Media/ Technology Learning Statement

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With the increasing growth in technology, the pressure on teachers to “keep up” with the latest media, applications, and access to knowledge has increased and several issues have developed. One of the most problematic concerns is how students and teachers are selecting and using technology ineffectively. Students are so used to using the Internet for entertainment purposes but also for accessing information and answers, quickly. As a result, grit, patience, and critical thinking skills are thought to be at stake. Other concerns to the selection and use of media and technologies are cost and their accessibility for students in and outside the classroom. It is important to note that teaching with technology should be used to reinforce learning and not drive the lesson. We need to find a way to select necessary and enriching technology for students, use and teach technology that does not replace knowledge, and find technology that is affordable and worth its cost. The famous “media debate”, started by Richard Clark and Robert Kozma in the early nineties is a good place to start to solve these issues as they provide unique food for thought.

Richard Clark separated technologies into “delivery technologies” that influence the cost and access of instruction and information and “design technologies” that make it possible to influence student achievement. He thought that learning is influenced more so by the content and instructional strategy in a medium than by the type of medium (Hansuk, 2010). Kozma believed that Clark should not separate media from method as it creates an unnecessary and undesirable schism between medium and method. Instead, both should have a more integral relationship, as learning is active, constructive, cognitive and social process (Hansuk, 2010). Knowledge and learning is a reciprocal interaction between the learner’s cognitive resources and aspects of the external environment believe that Clark brought up a valid point. When selecting technology, we must consider the cost and how it affects students’ learning. Why spend thousands on a smart board if we can achieve the same understanding using chalk and a blackboard or coloured markers and a whiteboard? I believe that Kosma was right that we should not separate media and the method, as their relationship is multidirectional. Both influence how students interact with each other, theories, the teacher, and the world outside of the classroom.

With this in mind, this is where “Technological Pedagogical and Content Knowledge” or TPACK comes in. Excellent teachers bring together their deep knowledge for content knowledge (what we teach) and their wisdom of what is good and not so good for learning (how to teach). TPACK combines the 3 components: technology, teaching, and content. Technology is added to the content and pedagogy as a means to create authentic and appropriate learning. It promotes the active learning and creates that integral relationship-of which Kozma was referring. It is meant to help motivate students. But tech a lone does not suffice. One needs to know content and how to teach it. As a good pedagog with different teaching strategies who can incorporate all these together, one can be a great teacher.

So, how do we help navigate and define authentic source material? It is important as a teacher to ask myself, “Is this necessary and will it enrich my students’ education? Will it emphasize course content? Can it be differentiated to fit my students’ needs and interests? Is it worth the cost? Is it accessible to all my students?” These questions can help me navigate and define authentic source material.

However, how do we teach critical media awareness/analysis to our students? Is it even important? To live comfortably in our society, it seems as though individuals need more knowledge and must constantly be able to acquire new knowledge. The abundance and lopsided quality of available information on these networks, as well as the speed at which it is created and changed, means students and teachers must process and classify this information more regularly and quickly from a critical standpoint. However, being aware and critical of media is not innate. It must be modeled and taught to our students. If not taught, these students will be gullible, misinformed, and possibly have shorter attention spans.

There is not enough emphasis today on students to learn to appreciate the importance of taking the time to compare and contrast sources to distinguish reliable from non-reliable sources and to recognize biased texts versus neutrally presented texts. In order to do this, as a teacher, I must teach my students the importance of reading information from multiple sources and to practice with them how to patiently read each one and look for any biases. What often occurs is that students are tempted to select eye-catching and condensed texts- to save time and to remain entertained. They do not want to practice reading longer texts and videos containing in depth information and analysis. They find “short-cuts” to “learning”. They use resources that provide shorter versions that get to the point more quickly as they are summarized and organized.

After showing my students concrete examples of how biases exist in the media I will then point out to them the importance to recognize how media influences our options and decisions. I will emphasize the importance of having an aware mindset of what media sites we pay attention to and what information we might be missing out on. I can easily incorporate this lesson to social studies, geography and history. For example, I would provide students with excerpts from books, videos and experts retelling the same event- about the arrival of the Europeans to Canada and their relations with the Indigenous people.

I will ask them questions like “What was the authors message?” “What was the hidden message?” “How did the author portray the Europeans?” “How did the author portray the Indigenous people?” “What evidence do you have to back up your claims?”. “What do you believe happened and why?” “How can you check if what you just read is accurate?” I would encourage them to, after identifying conformation biases, reach out to search more than one site as a source of information. I would provide them with a list of resources that tend to be neutral in terms of bias information related to the news and I would provide them with content resources that are reliable (not blogs by people with opinions but by authors who are experts and scientists in the field).

