Exploring the Perceived Effects of Student Online Sharing of Environmental Artwork

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ABSTRACT

This case study research examined the process of secondary school students creating and sharing site-specific artworks online as part of their environmental art production assignment. Student participant perceptions of the production of their place-based sculptures, as well as their palimpsest artworks, are examined within the context of interactive posting of images and commentary within a social media platform. Participants’ responses point to several critical factors in the organization and active operation of visual art assignments in which students engaged via a digital sharing site (e.g., students’ online posting needs resemble their offline communication needs).

Although enthusiastic about producing environmental artwork, students did not appear to demonstrate the same level of interest in the online sharing element. The following factors emerged as being influential regarding online student enthusiasm: the establishment of trust by way of familiarization of the platform and the other participants; the inclusion of accepted mentors and/or teachers; the assurance of safety of the site; the building of some sort of joint purpose and community; the affirmation that posting would not lower their grade; and the possibility of additional face-to-face sharing of artworks if the circumstances would allow for it. All of these factors were also likely heightened due to the sensitive nature of sharing one’s art production in process, especially during adolescence.

Keywords: technology, environmental art, visual art, social media, digital media, mentoring, networks, apps, identity, digital divide, local, avatar, agency, social relationships, informal learning, participatory culture, collaboration, community, technological determinism, information fiduciaries, economies of attention, sculpture, digital devices, adolescence, palimpsest, socio-technical change
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CHAPTER 1: INTRODUCTION

1.1 The Research Problem

The term “digital native” has become well known in the mainstream to describe the current generation’s facility and even ‘naturalization’ of digital media since Marc Prensky brought it forward in 2001 (Prensky, 2001). The implications of the term in education continue to present timely areas to explore, develop, and implement for teachers and learners in all areas of the system. Understanding some of the changes in how students proceed in shared online learning situations, specifically in visual art instruction, presents some new challenges to explore and investigate. How does the addition of online sharing change the way students proceed, reflect, and learn in the context of place-based artwork?

1.2 Research Questions

This research study addresses the following three related research questions:

1) In what ways does online sharing affect student learning for both
   (a) the formative stages of art production? and
   (b) the resulting final art pieces?

2) How does the overlay of various media within a palimpsest (i.e., something reused or altered but still bearing visible traces of its earlier form) art production approach affect student learning (enhanced knowledge of local watershed natural heritage), creativity (art making), and attitudes (appreciation of the physical site of the school)?

3) How do students and teachers compare this approach to more traditional classroom forms of sharing and assessment?
1.3 Background for the Study

In his keynote address at the Out of Joint: Voices on Mentoring Conference at The University of Toronto (Mississauga), curator Chistof Migone (2011) started his talk with several challenging statements: “You can’t teach art, but you can establish some sort of ambiance where art could happen,” and further, “You can’t teach art, but if you’re around artists you might pick up something.” Migone noted that both statements come from renowned art educator John Baldessari at University of California, Los Angeles. Both ideas point to conditions that are less than specific and lean more towards the happenstance, the changeable, and even the “parasitic.”

In a student learning context which is largely digital and disembodied, the learners, which Dan Tapscott has referred to as The Net Generation, share information in ways that draw both praise and criticism. What are some of the key components that form the “ambiance” that promote art production and learning? How do they include what could even be described as the “parasitic” nature of the social media experience? In his introduction, Tapscott (2009) has put together the “10 Top Issues” for critics of the current generation and their negotiations of the digital landscape:

1. They’re dumber than we were at their age;
2. They’re screenagers, Net addicted, losing their social skills, and they have no time for sports or healthy activities;
3. They have no shame;
4. Because their parents have coddled them, they are adrift in the world and afraid to choose a path;
5. They steal;
6. They’re bullying friends online;
7. They’re violent;
8. They have no work ethic and will be bad employees;
9. This is latest narcissistic “me” generation; and,
10. They don’t give a damn. (pp. 3-5)

Tapscott’s summary list of what he views as the larger culture’s critique of this generation’s digital platform experiences highlights some the fears relating to this generation of learners’ circumstances and habits. But what of their own views and perceptions, and more specifically, this generation’s own considerations of their highly popular asynchronous and disembodied modes of communication? Within a context of creating and sharing artwork that emphasizes the physical and environmental constituents and their relationships, how do students view digital communication as a facet of, and potential aid to, their learning experiences? Their production of site-specific artworks, and their responses to these above-mentioned considerations will form the core of this research study.

In an article entitled, *Teaching for Transfer through Integrated Online and Traditional Art Instruction*, Mary Erickson (2005) discusses research related to “the wide range of issues that art educators face as new technologies enter the art classroom, such as connectivity and the development of critical thinking” (p. 170). In a world where students have access to seemingly infinite sources of information, how can the traditional and the online strategies combine to deepen a student’s understanding and abilities to make meaning? Erickson notes differing results from her study,

Several teachers perceived the computer lab environment as a positive influence on their students. Students’ expectations to make art in the studio environment can
result in resistance to viewing, discussion, and reflection. The high school ceramics teacher observed that the different venue, focus, and objective of instruction in the computer lab combined to produce a positive outlook and willingness to think, reflect, and plan. On the other hand, several teachers reported that familiarity with computer games sometimes transferred negatively. (p. 175)

In her study, Erickson points to the possibilities of offering strategic knowledge. She draws on Haskell (2001) who characterizes strategic knowledge as the “knowing of our mental process . . . the self-monitoring of our progress in the act of learning” (p. 101). Erickson also cites Singley to discuss the importance of feedback “that goes beyond the individualization offered in traditional, computer-based instruction” (p. 73). Both of these research studies point to the need for further research in the areas of online sharing feedback, its possibilities, and its contribution to learning.

In *Learning and Teaching Art through Social Media*, Juan Carlos Castro (2012) noted differences that students disclose in the context of online sharing of their artwork. For example, one student noted: “I find I don’t really see what is going on other than in my own thing in class. . . . You get more ideas by looking at other people’s work. . . . In class, I always tend to be peeking over, I don’t talk to anybody, so . . . online is easier. It is less awkward.” (p. 152). The ‘ease’ students may feel online—does this factor contribute to deepened learning possibilities and reflection? In *Thinking through Bodies: Bodied Encounters and the Process of Meaning Making in an E-mail Generated Art Project* (2005), Stephanie Springgay postulates a new kind of “touch” brought about with online sharing. Springgay harkens back to Marshall McLuhan (1994) who introduced the idea that the age of communication technologies was moving “out of the age of the visual into the
age of aural and the tactile” (McLuhan as cited in Springgay, 2005, p. 38). Springgay also combines this pioneering view with Cathryn Vasseleu (1999) who adds that in naming “touch—as well as hearing—as a privileged sense of the electronic age, McLuhan recognized the emergence of an era of communication characterized by the disappearance of all sense of distance in a proliferation of contacts involving multiple senses” (p. 153).

But how do students themselves view this kind of communication, coming at it from the vantage point of a digital “native”? How do they reflect on its specifics and its connections to the very physical learning of place-based art? Springgay asserts Vasseleu’s complete support of this direction:

> With its dual emphasis on maintaining contact and infinite communicability, digital technology is producing new ways of being moved, of being transported from context to context without reference to a formal body, or self-defined in relation to any overarching schema (Vasseleu, 1999, p. 159).

This described lack of containment, or shifting experience online may support the ‘naturalization’ which Prensky made popular. Student experiences, considerations, and perceptions of this online artwork sharing process can perhaps add to our general understanding, and possibly also to the quality of our instruction in the Visual Arts.
CHAPTER 2: LITERATURE REVIEW

This chapter focuses on a review of the relevant literature and research regarding student environmental art production, and the effects of online sharing within the context of traditional classroom approaches. My thesis transects these two areas, examining digital sharing and environmental art-making through the lens of student perception.

In Art, Ecology and Art Education: Locating Art Education in Critical Place-Based Pedagogy, Graham (2007) asserts that “In contemporary life and education, the local is marginalized in favour of large-scale economies of consumption that are indifferent to ecological concerns” (p. 375). He seeks to build awareness of “place-based education that aims to strengthen children’s connection to others, to their region, to the land, and to overcome the alienation and isolation that is often associated with modern society” (p. 377). Graham further explains that critical place-based pedagogy is important because of its combining of the local and an environmental consciousness with cultural awareness and social critique. Within the framework he envisions, artmaking can be “part of a socially responsive process of reflection, critical-thinking, and transformation” (p. 379). He provides the example of artist Brandon Ballengee who translates field specimens of amphibians that have been mis-shaped by pollution into high resolution images that are displayed as both art and scientific study (p. 379). In this way, the role of the artist also potentially includes one of activism.

A visiting artist at our school recently shared with me how he believes that youth need to experience the natural world before they are asked to gain knowledge of
environmental issues or even attempt to save it. According to this line of thinking, artmakers “see artmaking as a social practice that can promote community reconstruction, help define the communal self, and develop ecological responsibility” (Graham, 2007, p. 380). Art education can thereby move from the significant but limited role of being “about personal expression toward a vision of teaching that engages students in a reflective social process with larger community” (p. 388).

In Juan Carlos Castro’s investigation, *Learning and Teaching Art through Social Media* (2012), he identifies the shifting ground and the composite role of the teacher in our evolving educational settings. This re-consideration of the role of the teacher, emphasized within Castro’s work, forms a central part of this research study. The ‘what’ and the ‘who’ of teaching are considered anew, as the teacher expands beyond the traditional role of a guiding individual within the classroom. Castro notes that the teacher’s expanded role becomes more socially-influenced, asynchronous, dynamic, and reciprocal (p. 2). Castro points out that although a participatory culture has long existed before the internet and social media, the reciprocal and dynamic exchanges made possible between individuals through social media has set up new areas in which to understand learning possibilities. The linearity of the traditional classroom space and teacher role is broken down in favour of the adaptations that happen through asynchronous feedback loops that circle back, dig down, or veer off according to their own impulsions—impulsions that run beyond the direction and timing of the individual teacher.

The new learning environment, created by anticipated and unanticipated learning directions and impulses, and which is set up with the inclusion of social media, also sets in motion new systems of potential teaching transfer. What is transferred, or is potentially
transferred, when the usual dynamics of visual art instruction are changed to include online sharing? This question is analyzed in Mary Erickson’s inquiry, *Teaching for Transfer through Integrated Online and Traditional Art Instruction* (2005). The increasing complexity that Castro notes exists in the emerging new dynamic culture of online learning is studied from the rubric of examining the nature and influences of students’ ability to transfer what they learn (Erickson, p. 170). The aims of Erickson’s study include the “design of a learning environment that integrates online and traditional instruction and the identification of research issues to guide the refinement and elaboration of transfer theory” (p. 171). The expanded setting and composite role of the teacher, according to Castro, becomes the possible impetus for different types of learning transfer and overlaps with the nurturing of critical thinking as discussed by Erickson. Erickson also notes that “students’ expectations to make art in the [traditional] studio environment can result in resistance to viewing, discussion, and reflection” (p. 175). The extended ‘studio’ that includes the online element adds a dimension that sets up both new ways of knowing for students, and new areas for teachers/researchers to examine how students know and learn.

Erickson draws from Haskell (2001), Singley (1995), and Pressley (1995) to weave into her study design discussions of declarative, procedural, strategic, and dispositional knowledge in order to consider how students are learning and transferring what they learn in meaningful ways. Erickson discusses these types of knowledge, starting with declarative, as she states that Haskell argues that this kind of knowing—“knowledge of or about something—is most crucial to transfer” (Haskell, p. 101). Additionally, she states that declarative knowledge is a crucial base or “precondition for other kinds of knowledge because of its value in organizing, facilitating the elaboration of, and provision of useful
analogs for new knowledge” (Erickson, 2005, p. 175). Building on the declarative, students can gain two kinds of procedural knowledge: the “how-to” type and the “strategic use” type. When students are able to apply what new procedural knowledge they have acquired to brand new situations and can recognize its degree of applicability in these new circumstances, Haskell refers to this as strategic knowledge (Erickson, p. 177). But over and above this ability to use knowledge to navigate new situations, Haskell distinguishes strategic knowledge as “knowing our mental process . . . the self-monitoring of our progress in the act of learning” (Haskell, p. 101). As our traditional classrooms ‘dissolve’ into various blends with vastly expanded classrooms, including social media, how our students undertake this kind of self-monitoring presents new significance and perhaps consequences for the overall learning that is taking place. The broad kind of feedback possible in our expanded classroom “goes beyond the individualization offered in traditional computer-based instruction [i.e., not linked to the internet/social media] that only provides feedback” on the exhibition of knowledge that underlies the task performance (Singley as cited by Erickson, p. 73). Related to working strategic knowledge, Erickson explains how “that sophisticated thinking processes are developed through long-term interactions with others, [and] that eventually one internalizes the group process” (Pressley as cited by Singley, p. 194). Situations that bring about these conditions present the best opportunities for additional learning and possible transfer. In her study, Erickson set up situations in which teachers provided opportunities for students to work together to practice the investigative process (Erickson, p. 178).

Erickson further develops the importance of having students work in an investigative way, quoting Haskell in stating: “When learning is meaningful to students, their disposition to transfer that learning increases. That is, they are more inclined to make an effort to use
what they learn” (Erickson, 2005, p. 180). Developing meaning, in turn, is especially
important in “ill-defined problem-solving situations” (Erickson, p. 180). Favourable
conditions for learning transfer are therefore developed through open-ended learning quests
wherein students have opportunities to pull together diverse sources of information in
personally meaningful ways.

While Erickson weaves together theory related to how students transfer what they
learn, Marc Prensky assessed and declared the needs of learners within a digital climate. In
his popular article, Digital Natives, Digital Immigrants, Prensky (2001) described nearly two
decades ago his perceptions of students and teachers in contemporary classrooms, and
emphatically stated that “our students have changed radically,” and that “Today’s students
are no longer the people our educational system was designed to teach” (p. 1). Although
students and the educational climate are always changing, he noted that “a really big
discontinuity has taken place” (p. 1). As a result of this rupture, he proclaimed that “it’s just
dumb (and lazy) of educators—not to mention ineffective—to presume that (despite their
traditions) the Digital Immigrant way is the only way to teach, and that the Digital Natives
‘language’ is not as capable as their own of encompassing every idea” (p. 6). As a way to
introduce his list of appropriate teaching methods for the digital age, he indicated how
students are different today (i.e., in 2001): “[They] think and process information
fundamentally differently from their predecessors. These differences go farther and deeper
than most educators suspect or realize” (p. 1). He cited Dr. Bruce Berry of Baylor College of
Medicine stating “Different kinds of experiences lead to different brain structures” (p. 1), and
offered more precise information when he added:
Digital Natives are used to receiving information really fast. They like to parallel process and multi-task. They prefer graphics before their text rather than the opposite. They prefer random access (like hypertext). They function best when networked. They thrive on instant gratification and frequent rewards. They prefer games to ‘serious’ work. (Prensky, 2001, p. 2)

Prensky further added that since “their brains may already be different . . . we need to reconsider both our methodology and our content” (p. 3). In terms of methodology, Prensky suggested that teachers need to “learn to communicate in the language and style of their students” (p. 4). Prensky’s preference for teaching Digital Natives “is to invent computer games to do the job” (p. 4), but he also noted that games may not be effective for everyone so “we need to invent Digital Native methodologies for all subjects, at all levels, using our students to guide us” (p. 6).

In a sequel article to Digital Natives, Digital Immigrants, Prensky posed the question: Do they really think differently (Prensky, 2001)? In this paper, he discussed reflection in an environment where Digital Natives are used to “twitch-speed, multi-tasking, random-access, graphics-first, active, connected, fun, fantasy, quick-payoff world of their video games . . . and internet” (p. 5), further noting that these students may be bored “by most of today’s education . . . but worse, the many skills that new technologies have actually enhanced (e.g., parallel processing, graphics awareness, and random access)—which have profound implications for their learning—are almost totally ignored by educators” (Prensky, p. 5). So, with all of this observed change, Prensky wondered if “anything [has] been lost in the Digital Natives’ ‘reprogramming’ process” (p. 5)? He suggested that an essential area “that appears to have been affected is reflection,” and that “in our twitch-speed world, there is less and less
time and opportunity for reflection, and this development concerns many people” (p. 5).

Prensky further concluded that

one of the most interesting challenges and opportunities in teaching Digital Natives is
to figure out and invent ways to *include* reflection and critical thinking (either built
into the instruction or through a process of instructor-led debriefing) *but still do it in
the Digital Native language.* (p. 5)

In Cathryn Vasseleu’s article, *Touch, Digital Communication and the Ticklish,* she
examines how Digital Natives might “reach out and touch [their] data” (Eglowstein as cited
in Vasseleu, 1999, p. 158). While Prensky discussed how students now may think differently
and need different teaching methods, Vasseleu’s stated goal in her article was that she was
“attempting to articulate . . . in what ways do we experience that we are incarnate within

In introducing her work, she referred to Marshall McLuhan’s pronouncement that
electronic communication was moving us “out of the age of the visual into the age of the
aural and the tactile” (Vasseleu, p. 153). She added, “In naming touch—as well as hearing—
as a privileged sense of the electronic age, McLuhan recognised the emergence of an era of
communication characterised by the disappearance of all sense of distance in a proliferation
of *contacts involving multiple senses*” (Vasseleu, p. 153). Her overall aim was to look at
how contact is “fabricated within digital media” (p. 153). In order to do so, she drew from
the work of cultural theorists Paul Virilio and Sadie Plant, Immanuel Kant, Edith
Wyschogrod, and Luce Irigaray. From these authors, Vasseleu weaved together how
“contact has come to mean touching without being touched and touching what cannot be
touched” (Vasseleu, p. 159).
These seeming paradoxes come about when she examined the attributes of the new tactilities which are produced in digital technologies: “Touch may be the principal sense in which we assume and express parameters of a bodily existence or sentient presence in relation to others, but under what terms is touch admitted into the cybernetic telecommunications networks?” (Vasseleu, 1999, p. 153). Vasseleu also proposed that touch cannot be described without discrimination of how it operates in the digital sphere:

Another factor that must be brought into consideration is that touch cannot be recruited uncritically as a means of accounting for the powers of new technologies to transform previous modes of communication, when at issue are the attributes of the tactilities which are produced in digital technologies. (p. 153)

She turned primarily to Plant and Virilio as a way to scrutinize these attributes. She maintained that the overall way contact is made in digital media is seen to be quite divergent according to these two theorists. Cyber-feminist Plant presented touch as the sense that challenges the subject/object characteristics “required for the imposition of a visually based sensory schema” (Vasseleu, p. 154). Vasseleu found that the attitude that prevails in Plant’s work about digital technology was that “with its synaesthetic, immersive embroilment of the senses in the messiness of interconnecting contacts—it favours experiential states and processes” (Vasseleu, p. 154). But Vasseleu questioned whether “tactility has grabbed the reins as the sensory paradigm of digital technology, or that it has grabbed the reins for the better” (p. 154). She added that the “concatenation is to evaluate how contact is evoked, experienced, altered, translated and extended in different technologically mediated ways” (p. 154). Vasseleu found that this condition is viewed very differently by Virilio who “identifies the teletopia envisaged in digital technology’s unparalleled means to ‘reach out and touch
someone’ as an example of the paradoxical logic of ‘real time’ communication” (p. 154), and further noted:

The apparent contradiction of real time (or a telepresence that is opposed to the here and now of ‘present time’) is that in reaching out and touching someone, hitting on information, or gathering up goods in cyberspace, touching does not give a sense of proximity or the contaminating closeness of coming into contact, but of a divided presence that is occurring here and elsewhere at the same time. (p. 154)

Vasseleu supported Virilio’s view in her assertion that “Instead of occurring in the present, an ‘unmanned’ and enigmatic presence is relayed ‘intact’” (Vasseleu, p. 154). However, Vasseleu did not favour Virilio’s views over those of Plant. Rather, she saw the differences in their views as an indication that we “need to develop ways of conceiving of touch as mediated in technological ways” (p. 155). Vasseleu ultimately came to express a conception of touch in digital media environments as being “ticklish.” As tenuous or frivolous as the term “ticklish” seems, it follows sensibly from Vasseleu’s considerations of Kant, Wyschogrod, and Irigaray. Between these three, she found that Kant “has difficulty categorising touch in relation to the other senses” (Vassleu, p. 155). Vasseleu stated that according to Kant, touch is both a sensation and a feeling: “As a feeling it is a sixth or supplementary sense of vital sensations” (Vasseleu, p. 155).

