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Personal cell phones in a high school classroom: A teacher hermeneutic-phenomenological inquiry

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Personal cell phones in a high school classroom: A teacher hermeneutic-phenomenological
inquiry

by

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A THESIS

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Abstract

This thesis consists of a high school classroom teacher-researcher's critical narrative reflections on student usage of personally owned cell phones. The teacher-researcher explores, with assistance from scholarly voices, evidentiary exemplar data between a school based policy and her students and their use of cell phones. The teacher-researcher seeks understanding of the complexities and tensions that arise from the introduction and acceptance of digital smart cell phones in a classroom. The research comes to focus on questions regarding school/classroom policy for the inclusion of cell phones in a school and students' practices with them, the "essence" of a cell phone, the "power" embodied in cell phone technology, the phone's "mediating" abilities, and the phone's connection to "posthumanism". The teacher-researcher concludes with a summary understanding regarding impacts of such a device on her teaching practice.

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Chapter One - Mappings of which I am increasingly becoming aware: Alerted reflexively to a phenomenon

It is a late Canadian winter's day that feels more like an early spring evening; that is, the air is soft and warm. I am invited by some friends to attend a very special performance at a nearby elementary school. As darkness begins to envelope those of us standing patiently outside the school doors, I momentarily recover memories of my own elementary years. Before I could become too engrossed in my own thoughts, my attention is diverted away from the line that I am a part of and is drawn upwards to the brightness of a luminescent moon and the sparkling glow of the heavenly stars. There is almost something poetic about being under the stars while lost in some faint memories of the past. I am content and comfortable waiting my turn to cross the school's front entrance. I am hoping, upon entering, that I will be engaged with what should be a magical evening. I realize how fortunate I am to be in this moment. In fact, I had not realized just how much I wanted to cross into a realm alive with younger children's charm until this moment. And why? Simply, I am a high school teacher. As such, I am quite removed from the presence of small children. As a teacher of high school students I must acknowledge that although most high schools have many interesting qualities I do not think that "charm" is one such quality. As the doors to the elementary school open, my friends and I step in obediently and expectantly.

Entering into the gymnasium my eyes need little time to adjust to the dimly lit space—this space is entirely illuminated with hanging strands of twinkling lights. These lights seem to be mimicking the night sky I had just been admiring. As well, the floor is lined with what seems like thousands of these twinkling starlight bulbs—it is for me, like walking among the heavens'

stars. The formations of these lights line the aisles we are invited to be led down. The lights eventually come to a focal point, an arrangement in a simple pattern. A complete circle in the center of the gymnasium forms an open space; a performing center stage.

The performance I had come to view was titled *A Winter's Celebration*. A charming elementary schoolteacher—aren't they all—introduces us to the performance this evening. It is to be a compilation of the students' fine arts representations and products that they have been working on to date. We are told that for fifteen days these “full of life children” ranging from grades one to six, have had the opportunity to work alongside an in-house artist adult whereby each child has been invited to foster his or her creativity and fine arts talents. The adult artist had invited the children to brainstorm both spoken and written words along with images and actions that would be used to create these heartfelt pieces of this Winter's Celebration artistic performances. This event, then, was to be a fusion of dance, music and spoken words to demonstrate how these youthful students felt about their learning, both as individuals and, in relationship to each other's learning. “Nice!” I thought to myself. “I guess these kinds of things are still possible in many elementary schools.”

As the performance begins and evolves, all eyes are on the little animated bodies that are vibrating with energy and excitement as they invite us into their performance world that is a voyage through artistic time and space. Our physical space seems to be encompassed and engulfed by the performing children. The children quickly fill the back wall of the gymnasium and any empty gaps found between our seats. As their hearts stand beating beside ours, their energetic voices sing out. Their vocal ranges seem to be perfectly orchestrated; a fully tuned chorus welcomes us and brings us into a world of suspended belief. The words invite

imagination as the vocalists chant, “*Funga Alafia ... ashay ashay*”¹ repeatedly. As they sing these powerful vibrating lyrics, they dance and we, as an audience, are drawn to a group of children moving towards center stage where they continue to capture our attention and imagination with their magical interpretive recital and their display of their fine arts talents.

It is later into the evening during the grade four presentations, which focused on the seemingly limitless majesty of our solar system that my attention shifts from those students dressed as our sun’s solar system and its planets to a child in the audience. Seated just in front of me is what I assumed to be a performing student’s sibling. With a clear visible pathway, I noticed this little boy’s attention is fixed on something other than the performances at hand that were literally unfolding in front of us. By all appearances and through the lens of my high school teacher eyes, and perhaps slightly impaired judgment that admittedly is forged by dealing with young adults, he would have been no older than five years of age. His little body is barely taking up the seat he uncomfortably sits in. Yet, as I observe him, I see, in his miniature hands is a cell phone that he struggles to hold. He sat there seemingly captivated by this object and not engaged by the voices and acting abilities of those students (including, I assume his brother or sister) who were before him on stage. Rather a glowing screen that is in size no bigger than an average billfold wallet mesmerizes him. His little fingers slide across the screen as they open and close folders until he, again seemingly, finds what he is looking for. The ease and confidence he