To help make my point come across, and make my message relatable outside of a school context, I would give media examples of how my students, in the real world, often fall into this trap. For example, I would ask them how many have Facebook. I would ask them how many have seen or watched the “Tasty” page videos. This page produces 30 to 60 second aesthetically pleasing and upbeat videos of how to create specific meals. They are quick, entertaining, and have garnered around 825, 000 likes for their video titled “4 Finger Foods For Your Party”. Then I would ask how many would choose this video to cook over a recipe book. I would then bring to their attention that they are attracted to the organized summary and visuals.

However, this video lacks basic information needed to make the recipe (such as the materials needed, the time needed for each step, and how to properly do each step). One would have to search and look at other resources to find out that information. Regarding news, we are drawn to attractive and intriguing images or phrasings or when things are broken into lists. This is a media industry trick. For example, we are attracted to lists that state “10 things that…” or “you know when you’re… when…”. However, these sites often miss a lot of information and the information is one sided. The information presented and the way in which it is presented was strategically thought out to catch attention and to portray a specific message. This can be dangerous as it may lead to confirmation bias.

This is the tendency to search for, interpret, favour, and recall information in a way that confirms one's pre-existing beliefs or hypotheses. We often click on the articles that are eye-catching, and fit our pre-existing notions. We fall into the cycle of watching the same type of media and messages that fit and match our beliefs. When it comes to listening to the news on the television, radio, podcasts, we must ask ourselves who is the media industry? Who is speaking? What are their motives? Why are they telling us this? Who voices are heard? Whose voices are not heard? How can I find out more about this topic? How can I hear other peoples’ opinions regarding the same topic?

Other considerations about technology and media in classroom that can cause problems are equipment availability, social economic status of specific students, distractibility of students, technical malfunctions, and teachers’ inability to adapt to media and tech trends.

In my classroom, I would reduce the “always on” mindset. According to Dana Boyd, being “always-on” is not solely about production and consumption of content but also about being part of an ecosystem of always connected individuals, always connected, in the digital world (Boyd, 2011). However, this connection to people and information can be created and obtained in real life in the classroom. I would only incorporate technology if I know it to benefit and enhance my students learning. I believe that students gain more patience and grit if they go through the uncomfortable struggle of not having all the answers from the Internet at their fingertips. We must prepare our students to deal with real life situations and not have to depend on technology as a crutch. We want them to be able to read maps, directions, ask for help face to face from people around them if they get lost, to navigate the world around them and solve problems on their own.

Since technology and media will be used when necessary, they will be less tempted to use tech and turn to media in the classroom. My hope is to keep them engaged in the material in the class by providing hands on engaging activities and lessons. They will have access to the computer and applications if need be for specific projects.

Not all students come in the classroom equally. Some students do not have access to computers at home. Because of this, I must provide opportunities for my students to work on their projects in class, and provide alternatives for these students in order for them to complete their work.

Students who have disabilities and have been permitted to have access to computers in class at all times, have the right to access their technologies. Some limitation switch this may be that they can access the Internet or games. If I see that this is occurring, I will restate the class expectations. After several warnings and recommendations to do their work instead, I will have to take remove their game temporarily, allowing them to better focus and not be tempted to play their game during class.

When it comes to selecting technology to help teach my students how to master the knowledge, skills and new perspectives indicated in my course aims and intended learning outcomes, I turn to the following proverb: *“*If you give a hungry man a fish, you feed him for a day, but if you teach him how to fish, you feed him for a lifetime.”

When choosing which tech to teach my students, I do not stick to the same technologies or APPs as my “duct tape solution”. Instead, I have designed a series of critical questions to help me decide or fish for, so to speak, the most appropriate tech. Round one goes as the following:

* What am I trying to teach? And how will this help my student master that knowledge?
* According to my preselected course aims and learning outcomes in my lesson plan, which skills or new perspective will this technology help me develop in my students?

Round two of questioning helps me decide if the authentic and effective technology is worth the cost, time, and effort by checking its accessibility, differentiability, and extendibility.

* Is it free?
* Do I need an account?
* Do my students need an account? If yes, what kind of information does the service ask for?
* Does it offer teacher accounts?
* What are the Terms of Service? Can my students legally use the site?
* Can my students' finished products be easily archived or shared?