Vasseleu constructed ticklishness as a “conceptual metaphor or way of thinking through” (p. 157) how tactility operates in digital communication. She continued: “As a phenomenon of touch, ticklishness presents a way to characterize the lability of contact mediated by digital communication” (Vasseleu, p. 157). This lability, or likelihood to
change, serves as an example of how contact in this forum, although not attenuated, is tenuous and extremely sensitive and unstable.

Vasseleu found that Irigaray had developed two broad main modes of touching: “haptic touch” and “touch as a feeling of being moved” (p. 157). Haptic touch involves “experiencing sensations through the skin” (p. 157). The origin of the word haptic is “to grasp, sense, perceive” (Dictionary.com, n.d.) and the second mode of touching as outlined by Vasseleu, drawing from Irigaray, emphasized a non-physical apprehension: “Here touching is a feeling of proximity, a responsive and indefinable affect/ion that is unrelated to the ambiguous determination of a subjective and objective orientation” (p. 157). Here in the continual flux between “a lawless and computational tele-contiguity, contact has come to mean touching without being touched and touching what cannot be touched” (p. 159).

Vassleu further described this paradox of digital communication as a “form of transport at one's finger tips” and one that is based “on touching as being moved, or transported by affect—that is, an uninhibited moment of abandonment without telos or anticipation or object” (p. 159). In this way, it becomes a non-goal-directed process quite different than physical touch. It can also mean that touch becomes a form of “physical alienation” (p. 159), as there could be the awareness of “disembodiment and making contact without the feeling of physical closeness” (p. 159). What Vasseleu finally concluded is that what is actually put aside in digital communication is “the formal schema of a body—which is not the same thing as discarding the need to be materially present” (p. 159). In summary, she described this new state: “Teletopia has made us realize, in a new and indirect way, that we are singled out by touch as feeling beings, without requiring any consciousness of an overarching self” (p. 159).
My three-year-old daughter sometimes has to get her hands on the keyboard and immensely enjoys googling seemingly endless images of monkeys. The consciousness she is developing in this compelling activity puts her in line with the “app generation” in Howard Gardner and Katie Davis’s *The App Generation: How Today’s Youth Navigate Identity, Intimacy and Imagination in the Digital World* (2013). As I wonder how appropriate and helpful this activity is at her early age, and how much to limit this access, Gardner and Davis present benefits and drawbacks to this generation’s immersion in today’s vast media landscape. These authors view this generational consciousness as fundamentally descriptive of ways of operating within our era:

Without doubt, Technology (the capitalization is deliberate) is a larger part of our lives, from earlier in life, than ever before in human history. The technologies are varied—and this is good—but the strongest influence, particularly among the young, is the pervasiveness of the “app”—the activation of a procedure that allows one to achieve a goal as expeditiously as possible and enjoyably as well. At present, life is certainly more than the sum of apps at our disposal. But the influence of apps is more pervasive and, we believe, potentially pernicious. (Gardner & Davis, 2013, p. 160)

The span of this influence and the power of the effect on the sensibility of the youth are presented as being profound.

[T]he breadth and the accessibility of apps inculcates an app consciousness, an app worldview: the idea that there are defined ways to achieve whatever we want to achieve, if we are fortunate enough to have the right ensemble of apps, and, at a more macroscopic level, access to the “super-app” for living a certain life, presented to the world in a certain world. (Gardner & Davis, 2013, p. 160)
In *Authenticity in the Age of Digital Companions* (2007), professor Sherry Turkle similarly indicates that emerging consciousness in young people may serve as a potentially rich focal point, stating, “With the advent of ‘thinking’ machines, old philosophical questions about life and consciousness acquired new immediacy” (p. 501). For Turkle, and as Gardner and Davis further develop in *The App Generation*, these are complicated terrains and the demonstration of consciousness among ‘digitized’ youth simultaneously presents both “enablement” and “dependency,” to use Gardner’s terms.

Both Gardner and Davis (2013) and Turkle (2011) focus on how they observe the construction of youth identity as a way to understand the nature of consciousness that youth are developing in today’s media landscape. In *Alone Together: Why We Expect More from Technology and Less from Each Other*, Turkle (2011) perceives that “our relationship to the idea of psychological autonomy is evolving” (p. 179). Turkle refers to Erik Erickson, stating that “identity play is the work of adolescence” (p. 179), and she contextualizes this influential idea adding that “these days adolescents use the rich materials of online life to do that work” (p. 179). She further specifies:

This kind of identity work can take place wherever you can create an avatar. . . . It can take place on social-networking sites . . . where one’s profile becomes an avatar of sorts, a statement not only about who you are but who you want to be. (p. 180)

Turkle notes that early in her study, “a college senior warned me not to be fooled by anyone you interview who tells you that his Facebook page is ‘the real me’. It’s like being in a play. You make a character” (p. 183). This character presents its own limitations, as Turkle also notes “Social media ask us to represent ourselves in simplified ways” (p. 185). This character construction and simplification can lead to stress. Turkle notes that conflicts
about self-presentation are not new to adolescence. “What is new is living them out in public, sharing every mistake and false step” (p. 186).

Gardner and Davis echo Turkle’s signaling of identity development as presenting serious stresses for young people as they navigate their lives online. As Turkle has stated: “In the course of a life, we never ‘graduate’ from working on identity; we simply rework it with the materials at hand. From the start, online social worlds provided new materials” (p. 158). Like Turkle, Gardner and Davis (2013) view this work as having changed in today’s media landscape. Their central question for this aspect of their investigation being: “Do apps open up or constrain identity expression?” (p. 65). At the far end of the spectrum of assessments, Gardner and Davis put the undertaking in Eriksonian terms: “The students’ identities are prematurely foreclosed because they don’t allow themselves space to explore alternatives” (p. 67). They also echo Turkle’s expression towards youth identity as “packaged” and view her metaphor of the “tethered” self as apt. Both theorists indicate that the development of an autonomous self can be more difficult and even unattainable. Turkle also harkens back to Erikson highlighting his central idea about adolescents in that “they need a moratorium, a ‘time out’, a relatively consequence-free space for experimentation” (p. 179). Adding that in Erikson’s view, “the self, once mature, is relatively stable” (p. 179). Turkle further explains that “Erikson could not accept that the successful maturation did not result in something solid” (p. 179) but also brings up the view of one of Erikson’s students, Robert Jay Lifton, who had “an alternative vision of the mature self” (p. 179). Lifton calls his conception protean and emphasizes its many aspects. Turkle distinguishes Lifton’s view this way: “Thinking of the self as protean accents connection and reinvention. This self, as Lifton puts it, ‘fluid and many-sided,’ can embrace and modify ideas and ideologies. It
flourishes when provided with things diverse, disconnected, and global” (p. 179). In this way, Turkle’s idea of the development of youth identity online presents a more positive view than Gardner and Davis’s more completely Eriksonian vision.

This protean conception of identity development fits in with the style of searching among youth observed in the Media Ecologies chapter of *Hanging Out, Messing Around and Geeking Out* (2010) by lead author Mizuko Ito. In the chapter written by Ito, Horst, Bittanti, Boyd, Herr-Stephenson, Lange, Pascoe, and Robinson (2008), the “vast majority of young people we interviewed engaged in ‘fortuitous searching’, a term that distinguishes itself as more open ended, as opposed to being goal directed” (p. 54). This kind of searching represents a way of seeking information that is “different from the way kids are taught to research information in texts at school” (p. 55). The authors refer to Eagleton and Dobler’s work in stating that, commonly,

students are taught to use tools such as identifying a purpose for reading, activating prior knowledge, predicting the content of the text before and during reading, and summarizing or discussing the text after reading in order to improve their skills in finding and comprehending information in both traditional and online sources. (p. 55)

By comparison, fortuitous searching relies upon the intuitiveness of the search engine and the anticipating abilities of the reader. While this kind of reliance sets in motion new information-gathering dynamics that can be quite effective, “there’s evidence from several quarters that people [of all ages] are more likely to visit sites that reinforce rather than challenge their beliefs” (Gardner & Davis, 2013, p. 89). In spite of this, Ito et al. (2010) find youth’s searching habits online to be positive. They refer to Lave and Wenger stating
While the lack of local resources can make kids feel isolated or in the dark, the increasing availability of search engines and networking publics where they can “lurk” (such as web forums, chat channels, etc.) effectively lowers the barriers to entry and thus makes it easier to look around and, in some cases, dabble or mess around anonymously. Without having to risk displaying their ignorance, they find opportunities for legitimate peripheral participation abound online. (p. 56)

These occasions for “legitimate peripheral participation” ultimately may encourage young people to take greater ownership of their learning projects, providing a “sense of agency” (p. 57) and often exhibiting a “discourse that they are self-taught.” (p. 57)

Situations that encourage this “self-taught” sense can be some of the most motivating for youth, both online and offline. In their research concerning creative production with youth, Ito et al. (2008) have found that

School programs can provide an introduction to creative production practices that kids may not otherwise have exposure to. In most programs, however, the audience for production is limited to the teacher and possibly the class. In addition, most classroom projects are not driven by the interests of the participants themselves. By contrast, the examples we have found in youth recreational and hobby productions indicate a different dynamic. When youth have the opportunity to pursue projects based on their own interests, and to share them in a network of peers of similar investments, the result is highly active forms of learning. (p. 291)

These authors also indicate that mutuality of exchange is essential in these learning situations, stating “The reciprocity between different creators is an important dimension of how learning works in these communities; the core participants occupy the roles of creator,
viewer, and critic” (Ito et al., 2008, p. 276). Megan Finn describes these varied roles with the overall designation of “Techno-Mentor.” According to Finn, the classical adoption models of technology “proved inadequate” at her study of university freshman at the University of California at Berkeley. Rather than finding a few students who diffuse knowledge to others in a somewhat linear way, she found that “various people were at times influential in different, ever-evolving social networks” (Finn as cited in Ito et al., 2008, p. 59). Finn further points out that the term “technology” is “generally thought to be derived from the Greek techne, which means craftsmanship” (p. 59). In addition, she adds that this kind of mentor is not a permanent role, but refers to the role that someone plays in helping “an individual or group with adopting or supporting some aspect of technology use in a specific context” (p. 59).

In her chapter on friendship, danah boyd underlines how established relationships are what youth rely on when they are sharing online. “Teens often use social media to make or develop friendships, but they do so almost exclusively with acquaintances or friends of friends” (boyd as cited in Ito et al., p. 89). Although teens usually rely on established ties with which to connect online, boyd also notes that some youth, “especially marginalized and ostracized ones—often relish the opportunity to find connections beyond their schools. Teens who are driven by interests that may not be supported by their schools” and additionally, “many lesbian, gay, bisexual, and transgender (LGBTQ) teens who feel isolated at school often find social media valuable in making social connections with other LGBT youth” (p. 90). Furthermore, an element of ‘craftsmanship’ comes into play regarding online friendship as
youth are developing new norms and social competencies that are specifically keyed to networked publics, such as how to articulate friendships, how to be polite to peers, and how to create, mediate, or avoid drama. To youth who hope to succeed socially in their school-based peer networks, these kinds of new media literacies are becoming crucial to youth’s participation. (p. 114)

This adroitness comes with practice as teens’ use of social media both mirrors and deepens teen friendship practices. Further, “teens who are growing older together with social media are co-constructing new sets of social norms with their peers and through the efforts of technology developers” (p. 114). Researcher boyd also signals that youth are developing this know-how with adults in limited roles: “For the most part, adults participate in these practices as provisioners of infrastructures and as monitors, not as competent peers or coparticipants” (p. 113).

Peter Levine in *Understanding Knowledge as a Commons*, points out that young people also need practice with developing interest in local issues, in civic identity. “We have to be taught to be civic; we are not born that way.” (Levine as cited in Hess and Ostrom, 2011, p. 254). He calls this the “science of association”, echoing de Toqueville and continues: “Some aspects of the science of association are both counterintuitive and counterintentional, and thus need to be taught to each generation as part of the culture of a democratic citizenry” (p. 254). Levine works with youth in Maryland and recruits volunteers in learning projects to “produce public goods using the new digital media” (p. 254). Drawing particularly from a “constituency that does not usually benefit from the Internet commons or have a voice in its future” (p. 254), Levine and his fellow researchers’ goal is to “help kids address local problems that they care about, using the most readily available software” (p.
An example that he offers involves helping “students interview local residents and create public maps of community assets” (p. 249). This is part of a larger study that looks at the geographic causes of obesity. He and his colleagues do not try to influence participants’ views about the interplay of online communication systems and political realms and outcomes, adding

We never try to persuade these young people to adopt any particular view of the Internet or the major corporate and government policies that shape it. We do not tell them, for example, that the Internet is at its best when the architecture is ‘open end-to-end,’ or that intellectual property is overprotected in the interests of Microsoft and other companies. (p. 255)

Offering a space where their participants can engage in local research without infusing supervisory judgements of the platform and concerns power imbalances online, their work centres on involving young people in public interest using new digital media. Levine describes the potential benefits this way: “By asking students to study their own communities, we can help them to experience and prize the values of public service, empirical rigor, and critical inquiry” (p. 257) and, in this way, build local political interest and expertise. This is at a time when “Young Americans are less likely to develop civic identities today than in the past” (p. 256). Levine also cites Rahn and Transue noting that “there has been a 50 percent decline in the proportion of young people who trust their fellow human beings” (p. 256). Whatever the reasons, a downward sloping trust foretells danger for all forms of commons. In consideration of this kind of decline, Levine considers it “especially important to build associational commons with roots in geographic communities” (p. 263). He reasons that the two most important factors for this are: “many people care
deeply about their own localities and, secondly, . . . geographic communities are diverse” (p. 263). He also argues that since the “Internet encourages narrow discussions and segmentation into small, like-minded groups, we can too easily escape from people unlike ourselves by going online. However, a geographically defined commons will encourage us to interact with people who are different” (p. 263). Levine further indicates that much research suggests that online interactions are most meaningful and satisfying when they are accompanied (at least occasionally) by face-to-face contact. This is partly because being known and seen discourages outrageous and offensive behavior, which is common in anonymous settings. However, it is very expensive to add face-to-face contact to an internet group — unless all participants live nearby. (p. 264)

Levine concludes that local, public work can be “creative” using “new technologies” but “it is crucial to find projects that are genuinely valuable” (p. 267).

Nancy Baym (2010) discusses the local, the extreme local, and our physical embodied spaces versus cyberspace concluding:

Deterministic orientations towards digital communication are often built on this sense of mediated communication as apart and different from, embodied face to face interaction. Determinism is built on juxtaposing the online and the offline, comparing, contrasting, and looking for clear lines of influence. Yet . . . the idea that these are separate realms does not hold up to scrutiny. There may be fantasy realms where people use the internet to create selves with no bearing on their offline selves, though, on close examination, even there the lines bleed. People use the internet to create false identities. But these are exceptions, not the norm. Taken as a whole, mediated communication is not a space, it is an additional tool people use connect,
one which can only be understood as deeply embedded and influenced by the daily realities of *embodied life* [emphasis added]. (p. 152)

Baym also discusses a tension brought up by boyd and Turkle: the tension between autonomy and interdependence. boyd and Turkle describe at length the restrictions and circumscriptions in the lives of young people and their ways, often very resourceful, to create their spaces for freer association and activity. Baym describes this tension and the often strained circumstances, this way:

> [O]ur desire to be left alone to be free to do what we like and our desire to need and be needed by others is exacerbated when new forms of technology allow both more control over one’s schedule and interactions and more continuous interconnection and accountability in our relationships. (Baym, 2010, p. 154)

Through our ability to transcend space, our bodies being in one location and our thoughts and feelings with someone else, somewhere else, we activate a kind of duality that philosophers have been discussing for generations. Striking a balance between these possibilities and how much we disclose about ourselves in any setting presents an ongoing challenge. Baym adds “when new media collapse and expand our audiences, this challenge inherent in personal connections is amplified” (2010, p. 154).

Challenges to personal connections are also brought to the fore with social media due to the reality in that they “offer widely varying ranges of social cues, which . . . can affect self-presentation, honesty, relational development, and relational maintenance” (Baym, 2010, p. 152). For example, as I write this paragraph, I’m also texting with a relative, carefully selecting emojis that can enhance, and perhaps even, make more ‘digestible’ my message. As completely mundane as this act seems to be, it’s something I had to develop as a habit.
As with my initial forays into texting, I brought with me my own expectation that written communication, under no circumstances, requires any icons from a pre-made group. This very banal example of my own reluctant adaptation to the lack of familiar social cues (in this case, facial expressions) afforded in sending a text, reminds me of my own “digital immigrant” biases present in the setting up of this study. The truncated communication available through texting, came with what Baym describes as a broad range of communication technology offerings that proffered a vastly expanded mobile system for personal and professional networks that was simply not possible before. Baym further cautions that with all of the possibility inherent in digital communication,

> There are no doors where we can check our personal, social, cultural, and historical identities and world views before entering. We are not free to create entirely new kinds of communication, selves, relationships, groups, networks, or worlds. Nor are we forced into an alternative world of shallow simulations of inauthentic message exchange that takes us farther from one another. Digital media aren’t saving us or ruining us. They aren’t reinventing us. But they are changing the ways we relate to others and ourselves in countless, pervasive ways. (2010, p. 153)

Along with the innumerable shifts in how we communicate, Baym states that although “machines have affordances that can push us in some directions rather than others . . . people have the power” (p. 155). Her view of socio-technical change is one of social shaping, indicating that “people have the long- and short-term cultural, situational, and personal trajectories that shape the development, uses and consequences of technology” (p. 155). Baym also believes that ultimately “we shape the contexts in which new media are developed and deployed” (p. 155). She holds this view due to the conviction that
the norms for appropriate use of communication media are in a continual state of development. By being conscientious and aware of what media offer, what choices we make with them, and what consequences those choices have for us, we can intervene in and influence the process of norm development in our own relationships, our peer and familial groups, and our cultures. (p. 155)

Some of the interventions that Baym espouses involve critiquing the conversion of social interaction on social media into revenue streams for venture capitalists. She has argued that “we need to fight for media that help build better societies rather than those that view people as data profiles to be sold to advertisers” (Baym, 2015, p. 1).

Like Baym, Keri Facer (2012) also questions the current digital learning platforms available to youth. She states, “Since the 1990s it has become commonplace to see young people and their interactions with digital technologies as windows onto the future. Young people are, we have been informed, ‘Digital Natives’ spearheading the transition to a new digitally mediated world.” (p. 98). However, Facer also points out

Rhetoric about young people’s ‘ownership’ of future socio-technical change is a familiar part of much educational and political discourse. This does not, however, translate in practice into a meaningful dialogue with young people about the sorts of futures they might wish to see emerge. (p. 98)

For this reason, she argues that a number of technological transformations that are currently put forward by “researchers, developers, industry and politicians bring with them a responsibility to rethink the relationship between young people, education and socio-technical futures” (p. 98). Facer also presents reasons why schools need to be more aware of future possibilities, and need to make spaces and create practices that allow youth, together,
to perceive and examine these issues. She contends that the growth of online learning communities, the emergence of a group of adults able to participate as informal teachers, and “the development of networked publics in particular have the potential to change the relationship between school, young people and society” (p. 98). In the broader context of increased life expectancy with technological enhancements, she adds: “In seeking to prepare young people for an ageing society, therefore, we need to do more than simply present them with the unquestioned demand that they will need to become ‘lifelong learners’” (p. 104). Facer regards this as a territory requiring concern “with building new democratic structures and public spaces” (p. 106). As part of public spaces, Facer asserts that schools are a critical site for building the capacity of young people to question the colonising discourses of the future that they are being offered, to examine alternatives, and to participate with adults in decision-making about their own and society’s socio-technical futures (p. 99).