¹ *Funga Alafia* is a traditional African greeting song. It is sung throughout parts of Western Africa. The translation of it depends on the dialect spoken of a region or an area. Generally speaking *Alafia* is said to mean “good health” or “peace” in the Yoruba language. *Ashay*, on the other hand, is often translated into “thank you.” In this performance, the students tell us that we are to understand these lyrics as the following: “With our eyes we welcome you / With our hands we welcome you / With our hearts we welcome you.” (Retrieved from: <http://suprenandmusicsourcebook.weebly.com/funga-alafia.html>)

exhibits while navigating through his parent's cell phone seems to me to be easy for him, as effortless as me re-reading a well-loved novel.

As I continue to watch the cell phone obsessed child, the elementary school students' art and music show fades into the background. I am increasingly drawn to this 21st century "digital native"² child's electronic engagement and I notice he has successfully found what he seemed to have been looking for. It seemed to me to be a puzzle-like game. On the left hand side of the screen, there were individual puzzle pieces that were brightly coloured in greens, yellows, blues, and reds, and geometric shapes dotting that portion of the screen. In contrast to these colour shapes, a grey shadowy outlined image dominating its space on the right hand side of the screen. By all appearances, the game seemed to resemble a more traditional puzzle that, as a child, I would have once physically played with and built on my parents' living room floor. However, as I watch his hands and fingers move quickly across the screen, it becomes obvious that there is a fundamental difference in the design and operation of this game. As I observe him dragging the puzzle pieces to the outlined—what seemed to be a partner-shape, it becomes evident that only those pieces that aligned flawlessly within the grey image itself are permitted or allowed in. If he has chosen the correct size and shape placement of the puzzle piece, he simply takes his finger off the screen and watches the screen while the computer automatically places the puzzle piece in the exact corresponding spot for him. He quickly learns that if a piece does not belong where

² In Prensky's article "Digital Natives Digital Immigrants," he uses the term digital native to help define those children / students who grow up with ever-new information and communication technologies around them, and those children / adults who come to these new technologies later in life. He writes that digital natives "...represent the first generation to grow up with this new technology. They have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age." (Retrieved from: <http://www.marcprensky.com/writing/prensky%20%20digital%20natives,%20digital%20immigrants%20-%20part1.pdf>)

he intends it to be, the computer simply does not respond to his touch. Seemingly—simple and effective electronic behaviourism.

I watch him for a few more moments. I witness some of his facial expressions, as he sits slightly turned in his chair, that provide me, voyeuristically, some insight into what I believed to be his emotional reactions. As with most children, when he is proud of his accomplishments his face seems to light up with a smile reaching from ear to ear. You can tell his joy as his cheeks rise with each playful grin. Physically, he shuffles just a smidgen wanting to catch a parent's attention to share his achievements. His body language is equally as telling. When he is frustrated with the puzzle, his tap on screen becomes increasingly harder. Metaphorically speaking, I felt I could hear the anger in his touch as he pounds the screen. His eyebrows knit together as he makes little almost inaudible grunts and sighs. During one puzzle play there seems to be a moment where he realizes that if an image (puzzle) is too difficult for him to finish, all he has to do is simply press the rectangular button found in the left hand corner of the screen. A single button, indeed, smaller in size than all other images proves to be a “special” button: that is, written upon it in capital letters is the word ‘BACK’. Once he makes this discovery, it appears that any time a puzzle is either not what he expected, nor what he wanted to try, all he would do was hit the BACK button and the previous puzzle would reappear for him to play and conquer all over again. This “try again” action was one I witnessed him do more than a few times.

Here I am, surrounded by engaging multi-media performances by numerous creative and imaginative children. Children, who had worked so hard at mastering their performances and, by all appearances, are so proud to be holding adult and peer attentions. Yet, I had just spent a few minutes of my time distracted by a child who is playing with a cell phone. His actions seem to

render him oblivious to the real-time aesthetic event before him. Ironically, so were mine as I am also disengaged from the live performances—my attention is focused on his use of the cell phone: But why? Why am I so mesmerized by this increasingly every day event—a child playing with a cell phone? As an educator, this child’s actions invite me to wonder what is so seductive about this device—the cell phone—that this child finds himself so lost in his play. But then again, I find myself lost in his playfulness. However, I do question whether I am lost in the same sense the boy is lost in, or am I intrigued by his absolute attention to this small object?

This reflexive moment, brought on by this child with a cell phone at the *Winter’s Celebration*, frightens me. So much so, that I am forced to re-adjust myself in my seat in order to block this child’s behaviour from my line of sight. As for the rest of the night, I make a conscious effort to place all my attentive focus on the energy and environment of the school event unfolding before me. Honestly, I admit I find some comfort in being surrounded by adults who are paying attention to the acts that are unfolding in front of us with their full consideration. Perhaps it is just me being a teacher that takes this child’s seemingly harmless engagement with a piece of technology so pedagogically personally.