I would select one tool that fits these needs, and try it out with my students. I would ask them for their feedback on the app and lesson as well as conduct ongoing (formative) assessments of their understanding before, during, and after the tech-incorporated lesson. These lessons will incorporate *learning, creating, plating, and sharing.* In lectures, I would use technology as a way to reinforce the content I am teaching, but not rely on it. Having ideas or concepts projected on a screen in a visual manner paired with my oral teaching and hands on activities will allow students to focus their learning and allow them to retain a greater amount of information. Accompanying PowerPoints to my lectures to provide a visual context for my students is one solution. So are mini-videos showing a specific phenomenon, Skype interviews with professionals in a specific field for students to ask them questions, specific programs that can help facilitate their learning process, such as Typing Pal that can help students practice their typing skills and correct their spelling. I can use media examples/platforms to teach so that students master the knowledge, skills and new perspectives regarding my course aims and intended learning outcomes. For example, I can use media platforms such as Photoshop, GIMP, iMovie, and Pixton as gateways for my students to show me what they learned in a creative and engaging manner. Effective technology integration must happen across the curriculum in ways that research shows deepen and enhance the learning process. The technology used must also support curricular goals. According to David Mioduser, pedagogical solutions follow specific principles. Some of these include teaching that is learner-centered; learning must be acquired gradually through meaningful interaction with peers, content and their environment, externalizing internalized thoughts to their peers and teacher in an interactive and engaging way (Mioduser, 2014). In order to teach media responsibility, I would incorporate learning outcomes into the curriculum that will prepare students to engage with social media in an academic and professional setting.  Although millennials may know how to use social media for personal interactions, they may not reflect or understand the consequences of publishing content without a filter, or the usage rights of the digital world. As a teacher, I must show them how to search for content that they can freely and legally use for their assignments, teach them how to critically think about media, and to become aware of media in various forms.    There are several competencies that I must integrate into my teaching. According to Competency 8 from MyCourses, I must “integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes” (MyCourses, Competency 8). I can do this in my daily lessons or by creating project-based evaluations of content learned. The Québec Education Program contains nine cross-curricular competencies grouped in four categories: **Intellectual competencies:** to use information, to solve problems, to exercise critical judgment, to use creativity, **Methodological competencies:** to adopt effective work methods, to use ICT, **Personal and social competencies:** to construct his/her identity, to cooperate with others, and **Communication-related competency:** to communicate appropriately. I will teach my students how to acquire knowledge from a variety of texts, books, magazines, advertisements, commercials from television, Facebook posts, help them recognize where these sources come from, to question the sources and the content found at these sources, and finally allow them to apply what they learned from the gathered information in new contexts. I will constantly model to them how I know something is from a reliable source in my everyday teaching. If I am to ask my cycle 2 and cycle 3 students to prepare a presentation on a given topic, I will ask them to site their sources and to give me two reasons as to why their sources are reliable after having discussed tips and tricks for navigating reliable resources. As part of competency 1: to use information, I will introduce my students to a variety of applications (iMovie, Photoshop, PowerPoint, Prezi) meant to create projects in groups and possibly social media (WordPress, Instagram, Facebook, Twitter) and use these as tools for subject learning. Providing access to a multitude of information sources and individuals, they give students the benefit of expertise and enable them to share their ideas and achievements with others. As part of competency 2: to solve problems, and as part of competency 4: to use creativity, I will teach them how to use the internal and external resources at their disposal to think up various solutions and implement the one that seems most appropriate, given the context and their objectives in a creative manner. For competency 3: to exercise critical judgment, I will teach students to weigh all the facts, to take into consideration their own emotions, to use logical arguments, to take the context into account, to allow for ambiguity and to weed out preconceptions. I can do this by asking students to explain their feelings when reading texts, to share their beliefs with the class, hold guided discussions, and ask them to focus on the media audience, media industries, media message, and media result. By allowing them to focus on each element, they will be able to view media and technology from various perspectives, allowing them to become critical thinkers and consumers. As part of competency 5: to adopt effective work methods, I will teach them how to determine and focus on the task to be performed, I will guide them and reward them for the process of and the end result of completing a task, and will ask them for reflective responses or progress reports regarding their projects, assignments or learning. Competency 6 is somewhat a summary of the benefits of TPACK. By teaching my students how to use proper vocabulary of information and communication technologies, effective use of computer tools, troubleshooting strategies, recognition of difficulties trying to solve these issues and identifying what is successful, these skills and philosophies can accelerate the development of many cross-curricular and subject-specific competencies in the Québec Education Program. Participating in group projects about subject specific content and exploring their personal and social identity will help target competency 7: to construct his/her identity and competency 8: to cooperate with others (while showing respect). I will provide them with opportunities to utilize their personal media and technology resources, make choices, justify them and assess the consequences. Through this process, children will become aware of their identity and the values that influence them. I will ask them to take what they learned about themselves, the content, and apply it by making connections to the real