In sum, the examined literature points to new challenges both for teachers and learners in our expanding digital circumstances. Teachers and students are developing new roles which include increased reciprocity of learning within vast informal and formal learning networks. These circumstances, in turn, require new and developing social and professional skills to engage and make progress in mediated conditions. Although youth friendship and identity development online substantially mirrors and emanates from offline friendships and identity evolution, the digital dimension heightens certain aspects, and caution is therefore needed due to increased sensitivity that may arise from this developmental process. This type of individual and social work may even tap into new ways of ‘contacting’ others that are not physical in nature; we can be moved and even “ticklish” without being touched.
Part of this adaptation in our sense of ourselves also comes from the vastly expanded possibilities for feedback. Unfortunately, our desire for feedback can be exploited in networks if these are constructed with purely corporate minded goals. Included in the design of these networks and platforms, there is a need for the cultivation and support of personal and societal goals and interests. The space can be shaped in conjunction with all participants, including youth, whose civic involvement is also shifting as the digital landscape evolves and expands. Youth involvement in civic projects via online platforms appears to tap into genuine interests relating to learning and meaningful contribution. Such phenomena also appear to work more successfully if projects involve research that is more open-ended, and provide more opportunity for learner agency.

Open-ended project work is also important in environmental art production, where students are encouraged to work from their responses and learning about local ecological concerns. In critical, place-based art pedagogy learners are encouraged to make work that responds to local issues and also builds a sense of community.
CHAPTER 3: RESEARCH METHODOLOGY AND METHODS

3.1 Research Methodology

This multi-site (two) case study research examined the process of students creating and sharing artworks online as part of their environmental art production assignment. Case study was selected as the research methodology insofar as it allowed the bounded case—in this context the two groups of secondary school Visual Arts students—to be analyzed in terms of lived, shared, and perceived experiences. Case studies offer opportunities to explore and describe phenomena within a context using a variety of data sources.

Student participant perceptions of the production of their place-based sculptures, as well as their palimpsest artworks, are examined within the context of interactive posting of images and commentary within a social media platform. This study was designed to gather and analyze students’ perceptions of their learning experiences relating to an online sharing format for student artwork production at the secondary school level. Students’ reactions to digital sharing was collected in relation to their production of environmental art projects.

The combined use of a pre- and post-activity sharing questionnaires of participants, the collection of artefacts (e.g., images of student site-specific sculptures and palimpsest artworks), the online sharing comments made by students, the interviews with students, and the personal observations of the researcher allowed for a better overall understanding of the perceived effects of the online sharing on the art creation process.

As detailed in Chapter 2, this research study builds upon the work of Juan Carlos Castro (2012), Mary Erickson (2005), Stephanie Springgay (2005), Howard Gardner and

3.2 Research Methods

In this section I will present the specifics of the study itself, including data collection through pre- and post-activity questionnaires, online sharing comments, semi-structured interviews, and document analysis methods.

3.2.1 Participant Data Collection. In this case study, the survey comments, online comments, and interview comments of six participating secondary school students were collected and analyzed using an inductive method (Denzin & Lincoln, 2005; Merriam, 1998; Stake, 2000; Yin, 2003) to determine emerging themes. A Google+ site was constructed on the [District School Board name] Cloud to ensure a safe and private sharing forum for student volunteers. This involved a lengthy approval process through the school board as the [District School Board name] Cloud was not yet available at the start of this study. Questionnaires and interviews served to provide students with opportunities to voice their thoughts regarding the digital artwork sharing experiences. Student responses provided valuable feedback and possible insight regarding online learning formats.

3.2.2 Setting. For this project, a multi-site case study (Yin, 2003, 2008) involving two school sites was selected as the primary research methodology. In this research study, the context was a secondary school artwork project, the phenomenon was the online sharing of these artworks among students at the two separate school sites, and the data sources were questionnaires, interviews, and online commentary. As sources of complex data, classrooms and related communities lend themselves to methods that support the deconstruction and reconstruction of various phenomena (Yin, 2008). This approach of unraveling some of the
natural complexity also follows from earlier case study methods brought forward by Robert Stake (Stake, 1978). This study sought to generate instrumental learning in the growing area of student online instruction. In Stake’s discussions of German philosopher’s Wilhelm Dilthey’s views, he noted that researchers not only pay more attention to humanistic values or put more affective variables into their equations, but that our ways of studying human interactions need to build upon natural human powers to experience and understand (Stake, 1978, p. 5). Students’ perceptions of their art-making and online sharing experiences as observed through questionnaires and interviews served to deconstruct aspects of this popular sharing mode within a secondary school learning context, and to point towards ways of reconsidering shared social learning experiences.

3.2.3 Participants. There were originally seven participants, all volunteer Grade 10 students enrolled in Open level Visual Arts courses within two secondary schools in a mid-size, southern Ontario District School Board. Both schools are considered highly academic settings and both are situated on sites which include access to large nearby creeks. The two classroom teachers were both experienced veterans, but neither one had ever done either site-specific sculptures or palimpsest-type projects work with their students. Examples of such art projects were provided to them by the researcher. Both teachers were quite interested in environmental artwork, and one of the teachers also taught biology.

The study took place in the fall term by which time all participants had successfully completed a Grade 9 Visual Arts course. Students in both classes were producing artworks as part of their regular Grade 10 Visual Arts courses. Although seven students completed the Pre-Activity Questionnaire and artwork production, only five of these students would agree to fully participate in the subsequent interview process. All seven of these participants
agreed to share and comment on each other’s artworks online within the social media space and completed the Post-Activity Questionnaire. All non-participating (i.e., in the research study) members of two classes were working on the same environmental art projects, and were involved in both outdoor and indoor projects.

The two schools were selected as a convenience sample insofar as their physical setting included a proximity to the local outdoor watershed location, and also based on the two teachers’ willingness to become involved in the project. The seven students were then recruited by way of me visiting their classroom and reading a prepared script (see Appendix G) which was approved by the school board and the university ethics committee. As stipulated by the District School Board, the classroom teachers were not to take part in the research study so as not to possibly form any biases regarding student assessment. It is possible that if the recruitment process had involved the classroom teachers as participants in the study, there might have been more students willing to be involved in research.

3.2.4 Data Analysis. Data was collected in the form of student questionnaires (pre- and post-artmaking), semi-structured interviews, and shared online comments. In this way, both quantitative and qualitative information was gathered for analysis in this research project.

Interviews were transcribed and checked for accuracy. Transcripts from the interviews were sent back to participants for “member checking” so that they had an opportunity to clarify any unknown words, phrases, etc., or to withdraw any specific comments made in the questionnaire, or during the interviews. Transcripts were then analyzed using Thematic Analysis methods, i.e., familiarization with data, generating initial codes, searching for emergent themes among codes, reviewing themes, defining and naming themes, and then writing some form of final report. Krippendorf (2004, pp. 75-77) suggests
that content analysis is at its most fruitful when it can interpret ‘linguistically constituted facts’ into four classes: attributions, social relationships, public behaviours, and institutional realities (cited in Cohen, Manion, & Morrison, 2007, p. 476). Data was coded and then organized into emergent themes with these classes in mind. Both the existence and the frequency of the concept were noted in order to determine the relative significance of any given concept. However, not saying something (withholding comment) may be as significant as saying something, and so efforts were also made to note when participants were sometimes pausing and refraining and/or limiting their comments.

3.3 Acknowledging Researcher Bias. I acknowledge my own bias in the design, data gathering, and data analysis stages of this study, having conducted the interviews and having composed the questionnaire questions. Every attempt was made to allow the student participants to thoroughly and freely speak their minds in responding to the interview questions, without the researcher leading the participants in any particular direction. All interactions with students and staff as study participants received formal approval by Western University’s Non-Medical Ethics Board. Finally, and in no small degree, a review of the processes and outcomes of the data analysis was completed by my Thesis Supervisor, who provided critical communication and ongoing feedback during the length of this study.

3.4 Researcher Expectations. My focus of interest lay in exploring potential intersections between students’ physical art production and their reflective, online communication via social media. Castro and others have suggested that social media promote communication and involvement with student art production. By adding a layer of inquiry relating to students’ perception, specifically about how environmental art may be shared in this manner,
I sought to look at how a local and creative conception of physical place could promote participant sharing, interest, and learning within an online space.

3.5 Communication of Results. Results of this study will be shared with Western University, student participants, their parent(s)/guardian(s), and with the supervisory administration of participating schools and the school board through the written thesis report.
CHAPTER 4: FINDINGS

In this chapter, I’ll look at how the students responded to the art-making projects and to the internet-based space that was set up for them to allow for online sharing of artwork.

In what can perhaps be considered as a description of an early social-media ‘ecosystem,’ leading Roman orator and prose stylist Marcus Tullius Cicero once stated, “You say my letter has been widely published: well, I don’t care. Indeed, I myself allowed several people to take a copy of it” (Ad. Att. 8.9). In order to structure indications of how much students in the study cared and responded to the semi-public production and sharing of their site-specific artwork, I initially developed approximately 30 emergent codes when analyzing the collected data. As the data analysis process continued, I further organized this questionnaire and interview feedback into the following five over-arching themes: (i) Truncated Trust: Accepted Degrees of Vulnerability; (ii) The Hard Core versus the Soft Core: Students’ Perceptions of Learning Exchanges; (iii) Grounds of Learning in Environmental Art Production; (iv) The Natural versus the Un-Natural in Online Sharing; and (v) Meadow-Thicket-Forest.

4.1 Pre-Activity Questionnaire Results

In order to establish a context for these over-arching themes, I first summarized the participants’ responses to the Pre-Activity Questionnaire. These quantitative answers help to create a background for the reader regarding the students’ ongoing situations and ways of communicating. Participating students responded to the following six questions:

1. How much time do you estimate you typically spend online each day?
2. Of this time spent online, how much is typically spent on a social media platform?

3. Have you ever used social media to help in doing school work in some way?

4. How important do you view social media as a mode of communication in your life?

5. How important do you view social media as a learning aid in your school work?

6. How do you view the physical surroundings at your school as a starting point for making art?

The results of the pre-activity questionnaire are presented here via circular graphs:

1. How much time do you estimate you typically spend online each day?

- < 1/day
- 1-2 hrs/day
- 2-3 hrs/day
- 3-4 hrs/day
- > 4 hrs/day
- no typical day
2. Of this time spent online, how much is typically spent in a social media platform?

- < 1 hr /day
- 1-2 hrs /day
- 2-3 hrs/day
- 3-4 hrs/day
- > 4hrs/day
- no typical day

3. Have you ever used social media to help in doing school work in some way?

- never
- for help in researching
- for sharing ideas with a classmate
- to share with a teacher
4. How important do you view social media as a mode of communication in your life?

- not very important
- somewhat important
- important but not dominant
- dominant mode in my life

5. How important do you view social media as a learning aid in your school work?

- not very important
- somewhat important
- important but not dominant
- dominant mode of communication in my schoolwork
The results of this small sample of seven students indicated that they were spending a significant amount of time online each day: the majority estimating 2-3 hours per day, with the remaining students spending even more time online. For the majority of this time, the students estimate they are on some sort of social media platform between 1 and 3 hours per day, or they selected “there is no typical day.” Of note, the students also report schoolwork as a dominant part of this time, either with help for researching (as stated by four students) or for sharing ideas with a classmate (three of the students). For unknown reasons (perhaps due to the highly academic mindset of those studied?), these findings differ with those found in some larger studies in terms of how students report the usage of their time spent online. In research cited by Jenkins (Confronting the Challenges of Participatory Culture Media Education in the 21st Century), for example, ‘creative production’ was found to be the most common use of time spent online:

According to a 2005 study conducted by the Pew Internet and American Life project, more than a half of all-American teens—and 57 percent of teens who use the
internet—could be considered media creators. For the purpose of the study, a media creator is someone who has created a blog or a Web page; posted original artwork, photography, stories, or videos online; or mixed online content into their own new creations. Most have done two or more of these activities. One third of teens share what they create online with others, 22 percent have their own web sites, 19 percent remix online content. (Jenkins, 2009, p. 3)

The differences in the findings between this large American study and my own could be related to many factors including how I framed the inquiry, as well as a variety of differences existing in the participants’ individual circumstances. What is common between the two studies is how both studies’ respondents were overwhelmingly engaged in a participatory culture whether for school assignments or for creative production. Students appear to prefer to rely on others online for help for much of what preoccupies their lives. Jenkins (2009) defines participatory culture in the following way:

- Relatively low barriers to artistic expression and civic engagement;
- Strong support for creating and sharing creations with others;
- Some type of informal mentorship whereby what is known by the most experienced is passed on to the novices;
- Members who believe their contributions matter; and
- Members who feel some degree of social connection with one another (at least, they care what other people think about what they have created). (p. 6)

Jenkins further qualifies participatory culture in this fashion:

We are using participation as a term that cuts across educational practices, creative processes, community life, and democratic citizenship. Our goals should be to
encourage youth to develop the skills, knowledge, ethical frameworks, and self-confidence needed to be full participants in contemporary culture. (2009, p. 9)

This degree of engagement in a “participatory culture” comes in the midst of what Mizuko Ito has found to be “a significant decline in young people’s access to physical public spaces” (Jenkins, Ito, & boyd, 2016, p. 46). These authors add to this description of circumscription:

For better or for worse, the typical American teenager’s life is heavily structured and scripted. Their movement is bounded and their opportunities to interact are limited. I’ve found that technology among youth is often employed as a relief valve, enabling them to feel some sense of freedom and power even when their physical bodies and movement are regulated. (p. 47)

It is interesting to note that in this broad set of circumstances (akin to the American study circumstances), participants in my study viewed the physical surroundings of their school at least as “somewhat important” (four students) or even “important but not a dominant starting point.” Only one student of seven considered that the physical surroundings, and thus their physical exploration of these surroundings, to be “not very important.” This would indicate a difference with the large American study, but my sample is of course too small for this to be regarded as a significant difference. The schools in this study were partially selected for their access to the local watershed. Participants may or may not have been more accustomed to venturing in the local environment but indicated that this kind of excursion could more likely be part of their art production.

Whether these goals are being encouraged among, and accomplished by, the participants included in my study can be further examined by looking at more results from the interviews and post-activity questionnaires.
4.2 Interview and Post-Activity Questionnaire Analysis

Data sources such as these largely qualitative interviews and post-activity questionnaires can help to probe how the youth being studied here are manoeuvring in their largely digital sharing ‘habitats,’ and can also indicate how the participants perceive their art-making and learning in both their online environments and their physical settings. Jenkins affirms that “Children and youth do indeed know more about these new media environments than most parents and teachers” (2009, p. 15). But Jenkins also acknowledges that “to say that children are not the victims of media is not to say that they, any more than anyone else, have fully mastered the complex and still-emerging social practices” (p. 15). How students proceeded to negotiate these “complex and still emerging social practices” within this study can be further considered by examining the qualitative responses of the participants.

In order to help in referring to six student participants’ responses in a consistent and more humanized way, I have created pseudonyms for them in alphabetical order according to the order in which the interviews took place, with the first participant’s name starting with letter A, and so on.

4.2.1 Truncated Trust: Accepted Degrees of Vulnerability

The first category or theme that I generated by analyzing the participant responses to interview questions is titled “Truncated Trust: Accepted Degrees of Vulnerability.” The students’ degree of assurance in the online research situation emerged as being diminished by more than one single factor. First, participants indicated that they felt intimidated by sharing their process and artwork with others whom they did not know:

Amal: I feel like it’s not really comfortable sharing your artwork online at first cause it’s like everybody can see it but later on you get like more comfortable with it and
it’s like you can like basically do it at home anytime instead of like coming to school and talking about.

Another participant, Beatrice, also tentatively theorized that the process could have been ameliorated with broader feedback:

**Beatrice:** You know that there were people that you know but there were also people from different schools. I thought that still added to it because it wouldn’t just be the opinions of your friends, but from people who you didn’t know either.

Unlike with Facebook—the preferred social media platform for most of the participants—in this case study, participants were being asked to share beyond their circle of friends. This practice of sharing outside of one’s comfort zone presented a deviation from custom that most of the participants commented on in a negative way: “We shared the artwork at first, I didn’t feel comfortable because you’re sharing it with people that you didn’t exactly know” (Beatrice). Facebook “friends” are vetted and profiles of participation are carefully constructed. Although many young people have large numbers of “friends” (not uncommonly, as my niece has over a 1000, for example), these users are people that are considered to be their fellows by way of being formally accepted, “friended” in a known network and with the possibility of being “unfriended.” In the situation I created, the students did not have the same degree of agency—they did not select their fellows in the same way but were put together based on a willingness to participate “in a research study.” This circumstance may be partly responsible for their reticence to fully participate online.

Another reason for the reserved nature of online participation could be the unfamiliarity with the platform. All participants were new to Google+ and some expressed reluctance for this choice of sharing platform:
Beatrice: Sharing artwork online is, like, more better because it’s not like actual showing to people, and Google+. . . I think it was. . . somewhat a good choice even though some people didn’t know how to use it. It was just the way the group was able to communicate with each other.

Fellow student Amal put it this way:

Amal: Aaa-hhhh [hesitation], I think Google+ is sorta like good in the way that everyone can communicate with each other, like, easy, but it’s not as good as Facebook or Twitter where you just, like, use it anytime, cause Google+, only a few people knew how to use it.

Participants were extremely polite and circumscribed as they voiced their critique of Google+ as a platform choice, but their modest degree of sharing comments online revealed this uncertainty and hesitation.

Another possible reason for the hesitancy in terms of sharing in this study could be the natural uncertainty in sharing one’s artistic process with a group. In this study’s art production phase, participants had a very high degree of ownership and choice in how their pieces were developed. They had the choice of using new materials and processes and selecting their own issue to address. In this way, they built up a high degree of vulnerability towards their pieces. One’s visual art production, although ultimately destined for the world, is also a highly personal construction. In some ways, it’s akin to an avatar for its maker. In the original Sanskrit meaning, an avatar refers to “the descent of a deity to earth” (Dictionary.com, n.d.). Although this seems like quite a lofty relationship to one’s work, for many student art-makers, project production can take on a supreme importance especially if one is heavily invested in the process. It is an extension of one’s identity, and so it is
perceived with the utmost of sensitivity, taking on an aspirational, perhaps even an exalted nature. One participant expressed it this way:

**Chloe:** Well sharing online was different because, you know, there’s other people that you don’t really know, and there’s things that are just new, and then it’s getting to know how to use it and everything. And then when you put it up, it’s like, ‘What are they going to think?’ and everything, so you’re thinking about what other people are going to say. So kinda, like, nerve-wracking, aaaaaa-wwwww [sound effect], ‘What are they going to say?’ But yah, it was very, it was different, so it was good.

**Researcher:** It was different—because of that nerve-wracking element? That you don’t know what people are going to say?

**Chloe:** Yah, that feeling of what other people are going to think.

Amal, although commenting in a more oblique way, suggests the vulnerability of working in a group that’s not subject to the regular Facebook-type security to which one is accustomed: “Yah, Facebook you can just create a group and then it’s like…” Note here that the participant’s voice trailed off, perhaps suggesting her desire for the shelter of a mutually-constructed group.

### 4.2.2 Hard-Core Versus Soft-Core: Students’ Perceptions of Learning Exchanges

In a second category entitled “The Hard Core Versus the Soft Core: Students’ Perceptions of Learning Exchanges,” I’ve grouped together students’ comments that suggest that they actually maintain a hierarchy in terms of how they view feedback comments. Feedback from their teacher holds a pre-eminence in terms of technical considerations and specific areas “to improve,” while participants viewed responses from their peers as less directed and of a more supportive nature. In this way, participants’ responses suggested that
the teacher and the other students fulfill different functions in terms of the development of their work. Amal put it this way:

**Amal:** I feel like the teacher—feedback from the teacher is more like technique-wise, so, like, she can actually provide me with—she can actually tell me, like, how to actually paint better. But peer, it’s more like opinion-wise, like, if this looks good here or there, and for myself I can, like, know which.