Later, however, as I am driving home I cannot help myself—I came back to this moment with the child and the cell phone. As I pull into the laneway of my home, I am drawn to wonder: *Is not the contemporary high school classroom already increasingly riddled with student cell phone usage? Doesn’t my own classroom experience increasingly reflect and represent this tension between a student’s digital-virtual learning engagements via cell phone technologies and my face-to-face teaching? Is my classroom not already a highly contested learning and teaching space?*

Upon further reflection, I realize that at age twenty-nine, with five years of teaching experience I have already encountered this type of digital seductive activity and its effects on learning behaviour in my high school classroom. Once I became aware of the obvious, I begin to recall a shockingly large number of classroom occasions where I have had many students use their cell phones for a plethora of reasons. Was I being hypocritical by judging a child at a concert playing with a cell phone and feeling challenged by that event by projecting such usage on to my classroom, when, in fact, I can actually recall numerous occasions whereby my students have been using cell phones. And, more troubling, what had my response been?

In my first few years of teaching, my survival learning curve as a “newbie” teacher was intense. My teaching life was filled with the busyness of not only learning and conforming to the routine actions required of most teachers such as: lesson planning, assignment marking, background reading, finding resources, writing report cards, fostering student relationships, and so on. I was also struggling to understand the educational practices in Alberta³ with respect to assessment (provincial achievement testing and diploma examinations), curriculum design, ICT outcomes⁴, of student diversity and inclusion, and so on such that I initially shrugged off the woes of student non-sanctioned technology use in the classroom. In fact, it was not until my third year of teaching where I had time to reflect on the place of and use of technology and its pedagogic purposes that I wondered about their presences in my classroom. Those moments where students were not simply using technologies as tools to create presentations or assignments, but rather as a means of personal or communal entertainment and communication.

³ I graduated from an Ontario university.

⁴ ICT is the abbreviation for Information and Communication Technology outcomes, which in Alberta are required to be embedded into curriculum teaching practices.

Those instances where cell phones, for example, made their way out of students' pockets and into their hands must have been present in my classroom. But I was busy teaching—perhaps too busy. The reverberating sound of student fingers tapping away at the keypads, or the chirp ring tone that notifies them of a status update, or incoming message notifications must have been much more present than I had acknowledged in my teaching moments. Perhaps my hearing had become sympathetically non-attuned to their cell phones chirping or dinging or perhaps, they played me. That is, maybe my own students tested my hearing and listening skills by using the supposed ring tones that only individuals under a certain age group (I am almost 30) are said to not be able to hear. OK, I am grasping for something with that last suggestion to release me from my guilt around my students cell phone use and my obvious denial of what was going on in my classroom regarding such phone use.

Still, I began making a mental list identifying, reflectively, those moments regarding cell phones, in particular, in my classroom and that recently brought into relief and awareness by the concert “cell phone child.” Reflectively, I could recall numerous moments, and increasingly a numerous series of moments where my students have taken me out of and away from the classroom lesson I was teaching by overt and covert cell phone usage. How many times had I not dealt with the “challenges” that these hand-held devices—cell phones—were causing for myself and for those highly engaged learners who were present in my high school classroom space? As I re-considered these recalled experiences, I became aware that, on a daily basis, for eighty-eight minutes of class time, I was inviting these students into a specifically well-defined physical four-walled space that by design was to focus their attentions on the course material and learning processes being taught in that room. Admittedly the physical classroom space is confining and small in comparison to the virtual space that awaits the students, literally, at their fingertips. I

pondered what the relationship between my physically located “here” classroom and the present yet, could be absent student and myself as teacher was. For me, these “issues” have snowballed as my awareness of what might really be going in my classroom was sparked by a child cell phone player and my self-consciousness regarding how implicated I am in my own classroom practices of more or less ignoring my students secretly and openly using cell phones.

As well, why did I not link my experiences with students’ use of cell phones to the work I am currently engaged with in my school division? Our division has recently shifted divisional policies and objectives and outcomes from simply promoting the use of personal digital devices in schools and classrooms to fully mandating “one-to-one” device learning usage policies. The mission of these policies is to, eventually, establish a norm whereby the digital is an accepted mode and method of classroom instruction. This digital vision has led to an increase of teacher responsibility and accountability of creating and maintaining an “online presence.” In addition to encouraging a technology presence in the schools and regarding the use of any and all devices, the division has built policies and standards that are intrinsically vague so that individual schools and teachers are left to design their own school-based policies and rules to govern how this digital pedagogical shift involving ICT and social media technologies will evolve. In part it is this elusiveness that has begun to create moments of tension for myself, as it is difficult to make sense of what a high school classroom teacher should or could do with learning and teaching and an increasing presence, in the hands of students, of ICT technologies in the classroom.

What follows is an educational practice inquiry thesis. This thesis is a reflexive inquiry into numerous professional experiences that I, as a high school teacher, have progressively encountered with my adolescent students regarding cell phone use while these students are “learning” in my classroom. While presently attempting to navigate through the sometimes very

murky waters of what appears to be a shifting educational paradigm currently towards the electronic, the digital and the virtual, I bring forth a practicing teacher's attempts to understand this technology shift in the institution of schools and within the context of a high school classroom.

