develop a habit of providing proper citations and asking permission for usage. Since teachers use copyrighted materials as well as educate the copyright owners and users of tomorrow, they have a unique responsibility to set the right example [29].

Ontario's York Region District School Board (YRDSB) specifically encourages teachers to use web-generated tools in their lessons. In this context, YRDSB for example, supports teachers to prepare for classes. During PE day at Emily Carr Secondary School, teachers often talk about the newly introduced tools they approved for that board and discuss related topics of which they should be aware. The following diagram is an example that was introduced during their PE day, which illustrates the web-based software the board approved. The school will take responsibility for security and the external tools for which the board does not apply the same amount of security.

Using Red and Green Cloud Computing Tools	
	
Green Tools: Board Owned / Operated e.g., Teach Assist, Moodle, MX Web, Google Apps, Discovery Streaming, BitStrips, Desire to Learn	Red Tools: Privately Owned / Operated e.g., Dropbox, Evernote, Voicethread, Prezi, Edmodo
The board takes responsibility for ensuring data is stored securely on its servers.	We can't be assured red tools have the same level of security as board tools.

Figure 1. (YRDSB) Digital Literacy Teacher Resources

6. Recommendations for Teachers

It is a formidable task for teachers to develop technology driven environments in classrooms considering the current school infrastructure, teachers' working conditions, their competencies of technology, time constraints, and limited support from school administrators. Such teachers' working conditions may have a significant impact on teachers' role in the classroom, shifting them from leaders to co-earners. In the hope of improving teaching environment for art teachers, I suggest considering the following two aspects: teachers referring to ISTE standards and teachers imposing regulations on using online tools.

First, instead of teachers relying heavily on student support, teachers should familiarize themselves with standards such as ISTE standards when applying digital technology into their lessons. The five categories from the ISTE include (a) facilitate and inspire student learning and creativity, (b) design and develop digital age learning experiences and assessments, (c) model digital age work and learning, (d) promote and model digital citizenship and responsibility, and (e) engage in professional growth and leadership. The standard highlights an approach to facilitate students' learning process but also implies how to enrich teachers' "professional practice" [13].

Second, I suggest teachers who begin to use digital technology try the resources that are approved by the Ministry of Education or their school boards. For example, York Region District School board keeps their teachers informed about web-based software tools.

ISTE provides the list of resources that teachers can use to develop their lessons. Furthermore, *ISTE Seal of Alignment* goes through an intense and thorough investigation "to find high-quality products and services aligned to the globally recognized ISTE Standards" [13]. In order for the teachers to be informed about these resources, school districts and

school administrators should provide teachers with up-to-date information of the approval of resources and make this information easily accessible.

Some educators express that having regulations on what resources they are encouraged to use in class drastically limits the possibilities they have to improve their digital technology fluency [10]. However, instead of learning from students how to use a wide range of web tools and digital technology, using approved resources saves teacher's time to investigate safe resources and assures student safety in cyberspace as well as teacher safety from legal matters.

7. Survey Questions

I created a set of questionnaires to examine teachers' readiness for their classroom and to protect students in cyberspace. Thus, we, art teachers can build solid strategies for prevention and what to do when problems occur. Allowing teachers to be aware of their own levels of proficiency will help them examine what areas they need to improve and enable them to find relevant information.

Use of Technology

1. Do you use digital technology in the classroom? If yes, what types of technology?
2. Do you agree or disagree with using digital technology in the classroom? Please describe.
3. Have you ever been encouraged to use any form of digital technology? If yes, by who? What types of technology were you encouraged to use?
4. Are you willing to contribute your time in order to learn new technology?
5. Do you allow students use digital technology as well? What types of technology?

Fluency

6. How comfortable are you with digital technology? (From 1 to 10, 1 is the least comfortable and 10 is the most comfortable)
7. Which digital technology do you use most frequently and find most user-friendly?
8. How familiar are you with the digital technology that you use? (From 1 to 10, 1 is the least comfortable and 10 is the most comfortable)
9. Have you ever attended a workshop to learn digital technology? If you have, what was the workshop?

Privacy Setting

10. Do you consider privacy settings when choosing digital technology as a learning tool?
11. What software programs do you use in the classroom?
12. Do the software programs originate from Canada? If not, where do they come from?
13. Do you assure that the platform and/or digital technology that you are using is secure? If so, how do you assure the security?
14. Do you pay attention to possible issues with digital technology that you use in the classroom? (i.e. students’ identity leakage and cyber-bullying)
15. Have the #14 concerns ever come to your attention?
16. How well are you prepared to deal with possible issues such as students’ identity leakage, cyber-bullying, etc?

In order to answer above questions and be more knowledgeable in digital literacy, I suggest teachers pay attention to the basics as well as their board updates. Understanding copyright basics in education, such as what Creative Commons licensing is, what fair dealing is, how to reach content providers, when fair dealing applies, and knowing of further resources related to copyright issues, will allow teachers to take leadership roles in introducing and teaching the safe use of web sources while they can take co-learner positions in learning digital technology tools.

Table 1. Information about providers

Providers	Information about...
Creative Commons Canada	Creative Commons licensing process in Canada
The 2Learn.ca Education Society	Copyright and fair dealing in education
TDSB ICT Standard	Teaching and learning with technology within Toronto District School Board in K-12 education.
MediaSmarts	How to promote healthy Digital literacy environment for children

As there are many resources regarding Creative Commons licensing and copyright, it may be overwhelming to figure out where to begin. The following chart provides information regarding digital

literacy, from basic to advanced, as it applies to education in Canada.

8. Conclusion

Teachers’ learning along with students is known to be an effective method of teaching and learning [3]; [23]. However, in the context of digital technology driven learning environment, the effectiveness of co-learning is emphasized while the issues related to teacher incompetency in monitoring their students are downplayed by many institutions and scholars. As such, there are matters to take into account to facilitate teachers’ and students’ co-learning in using digital media and new technology, such as students’ safe and responsible use of Internet and teachers’ readiness to monitor the students. Teachers could learn about technical software and related subjects from students; however, they will have to make sure they will be able to monitor the students’ use of these tools.

To this extent, teachers should be well versed in the Creative common Licensing, digital technology and platforms they will be using in the classroom before allowing their students to use it by referring to acknowledged standards. Furthermore, I recommend that teachers familiarize themselves with standards such as ISTE for teachers. Also, I encourage teachers to allow their students to use ministry approved resources. This would stop potential issues from being neglected allowing educators to be prepared for these problems and improve teachers’ and students’ co-learning infrastructure.

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