Beatrice expressed similar thoughts with some added reflection on the purpose of various kinds of feedback:

**Beatrice:** When you get feedback from your teacher it’s, like, she tells you ways to improve whatever you did, and from your peers it’s just an opinion so, like, it could be just what people would see if they just looked at it. They wouldn’t think of ways to improve it, just their basic thought of it. And on self-reflection, you see sometimes your artwork, and you know that there are some bad things that you need to work on—you think that’s, like, an important thing to work on.

Chloe offered a similar kind of commentary on learning exchanges:

**Chloe:** When the teacher kind of talks to you, she gives you, like, you know, “You could do this,” or “You should try this,” and she gives you, like, the general compliments like “Oh, it looks good,” and everything, and then your friends, they’re, like, from the outside, and they’re not really looking at technical things, they’re, like, coming in with their own, like, points of view. And then when you look at yourself, and when you look at what you did you kinda, you know, what you need to improve, and you know what you, like, did good.
In all of these responses, the students view their teacher as the ultimate authority, especially for technical considerations. In my experience teaching, high school students often are quite absorbed by, and place a high importance on, technical over conceptual concerns in their productions. (These interviews did yield some interesting feedback with regards to their project development in making their palimpsests, and these responses will be shared in the “Meadow-Thicket-Forest” category of this chapter). Other students’ assessments occupy the ‘soft-core’ side of feedback—offering their “opinions,” encouragement, and solidarity without offering any appraisals that imply that re-workings could be worthwhile:

Danielle: So, when a teacher is usually complimenting you on your work they will usually say “Oh, this is good, here’s some stuff you can improve on,” and then they’ll give you little things to help make your artwork better. If your friends or peers are commenting on your artwork, they’ll mainly just like say, “Oh, this looks really good! I like how you did this!” So, like, they’re pointing out the positives. But as the artist, when you’re looking at it, you’re constantly thinking ‘How can I improve this piece of art to make it look its best?’

Although the teacher is regarded as having some sort of supreme knowledge about students’ work, participants were consistently concerned about their peers’ responses, and these were seen as being key to the courage that they bring to the work. Their own assessments build on these, and focus on how to develop and enhance their piece. Danielle was also more specific about how the students as art-makers viewed their own work:

Danielle: Yah, like the artists are more critical about their work, and so everybody looking at it is more appreciative of it, and seeing the positives of it, and then the
teacher is, like, “I like this, and here’s how you can improve it.” So, a teacher gives both sides of the argument, basically.

Interesting how this respondent expressed her view of the development process as an “argument,” which is defined as “an address or composition intended to convince or persuade” (Argument, n.d.). In those circumstances, it becomes more important to have some sort of moderator to mediate the ‘sides’ of production and critique. Participants in this study consider this person to be their teacher. However, with two teachers involved from different schools, their allegiance and trust remained with their own teacher at their own school. All participants refer back to their teacher as having what they acknowledge to be the more authentic feedback, or what I’ve called the “hard core” input; while other participants are considered more as cheerleaders, or the “soft core” consultants.

One participant did recognize the feedback phase as being of prime concern. She began with the following statement:

**Emilia:** I think the feedback phase is a really important part because through what your, like, teacher tells you is really important, though what your peers tell you it is important because you get to know what they think of your artwork, and I think that it kind of boosts your confidence. They also sometimes give you more ideas so you can add their ideas to your artwork—so it makes it better.

Although this participant opens with the importance of feedback overall in the production of artwork, the hierarchy that the other participants referred to is nonetheless maintained: her teacher holds primary consequence, and her peers are considered more as admirers. This established ‘operating system’ probably transcends the somewhat intimidating Google+ platform and other particulars, as the teacher is also the one who grades the work. Although
novel in its project parameters, ultimately the participants were producing an assignment for school. I should also note that the non-participating students in both classes all still created the same artworks, and these students shared their work by having others view it in the classroom, or possibly were showcased in a classroom art display. They simply did not take part in the surveys and interviews. Further, it should be noted that the participating students were not awarded marks for the sharing of their artworks online, or for peer commenting.

4.2.3 Grounds of Learning in Environmental Art Production

The work that the students were creating was novel for them for several reasons. The participants were initially asked to produce Andy Goldworthy style, site-specific artwork outdoors. Their comments indicate this work was new and exciting for them.

**Emile:** Making the work was really fun too because, again, it was something I was doing for the first time. Yah, it was really good. It was a whole new experience. So, I will take it as a positive experience because, you know, like, going outdoors and exploring, doing things you hadn’t done before, because usually you just stay in class and we draw with a pencil, but here we were using different materials and bringing them together and making something you want to make. It’s like a whole different idea.

As part of preparation for creating culminating palimpsests, students explored their school sites with the option to use a GPS tracking app to create a “drawing” of their movement over the land. Participants could also find ready-made maps and use these in their piece, and the majority of these students opted to use these in their final pieces although they expressed enjoyment for the new way of drawing and making a “map.” When I asked Danielle directly, “And did you go outside with the GPS tracking?” she responded:
Danielle: What I did is that I found a map of Lakeshore and I used that, but I did do the GPS tracking thing at one point and thought that was a very interesting and new and stuff. Yah, I hadn’t done that before and so I thought “Oh that’s cool.”

Participants were not deterred by the unfamiliarity of the work as it related to the components of the environmental art. All expressed appreciation of working outdoors in their local sites, building transient pieces in their school’s environs, and putting together the more complex palimpsests over a longer period time in the classroom. Chloe did express trepidation over building sculptures outdoors, but was relieved by the actual making of the work:

Chloe: We were shown pictures of really big stick structures so I thought I would have to make big, huge monuments for our work. But then when I found out it was little things, I was, like, much more better. . . . Yah, because you could put more detail and everything in it. . . . Yah, so, like, with the detail you could, like, make little things, or you could do something bigger, so it was fun because you could, like, find all these tiny things outside, so I thought it was cool.

Beatrice concurred: “I would actually like to do more environmentally-based artwork.”

Amal explained her reaction in a similar way, and also positively reflected on increasing her knowledge of environmental concerns:

Amal: It was actually better, like, more fun actually making it . . . it’s, like, fun and you can, like, get to know a lot of things that you don’t know, like, endangered species, like, the environment, and ‘cause it’s, like, more of a visual way to tell everybody your message instead of just reading it from a textbook.
Constructing art pieces, based on experiencing and researching their schoolyard and its relationship to the local watershed, served as a positive exposure to environmental art production, and all participants expressed interest in undertaking more similar experiences.

### 4.2.4 The Natural Versus the Un-Natural in Online Sharing

In the fourth category of interview comments collected, entitled “The Natural vs the Un-Natural in Online Sharing,” participants mainly offered viewpoints that suggested they were theoretically in favour of online sharing, but also suggested, by the minimal amount of actual sharing that took place online, that the format, as created, was intimidating for them.

Emilia expressed her reaction to sharing in this manner:

**Emilia:** I think it was definitely a better way, and I felt really comfortable doing it because it’s just like posting your artwork instead of facing someone, because I’m more a shy person so, like, it’s much easier, like, posting and seeing other people’s feedback. You don’t really have to talk to them. You’re just typing. I think it’s a whole lot easier.

Hers might have been the most covert response of trepidation and theoretical approval for the art-production process online sharing format, as she expressed quite a positive view overall of the endeavour without really actually offering a lot in the way of online comments to her peers’ project development process. She was one of only two participants from the same school and she wasn’t friends with the other participant. The other school held the bulk of the participants and produced more participation online. Neither of the participating school’s teachers were participating online, and this could also have been a factor in their low-level of participation online.
Danielle expressed a different view from her peers about online sharing. She had more experience with online sharing formats and she conveyed much more confident and knowing actuations about such activities:

**Danielle:** So, before this project I was very used to sharing my art online. I share it on sites like Tumblr and deviantArt and I’d be, like, “Oh, hey, this is what I made” and of course there was always, like, “I didn’t really like how you did this,” but there was usually lots of “Oh, this was really good.” And so it’s mainly, like, feedback from people you don’t really know, so I was, like, used to that so going into this I was, like, “Oh, I know there’s going to be people that don’t necessarily like what you’re doing, but there’s going to be people that do.” So, the whole experience was kind of just, like, a regular thing for me. I didn’t really, like [pause here] I didn’t really find anything different, but I knew that considering that these are people from your own age group, they’re going to be not exactly critical, but they’re going to respond in the same way that your friends would. So, they wouldn’t sugar-coat it, but they’d be, like, “Oh, this looks good,” [change of voice inflection to suggest nonchalance] and so, like, just how a friend would speak to you really.

Although Danielle’s prior experience was broader than anyone else’s in the group, she did point out how sharing with strangers can be intimidating for most, but considered the situation was mitigated by the condition that other participants would be the same age. She also suggested the critical role that courtesy plays online, indicating that the other unknown participants would speak to you “just like a friend would speak to you, really.” This is at once a hopeful statement, and an intimation of how important it is to maintain civil, even
gracious consideration of others online. Jenkins, Ito, and Boyd (2016) described this kind of learning as follows:

Ideally, we are developing personal and collective ethics. We’re thinking through the implications of our communicative acts. We are learning to take ownership over misinformation and malicious speech. We are starting to call each other out for the ways in which one group silences another. We can’t say participation is good in and of itself. As we make these lurches towards using that power responsibly, we as a society make mistakes. There are people abusing this emerging freedom and groups that have trouble communicating to each other. It’s a messy business. (p. 25)

This ‘messiness’ can include the occasional disparity between perception and substance regarding the degree of civility of an online conversation relating to art production. In a small American study that sought to answer two broad questions: “(1) What art related skills, concepts, and dispositions do members acquire on deviantArt.com?; and (2) which New Literacy practices do members use in the acquisition of art-related skills, concepts, knowledge, and dispositions?” the researcher stated:

Nearly all participants indicated initially that dA is a site to gather constructive criticism. However, no evidence of constructive critique could be found on participant dA pages. Further interviewing provoked a discussion between the researcher and participants on just what defines a “critique” in dA and issues of dA etiquette regarding closeness of acquaintance and a balance of positive and negative critiques based on acquaintance status. (Jones, 2015, p. 347)

The sensitivity and apprehension regarding others’ reactions becomes apparent in this American study of art-makers sharing on deviantArt when even an art educator (author Brian
Jones) cannot find what he considers to be actual critical comments of other’s work, but only the looming possibility of such in the participants’ minds.

4.2.5 Meadow-Thicket-Forest

An area of the study feedback where participants showed less concern and more outright enthusiasm related to the palimpsest project process and product. In a final category of interview responses entitled “Meadow-Thicket-Forest”, I’ve collected responses that suggest student appreciation of ‘getting into’ artwork that involved layering different media and elements over time. Amal’s following statement was repeated in different ways by all of the participants: “It was actually, like, better, like, more fun actually making it. I didn’t know you could combine, like, different techniques and, like, use acrylic paint and watercolour, and all the stuff.” Other participants also commented favourably that the actual assembling of the various components was the most satisfying part of the process. Beatrice put it this way:

**Beatrice:** There were different techniques that we used in the artwork, like there were some things that we had never done before and I think that was, like, the best part of it, and when you finally put the whole thing together—the whole artwork—you were able to see how much you’d worked on it, and it was actually the best part.

Beyond the enjoyment of the physical combining of the separate pieces, participants also expressed a positive intensity regarding the conceptual development of their palimpsest pieces. Chloe framed it this way:

**Chloe:** I think pulling it all together was a very fun part. Oh, like, what’s it going to look like? What’s it all going to be about? And are people going to get the message, kind of thing, and just figuring out what you were going to do in the beginning was a
very good part so, like, you know, “What’s my theme?” “What’s my message going to be?” “Are people going to get this, and everything?”

Danielle echoed something similar:

**Danielle:** It was mainly, “What’s the theme of your artwork going to be?” “How are you going to get that across?” Then it’s just, like, going into the thought process. . . .

So, like, mainly the research was more the thought process, and then less the getting information.

Danielle added, “I thought this was a very interesting thing to work with” and, considering future projects at this point in the interview, she further indicated:

**Danielle:** I’d actually like to do a lot more of this kind of work of art because there’s a deeper message to this, because when you’re making art there is obviously going to be some kind of message, or theme, or story behind it—whatever kind of work you make. [hesitation here] It’s not going to be just like, “Oh, hey, here’s a blank slate of paper and then I drew some stuff on it.” I mean, there’s going to be some [hesitation] meaning to it.

Danielle’s considering and appreciating “what’s behind” a piece of art positions her more in the realm of critical place-based art according to Mark Graham (*Art, Ecology and Art Education: Locating Art Education in a Critical Place-Based Pedagogy*, 2007). I’ve titled this last group of interview comments as “Meadow-Thicket-Forest” to reflect a growing complexity of thought in the participants’ feedback concerning the goal of the production of their artwork. Not only did their commentary voice an awareness of the increased possibility for the communication and reception of “deeper message(s),” but it also indicated an appreciation of this outcome. Chloe expressed this aspect in the following way:
Chloe: I think pulling it all together was a very fun part. Oh, like, what’s it going to look like? And what’s it all going to be about? And are people going to get the message, kind of thing, and then just figuring out what you were going to do in the beginning was a very good part, so like, you know, ‘What’s my theme?’ ‘What’s my message going to be?’ Are people going to get this, and everything?

Amal echoed the positivity of the content and the structure of the project work:

Amal: I’d say yes, it’s like fun, and you can like [hesitation here] . . . you get to know a lot of things that you don’t know, like endangered species, like the environment, and cause it’s like more of a visual way to tell, like, everybody your message instead of just reading it from a textbook.

Her response reflects an appreciation of both the reception and the sharing of new learning.
CHAPTER 5: DISCUSSION

Cultural researcher danah boyd has repeatedly written about the effects of the “circumscribed lives” (as cited in Gardner & Davis, 2013) that today’s youth lead, and the resulting navigational practices that can be observed. In response to the narrowed geographic and emotional spaces, compared to the ones their parents inhabited, teens have sought out social media as a space to ‘be themselves’ and to be with peers. This kind of exploration can take on the veiled communication characteristics that distinguishes the coded messages that youth exchanged in 16th century tudor England, as researched by Tom Standage (2013) in Writing on the Wall: Social Media—The First Two Thousand Years. With societal pressures weighing down on their expressive needs, youth of the Tudor court developed a kind of Facebook according to Standage. He emphasizes their need for a place apart and compares it to today’s youth:

Today’s teenagers can commune in secret on social networks, on Internet forums, and using mobile phones. The Devonshire manuscript provided a similarly secluded social space in which young courtiers could exchange messages with each other, beyond the gaze of the outside world. (p. 66)

According to both historical researcher Standage and contemporary cultural researcher boyd, youth seek out spaces to commune apart from the view of the adults with whom they are associated.

Although today’s social media may not seem very secret in the way the 16th century courtier youth were able to exchange hand-written notes, youth of today have sought out
similarly exclusive domains. In order to facilitate this exclusivity, and according to my informal polling of youth, these media choices are changing frequently. Although Facebook occupied a dominant communication space around the time of the start of this thesis, this has been frequently substituted by other predominant applications with teens moving on to newer tools such as Twitter, Snapchat, WhatsApp, Whisper, and Instagram, just to name a few, as the most popular places and means to ‘meet up’. Standage offers a similar reason for the existence of the Devonshire manuscript compared to today’s digital domains: “It offered members of the Tudor court a parallel medium of communication in which the unsayable could be expressed in veiled or coded form” (2013, p. 69). Although the printing press had existed for over a century, the hand-written poetic and coded notes offered refuge and a place for followers to conform to certain roles as youth do today with social media. Further, the Tudor manuscript parallels the often-elaborate thought processes and posturing that goes into developing contemporary online profiles, as outlined by Sherry Turkle. The form of social currency developed in both situations and which has existed over the centuries, suggests that youth, when constricted socially, strive to develop and maintain alternative places to interact.

Although this desire for alternative communing locales has continued to be strong over the centuries, as suggested by Standage and by Turkle, other activities and communication purposes have been only recently added to these adolescent functions. While learning opportunities have abounded online almost since its inception, more formalized academic prospects have been developing over recent decades, created by both public and private institutions. In high school visual art instruction, this need is still largely carried out in traditional classroom situations. In our school board, for example, Google+ fulfills the role of online research, as a composing and sharing space, but this space is still quite new and
teachers are in the midst of developing ways to make use of its potential and are assessing its strengths and weaknesses for student learning.

In discussing new technological literacy approaches, Elizabeth Delacruz has stated that “media literacy calls for a dialectical and collaborative approach in the classroom and cites Kellner adding a “mutual learning process where both teachers and students together learn media literacy skills and competencies” (Delacruz, 2009, p. 16). Delacruz further adds “I rather like the idea that we can be co-learners in the classroom with our students, particularly when it comes to technology” (p. 16). Becoming co-learners in the classroom becomes a necessity as learning platforms continue to change, and to adapt to changes and potential in technology. Delacruz points out that new media production requires a shift in our thinking about what it means to be literate in our contemporary life (2009, p. 15). This shifting sense of literacy has been researched by Mizuko Ito, and she and her co-authors comment that it is “not tied to a particular technology or platform . . . it is embedded in a network of social relations; it is situational, relational and versatile” (Ito et al., 2008, p. 8). This kind of freedom to adapt appears to be key in helping to make online learning situations effective. In discussing youth’s facility with new platforms, Ito, boyd, and Jenkins all critique the myth of their digital native status and discuss the misuse of this term and the confusion, and even hindrance, that applying this label to youth may create:

Despite the belief that young people are “digital natives,” I wonder how much distinctiveness of youth behavior has to do more with the unique social conditions that limit their autonomy than with some innate developmental imperative or generational identity. (Ito et al., 2016, p. 48)

boyd’s view of the misguidance of this term is even stronger:
Digital native rhetoric reinforces generational differences in ways that simultaneously celebrate and pathologize youth. I’m fascinated by the ways in which adults use this language to imply that being “native” is a more illustrious position. As Genevieve Bell has noted, the natives never win. They have historically gotten enslaved, killed or “harmonized” by powerful “immigrants” (a.k.a colonizers). Sadly, I sometimes fear that this is a more accurate portrait of how we treat young people’s online activities. (boyd as cited in Mizuko et al., 2016, p. 48)

The freedom of the 16th century hand-written note exchanged in secret, has been replaced by the shared message in the simultaneously intimate and vastly public social media space. Along with this, the sought-after liberty continually desired by youth has been infiltrated, and sometimes even subverted, by the constraints of the oft-used platforms. On some level, participants in my study demonstrated this awareness in their unexpressed wariness of the new Google+ platform. Although they overtly expressed enthusiasm for the potential of this format, their actual posts were minimal and restrained. The sought-after online agency was not perceived; the participants did not recognize the space as one of familiar frontiers, as a ‘native’ territory.

5.1 Subverted Expectations

Subverted expectations were evident in the responses relating to both the students’ environmentally-based art productions and to their experience online. As noted in Chapter 4, participants were pleasantly surprised by their processes with the site-specific artwork, were proud of their projects, and wished to do more of this type of art production. Some expressed that this environmental art was not what they expected. The positively subverted expectations related to the art production were not matched in the same degree with their
online exchanges. Here participants’ expectations of the familiarity and comfort of a Facebook site were dashed by the unaccustomed particularities of a new site. Part of this discomfort could have come about because the application of the site was changed early on in the project: the initial sharing format was changed from a Google Group to a Google Community feature, the latter arrangement allowing me as researcher to more easily take part in the online sharing process. Participants had to, unfortunately, acquaint themselves with both of these formats in order to share, as the term and project progressed. This change of platform was due primarily to my own unfamiliarity with the potential of the site. Although Delacruz has pointed out that she is enthusiastic about teachers being “co-learners” in the classroom with their students, the framework of this co-learning becomes more important with the degree of risk that the students are being asked to encounter. The technology context stumbling at the outset of their Google+ experience in my study could have been enough to diminish their online activity as they redeveloped a sense of familiarity and confidence with the new platform. The initial technical miss-step and researcher presence being thus re-inserted could have even contributed to their awareness of the new domain as being adult-controlled, an unwelcome novelty in the social media sphere. As boyd puts it when discussing their position as ‘natives’: “I think the issue of agency is central to the dynamic of participatory culture and is really missing from the ‘natives’ frame” (Jenkins, Ito, & boyd, 2016, p. 49).