The accounts of cell phone encounters and engagements represented in this thesis are not necessarily a call for my working towards establishing "truths" about the pedagogic uses of cell phones, or to establish usable protocols for cell phone usage that will "solve" such usage as some sort of teaching solution. Rather, the accounts of cell phone usage I bring forward here enable me to wrestle with what this phenomenon of cell phone usage in a classroom might mean, and importantly, how the phenomenon might be understood, pragmatically, in terms of what I believe as some principles of good pedagogic learning and teaching engagement.

Chapter Two - Learning to Map a Phenomenon: Becoming methodologically reflexive and attentive

So, I begin with a reflexive mapping of some of my classroom experiences. I begin my inquiry with data located within thick, narrative-based descriptions of my experiences as a high school classroom teacher. I attempt to describe what I experienced on several occasions as relationships evident between the living “real” bodies of students more or less present in the classroom and the “virtual” otherwise absent-bodies transported out of the classroom via digital connectivity. I wonder about the spaces—and what is learned and taught there—that are found here and there and between that of the “physical” and the “virtual.” It is in the context of this sense of wonderment that I begin my inquiry, attentive to the phenomenological nature of my learning and teaching experiences. That is, I begin each subsequent inquiry in this thesis by providing the reader with a phenomenologically written encounter—that is, again, a descriptive narrative centered on a recovered cell phone classroom experience. I seek to share a clear and open expression of the life world I live in, in terms of being a high school teacher in the early 21st century, in a classroom riddled with digital natives and the use of cell phones by these students.

In beginning this way—with phenomenological writing—I hope, as van Manen (1990) writes, to gain “a deeper understanding of the nature” of my own educator experiences of the phenomenon of student cell phone usage within a school environment (p. 9). However, I am not the “kind” of person, or researcher, who is entirely, committed to the belief that in-depth, scope-framing, and thick phenomenological descriptions are the beginning, middle and end of the necessary interpretive work at hand. My assumption, a belief I hold true, is that thick, robust and

rigorous descriptions are necessary. However, I simply cannot leave the topic at hand thusly described believing that an “essence” only opens us up, at least for me, to some very interesting questions; if, in fact, I even have the talent to lay bare an experience to that degree. Therefore, I need something like hermeneutic suspicion to be brought to bear on my phenomenological descriptions. Moreover, I need you to know that I know how implicated I am in this need to engage, interactively and interpretively, with the descriptions that I have also authored. Why would these descriptions be immune from interpretive possibility—because I wrote them? Really! There is something to be learned here and as a teacher how can I deny learning something.

And so, I chose hermeneutic phenomenology methodology over other qualitative research methodologies because of the aim of this type of research. Simply, van Manen (1990) writes that this type of research allows one to become more “fully who we are” (p. 12). I am, as a researcher, professional and individual, concerned with gaining a deeper understanding of the nature and meaning of our everyday experiences. I am, as Gadamer (2004) suggests, attempting to go beyond the methodological self-consciousness and look at what connects me to the world experience, and as van Manen (1990) writes to “understand how this man, this people, or this state is what it has become or, more generally, how it happened that it is so” (p. 4). In perhaps more practical terms then, this methodology allows me the freedom to explore the tensions and the essence of the lived experience as they become present to me and, in turn, allows me the flexibility to pedagogically explore what this understanding may allow or provide for in terms of application in the real world; it allows me to wonder about what these kinds of experiences.

Apps of Phenomenology: Attending methodologically to a phenomena

Research that attends to interpretations and meaning making of experiences is referred to as Human Sciences Research or Qualitative Research or Interpretive Research. Human Science Research is different than Natural Sciences Research or Quantitative Research, as the research methodologies used in Human Science Research are not necessarily concerned with empirical data and verification and falsification objectification validated by numerical-statistical methods, as those requirements generally are in the realm of the Natural Sciences. As such, unlike the Natural Science Research methods which are often concerned with numerical data, hypothesizing and various forms of controlled experiments, Human Science Research methodologies attend to descriptions of phenomenon, interpretations of experiences, and a necessary researcher self-reflexivity that comes from engaging thoughtfully with human experiences (van Manen, 1990, p. 4).

When writing about hermeneutic phenomenological reflection, van Manen (1990) writes that, “the aim of phenomenology is to transform lived experience into a textual expression of its essence—in such a way that the effect of the text is at once a reflexive re-living and a reflective appropriation of something meaningful: a notion by which a reader is powerfully animated in his or her own lived experience” (p. 36).