world. Finally, as part of competency 9, students will communicate appropriately. This can be done orally, through songs, dance, sign language, through writing, through photos, videos, quotes, presentation of information reformulated into their own words from credible researched online etc. Bloom, Piaget, and the concepts of scaffolding and modeling have all shaped my media and teaching with technology statement. I wish to help my students surpass passive knowing and understand of concepts. Instead, I wish to use technology and media with my students to foster active learning so that my students can apply, analyze, synthesize, and evaluate content and knowledge in a co=operative and engaging manner. Technology can help my students develop higher order of thinking. According to Johnson and Johnson, there is persuasive evidence that individuals working in teams achieve higher levels of thought and retain information longer than students who work quietly alone. Collaborative learning occurs when students (at various performance levels) work together in groups toward a common goal. The students are responsible for one another's learning as well as their own (Johnson and Johnson, 1986). The success of one student helps other students to be successful and together, they become critical thinkers, as they are introduced to various opinions/ perspectives other than their own. Regarding content and the way in which I will use technology to teach, most of my decisions have been influenced by Piaget’s break down of children’s learning development into four stages, Garner’s Multiple Intelligence (MI) theory, and Vygotsky’s idea of learning through play and the zone or proximal development. Students in Kindergarten will be in their preoperational phase in which most content will be mostly surrounded around them as they are egocentric and struggle to view things from other view points. I must (if necessary) choose media and technology that will benefit and enhance each students learning styles and choose content that is of interest to each of my students. I can do so by creating a maker space at the back of my classroom that has a selection of activities to meet the interests and needs of my students. For example, I can allow students to use Scratch to create a story about a topic of interest to them. I can create a maker space that is gender neutral and the content stems from my students. As a teacher, I will not place any biases on what gender should use what. I will emphasize the importance of all students trying all activities in class and at the maker space as experience, curiosity and grit is valued in my class and in the real world. Howard Gardner, a Harvard professor who proposed the MI theory, says that there are multiple types of human intelligence, each representing different ways of processing information. These are titled as verbal-linguistic intelligence, logical-mathematical intelligence, visual-spatial intelligence, musical intelligence, naturalistic intelligence, bodily-kinesthetic intelligence, interpersonal intelligence, and intrapersonal intelligence (edutopia, 2013). This theory supports the use of technology in my classroom as it believe in the importance to adapt lesson plans to support multiple intelligences. As a result, the way in which I teach, and the content I teach, will be varied. In order to vary my lessons, I will use musical apps such as garage band, I will use hands on music and songs from YouTube to teach material. For visual spatial learners, I can incorporate virtual reality in a simple, fun, and affordable way. Google Cardboard can be used in my classroom to bring my students on virtual fieldtrips to places that may not be affordable to visit. I can take them on deep-sea dives to explore the endangered choral reefs and wildlife, to the peaks of Machu Pechu, among a collection of 360 degree and 3D images. Some ideas for my maker center could include leaving several activities out for students to return to after they have finished their class work. These activities could include introducing them to coding, 3D printing, making a battery out of pennies, build a site for a club fake business or imaginary product, take apart a computer and learn about its parts, creating and programming basic robots to do certain functions, and create and edit a book trailer in iMovie. Maker stations can motivate students to complete their work and to do their work well if they are rewarded with the opportunity of free time to create, play and explore at the maker center. In order to gamify that experience, students who successfully complete more activities at the maker station will receive awards. Wards may include “Most original idea” “Most Effort/Grit Put into Completion of a Project”, “ Best Pitch”. The best part of giving awards is that they can be aligned with objectives or the QEP outcomes allowing students to meet goals/ expectations and allowing the teacher to formally and summative assess students. Maker spaces can also be used to help develop students’ literacy (being able to read and understand texts). An instructional/ informational manual for a new robotics kit, LEGO set, origami guidebook arte some examples. We can extend this into their library visits. As a teacher, I can request my students to select a book from the library to help them find activities that may be of interest to them. As a class, each will write to me or create a presentation to the class about what activity they wish to try and why. This process can be turned into a competition whereby each student can present his or her arguments to the rest of the class. We will vote as a class and select an activity that I will help set up for the following week. This promotes the idea of research, expressing personal interests, and persuasive tactics in a fun and non-threatening manner. Beyond basic information literacy, our students also need to be technologically literate. Maybe they know how to write a 5-paragraph essay or to memorize a poem but do they know how to sew buttons onto fabric? Do they know the difference between a Philip screwdriver and a straight screwdriver? By getting students to experience real world situations, information, they will be able to apply what they learned in class and feel as though what they are learning is worth their time. Learning is not only about the result, but what students learn from the process. By using media and technology to apply what they learned, it becomes rewarding for students to see the fruits of their labour. It becomes meaningful and will be more likely to stick in their memory for a longer period of time. In addition, by learning about, practicing and creating what they learned, multiple times, this will reinforce their learning. By teaching others what they learned, collaborating in groups, solving real life situations, this will extend their learning and make learning more meaningful.

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