Agency was a foremost part of their open-ended art productions, and this freedom translated into positive recollections of participants’ experiences with their environmental art pieces. Extending this sense of agency into their online sharing experiences seemed to be
key to capitalizing on the students’ collaborative potential online. Part of developing confidence in this area relates to skill-building in this territory. boyd refers to Hargittai:

[W]hen we employ the language of ‘digital natives,’ we fail to recognize the development of skills necessary to be engaged in participatory culture. [Hargittai] holds that most youth are digitally naïve. Their willingness to experiment is notable, but they have limited media literacy, computational skills, or technical fluency. They’re assumed to be capable of manipulating technology because they actively text and use Facebook, but their ability to construct a search query or interpret results is often limited. (Jenkins et al., 2016, p. 50)

Mizuko Ito further observes:

On the other hand, many interest-centred groups are highly mixed in age. I see eleven- and twelve-year-olds in gaming communities and there’s little distinction between them and thirty-year-olds. These pockets feel like the internet during its early years, which was dominated by young adults but often mixed in age. There are contradictory effects: some kids take on adult-like autonomy and relationships very early, and other kids use technology to define a very teen-centric space. And the same teens who may be fine participating with people their parents’ age on a gaming site would not want to be linked on a social network site with their parents or other adult relatives. (Jenkins et al., 2016, p. 50)

The “contradictory effects” as young people react in a variety of ways to navigating digital domains presents some similarities to how the participants in my study responded to the occasion of sharing their art processes online. In continuing to discuss the problematic nature of the term ‘digital native,’ Henry Jenkins refers to Carrie James who “has researched
structures of digital mentoring and found that relatively few youth have access to adults who can give them meaningful advice about their online lives and help them think through issues of ethics and safety” (Jenkins et al., 2016, p. 51). The participants in my study commented on the importance of the feedback of their classroom teachers: their constructive critiques of art project development and related techniques. This ‘local’ commentary and assessment took strong precedence over the online situation as structured.

Part of the wariness of the students involved in my study could also be related to their accumulated knowledge of these illimitable digital circumstances and, in some ways, apparently contradicts the views Jenkins draws from James. In an article in the Globe and Mail (April 24, 2018, p. A18), the journalist Wency Leung quotes from a 2016 survey by the U.S. private-public partnership National Cyber Security Alliance, stating that “nearly half of the teens aged 13 to 17 said they were ‘very concerned’ about security issues, such as someone accessing their account without permission or sharing personal information about them online.” Leung considers that “when it comes to online privacy, teens can, in some ways, be more conservative and more knowledgeable than their elders” (p. A18). Such a combination of conservatism and knowledge could cause young people to avoid sharing in unsafe ways and situations online.

The youth quoted in the above-mentioned Globe and Mail article possessed sound ways to help protect cyber security. These strategies suggest learned cautiousness without necessarily broader approaches to creative art production and sharing situations online. Collaborative and creative production sharing situations were not considered, and these present their own unique issues. Here James’ and Jenkins’ digital mentoring deficits become more open to view and can be considered encumbering.
Added to the perceived structural vulnerability that new social media platforms may offer youth, there is also the issue of how best to deal with the forthcoming comments on social media when sharing creative processes and productions.

5.2 Feedback is Fraught

In an article entitled “Damning with Praise” (Globe and Mail, April 14, 2018), author Michael Harris writes of his trepidation on receiving a Governor General’s Literary award for his writing about living in a digitally connected society. “Praise is always fraught for creative folk” he explains succinctly. This becomes especially more powerful and complex in the age of social media he writes as: “A radical uptick in social media use has produced an economy of accolades into which all users are drawn. Today, we are all performers and we all have to decide: Will I read the reviews?” (Harris, 2018, p. 8). Harris points to the fundamental appeal of social media:

Something primal is going on here. Social media is popular across cultures and age groups because it fulfills a basic human need: that desire for social grooming. There’s a simple reason that Facebook doesn’t offer a thumbs-down icon and Twitter asks you to tag things with hearts. The attention merchants know that it’s praise and approval that keeps us coming back. B.F. Skinner’s idea of operant conditioning (positive reinforcement) comes into play. We’re social animals and we’ll behave in whatever way produces loving feedback from the pack. (p. 8)

Behaving “in whatever way [emphasis added] produces loving feedback from the pack” seems like a strong assessment of our collective way of responding to online attention, but it echoes what Turkle (2011) and Gardner and Davis (2013) have written about young people’s ways of reacting to our digitally connected lives. Harris writes about the need for balance in
our online and offline lives, suggesting highly selective use of the new platforms serves our creative production needs for a certain amount of quiet and unconstructed spaces.

My own need for some sort of balance in the face of rapid changes in our school experience led me develop the idea for this thesis; I could see a huge seemingly insatiable need for students to connect online, and at the same time wondered how this could somehow work with a healthy interest in the environment, moving outside, and creating thoughtful artwork. I come at this interest from the perspective of a barely marginal ‘digital immigrant’ and aspects of my findings suggest that this status can inhibit the creation of the needed circumstances to design and establish a completely meaningful situation for students online.

5.3 New Platform, New Issues

In setting up a Google+ site for participant sharing, I didn’t count on a hesitancy to move away from the familiarity of the currently most popular sites. I assumed that youth could simply and quickly leap to new sharing platforms, not understanding some of the draws to their current online locales. Additionally, about a week in to the study we moved from a Google group to a Google community because some sharing aspects were not working well. For this reason, the new platform offered participants little in the way of self-propelling impulsion at the start of the experience. Their interview comments reflected a polite reserve about this technical mis-step, and they mainly preferred to share their overall approval of the helpfulness of sharing work online in theory. This suggests that the sharing processes introduced could likely work to a larger degree if a consistent platform was to be introduced more smoothly, and from the onset.

Another impediment to the overall effectiveness of the shared space could be related to one of the fundamental aspects of all youth sharing endeavours. In the very early vein of
'social media’ with 16th century Tudor youth at court, there was a strong element of secrecy, a place apart from adult eyes. Facebook and other popular social media platforms have also provided a space for youth, set apart from regular adult supervision. As Turkle has indicated, the profiles created online are meant to relay the kind of information that ultimately empowers the creator online by presenting a highly edited version of their experience and identity. The representation of self that is presented is one of an imagined conceptualization; it is carefully constructed for maximum authority in the digital social realm. That authorship could be at odds with the new parameters of the presence of an observer online. My own presence in a research study role would seem alien to the habitual ‘place apart,’ even in a seemingly secluded scene, on the usual social media meeting places.

With the well-established seclusion being upset by my presence, even when providing encouraging comments, participants might not have felt at ease to behave in their typical ways online. Sharing the process of one’s artwork requires some courage and the ability to deal with some unexpected comments. Although classroom art critiques do happen in high school, in my experience, there is considerable trepidation on the part of the students. Critical comments shared are largely ones of praise, and one needs the assistance of the teacher to establish guidelines and to even provide examples of acceptable tone and content. Sharing photos of one’s art-making process online adds to the possible drama of the situation. More than thirty years before the age of the social media photostream, Susan Sontag famously stated: “Today everything exists in order to end in a photograph” (Sontag, 1977, p. 24). Sontag argued that the photo is a control mechanism the photographer puts forth into the world. A photostream on any social media platform, and its intended form of control, could be quite a different experience than the vulnerability of sharing images of
artistic works in progress. The former mostly displays some form of conceived idealization, while the latter often exhibits the trials and tribulations which can be quite awkward for the art-maker throughout the process of creation.

5.4 Another Social Media Example

In some ways similar to my own study, Susan Meabon Bartow, designed research to look at students’ use of social media related to their school work. She conducted a multiple case study research project to explore teaching with social media. Teachers in her study were chosen because they were already using social media as part of their instruction. While none were engaged with art education, their subject areas, access to and experience with technology varied widely. All were secondary teachers. Unlike my study, all engaged with their students in chosen social media situations, having first cultivated a relationship with their students in their traditional classrooms. Bartow’s research “reveals the performance of seven subjectivities when teachers are using social media . . . teacher as manager, teacher as instructor, teacher in constructivist roles, teacher as learner, teacher as caring, teacher as assessor, and teacher as change agent” (Bartow, 2014, p. 47). Bartow continued:

Teacher use of social media supports teacher as constructivist roles (e.g., coach, guide, facilitator, model) for these five teachers, especially when they engage their students in problem- or project-based scenarios. Social media provide another forum in which these teachers and their students collaborate-tools that augment and spaces that host collaboration. Because the Internet is so vast and new tools are constantly appearing, a more even playing field with respect to teachers’ and students’ relative expertise exists. There is often a space for students to find and contribute new tools or platforms, especially with mobile technologies. Within this subjectivity, teachers
find themselves modeling and coaching civil and/or professional behavior to students used to using social media in other ways [emphasis added]. (p. 48)

Students who are used to using social media “in other ways” did well when using this media in “problem or project-based scenarios,” similar to this present study’s broad-ranging palimpsest research art production. However, in Bartow’s research situations, students’ familiar/classroom teachers were available to offer modelling behaviours, probably increasing the students’ ‘civil and/or professional’ repertoire and activities. With my own presence as known researcher online, I did offer some encouraging comments to support their posts but my perspective and relationship to their work would have been otherwise unknown and even foreign to them.

Bartow also identified a “teacher as caring” role as significant to the findings of her study. She outlined that “these teachers value getting to know their students and what interests them” (p. 48). Bartow stressed engendering a climate of caring as follows:

Drawn toward education emphasizing care for themselves, for each other, and for ideas, to varying degrees, all five teachers create strong classroom cultures. Social media help build relationships and increase interactions, including fostering a home/school connection, in unanticipated and generative ways. (p. 48)

Since her research focused on teachers already involved in using social media in varying degrees with her classes, Bartow was free to examine what occurs under more typical conditions than those found in my study. In developing my research, my school board stipulated that classroom teachers could not be allowed access to the social media platform. School board personnel considered that this would eliminate the possibility of teachers being
influenced by what they observed online. Bartow is entirely positive about the effects of the use of social media in the realm of “teacher as manager”:

Teacher as manager uses the social media tools and spaces to organize, communicate, and manage the flow of a class. Because shared media cross the time and space boundaries of school, this familiar responsibility strengthens and expands when using social media. (Bartow, p.49)

Note that “teacher as manager,” which was one of the most familiar roles for most teachers, was not available to teachers recruited in my study in relation to the handling of student efforts online.

Although Bartow is entirely positive about this most ubiquitous of teacher roles being enhanced with the use of social media, consideration may also be needed to be factored in to the management that is also occurring at a very macro and technical level. The board’s caution at how inclusive the classroom teacher’s role would have to be in my study, however overly prudent this seemed to me at the time, appears reasonable now given the scope of influence of social media, Google in particular, in our lives, both in and out of school.

Facebook, although a dominant player in my student’s lives at the time of the study, has been more recently eclipsed by Snapchat. “Just for opening their mouth for teenagers, they have to use Snapchat,” observes Tristan Harris, former Google design ethicist and founder of the organization called The Centre for Humane Technology. In an interview on America Inside Out, Harris goes on to discuss the power of the attention economies that are operating with all social media platforms. Snapchat currently reigns in terms of North American youth’s attention, and its particular system of “streaks” encourages users to keep on messaging. The built-in management design of users promotes often obsessive activity. Harris explains:
And what they do is they show the number of days in a row that you’ve sent a message with each friend in your contacts. Once you see with your best friend you’ve been chatting for 150 days, you think, ‘O no’, I don’t want that to go away. I have to chat tomorrow to keep up the streak. But it’s like putting 2 kids on treadmills and hitting start while tying their legs together so they both have to keep running, passing these messages back and forth. I mean I think we have millions of kids that literally feel so stressed out that they give their password to 5 friends to keep their streaks going when they can’t . . . they’re called streak managers. Just imagine the amount of stress that it adds to a kid’s life to have to basically manage all these things and feel as if their friendships are on the brink, that they’re going to lose their friendships if they don’t keep this going. (n.d.)

The potential for emotional pressure has to be weighed with the potential benefits for “teacher for caring” and “teacher for management” as outlined by Barlow’s study, and also available in this study. The Google+ platform used in my study has not been identified as one of the most popular for teens at the time of the research, or now, but it is part of one of the largest platforms overall, and also part of how data is collected by all global users.

5.5 Online Safety and Increasing Prevalence of Use

More and more users, including teens, are becoming aware of how ‘Big Data’ is becoming an important part of our lives, albeit an almost imperceptible part of the transaction of online experience, educational or otherwise. A recent study entitled Social Media, Social Life: Teens Reveal Their Experience (Common Sense Media, 2018) reports that “many teens seem to recognize that social media platforms are designed to keep them hooked. Seventy-two percent believe that tech companies manipulate users to spend more time on their
devices” (p. 15). Although at the time of my study student participants would have been less likely to be concerned by the designs of tech companies, there was definitely an indication of trepidation surrounding the platform. This hesitation, as described earlier, may well have come about by my own technical inexperience and mis-steps, but it may also be an ongoing element in establishing online situations that have the potential for students’ academic work in many areas, as reported in Bartow’s research. There are a number of mitigating factors to be considered regarding the choice of platform such as: closeness to participants’ current experiences, classroom teacher involvement, and user safeguards.

Also surfacing in this recent research by Common Sense Media is the dramatically increased use of social media by American teens since 2012: “Today, 70 percent of teens report using social media more than once a day. In 2012, that number was 34 percent” (Common Sense Media, 2018, p. 8). However, American youth are reporting substantially increased use of social media, as the report also finds: “Fifty-seven percent agree that using social media often distracts them when they should be doing homework” (p. 12). Even with this awareness, teens’ preference for face-to-face communication has fallen, while more and more teens are choosing social media and video-chatting as a favorite way to communicate. In the current climate, where teens are spending more time online and feeling more comfortable there than in face-to-face interactions, the potential benefits of setting up and examining online learning situations become even more numerous. The reporting via Common Sense Media also included the claim that social media tends to have a heightened role—both positive and negative—in the lives of more vulnerable teens:

Our survey included a social-emotional well-being (SEWB) scale based on concepts such as happiness, depression, loneliness, confidence, self-esteem, and parental
relations. . . . Teens who ranked lower for SEWB are much more likely to say they’ve had negative experiences on social media, from feeling bad about not getting likes on their posts to feeling left out or excluded. Disturbingly, more than a third (35 percent) of these teens say they have been cyberbullied, compared to 5 percent of teens who ranked higher for SEWB. Nevertheless, these more-vulnerable teens are still more likely to say that, overall, social media has a positive rather than a negative effect on them. For example, they're much more likely to say it makes them less depressed and less lonely. . . . Social media is an important avenue of creative expression for many teens, especially for those on the lowest end of the social-emotional well-being scale. (Common Sense Media, n.d.)

In my relatively small study, participants volunteered and seemed less likely to be part of a vulnerable group, but if whole classes were to be involved, as was the case with Bartow’s research participants, extra care would need to be taken surrounding the design of the site in order for it to benefit all members involved.

The “public square” is the phrase often used by Tristan Harris in his descriptions of social media. The desire to design this ‘square’ to the benefit of all members has led him to speak out on numerous occasions about the pitfalls of current designs of social media on all platforms; their competing activities to win on fronts of ‘economies of attention.’

Harris uses this term to link his perceptions on public discourse locally and internationally. Human and humane interests would be better served by altering the current designs of social medias to better promote truly democratic functions. While many educators might view the student use of social media as an inherently democratizing force, Harris views the design of current dominant players as a subjectifying compulsion. While
possessing great potential as a democratizing element in formal and informal education, social media is still in its inception phase in education. Harris points to the tenuous boundary regarding how this technological frontier can be both empowering and subjugating, not only for students but for all users. Researcher Keri Facer (2012) considers that “[W]hen young people themselves are the subjects of educational futures discourse, they tend to find themselves facing a predetermined future in which others have defined the goals and the rules by which they should play” (p. 98). Facer further describes a possible future, noting:

The potential for young people to challenge, question or reshape the futures they are being offered is invisible in dominant contemporary discourses that link education with debates about future socio-technical change. More importantly, the reality that young people will have to live in the future with the real consequences of decisions taken today about socio-technical developments is consistently overlooked. These sorts of discourses of the future see young people not as natives of the future with rights and voice, but as natives who should be subject to a form of chronological imperialism. (p. 98)

Facer’s research points to an expanded role that students may occupy in the face of powerful technological developments, chiefly in the form of social media. She argues that

[T]here are a number of future socio-technical developments currently being envisaged by researchers, developers, industry and policy-makers that demand a new relationship to be constructed between young people, education and future socio-technical change. Rather than seeing young people merely as poster children for futures designed elsewhere, or as educational subjects being prepared for inevitable futures, we need instead to recognise young people’s rights to an educational
experience that allows them to explore and challenge the decisions that are being taken today for the futures that they may inhabit. (p. 99)

Facer envisions the “public square” that Harris describes as being partly student-made rather than constructed beyond their purview and input. The ‘performance area’ in my own small study was created without student input and without familiar references and relationships, i.e., their own classroom teacher, and mechanisms of expression with which students were readily conversant and in which they could therefore have confidence.

Perhaps this critical need for the opportunity for youth input regarding the learning environment can also affect the degree of “symbiosis” going on in the relationship between young people and their mobile phones. Facer (2012) states that “contemporary youth in western societies is often observed to be developing symbiotic relationships with the mobile telecommunications devices that they carry with them, relationships that blur the boundaries between self and artefact” (p. 101). She cites Stald’s study of mobile technology use amongst youth, noting that “the mobile user is becoming a kind of cyborg. The young users in our research . . . experience a kind of symbiosis with their mobiles, in which the physical devices come to be understood as a representation of personal meanings and identities” (p. 158).

As to the tendency of this ‘symbiotic’ relationship leaning more towards amensalism, commensalism, mutualism, or parasitism, further examination and theorizing by researchers such as Turkle, Ito, boyd, Jenkins, Gardner and others mentioned in this thesis is ongoing.

Another significant and related issue is that of the handling of personal data. On this point, Facer (2012) suggests:
The individual management of personal data, the degree to which it is owned and shared with others, the costs and benefits of making such information widely available will become a pressing question for the individual and the institutions they are part of. The diverse patterns of appropriation of augmentation technologies will bring not only the familiar questions of equity—what will count as the benchmark for participation in technologically enhanced communities?—but of compatibility—who will be able to work together as different patterns of augmentation arise? (p. 102)

Harris warns of issues of personal data that call to mind a kind of parasitism on the part of dominant social media providers, given their design goals. This was not considered in the original conception of my study. On this matter, Facer adds

The critical question here, then, is not ‘how do we prepare young people for a future of inevitable . . . digital augmentation?’ or ‘how do we ensure young people develop ‘21st-century skills’ to use a given set of future technologies?’ Instead, we need to ask how we will create ethical education institutions that enable young people to reflect critically and carefully upon the sorts of digital . . . and other resources that they might use to enhance or augment their capacities and the sorts of personal and social futures these might offer. We need young people to be able to take informed decisions about when, in what circumstances and for what purposes they may choose to appropriate a particular . . . digital augmentation, what the costs and risks might be, what the benefits, and what systems this will mean the person becomes connected with as a consequence. Just as medicine is increasingly moving towards a principle of ‘no decision without me,’ so too education may need to create new practices that
intimately involve young people in the decisions about the processes, technologies
and treatments that may become part of the educational process. (p. 102)

Facer (2012) sums up her article by pointing out that we may need to reimagine
education as engaging with “interdependent individuals, independent with their unique social
and technological networks and resources” (p. 103). She considers that rather than grasping
onto notions of maintaining a baseline of consistent parity within the school, we may need to
bring about spaces for youth to make visible and cautious determinations about various
socio-technical aids that they bring into and generate through the educational experience, and
the sorts of futures that such determinations may cause them as individuals (p. 103). While
the “interdependence” mentioned above suggests both parties are living organisms, perhaps
we’ve collectively arrived at a point where we can hardly live without our digital extensions
(e.g., mobile phones for youth) and our social media bodies.