Admittedly, I am no research expert in reflection and reflexivity—in fact, this thesis, is my first attempt at uncovering and practicing what these actions truly are in terms of research and what these terms mean for me as a researcher and for my teaching practice. However, the manner in which I have come to understand both reflection and reflexivity separately and connectively are as follows. Simplistically, and perhaps too simplistically, to reflect upon something (reflection in the sense of looking at an image or an experience) is an objective or

objectifying action. This means the reflective engagement is often located in and on what we believe, as the seer or looker, as factual items or things. In practice this may mean that if I am looking at myself as an image in a mirror, what I see is a mediated reflection of me. Despite my best efforts to resist I look at my image and I seek to correct something, or I see some poverty, or I see some need for improvement. In most cases, then, I as a real person am often held captive by the reflective image I see and I have been conditioned to find it wanting or imperfect. In relationship to my thesis then, the crafting of my anecdotes is the act of reflection. I need to establish this act first for the “purpose of phenomenological reflection is to try to grasp the essential meaning of something” (van Manen, 1990, p. 75). However, logically that something has to be communicated first. In order to then understand at a level deeper than reflection and to “come to grips with the structure of meaning of the text” (van Manen, 1990, p. 78) I have to establish meaning with the text by reflexively engaging with it. Reflection is seeing; reflexivity changes the agency and I must take up my reflective assumptions about “lack”, or “poverty”, or “incomplete” and seek to understand what I reflectively have provided as data. In establishing this meaning-making process, I must reflectively and reflexively analyze my (data) texts (van Manen, 1990, p. 78). In contrast to reflection, reflexivity is than a more subjective analytical action. van Manen (1990) uses Dilthey (1985) to describe what this action looks like and van Manen (1990) writes, “Dilthey (1985) has suggested that in its most basic form lived experience involves our immediate, pre-reflective consciousness of life: a reflexive or self given awareness which is, an awareness, unaware of itself” (p. 35). In the context of my classroom experiences, my students have come to actually “force me to be aware of my experience while I am experiencing it” (van Manen, 1990, p. 35). It is only when I can forget about this sense of being,

which occurs later by reflecting upon the experience, that I can try to understand what the interaction was all about (van Manen, 1990, p. 36).

Researchers and individuals who come to use Human Sciences Research methodologies do so because they have a desire to understand the human world in the normative experiential contexts of the world itself. Human Science Research, then, in terms of our interactions with the world are forms of research methodologies that are not engaged in the pursuit of finding exact answers or Big “T” truths, or Big “U” universals per se, but rather as a reflexive understanding of those series of engagements that, when understood, equate to a sense of meaning making. Such investigations into the human condition are deemed as valid and complete when the researcher has expressed the process by which a sense of reflexive awareness has been developed through rich, deep and skilful public meaning making of the said researcher’s assumptions of the research at hand. In this sense, I am concerned with my students’ use of digital technologies in the classroom as I am trying to come to terms with the presence of digital technologies in the classroom. My students’ actions have forced me to become aware of these experiences that I have had, but it is at a level deeper than just reflecting on said experiences. My desire throughout this thesis is to make sense of the increasing digital technology presence in the school so that I can pedagogically try to come to terms with what it means to be a teacher in the early 21st century with young learners born into an environment with ubiquitously present technologies.

It seems relevant to pause here and discuss actions of interpretation and meaning making. In the case of my thesis—I have taken a hermeneutic phenomenological approach. In this manner, I have begun each exploration or discussion of a theme with a reflected anecdotal lived experience. Although I have tried to remain as true and real as possible to the essence of my classroom incidents and interactions, the fact remains that they are already interpretations. In my

attempts to commit them to paper I have already altered them—through the action of writing these incidents they have already become an interpretation; and, van Manen (1990) indicates that “it has been argued that all description is ultimately interpretation” (p. 25). This assertion seems reasonable and logical to me, as all interactions with another; or book, a piece of music, a movie, and so on, are as mediated through my life experiences lens. I acknowledge I live in a mediated world and I contribute to the mediation of my existing world. Thus, as a high school teacher who was raised in a schooling system that was not in the 21st century, and who went through a Teacher’s College that did not focus on the ICT elements of 21st century learning, the tensions that I encounter in my practice, with regards to the inclusion of cell phones may realistically be understood and acted upon differently than perhaps someone else. This acknowledgement of some of my filters must be made. However, this awareness does not mean that when I attempt to understand and find meaning in the phenomenon that I enter into a conversation with the texts with the reliance of “fore-meanings” (Gadamer, 2004, p. 271). What it does mean though is that I approach the texts with openness and a willingness to allow texts to present the essence of the texts themselves. In order to do this, Gadamer (2004) suggests that “[t]he important thing is to be aware of one’s own bias, so that the text can present itself in all its otherness and thus assert its own truth against one’s own fore-meanings” (p. 271-272).

The concept of interpretation is also related to the hermeneutic orientation towards the texts themselves. In the sense that in order to make sense of my lived experiences, I must ask questions and seek responses in order to garner any understanding of the experiences at hand. Gadamer (2004) writes, “[t]he hermeneutical task becomes of itself a questioning of things” (p. 271). Thus, as a researcher who is trying to make sense of my lived experiences, I must have interaction with the lived experiences and in doing such; I must formally or informally question

what is at the heart of these experiences. In having this internal dialogue I am searching for moments where I can make meaning(s) out of my experiences—so that I can learn from them. However, although meaning making essentially comes out of the narratives and lived experiences that I am working with, because this meaning and understanding is extrapolated from the text and my mediated world, it too is only an interpretation. Simplistically, every hermeneutic endeavour is grounded in wanting to make sense of an experience, to harvest meaning from it, and yet, once a meaning has happened, it becomes an interpretation of the experience itself. Still, interpretation invites agency and action, and one must believe that just one interpretation after another at some point results in a mangle of interpretations whereby one cannot understand or act, because everything becomes relativistic quicksand. We act all the time on what we believe interpretatively to be true. What I seek to do here, as a researcher and as a teacher, is to open up my interpretative assumptions such that I have a clearer understanding of not so much what I do with my students, but why I do it.

Human Sciences researchers, then, attempt to seek an understanding and knowledge of the “essences” of human experiences. For the purposes of this thesis, the term “essence” is used to describe, “what the thing is” (Heidegger, 1977, p. 3). The word “essence” is a term that originally comes from the Greek *ousia*, which is generally understood to mean that which is intrinsically at the core, the heart, and that which is central of the “nature of a thing, the true being of a thing” (van Manen, 1990, p. 177). To engage in such work means to look at “... ‘persons’, or beings that have ‘consciousness’ and that ‘act purposefully’ in and on the world by creating objects of ‘meaning’ that are ‘expressions’ of how human beings exist in the world” (van Manen, 1990, p. 4). Such inquiry-research work is a reflexive process by which a researcher will study the intricate connections that exist between the realities of the systems / structures that

are in place along with those individuals who are found within it and their actions and interactions of such a reality. The researcher's hope is to eventually understand self and others' relationships with and to the world. In this regard, the researcher will identify with their experiences in a different manner because to "*know* the world is profoundly to *be* in the world in a certain way, the act of researching—questioning—theorizing is the intentional act of attaching ourselves to the world... to *become* the world" (van Manen, 1990, p. 5).

As Human Science Research methodologies place the individual in a situation, a phenomena, part of the validity of these methodologies or approaches of inquiry relies on the observed encounters as the narratives that come from the participants and or the researcher, and, in this case, the researcher's abilities to retell (phenomenological) the experience. In order to understand the phenomena then, van Manen (1990) recommends that a researcher must read and write the narratives as an outsider seeing how situations manifest themselves, and then categorize the interactions that emerge out of these dealings and communications that we seek to understand. We are not the judges of the individuals present in the narratives including our self-narratives; rather, we seek to understand the tensions emerging from them, in relationship to, in my case, technology (cell phone) integration within a specifically learning-teaching structured education system. More specifically, the phenomenon at hand, for me, is a complex and at times difficult situation that develops in classrooms with the availability and allowance that students seem to have regarding their cell phones and its uses.

As mentioned above, this methodology is not about coming to a verifiable measurement, as its roots are not tied necessarily to those solutions like in positivistic scientific methods where hypothesis to treatment experiments (and mathematical falsification and verification) can be "controlled" and "replicated" —at least, to an extent. An interpretive methodology is about more

and less than that; it is about the unpacking of lived experiences that become or are more present through careful description and knowing thus advancing my understand of my professional life. It is about having the freedom, the flexibility and the right and responsibility to explore these moments.

This thesis provides a place whereby I can take an honest and critical look at my teaching practice in relation to the increasing inclusion of cell phones. I am deeply embedded in this thesis as both a participant and a researcher because I start my inquiry with narratives I generate. Eisner (1997) states that, “[h]ow one writes shapes what one says” (p. 4). This reiterates the idea that when one retells any account, they do so (with a consciousness or not) as biased, their words and the vernacular used, are quite possibly laden with opinion. Through the process of writing and re-writing my accounts, as has been the case, I have done so in order to embrace, as Barone and Eisner (1997) suggest, the role of a critic. The purpose of the critic “promotes awareness by building a bridge between the work and what the individual needs to understand the meaning and significance of what is going on. Good educational critics talk or write about works in illuminating ways” (Barone & Eisner, 1997, p. 100). I have attempted to embrace the role of this educational author and critic, by writing as reflectively and reflexively descriptively as I can—in order to vibrantly bring alive my experiences.

These narratives are purposeful data as they hold unique elements or aspects such that, “[s]tories instruct, they reveal, they inform in special ways” (Eisner, 1997, p. 5). Undeniably this process is a reflection of phenomenon that I have experienced and although these narratives are no doubt from my personal and professional realm; you, as the reader of them, are mediated by them and inhabit the world that is created for you. Through actively reading these narrative there is a shared meaning of them which becomes public to others and perhaps valued by others

because we share similar interactive processes—that of being a teacher in school environments that continue to strive for an understanding of where or whether cell phones have a place in our educational domain. Further to this, the validity of Human Science as a methodology is increased when one pairs the narratives with hermeneutic interpretations, which has legitimacy as it brings new awareness to the phenomena being studied. As van Manen (1990) expresses, “the intent [of human sciences is] to increase one’s thoughtfulness and practical resourcefulness” (p. 4).