In a recent interview with EdTech, Mizuko Ito echoes Facer’s thoughts about the
importance of involving youth in the creation of viable educational settings in the face of
changing socio-technical realities and directions. Ito states:

There’s a gap in informal education. When you look particularly at sort of fast-paced,
new, creative areas, like coding technology, digital arts, [and] innovation, then so
much of that learning now is happening through more informal peer-based,
community-based kinds of contexts. Actually, the formal system, even if it was
playing an equalizing function, cannot fully give young people the opportunities to
succeed in some of these newer areas. In fact, it’s the informal networks through
communities, peer groups, families, and so on that is where coders and techies are. I
think educators of all stripes, including educational-technology makers, tend not to
focus on those informal dimensions as much. That’s where I think the growing equity gaps are really becoming much more acute. (Connected Learning Newsletter, 2018)

According to both Facer and Ito, informal networks of learning represent a growing and powerful trend for educators to explore, and upon which they should seek to capitalize. In the same interview, Ito concedes that even the most digitally progressive schools in the United States tend to not yet fully embrace these possibilities:

What we’re seeing is that there has always been a minority of schools that use technology in very student-centered and progressive ways, and those schools are still doing exactly that same thing with the new crop of technology. Then back even from the Apple II days or educational video, we’ve always seen that the majority of schools tend to domesticate technology to the traditional direct instruction modes that are prevalent in that school. (Connected Learning Newsletter, 2018)

According to these researchers, moving away from incorporating new digital technologies into the familiar direct instruction modes represents a real challenge that needs to be addressed in order to genuinely bridge one of the most prevalent ‘digital divides.’

5.6 Local Input Needed regarding Social Media Design Directions

Facer sees the rising tide in informal education available digitally as a helpful development in the challenges that we’re collectively facing across several fronts including environmental degradation, aging populations, food scarcities, weakening public finances, and challenges to democratic systems. In the context of these potentially overwhelming issues, Bartow believes “teachers are central to any lasting reform” (Bartow, 2014, p. 43). Yet she also notes, “Teacher experience is often less considered in educational policy and
research” (p. 43). Bartow references Dewey who stated that teachers “are the channels through which the consequences of educational theory come into the lives of those at school” and that “It seems to me that the contributions that might come from the classroom teachers are a comparatively neglected field; or, to change a metaphor, an almost unworked mine” (p. 43). Bartow sees that teachers are increasingly using social media in their teaching “but are increasingly pressured to do so” (p. 43). Even though pressure increasingly exists for teachers to adopt social media in their approaches, for the most part individual teachers are left to decide and develop their own pathway in so doing.

My own decision to experiment with social media for this research project came out of the inkling to learn something about the seemingly overwhelming digital communication tide happening in our midst. Although I would more naturally tend to the side, as Thoreau put it, that “men have become tools of their tools”, the ‘tools’ were already in my students’ pockets and had obviously become an intimate part of their lives. Although often attributed to Marshall McLuhan, it was McLuhan’s friend John Culkin who shared a version of Thoreau’s declaration insofar as he wrote: “We become what we behold . . . we shape our tools and afterwards our tools shape us,” (Culkin, 1967, p. 52) adding that the tools themselves were not neutral. McLuhan famously went against General David Sarnoff’s statement: “We are too prone to make technological instruments the scapegoats for the sins of those who wield them. The products of modern science are not in themselves good or bad; it is the way that they are used that determines their value” (O’Gorman, 2018, p. 06).

Sarnoff’s view resembles, in some ways, the current prevalent view of my local District School Board. The Google+ platform that my board insisted upon for the research project was deemed appropriate for all student and staff digital work, and no caveats were
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considered in its implementation. Since this time, reservations and concerns have developed in the broader context over Google’s omnipresence in our online lives. McLuhan might consider this an example of the overwhelming “somnambulism” against which he cautioned. According to McLuhan, Sarnoff overlooks the certitude that the nature of the medium, of any and all media, is to sneak up on the participant imperceptibly: “In the true Narcissus style, one is hypnotized by the amputation and extension of his own being in a new technical form” (McLuhan, 1964/1994, p. 23). McLuhan further stated: “For any medium has the power of imposing its own assumption on the unwary. Prediction and control consist in avoiding this subliminal state of Narcissus trance” (McLuhan as cited in Wardrip-Fruin and Montfort, 2003, p. 206). Writing 30 years before the rise of the internet, McLuhan presaged a kind of technological somnambulism that seems most prescient when we consider the compelling nature of some of our devices today, for example, messaging apps on mobile phones. But if there is slumber or ‘somnambulism,’ there can also be fully conscious self-directed activity, so long as the technology is modified with more humane goals and interests at its core.

Refining social media technologies to bring about more humane and civilizing impulses rests outside and beyond the sphere of the individual teacher, or even the school board, but our conscious usage and even collaboration regarding the design of these new tools arguably highlights one of the most “teachable moments” of our time. Failing to recognize the primacy of the classroom teacher in my research design illustrates the need to maintain all possible critical human links in the educational activity. Facer (2012) also believes that way in which ‘local guidance’ is maintained is also critical to promoting and “building the capacity for young people to participate in meaningful processes of socio-technical change through which they can ‘make a difference’” (p. 107).
The architecture of local guidance systems for youth participation in socio-technical change, like the evolution of social media design, represents an under-developed area. Local social media expert and guest speaker in schools, Chris Vollum, offers workshops to students, parents, and teachers on issues surrounding social media usage:

Many secondary students are focused on what’s next in their lives; grad, post-secondary, scholarships and awards, co-op placements, internships, trades, work-life. Yet many students don’t grasp the power that their social apps can play in either moving them forward—or blowing it all out of the water with a single post. We teach how to create inspiring and purposeful content that supports the former. This session doesn’t mince words and speaks to the real impact that students’ social content on Twitter, Instagram, Facebook, YouTube, Snapchat and others will have on their personal and professional opportunities and reputations. While the social media landscape is dominated with an indiscernible level of white-noise and meaningless over-sharing, students are educated from the belief that balance and time away from the glowing screen is paramount to increased clarity, intention and satisfaction when they are engaged with social media. (Vollum, n.d., paragraph 8)

Although Vollum does touch on the need to disengage at times, his focus seems to be that this is a kind of retreat to mount a better offensive online. In this way, his objective seems to be more on helping students create a powerful presence and useful content with available tools rather than helping students, parents, and teachers to deepen their understanding of these tools and their role in the “economies of attention” and discourses of power.

The local environment was really a source of enjoyment for the participants involved in my study; their responses reflect enthusiasm for exploring their local outdoor site and
creating artwork related to their locality. Facer (2012) states that students’ local environment can also be a powerful place to be part of socio-technical change and development alongside other players:

It is clear that there is an ethical responsibility to present the instability of dominant accounts of the future to young people and to invite them to see themselves as active agents in the creation of socio-technical change, rather than merely as passive participants in socio-technical societies designed for them elsewhere and by others. (p. 107)

Although this kind of change can seem like an overwhelming challenge, as this kind of change is seen as occurring at a distant and global scale, Facer believes it is “often, however, driven, experienced and shaped by the lived realities of local communities and families” (p. 107). Levine points out that it’s through the local level “through determination of budgets and the actions of local institutions and public services that national and global policy is acted out, a scale at which democratic engagement becomes not only possible but viable for young people and adults alike” (as cited in Coleman, 2012, p. 107).

5.7 Art-Making Particularities

In setting up the artwork projects for the participants in my study, I sought the very most local approach I could possibly include: their physical environment and its transient elements (leaves, sticks, grasses, etc.) in conjunction with any kind of low tech and high-tech tools for their final constructions, including apps on their phones. My desire to include these kinds of physically available materials combined with their mobile devices was an effort to bring together the elements most obviously rooted in time and place with the most compelling constituents of the compelling immaterial world of their favoured devices and
social sharing sites. My main goal was to set up a learning situation that brought together what I observed was many of my students’ first love—their mobile phones—with the enjoyment and art production related to the natural world.

To introduce the environmental projects, participants were shown images as examples of site-specific artworks and palimpsests. Classroom teachers were also provided examples of palimpsests completed at the researcher’s high school and these were discussed in their classes in terms of both format and content. The classroom teachers decided that finished palimpsest projects needed to include four layers using different media. Both classes also had presentations made by a conservation authority outreach speaker, and by a local expert in native and invasive species. Both groups spent three classes outside building their environmental, site-specific sculptures (see Figures 1-7), three days indoors planning their palimpsests, and six to eight days completing their multiple layers and assembling their final palimpsest artwork pieces.
Figure 1. Student environmental, site-specific artwork, sample 1.
Figure 2. Student environmental, site-specific artwork, sample 2.
Figure 3. Student environmental, site-specific artwork, sample 3.
Figure 4. Student environmental, site-specific artwork, sample 4.
Figure 5. Student environmental, site-specific artwork, sample 5.
Figure 6. Student environmental, site-specific artwork, sample 6.
The palimpsest assignment involved students creating artworks that involved images being overlaid on top of other images, in this case geographical maps. Full instructions for both art projects can be found in Appendix A. Figure 8 shows one student who did choose to experiment with the drawing application. Seven examples of the completed palimpsest assignments can be seen in Figures 9-15.
Figure 8. Student experimentation with the optional drawing application.
Figure 9. Student palimpsest artwork, sample 1.
Figure 10. Student palimpsest artwork, sample 2.
**Figure 11.** Student palimpsest artwork, sample 3.

**Figure 12.** Student palimpsest artwork, sample 4.
Figure 13. Student palimpsest artwork, sample 5.
Figure 14. Student palimpsest artwork, sample 6.
In looking at how the students viewed the use of their cherished social media as it related to some of their art production, participants’ actions and responses presented some interesting contradictions when compared with youth trends in a broader context as outlined by Turkle, Ito, Jenkins, and boyd. For example, although participants repeatedly expressed delight at the unfamiliar outdoor artwork processes, they mainly demonstrated reserve in using the ‘drawing’ application (i.e., participants had the option of moving across their local landscape with a tracking app to create lines and shapes over a representation of their schoolyard, to be included in their palimpsest). Although they expressed enthusiasm over
this digital option, most opted to simply use a ready-made map as a reference and then paint and/or draw images over top of the map. This finding appears at odds with global participation surrounding what might be considered the dominant artform of our time—videogames. This highly commercial artform dominates the previous generation’s dominant artform, cinema, in a significant way and it involves producing a new sort of art (fiction, in this case) that affirms the networked self through a virtual reality in which the player can shape his or her own story. This kind of activity would seem to suggest that the use of a drawing app would be quite favoured, but this was not evident within my study. Video games provide the ability for participants to play with thousands of other potential players in vast landscapes that obscure the limits between reality and fiction, and between player and avatar (Galloway, 2006). The appeal of networked-self did not seem to apply in my study, as the majority of participants were not drawn to the possibilities of their mobile phones to produce novel ‘drawings’ or set themselves up for the opportunity to share this with other art makers online. There could be several reasons for this retreat from a digital and networked platform: for example, a lack of familiarity with the suggested app, a lack of guidance relating to the app, perceived efficiency or inefficiency of the task, or a preferred aesthetic regarding the look of the finished art production. In any event, the networked option did not generally hook the participants in the anticipated way, given their preference for other networked activities.

Participants’ behaviour with respect to their Andy Goldsworthy style sculptures constructed in the school also presented some contradictions to the pattern of art production and sharing in the contemporary networked landscape. Having moved beyond the modern
and the postmodern in our current era of artistic production, prominent contemporary artists often work and share on vast scales, given available technologies. As Varnelis (n.d.) notes:

Art—so long a bastion of identity and expression—changes in response to this [network culture] condition. Rather than producing work that somehow channels their innermost being, artists, musicians, videographers and DJs act like switching machines, remixing sources and putting them out to the Internet for yet more remixing. Much like the contemporary media outlet, both the self and the artist of today is an aggregator of information flows, a collection of links to others. (paragraph 20)

Although the participants willingly worked together on their outdoor sculptures creating collaborative pieces with found materials, they demonstrated reluctance to share their process on the sharing network as set up in this study. The online ‘remix’ ethos of so much of contemporary professional art didn’t appear as dominant with these experimental conditions. Participants preferred to remain rooted in their class connections to produce their outdoor sculptures. They did share their finished pieces with a larger audience, but process sharing was not spontaneous or natural for them, as Varnelis describes it, within the broader context of creative spheres.

Remix culture still played an important role in participant art production on all project work in this study, as participants voiced the importance of researching examples of outdoor sculptures and palimpsests online. In this way, a very diffused form of investigation took place, but coordination and interaction with nearby student collaborators at the other school site remained stilted. Connection in the contemporary online situation is most often borne of pre-existing connections. Varnelis (n.d.), further notes:
Today we situate ourselves less as individuals and more as the interstices of multiple networks composed of both humans and things. This is easily demonstrated through some everyday examples. First, take the way the youth of today affirm their identities. Instead of tagging buildings with expressive names, teens create pages on social networking sites such as MySpace and Facebook. On these pages they list their interests as a set of hyperlinked keywords directing the reader to others with similar interests. Frequently, page creators use algorithms to express (and thereby create) their identities, for example through a Web page that, in return for responses to a set of questions, suggests what chick-flick character the respondent most corresponds to. At the most reductive, these algorithms take the form of simple questionnaires to be filled out and posted wholesale on one’s page. Beyond making such links, posting comments about others and soliciting such comments can become an obsessive activity. Affirming one’s own identity today means affirming the identity of others in a relentless potlatch. (paragraph 20)

According to this logic, connection among non-physically close but like-minded youth takes the form of carefully constructed formulae to establish rapport and semblance. The ‘potlatch,’ or ‘party’ doesn’t start until the participants display likeness and kind.

Inadvertently not adhering to their accustomed social media habits, I placed the participants in a position to network that, to them, seemed to be lacking the observance of polite exchange on a potentially very sensitive topic: their creative production. The ‘party’ was organized between otherwise non-connected members of a new social club that introduced assigned school projects with completely unknown viewers and potential commenters. The defined “friendship” system of relationship that they experienced on
Facebook was nowhere to be found. Only one had previously sought out feedback on her artistic production from a site where unconnected participants could comment on her work. Here, although she found some of the commentary condescending from others whom she guessed were older participants, she felt the experience was helpful and liberating.

To genuinely move the social media exchange to a place that is helpful and liberating for students within educational circumstances, might well require more than careful observance of social media decorum and practices. According to Tim Wu, using a platform such as Google+ (in this case mandated by my school board) was perhaps perceived by students as “just another data hoarder” and that “the advertising and data-collection models are incompatible with a trustworthy social media network” (Wu, 2018, p. A27). Wu presents several alternatives to Facebook, linking users to friends and allowing posting of thoughts, comments, and images without the same de-humanizing exploitation that can occur when entities such as the “mother ship”, i.e., Facebook, continues unchallenged. In his op-ed in the New York Times, Wu lists four alternative privacy protection platforms provided by: 1) firms for which users would pay a small user fee; 2) a non-profit such as Wikipedia which could start Wikimedia; 3) former Facebook employees, many of whom have congregated at the Center for Humane Technology, a non-profit for those looking to change Silicon Valley’s culture; and 4) the Corporation for Public Broadcasting, which was created in reaction to the failures of commercial television and whose mission includes ensuring access to “telecommunications services that are commercial free and free of charge” (p. A27). Wu offers these alternatives to carry out what the participants in my study demonstrated as a natural instinct: to retain some kind of privacy in an online, networked situation.
5.8 Networks Revisited

Niall Ferguson (2018) places these global social networking sites in an historical context, stating that the networking functions that Facebook, Google, and other social media platforms perform are not new. He notes, however, that in the past

libraries and social clubs did not make money from advertising: they were non-profits, funded out of donations or subscriptions, or taxes. The truly revolutionary fact is that our global library and global club are festooned with billboards, the more we tell them about ourselves, the more effective the advertising becomes, sending us off to Bezo’s [Amazon’s] bazaar with increasing frequency. (p. 358)

My school board was justifiably concerned about student participant security and privacy, but using any commercial platform involves the production of data handled and used perhaps beyond the purview of the local District School Board. Ferguson also observes that Google’s original mission statement, i.e., “to organize the world’s information and make it accessible and useful” has transformed into “make a fortune from advertising and invest it adventurously” (p. 353). Facebook’s utopian beginnings have morphed along similar lines, moving from “Facebook was not originally created to be a company. It was built to accomplish a social mission—to make the world more open and connected” (p. 354) to a reality more akin to a “sharecropping economy” in which “the user is the product” (p. 356). Facebook, which most of my participants indicated was their preferred social networking site, also confers a significant local component to most people’s friendship circles (p. 355). But as Ferguson explains, physical proximity to others only goes so far as the idea that ‘conversion’ is a function of one’s position in multiple existing social networks.

Users are characterized by homophily: birds of a feather, in terms of shared interests
as well as personality types, flock together as always, and there may be a feedback loop that causes similar users to grow more interconnected through Facebook usage.

(p. 356)

In my study, there was little potential for participants to operate in these familiar ‘flocking’ terms, as the circumstances and platform were unfamiliar, and not set up for this tendency.

Although the palimpsest project parameters (see Appendix A for assignment details) were also a new and unfamiliar part of the experience, participants responded enthusiastically to this kind of art production. Constructing such an art piece with layers, over a more protracted period of time, differed from their typical assignments usually consisting of one layer. Palimpsest is a Greek word meaning manuscript that has been rubbed or scraped and then used again; cleared for new writing. In much the same way as a manuscript, their creations evoked the passage of time and the reworking of images, text, and ideas. Often contemporary palimpsests are multimedia in nature, allowing a broad range of expression. In this way, they mimic youth online expressions, which are constantly being updated, revised, and amended to reflect their changing self-conceptions. Stern notes that young authors take considerable solace in the knowledge that their personal home pages and blogs are not static entities. They appreciate their utility to update, revise, delete, or otherwise alter their sites for any reason at almost any time. Upon recognition, for example, that site visitors seem to be getting the wrong impression from their sites, they change the offending material, add new entries or content, or even post comments warning audience members to “back off” and “respect that this is a page for me, not for you.” (as cited in Buckingham, 2008, p. 112)
One participant in Stern’s research expressed it as follows: “That’s what I mean when I say that I’m only a first draft, because I myself am incomplete, the page will always be evolving” (p. 112). An online palimpsest art production seems to suit our ‘ever evolving’ site status.

Precisely due to their changing nature, personal sites can also serve to express identity formation. Stern states: “[P]ersonal sites appear to be used by young authors to engage directly with the challenges of identity formation that are common to adolescence in Western cultures” (p. 113). As well as presenting their finished artwork online, participants in my study were exhibiting themselves online throughout the developmental process of their art creations and with accompanying commentary. Stern also comments that although youth seek validation from their online presentations, “most young authors express their biggest frustration with their personal sites as the dearth of comments, especially substantive ones” (p. 111). Presenting artwork online can magnify the challenges of soliciting feedback online due to the personal nature of one’s creative work. The adolescent work of identity formation and the artistic production of the participants could combine to bring into being a very sensitive situation. Stern adds that “the tendency for most [youth] authors is to view their sites as their own private spaces, even though they exist within a public forum. Although they desire feedback from others, they also desire respect. Negative comments are felt almost as invasions of privacy” (p. 111). Theorist danah boyd speculates on the importance of this seeming contradiction:

[E]ven in the public world of blogging, there is an understanding of a private body. By entering a public space, we do not expect to be molested; likewise, in blogging, we do not expect to be attacked simply because we are in public. We view our bodies as private space in public, just as we view our blogs. Any yet, the relationship
between private and public is quite blurred, particularly considering that the public square of the blogosphere is not ephemeral, but across space and time. (as cited in Buckingham, 2008, p. 111)

A creative enterprise, such as blogging, could be viewed akin to the creative productions of the participants in my study. They also displayed the sensitive nature of their online ‘bodies’ and trepidation around sharing their art productions in a public space. Although the public space in this case was a completely controlled group, virtually unknown members of the group from another school made for an intimidating setting, especially because this new environment did not include a familiar local mentor from either group (only the researcher).

Jonathan Zittrain of the newly formed Berkman Klein Center for Internet and Society aims to “explore and understand cyberspace; to study its development, dynamics, norms, and standards; and to assess the need or lack thereof for laws and sanctions” (Schneier, n.d., paragraph 47). My student participants’ trepidation may have been part of a larger healthy apprehension for social media platforms. Zittrain, along with Jack Balkin, have introduced the idea that social media platforms become ‘information fiduciaries.’ In law, a fiduciary duty is an obligation to act in an honest and faithful manner in the best interests of a client. In explaining fiduciary obligation the Canadian Encyclopedia (n.d.) states that “the legal system recognizes a multitude of special relationships in which one party is required to look after the best interests of the other in an exemplary manner.” In conversation with Nora Young, Zittrain explains: “The basic idea behind the fiduciary relationship is that the way they use that sensitive data should be to advance our interests and where their interests happen to conflict with ours, they’ve got to favour ours over theirs” (Zittrain, 2018). For example, he points out that we expect doctors to prescribe us a certain drug because we need
it, and not because the doctor is getting a financial gain for prescribing it. Although not strictly a social media platform, engineers at Facebook have designed a ‘personalized learning’ platform for school in the U.S. called Summit. The Washington Post reported a student walkout to protest use of the software in their school in N.Y.C. in November, 2018. Although a major part of the students’ complaints centered on their perceived reduced opportunities for learning with the platform, they also voiced concerns about the use of their personal data:

Another issue that raises flags to us is all our personal information the Summit program collects without our knowledge or consent. We were never informed about this by Summit or anyone at our school, but recently learned that Summit is collecting our names, student ID numbers, email addresses, our attendance, disability, suspension and expulsion records, our race, gender, ethnicity and socio-economic status, our date of birth, teacher observations of our behavior, our grade promotion or retention status, our test scores and grades, our college admissions, our homework, and our extracurricular activities. Summit also says on its website that they plan to track us after graduation through college and beyond. Summit collects too much of our personal information, and discloses this to 19 other corporations. What gives you this right, and why weren’t we asked about this before you and Summit invaded our privacy in this way? (Strauss, 2018, paragraph 15)

The for-profit initiative designed by Zuckerberg, founder of Facebook, is described on their website as a “personalized, research-backed approach to teaching and learning” (Summit Learning, n.d., paragraph 1). Even with these laudable descriptors, students in New York and other states felt that the program fell short of expectations for both actual learning and
security reasons. Although not expressed this way in their protest, students perceived that the creator of the platform was not performing its “fiduciary duties.” Similarly, all current major social media platforms have a for-profit motive and are designed to harvest participant data.

5.9 The Importance of Trust in Developing Community

At a much more intimate level, the issue of trust is central to the full functioning of social media platforms, with youth or mature adults in all situations. When designing my research project, early in the process I sought student mentors for the purpose of enhancing trust for my participants online. I attempted to recruit senior Visual Art students at the two schools involved, but no-one was willing to participate. Perhaps another potential time burden was not viewed as an appealing part of their senior year experience, particularly when it represented no personal gain except the experience of taking part in a research project with juniors. Jenkins (2009) describes mentorship as an important part of such an online experience:

A participatory culture is a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one’s creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices. (p. 3)

My own presence and insertion of comments online could not take the place of senior students whom they would have perceived as more genuine mentors—fellow students from their own schools who had experienced the same or similar learning expectations and situations.

Added to the issues of lowered trust within a new online situation, the project called for participants to share regular school assignments in a format previously known to them as
purely social. In such situations, Burbules (2016) states “participants perceive their success as the success of the group” (pp. 563-564), further adding that

Unfortunately, this [using social media] runs against our standard evaluation and reward systems in academic contexts, which tend to reward individual performance, and which will need to be re-examined if we are serious about saying that learning to collaborate is one of our primary educational goals. (p. 564)

According to Burbules, participants may form “strong social connections” and this may be of immense service in educational contexts, even creating an “ethos of generosity and spirit” (p. 555) of shared discovery and co-creation. This kind of productive ethos also needs to be aligned with educational goals and assignment parameters that tap into learners’ desire to collaborate. Burbules describes the conditions for collaboration in the following way:

People collaborate because they collectively want to accomplish something; but they also collaborate on that goal because they are committed to the community. They care about the purpose because they care about the group, and they care about the group because they care about the purpose. (p. 560)

In designing the project work for the research, I myself as researcher cared about the group, their purpose, and their communication, but given their low level of peer commenting and dialogue, there was not the usual kinds of caring built into the system. Ultimately, participants were producing assignments to be marked by their teacher, not forming a group with a distinctly joint purpose.

In research carried out in the Chicago area, there were built-in reasons why youth participants would create and share using social media; reasons to care about the extent of their sharing of posts were therefore close to the participants hearts. It was a community
rather than a school-organized initiative promoting youth involvement in animal advocacy. The program leader describes it this way: “It’s a lot of raising awareness in the community about the needs of animals in animal shelters” (Century et al., 2018). Participants described the program as follows:

‘The main reason why I got into it [the program] was to use my voice,’ one participant said, ‘and you know, speak of issues, and I think in this case, just being an activist, is another reason why I joined.’ Another teen stated, ‘I feel like animals don’t get advocated for enough—there are other problems we tend to focus on more. And I think this program is a great way for me to learn how to advocate, and the best ways to use social media and other devices to advocate.’ (p. 22)

Youth used social media tools including Facebook, Instagram, and Snapchat to create virtual spaces with which they were familiar, and which they enjoyed using. They created ‘adoption campaigns’ where they share video footage, pictures, and stories about their cat and dog with the community. Program leaders and teens both felt that social media, and especially Facebook, is a powerful advocacy tool, as adoption campaigns have the potential to ‘go viral’ and spread to many people across Chicago’s far-reaching neighborhoods. (p. 22)

In this community initiative, the focus was on local activity, with the social media content created to reach across the entire city. The source and the intended reach were within a bounded geography. The teens had a common goal, and the platforms used served their collective endeavour. They also had local mentors that they met with and furry ‘preceptors,’ i.e., the animals involved, which no doubt provided love and motivation. Although this is an “After School Advocates” program, it aimed to “spread knowledge and compassion through
social media” (p. 22), and would potentially influence, for at least some students, future educational and career-related choices. My own research project also offered participants a local emphasis but lacked the strong collective goal and local mentorship which rooted the Chicago after-school program.

While the Chicago program demonstrated success with generating routes for youth to advocate for a previously voiceless group using social media, Turkle (2011) provides a cautionary breakdown of the use and overuse of these types of media: how people become dependent on the particular forms of attenuated connection made possible by certain technologies—networks that allow users to manage content and frequency, at a secure distance. Turkle’s observations relating to this ‘safe distancing’ describe the kind of artmaking that many social media platforms promote and exhibit.

Aaron Knochel’s visuality research involved participants’ use of Flickr in a remixing of online images from undisclosed sources. Participants created art statements about personally relevant topics from content generated by fellow platform members using tags. Knochel (2013) describes his project noting that it was designed “to build students’ critical thinking skills in their relationship to everyday imaging” (p. 24) in the following way:

As visual researchers, students . . . were asked to explore tag clouds in Flickr to gather visual connotations both through their search terms and the crowdsourcing of image clusters. These investigations provided a networked visual construction of ideas that explored the many compositions of image collections and their interconnectedness, a gathering of not only images but the social and cultural discourses that inform understanding of them, and a means to leverage the contributions of a vast number of image makers. (p. 24)
Knochel’s participants were university students adept with using Photoshop to make visual representations of their investigations. Working entirely with appropriated images, Knochel views their artwork as “an important mode of artistic expression that is emblematic of many contemporary art-making processes” (p. 22). In this way, Knochel echoes Jenkins, Ito, and boyd’s statement that an essential part of 21st century literacy practices within our current culture is “the ability to meaningfully sample and remix media content” (Jenkins et al., 2016, p. 4). Be that as it may, if students’ art primarily consisted of these kinds of digital sources, this would bring about a radical shift in young artmakers’ content development. Such shifting in content development and a de-emphasis on any form of local elements would also have important implications for students’ sense of self, their identity, and local relationships of all kinds. In my experience, there is a natural tendency for students to play with all kinds of materials including those that are digitally sourced. Art projects designed as interplay between the virtual and the real could serve to effectively reflect students’ lives and experience of the world, if constructed in ways which tap into genuine interests and concerns.

Jenkins (2018), in correspondence with Esra’a al Shafei, Founder and Director of Mideast Youth, exchanged some thoughts about how “networked youth can change the world” and in so doing revealed some interesting points about the mixing of local, ‘on-the-ground’ issues with social media platforms. In her estimation and experience of effective social protest, she noted that youth need a “diversity of content” (p. 5). In the communities that she has been involved with, this has taken the form of film and music. Although her observations deal with other realms from the arts which are unrelated to my project, her remarks point to the importance of creative arts overall in addressing social issues. When Jenkins asks al Shafei “what keeps the spirit of the struggle alive?”, the activist responds:
Music in the Middle East has always been such an important tool for social justice advocacy, because it's such a subtle and yet powerful way to make your voices heard and at the same time, invite other people to your cause in a very creative and interactive way. One of the platforms that we run is called MidEasTunes.com, and it’s basically a platform for underground and independent musicians in the Middle East and North Africa who use music as a tool for social advocacy. A lot of these individuals have been imprisoned or they're living in exile. A lot of them have experienced censorship. A lot of people here talk about blogging as a very important tool. But I would argue that music is actually that much more powerful. It’s much more difficult to censor and it’s much easier to go viral. (p. 5)

She notes the essential link that music, and by extension all of the arts, has to action, even in circumstances as fraught with conflict as the Gulf region. Al Shafei has also created a social media discussion forum platform, which has had its own unique set of challenges:

But when we created this discussion platform, our number one issue was trolls. Cyberbullies we're multiplying like insects throughout the internet. How do we keep communicating with each other without it being in public and without it being in a place that would compromise your identity or the community? . . . And once you share an experience or an advice that other people think is helpful, they vote and you get more points. And then based on the amounts of points you get, you unlock more and more features on the platform that you actually didn’t even know existed. (p. 7)

Built-in features within the locally designed platform establish safety that allows the user to, in turn, create more secure spaces within it.
And it becomes difficult to infiltrate those private spaces where you can go and talk about more intimate topics or topics that are taboo in the Middle East. You can do it without really fearing so much about somebody infiltrating it, because you know that everybody there spent a significant amount of time being an encouraging member of the community already and they have a verified status. And once you have even more points, you, for example, can now create your own chat room where it can be completely private and you can invite whoever you want. (p. 7)

The safeguards that al Shefei is describing in this platform are an example of local ingenuity coming into play in response to protecting fundamental human needs and promoting community support. They represent an inspiring example of what the technology can do for those who design it with human needs in mind, beyond those of the “economies of attention” and demands of commerce.

Although perhaps an extreme instance of the potential for sharing platforms to integrate with local arts to promote increasing human rights in difficult, even dangerous situations, this example points to the potential for such complementarities to exist and to be developed in education, even within formal education.

al Shafei clarified her views regarding her use of Western online platforms in the Huffington Post in such a way as to indicate how they need to operate in order to fulfill potential in benefitting activist work:

As new citizen media from protests and conflicts is uploaded and shared across the web, emerging and existing platforms must prove they are committed to hosting valuable citizen-generated content with attention to its safekeeping and integrity, careful archiving of media in a way that is searchable and accessible, and no
monetary cost to promote visibility. Likewise, we as a global community must safeguard and support those who take risks by sharing this evidence, allowing for anonymity and employing enhanced digital security. Only continued innovation geared towards the needs of the communities generating this evidence will ensure citizen media’s full potential for bringing about awareness, action and justice. (al Shafei & Tyas, 2016, paragraph 13)

al Shafei ingeniously circumvented Western platforms, creating CrowdVoice.org to better serve her community’s needs. Her work suggests the potential for participants in all kinds of communities to use social media to further their most essential work and at the same as maintaining awareness of the community’s needs and conditions.

While mainly not political in the way Bahraini activist al Shafei’s work has been, student art production is also deeply heartfelt and close to the core of who students are, and who they aspire to be. It often offers a snapshot of their authentic identity and belief system at a time when identity ‘work’ is central and sensitive. Baym (2010) relates that “most online communication happens against a backdrop of a shared history, whether two individuals or a group that has had the time to develop norms to guide appropriate behaviour” (p. 71). Having insufficient time “to develop norms” in my study seems to have been an important impediment to the growth of more connections in the online setting, as it was being established. This seems all the more essential for these Grade 10 participants, as identity development at this age is often quite reactive.

As of yet, informal learning situations online seem to attract and involve most young people in areas of creative pursuits. In studying young teenagers’ lives and online habits for a year in a school in England, researchers Livingstone and Sefton-Green (2016) observed:
We saw the pursuit of forms of learning, too, that evaded the scrutiny of or valorization by the school, with several young people refusing the chance to ‘shine’ or obtain ‘commendations’ for out-of-school activities in school precisely to keep their spheres of interest and activity distinct. (p. 24)

The students that they observed strongly preferred to keep their genuine interests and learning areas away from the view and purview of their school. This strong preference adds complexity when attempting to use an online setting for school-based projects. Most of my participants compared the online sharing in Google+ unfavorably with their preferred and more familiar Facebook space, in terms of the expressed academic purposes.

5.10 Research Questions Revisited

In this section, I will specifically revisit the three original research questions.

**Question 1: In what ways does online sharing affect student learning for both (a) the formative stages of art production, and (b) the resulting final art pieces?**

Participant responses and reflections during the interviews indicated that online sharing has differing effects on the formative stages of art production and on the resulting final stages. The process work of art production often requires more experimentation and the revisiting of certain stages, ideas, and layers. Before a piece is finished and final decisions have been made, participants felt more uncertain and reticent to share online. Once the work was finished and less “messy,” participants felt proud and more willing to share their art. Perhaps one avenue to explore more fully is to have participants share their process narratives upon completion of the artwork so that others can know something of the decisions, surprises, and false starts that may have been part of the final, finished product.
As I reserve a visit to the Art Gallery of Ontario (AGO) to view the Anthropocene exhibit by artists Edward Burtynsky, Jennifer Baichwal, and Nicholas de Pencier, their stated goal on the AGO website reads: “Our ambition is for the work to be revelatory, not accusatory, as we examine human influence on the Earth both on a planetary scale and in geological time. The shifting of consciousness is the beginning of change” (Art Gallery of Ontario, n.d.). It is their stated goal to seek to be invitational to the collective effort to inhabit the planet in a more sustainable way. It is also suggested that I download an app called Avara in order to view some of the works in the most effective and augmented way. It is understood that I have a smartphone to be able to do so. Being fully aware of an element of irony in this mobile device-enhanced act of viewing, the makers suggest simply a non-judgmental stocktaking of where we now are as a species, and thereby hint at inspiration for how we’d like to proceed collectively. Part of the exhibition overview reads:

The artists travelled to countries on every continent, save Antarctica, documenting irreversible marks of human activity. Informed by scientific research, powered by aesthetic vision, inspired by a desire to bear witness, they reveal the scale and gravity of our impact on the planet. We have reached an unprecedented moment in planetary history. Humans now change the Earth’s systems more than all natural forces combined. This is the central argument of the proposed current geological epoch: the Anthropocene. (Art Gallery of Ontario, n.d.)

In a very small way, my research was organized along similar lines, to provide an opportunity for my participants, fellow teachers, and me to experience and consider together environmental artmaking in the context of contemporary, practically ubiquitous digital tools and platforms. By bringing together the very physical place-based creative production in
relation to a social media platform, I hoped to promote perspective of our current place in education by their divergent realities. If there is some kind of learning intersection between these disparate locations, then careful consideration of our human nature, identity development, and social needs seem paramount. The title of the art show at the AGO signals the pre-eminence of the human aspect in terms of our current signature on the planet.

Likewise, seeking to discern some of the important aspects of interplay between student participation in artmaking and online communication surrounding those artworks, still involves the most human and basic elements of apprehension.

Participants expressed enthusiasm both for the environmental artmaking projects outlined for them, and the potential for communicating about this work with their peers in an online context. In reality, less actual participant feedback was generated than the enthusiasm would indicate. Examination of this occurrence suggests that careful consideration and construction of students’ online situation is necessary to promote a more fruitful circumstance for online sharing and personal reflection.

Several circumstances in the participants’ online experience came together that might have dampened online enthusiasm:

- **Shifting Role of the Teacher:** The study was organized around two participating schools with home teachers introducing assignments for their entire class, but these teachers did not participate in the online environment. Students were on their own in this space without their familiar teacher modelling behaviours, including how to comment on the process or the conditions of the work. The researcher (a brand new presence for the participants) was on hand and offered comments, but this presence came without any prior relationship existing with the participants, and so ultimately
was interpreted more like a monitor, and perhaps as even an intimidating accompaniment, rather than as a teaching role. Castro (2012) has stated that “the collective also teaches” (p. 166), however, the collective seems to still need, or at least desire, a trusted presence.

- **Use of a New Platform:** Participants expressed dismay about using Google+ both because it was a brand-new sharing platform that they were unfamiliar with, and because the new platform was introduced in a somewhat clumsy way (i.e., participants were first formed into a Google Group and then transferred to Google Community, as this seemed to work more smoothly). The participants valiantly carried on, but this situation certainly may have reduced their confidence in the platform and hence in the process.

- **Lack of Mentors:** Originally, I had conceived of the project involving Senior students as online facilitators, offering feedback for the younger student participants. In traditional classrooms, I’ve found the presence and responses of older students to be hugely engaging for younger students. When I’m offering exemplars in class, students enthusiastically respond to viewing work from those who have come before them. Senior student online mentors could function in a way described by artist and art educator Baldessari as follows: “You can’t teach art, but you can establish some sort of ambiance where art could happen,” and similarly, “You can't teach art, but if you’re around artists you might pick up something” (Migone, 2011). Baldessari’s comments point to a certain essential informality of atmosphere in order for art production to be encouraged, and evidently online art sharing needs to conform to these precepts as well. The senior students/artists/mentors could have helped to fulfill
this role and to encourage a certain informality of atmosphere and expression. In a novel situation such as online art assignment sharing, mentorship probably becomes even more important.

- **Construction of the Online Group:** Although the students ultimately shared within a Google “Community,” the essence of community as described by Burbules (2016) wherein genuine and more spontaneous sharing can occur, wasn’t actually built in to our system. Burbules (2016) noted that his participants “collaborate on [a] goal because they are committed to the community” (p. 551). Paying more attention to building a working community among participants, by including, for example, more joint learning tasks at the start, could serve to develop relationships and a stronger reason to ‘commune.’ An example of an appropriate learning task could be simply discussions (both in the traditional classroom and via an online forum) of the experience of using the mapping/drawing app for the first time in the schoolyard. A shared encounter with this then-novel app could prompt sincere discussion of the results of ‘drawing’ this way. A shared goal, of, perhaps, drawing a hand or a bird by walking/running around outside, could perhaps bring about a shared experience, laughter relating to the exercise, and something both tangible and virtual to the group. This was offered as a suggestion on the “Tentative Outline” to the participating teachers, but not attempted, for whatever reasons.