As mentioned above, experiences are the foundation of inquiry to Human Science Research; one methodology that attends directly to human experiences is that of “Phenomenology”. By definition “[p]henomenology is the study of the nature and meaning of things—a phenomenon’s essence and essentials that determine what it is” (Saldana, Leavy and Beretvas, 2011, p. 7). It is the study of how “something” presents itself in our lives, and / or how something develops and / or is altered as it is experienced, and / or how one comes to make sense of a phenomena or an experience. To inquire in a phenomenological manner is to attend to one’s lived experiences; those experiences that exist or that have presented themselves as available for describing and understanding.

App 1: Phenomenology as a Methodology and Phenomenological Writing

As addressed in *Fundamentals of Qualitative Research*, the authors (Saldana, Leavy and Beretvas, 2011) describe phenomenology as a research approach that today, “focuses on concepts, events, or the lived experiences of humans” (p. 8). Since I have focused on the Human Science Research paradigm as my umbrella or theoretical framework for this thesis, phenomenologically speaking my “data” for this has then become my lived experiences from the classroom. Methodologically, this requires a frame of mind that accepts the premise of Human

Science Research, which as mentioned earlier, suggests that to research lived experience, is to seek to understand and know the world in a manner that connects us in a deeper, richer and perhaps more informative manner, to our mediating contexts. As van Manen (1990) suggests, this deep-rooted connection to the world, in phenomenology, is termed “intentionality” (p. 5). The validity of the lived experiences as data is thus drawn from the concept that experiences can be shared by others, “that one’s own experiences are also the possible experience of others” (van Manen, 1990, p. 54). This becomes important for a phenomenologist to realize, as the object of phenomenology is to create “a phenomenological text” (van Manen, 1990, p. 111). Such texts become significant because they represent those ideas, concepts, and tensions that seem, at times, to elude us. It is through the process of narratives that, as a researcher, I am brought closer to the “thing itself” that triggered my interest in the first place. It is only through being mediated through narratives that I can come to understand what is hidden amongst them; and, in doing so, I come closer to an understanding and to knowing.

One of the only manners by which I can come to understand lived experiences though is by expressing how they have come to be, or how they have presented themselves to me. Whether this is in a more public act of retelling the scenario or experience to a friend, a colleague, or in a more private act of internally self-reflecting on the situation itself through for example, journal writing, or in my case this thesis, the core need is to come to know. Language, then, becomes fundamental to this research or quest and being able to write narratives that are engaging, yet valid, requires a specific literary process. As a researcher creating these anecdotes, one has to be mindful of taking a role, as an “insider” of the experience itself (van Manen, 1990, p. 65). The research rigor is to vividly describe the experience as it unfolded, rather than responding to the situation itself. In trying to stay true to actively writing an experience that others may join or

become part of, they have to focus on a specific example as the experience, and describe it using adjectives, and vocabulary that brings the first-person narrative to the forefront rather than writing as if they were in an omniscient role.

As is the case with this thesis, it is only through the act of writing, that the research portion of this text begins to come together. This is because, as van Manen (1990) describes, “[w]riting fixes thought on paper. It externalizes what in some sense is internal; it distances us from our immediate lived involvements with the things of our world” (p. 125). This is how reflective thinking can occur, and this once again illustrates the importance of language. The success of any phenomenologist is linked to their ability to articulate lived experiences as it is only through being successful at drawing others into the narrative that insights may develop from the shared experience and a sense of knowledge or knowing can develop. Arguably, narratives are important pieces of data because of the “layers of meaning” that are “embodied” within them (van Manen, 1990, p. 119). Through them, by writing and reading them, researchers are forced “to search out the relation between living and thinking, between situation and reflection” (van Manen, 1990, p. 119). They are what allows and provides for a space, or rather a place, “to see what is possible and what is not possible in the world in which we live” (van Manen, 1990, p. 120).

I would be delusional to believe that I could perfectly understand my experiences without reflexivity or without coming back to the narrative time and time again for “[t]he meaning or essence of a phenomenon is never simple or one-dimensional” (van Manen, 1990, p. 78). In fact, narratives and the meanings that come from them are multi-faceted and layered, just as we (humans) are and perhaps too simplistically understood, because we are involved in the phenomena’s creation. Nevertheless, understanding of an experience occurs through the writing

of it, as one (I, the researcher) act, reflexively upon it. In this sense, I seek to lay bare the meanings or themes of the phenomena. The process of “bracketing” or “theme analysis” is that act of “recovering the theme or themes that are embodied and dramatized in the evolving meaning and imagery of the work” (van Manen, 1990, p. 78). It is only through bracketing of my experiences that I can begin to interpret and analyze them, because it is through the uncovering of the themes, that the “structure of [the] lived experience” (van Manen, 1990, p. 87) can be understood.