- **Opportunity for Face-to-Face Interaction:** Baym, boyd, and Turkle all mention how youth continue to prioritize physical, face-to-face communication even within an atmosphere of soaring online activity. As boyd (Jenkins, Ito, & boyd, 2016) has mentioned, the communication goes ‘underground’ in an online way when
opportunities are diminished for in-person talk; youth seek alternative spaces for freer association. The participating groups in this study were part of the same school board, and in physical proximity to the same watershed, hence their selection as a convenience sample. Even a single opportunity for in-person discussions, artwork constructing and viewing of the outdoor sculptures at each other’s school yards, could have encouraged more motivated communication online, and added to the development of a new mini-community.

**Question 2:** How does the overlay of various media within a palimpsest art production approach affect student learning (enhanced knowledge of local watershed natural heritage), creativity (art making), and attitudes (appreciation of the physical site of the school)?

The overlay of various media within a palimpsest art production approach enhanced the student learning of the local watershed. Students were happy to be able to research areas of their choice within this topic, and to create layers for their palimpsest designs. The layering process added to their sense of individual creation, and to their ability to play and manipulate their artworks until they felt they were completed. The layering process also lent itself to learning about different aspects of their local watershed.

**Question 3:** How do students and teachers compare this approach to more traditional classroom forms of sharing and assessment?

Students all stated that they preferred this kind of online sharing, although the quantity and quality of their actual online sharing behaviours indicated that there may be certain factors that led to hesitancy, as described above (under Q1). As part of the study
design, the online sharing involved both of the students’ finished artwork pieces, i.e., the site-specific Andy Goldsworthy style *outdoor sculptures* and the developmental stages of the palimpsest pieces. It seems less intimidating to share the finished sculptures than the potentially very messy process work of the palimpsests. As outlined by Turkle (2011), youth (and perhaps all ages of people) are more accustomed to sharing a very polished version of the self. This more highly curated identity work is very much part of our social fabric. This kind of sharing does allow for a kind of protean identity construction, but even this kind of identity development, over time, tends to rely on displaying what we consider to be our most ‘sharable,’ or curated, self along the way. Baym (n.d.) mentions a “dialectic tension between connection and privacy” existing online, and this element was apparently evident when my participants faced the prospect of sharing unfinished parts of their artwork online.

Baym also states that “the empirical evidence from research tends to show that, in fact, online communication is really deeply interwoven with all other forms of communication” (n.d.). In my experience, sharing something as potentially sensitive as one’s in-process artwork needs to take place in a situation where trust has developed. In more traditional classroom settings, youth need to experience a deepening of trust before sharing comments about each other’s work, especially work in process. This seems essential in our social media settings as well. Baym also addresses this particular sensitivity when she states: “What would it mean, for example, to think about how we could design technologies that helped people draw boundaries more efficiently rather technologies that were pushing them towards more openness all the time” (n.d.)? Addressing student artists’ needs for boundaries within their creative process needs to be considered within a context of online sharing; students’ trust of an online situation needs to be built up in much the same way that it is built
up within traditional classroom circumstances. Whether this involves the use of non-
proprietary platforms in future high school learning settings will depend upon ongoing
debates surrounding issues of ethics.

Unfortunately, classroom teachers were not offered the opportunity to view and
assess the online work due to the school board’s privacy policy.

5.11 Limitations of the Study

A friend recently offered me a couple of blank notebooks that were put out for
garbage and that bore the title “Think with Google” emblazoned on the cover. Although I’m
all for using found materials, I’m not sure I actually want to “think with Google.” Given my
history with Google, I already am thinking with this particular tool; yet, it’s my own bias
which got in the way of this new ‘acquisition.’ My underlying bias could have also been an
obstacle to successfully designing the most opportune conditions for student sharing
environmental artworks online. Although Basar, Coupland, and Obrist (2018) declare in The
Age of Earthquakes that

People say that we create technologies which alienate us, but the fact is that anything
made by humans is a de facto expression of humanity. Technology cannot be
alienating, because humans created it. Genuine alien technologies can only be
created by aliens. What we might describe as alienating is, in fact, ‘humanating.’

(n.p.)

Throughout the book, the authors need to invent new words such as ‘humanating,’ indicating
that we need new ways to know and describe current phenomena. I find keeping up with this
‘humanating’ aspect to be challenging in education. My appreciation for outdoor education
activities and their promotion seemed more important and dominated my ‘agenda.’ These authors also describe the planetary context of our rapidly changing technology:

So here’s the thing: The bulk of human activity is the creation and moving of information. Twenty years ago the Internet used zero per cent of human energy consumption. Today, the digital economy uses 10 percent of world’s total electricity. It’s the same amount that was used to light the entire planet in 1985. Transporting data now uses 50 per cent more energy than world aviation. This amount will grow and grow and grow and grow. The carbon that fuels our electronic life is melting the ice caps. (n.p.)

In their non-conforming book, these authors create a reactionary literature that rises to the challenge of our present technologically accelerating circumstances. Students are also ready to rise to this challenge if offered the opportunity to work with well-designed, “humanating” circumstances within and beyond contemporary school contexts.

5.12 Implications for Future Research

Based on the results of this study, students demonstrated a strong interest in, and enjoyment surrounding, the creation of environmental art work, especially when it takes place, at least partially, out of doors. They were excited about this type of learning, and expressed an interest in the possibility of doing more environmental art pieces. They were also enthusiastic at the outset regarding the prospect of online sharing, and maintained a view that they appreciated this kind of virtual platform.

By better understanding students’ sharing habits within their typical informal networks, built on trust and connected to their offline lives, school site developers can more effectively build upon students’ natural desire to connect, share, and learn. An increased
number of formal and informal opportunities for teachers to learn and share approaches about developing online learning contexts and projects would be beneficial in terms of this 21st century design challenge in education.
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MIT Press.


NY: Bloomsbury.


Appendix A: Tentative Outline for Site-Specific/Online Sharing Project

**Part 1: ‘Drawing’ with a tracking App**
- Students share “drawings” made with a GPS application (app) that creates a red line over the landscape corresponding to their movements (walking/running over the landscape).
- Save and share screen shots.
- Comment about images and their ability to ‘draw’ with this device.
- Sample teacher questions on website … Is this really a form of drawing? Does using and sharing this app cause you to see the landscape in any new ways? Are these drawings Art?
- Have there been any surprises with your artwork or with other students’ artworks?
- Senior students comment on the ‘drawings’.

**Part 2: Students make environmental (Andy Goldworthy style) sculptures on their sites**
- Students post images of their sculptures and comment on any differences/similarities that they see at the two sites. Are there common ways of working? What kind of associations do individual pieces create? How are these different/similar to sculptures students have made before?
- Senior students also comment during the process of the work.

**Part 3: Guest speakers at both schools: [Name, Employer] and [Name, Employer] with dates to be arranged**
- Speakers aim to give students a broad perspective on their sites … a sense of ‘big time’ both culturally (land uses) and ecologically. Part of the talks are to be done outside to note examples of indigenous species and species adaptations over time.
- Maps are provided. Students may make drawings/notes in their sketchbooks and use these in their palimpsests. Students to post comments of what they have noted as especially important from the presentations.

**Part 4: Production of Palimpsests**
- Students share plans and processes regarding their projects online that may include their GPS “drawings”, elements from maps and satellite images, drawings/paintings of local species, text, photos, etc.
- Students post comments on the process of their own and others’ work. Students comments are to be related to how the pieces are suggestive of their locale’s characteristics and changes over time, as well as the aesthetic qualities of the works in progress.
- Senior students also comment during the process of the work.
Appendix B: Pre-Activity Questionnaire

Please highlight your responses to the following questions:

1. How much time do you estimate you typically spend online in various formats?
   a) <1 hour per day
   b) between 1 – 2 hours per day
   c) between 2-3 hours per day
   d) between 3-4 hours per day
   e) more than 4 hours per day
   f) there is no typical day – it is hard to estimate

2. Of this time spent online, how much is typically spent in a social media platform (e.g., Facebook, Myspace, Flickr, etc.)?
   a) <1 hour per day
   b) between 1 – 2 hours per day
   c) between 2-3 hours per day
   d) between 3-4 hours per day
   e) more than 4 hours per day
   f) there is no typical day – it is hard to estimate

3. Have you ever used social media to help in doing school work in some way?
   a) never
   b) for help in researching
   c) for sharing ideas with a classmate
   d) to share with a teacher

4. How important do you view social media as a mode of communication in your life?
   a) not very important in my life
b) somewhat important in my life

c) an important but not a dominant mode of communication in my life

d) a dominant mode of communication in my life

5. How important do you view social media as learning aid in your school work?

a) not very important in my school work

b) somewhat important in my school work

c) an important but not a dominant mode of communication in my school work

d) a dominant mode of communication in my school work

6. How do you view the physical surroundings of your school as a starting point for making art?

a) not very important

b) somewhat important

c) important but not a dominant starting point or consideration

d) a dominant consideration in my art-making
Appendix C: Post-Activity Questionnaire

Post Activity Questionnaire regarding Sharing Site Specific Artwork Online

1a) Do you think that viewing/sharing work online and making comments was any different from your most usual learning experiences?

1b) If so, would you say this is largely because of comments shared during the course of production of a piece or largely because of comments offered at the completion of a piece or some combination of the two?

2a) Do you think exchanging images and comments online is an effective way to way to share environmental artwork in particular?

3) Did you gain anything from online sharing for this kind of project?

4) Do you view the online format as a particular way of seeing and learning which is different from other classroom sharing activities? If so, in what ways do you find this kind of feedback to be different?
Appendix D: Semi-Structured Interview Questions

**Interview Questions**

1a) What were your expectations of doing environmentally-based artwork at the start of this project work?

1b) How did these expectations compare with the actual making of the work?

2a) When sharing your artwork, you received various forms of feedback including that from the teacher, from your peers, and through self-reflection. Can you please comment on these different forms of feedback in terms of their helpfulness, or your general impressions of them in light of your artwork creation?

2b) Recalling your online sharing experience for this project work, are there any aspects of the experience that stand out for you as being different from traditional ways of sharing your work (for example, feeling more or less comfortable than usual)? If so, please elaborate these with any examples you feel illustrate your point of view.

3 Do you feel this format of sharing your work added to the particular learning goals in making environmentally-based artwork? In your estimation, was it a suitable sharing platform? Why or why not?

4 Would you like to do any more environmentally-based artwork? Why or why not?

5 Thinking of this project work overall, what are the most memorable parts for you? Please explain these and reasons why you believe they stand out.
Appendix E: Student Information Letter and Consent Form

An Exploration of the Perceived Effects of Students Sharing Site Specific Art Work Online

LETTER OF INFORMATION

Introduction
My name is Jocelyn Perras and I am an art teacher in the [school name] and a graduate student at the Faculty of Education at Western University. I am currently conducting research into the perceived effects of students sharing site-specific artwork online using a [District School Board name] Cloud website and I would like to invite you to participate in this study.

Purpose of the study
The aims of this study are to explore students’ perceptions into the value and efficacy of sharing their artwork online.

If You Agree to Participate
If you agree to participate in this study you will be asked to share images of your artwork and comments about your fellow-students’ artwork on a [District School Board name] Cloud website. This discussion will be related to the regular curriculum work that all students will be doing concerning the environment and mixed media approaches. You will also answer two paper questionnaires (before and after sharing work on-line) and may be interviewed individually by the researcher on your impressions about the project. The interview will take between 15–30 minutes and will be audio-recorded and transcribed into written format. In the online website, the researcher and student participants will know each other’s names, but the classroom teachers will not be able to access the online forum/discussion.

Confidentiality
The information collected will be used for research purposes only, and neither your name nor information which could identify you will be used in any publication or presentation of the study results. All information collected for the study will be kept confidential. All information collected will be kept in a password-protected computer for five years following the study and then destroyed.

Risks
There are no known risks to participating in this study.

Voluntary Participation
Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions, or withdraw from the study at any time with no effect on your grades or academic status.

Questions
If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, Western University. If you have any questions about this study, please contact Jocelyn Perras or Dr. Daniel Jarvis (my Thesis Supervisor, an Adjunct Professor from Nipissing University). This letter is yours to keep for future reference.
STUDENT CONSENT FORM

I have read the letter of information, have had the nature of the study explained to me and I agree to participate in the study as indicated below. Please check the following activities:

<table>
<thead>
<tr>
<th>Activity</th>
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<tbody>
<tr>
<td>Pre Activity Questionnaires</td>
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<tr>
<td>Post Activity Questionnaires</td>
<td></td>
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<tr>
<td>Sharing online comments and artwork</td>
<td></td>
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<tr>
<td>Potential in-person interview</td>
<td></td>
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</tbody>
</table>

All questions have been answered to my satisfaction and I understand I may withdraw my participation at any time with no academic penalty.

Name of Student

____________________________________
Signature of Student

____________________________________
Date
Appendix F: Parent/Guardian Information Letter and Consent Form

An Exploration of the Perceived Effects of Students Sharing Site Specific Art Work Online

LETTER OF INFORMATION

Introduction
My name is Jocelyn Perras and I am an art teacher in the [school name] and a graduate student at the Faculty of Education at Western University. I am currently conducting research into the perceived effects of students sharing site-specific artwork online using a [District School Board name] Cloud web site and I would like to invite you to participate in this study.

Purpose of the study
The aims of this study are to explore students’ perceptions into the value and efficacy of sharing their artwork online.

If You Agree to Allow Your Child to Participate
If you agree that your son/daughter may participate in this study your son/daughter will be asked to share images of his/her artwork and comments about his/her and fellow-students’ artwork on a [District School Board name] Cloud website. This discussion will be related to the regular curriculum work that all students will be doing concerning the environment and mixed media approaches. Your son/daughter will also answer two paper questionnaires (before and after sharing work online) and may be interviewed individually by the researcher on his/her impressions about the project. The interview will take between 15–30 minutes and will be audio-recorded and transcribed into written format. In the online website, the researcher and student participants will know each other’s names, but the classroom teachers will not be able to access the online forum/discussion.

Confidentiality
The information collected will be used for research purposes only, and neither your son/daughter’s name nor information which could identify him/her will be used in any publication or presentation of the study results. All information collected for the study will be kept confidential. All information collected will be kept in a password-protected computer for five years following the study and then destroyed.

Risks
There are no known risks to participating in this study.

Voluntary Participation
Participation in this study is voluntary. You may refuse to allow your son/daughter to participate, your son/daughter may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on his/her grades or academic status.

Questions
If you have any questions about the conduct of this study or your rights of your child as a research participant you may contact the Office of Research Ethics, Western University. If you have any questions about this study, please contact Jocelyn Perras or Dr. Daniel Jarvis (my Western University Thesis Supervisor, an Adjunct Professor from Nipissing University). This letter is yours to keep for future reference.
An Exploration of the Perceived Effects of Students Sharing Site Specific Art Work Online

PARENT/GUARDIAN CONSENT FORM

I have read the letter of information, have had the nature of the study explained to me and I agree that my son/daughter may participate in the study. All questions have been answered to my satisfaction.

________________________________________
Name of Student

________________________________________  _______________________
Signature of Student                        Date

________________________________________
Printed Name of Parent/Guardian

________________________________________  _______________________
Parent/Guardian's Signature                 Date
Appendix G: Teacher Information Letter, Consent Form, and Researcher Script

A Visual Arts Related Research Project

Letter of Information for Participating Teachers

Dear Participating Teacher,

I am writing to outline the parameters and expectations regarding your potential participation with some of your students in my visual arts research project that I am conducting as part of my Master’s thesis at Western University. Although the project is being primarily undertaken to build new knowledge regarding students’ perceptions of online collaboration in relation to their curriculum-based art production, it is my intention that this also be a valuable and productive activity for you as an instructor, sharing your insights into students’ collaborative methods in our digitally-shared world. To this end, your participation with your students in the study would involve collaboration with the two other teachers taking part, as well as with the researcher.

Your participation will involve agreeing to implement jointly planned curriculum-based art projects at the same time as the other participating teachers, so that volunteering student participants may share artworks and discussions online. The students’ online collaboration will be monitored by the researcher. Teachers will not have access to the online forum (i.e., day-to-day online student postings) during the study, but will be able to read about the results of the project in subsequent publications wherein student names have been removed, Guest speaker dates for [guest speaker names] related to this work will be arranged at mutually agreeable dates. In anticipation of the actual start of the project work, I would like to thank you for your consideration, and I look forward to working with you.

I agree to these project parameters:

_________________________________________  __________________________
Teacher’s signature                  Date

Sincerely,

Jocelyn Perras

Researcher Script for Class Recruitment Announcements

You are being asked if you would like to participate in a research study related to a section of your regular class work and the [District School Board name] Cloud as an online sharing format. Your commentary and feedback will be analyzed and compared to related research studies. Your participation in this study will not affect your evaluation or outcome in this course and you may withdraw at any time without any academic or other penalty. Your teacher will not have access to your comment sharing online with other participants. Only the researcher will monitor this online format. You are responsible for following the [District School Board name] Acceptable Use Code of Conduct for Technology and you may be withdrawn from participation for failing to do so.
Appendix H: Principal Letter of Information and Consent Form

A Visual Arts Related Research Project

Letter of Information for Principals

Principal Address Information

Date

Dear (Principal),

I am a [District School Board name] Visual Art teacher and a graduate student in art education at Western University. I am writing to inform you about a research project that I am undertaking and am seeking your permission for students and teachers to take part in this project at your school. I’m proposing to research questions surrounding environmental art education and students’ perceptions of the usefulness of social media as part of the delivery of this kind of instruction. Teachers and students at two schools would create curriculum-based environmental artwork, and students would be asked to volunteer to share and discuss their work with each other in an online forum.

The research goals and timeline would involve students and teachers creating artwork related to their school site in the fall of 2013. Participants would also be asked to share their thoughts about this production on a [District School Board name] discussion site following the production of the artworks. The online component would be optional and students would be invited to participate in this mode of discussion through consent forms designed for both students and parents. In these letters it would be made clear that an individual’s decision not to participate in the online discussion aspect would in no way affect their course evaluation. The project would also have to be approved by Western’s Research Ethics Committee and the [District School Board name]’s Research and Accountability Group.

If you have any additional questions or comments, please let me know.

Sincerely,

Jocelyn Perras, Teacher and Graduate Student
Appendix I: Board Personnel Information Letter and Consent Form

Dear [District School Board name] Technology Personnel:

I, Jocelyn Perras, am conducting a research study to look at the perceived effects of students sharing artwork and comments online using the [District School Board name] Cloud. For reasons of confidentiality, you are being asked not to access/monitor this sharing platform after its initial set up.

I agree not to monitor this sharing project after the initial set up unless unforeseen technical circumstances require it:

_____________________________________________________
Signature of [District School Board name] Technology Representative

_____________________________________________________
Date

Thanks,

J.Perras, Western University
Appendix J: Curriculum Vitae (CV)

Education
1986 Bachelor of Arts, U.W.O., English and French Literature, Combined Honours

Additional Teacher Qualifications
1990 French, Honours Specialist, York University
1992 Media Part 1, York University
1994, Drama Part 1, University of Toronto
1999 Visual Arts, Part 1, University of Toronto

Additional Courses
1999-2000 University of Guelph, Visual Arts 1 & 2
2000-2004 Sheridan College, Painting, Drawing, Animation for Animators, Colour
2004-2006 University of Toronto, Painting 1-4, Art and Art History Program

Teaching Experience
1988-89 French Immersion and Science, Gr. 7 and 8, Joseph Gould Senior PS, Uxbridge
1989-90 French Immersion and Math, Gr. 7 and 8, E. J. James Senior Public School, Oakville
1990-99 French Immersion, Core French, Visual Arts, Drama and Media, Acton High School
  (served as department head of French and French immersion, 1992-1996)
1999-2015 Lord Elgin High (renamed Robert Bateman High), Visual Arts and International
  Baccalaureate Visual Arts

Grants and Awards
2006 Greening the School grant $3000
2007 Regional environmental award (with a student group)

Extracurricular Activities
- Coached soccer, hockey
- Lead exchanges to Quebec and France
- Produced student-written play for Sears Festival
- Lead student environmental club called “The beat”