Phenomenologically bracketing can only occur once thick narrative descriptions have been established. These thick descriptions give way to the bracketing, which is required to take place in order to find the “root” or “core” of an experience. In wanting to find a truth in an experience, one has to unpack the experience; meaning one has to peel back its layers. van Manen (1990) writes that one is able to accomplish this by “suspending one’s various beliefs in the reality of the natural world in order to study the essential structures of the world” (p. 175-176). When a researcher has been able to bracket out the societal and cultural contexts of an experience, what is left is the essential nature of the experience. This is what is referred to as the essence of an experience: “[e]ssence is that which makes a thing what it is (and without it would not be what it is); that what makes a thing what it is rather than its being or becoming something else” (van Manen, 1990, p. 177). In uncovering what the essence is then, one is about to find truth and understanding in the phenomena.

App 1.0: Phenomenology applied within my inquiry

There are moments in my classroom where technology has altered my relationship between the young adults I teach and myself. These moments make me deeply rooted and

embedded in the descriptive work at hand as I seek to understand my lived experiences in this regard. I am entrenched via my awareness and reflexively engaging in these experiences as experienced in the moment and, then, as recalled, again, now here in this writing. I am aware of the layers of interpretation at play in this task as well as the forgetfulness and the projection. Through the use of descriptive anecdotes I seek to understand the implications of student pedagogic and non-pedagogic use of cell phones in a high school classroom. My voice is present in these anecdotes and they do reflect experiences I felt and encountered while present in my classroom. However, in being mindful of my primary role as an educator, and as a professional teacher, whose responsibility is to the teenagers that I taught, and to my peers with whom I worked, I have decided to not formally include them in this study. I have not used them as one would research-interview participants testimonials per se. I did not conduct any scripted interviews; I did not inquire or ask any of my student's or peers to record ideas, thoughts or impression of their experiences with digital technology. However, descriptively, I attempt to faithfully attend to the topic and to myself and to my students and peers within the context as my experiences. Their interactions, comments and behaviours with me are organic in nature and it is my belief that in this way they remain throughout my journey, simply, as my students and peers. The choice to proceed in this way is to invite you, the reader into my experiences with self and others such that phenomenologically my experiences become possibly accessible for all other individuals to access. My anecdotes and stories are the raw material, or data if you will, for this thesis, and "[i]n drawing up personal descriptions of lived experiences, the phenomenologist knows that one's own experiences are also the possible experience of others (van Manen, 1990, p. 54). Such a way or means of inquiry also supposes as van Manen (2011) notes that:

No text is ever perfect, no interpretation is ever complete, no explication of meaning is ever final, no insight is beyond challenge. It behooves us to remain as attentive as possible to the ways that all of us experience the world and to the infinite variety of possible human experience and possible explications of those experiences (Retrieved from: <http://www.phenomenologyonline.com/inquiry/writing/>).

As such, I trust phenomenology to provide me with an opportunity to write something in a descriptive manner that has engaged me, that has become part of me—as it is by nature an experience. By writing about these cell phone incidents in my classroom, it invites me, to not only become active in the participation of writing it, but eventually allows me a reflexive chance; here to inquire into the very nature of this lived phenomena. However, as I indicated previously, I also need something more than description. I need hermeneutics to enable me—as teacher, as learner, as researcher and as a writer—to possibly understand and make meaning of the experienced phenomena at hand. Ironically, just like my concern with the cell phone transporting my students out of or beyond my classroom walls, I need a methodology that transports my thinking and knowing beyond description.

Apps of Hermeneutics: Attending methodologically to making meaning

In his text, *The Science of Qualitative Research*, Parker (2011) states that “[h]ermeneutics is the theory of interpretation, named for Hermes, messenger of the Greek gods, and interpreter of their message for confused mortals” (p. 83). I use this quote to introduce this section of a useful interpretive research methodology as a way to illustrate, and loosely defend its validity, in that its concept (the meaning of experiences) is deeply rooted in our Western history and our

ways of knowing, doing and being. Humans have come to understand their world(s) and make meaning out of their experiences, over century upon century, by being able to vocalize and share experiences with others. This sharing process requires individuals to have and use language. Some philosophers and scholars have focused on our use of language. Historically, there have been a number of philosophers who have contributed to the different methods of using hermeneutics as a language-based rich form of interpretive methodology and progressively modifying the methodology; perhaps most notably are the scholars: Friedrich Schleiermacher, Hans-Georg Gadamer, and Wilhelm Dilthey. The interpretive process of hermeneutics, as a methodology, lives within a stance towards the interpretation of texts, which I have chosen to follow, or have been advised by, is that of Gadamer (2004) and his methodology of “applied hermeneutics”. Generally, although there are perhaps no set rules and rigid guidelines to interpretative measures, as a researcher, I must be aware that I cannot take my experience out of the context or the environment that it occurred in. I cannot use preconceived ideas about how these situations would or should have played out. Nor can I make assumptions about my students’ use of their cell phones.

With these conditions in mind, Gadamer’s (2004) hermeneutics is rooted in the more traditional methodologies which establish that “understanding an unfamiliar text or way of life as a holistic process, operating within a hermeneutic circle in which we move back and forth between specific parts of the “text; and our conception of it as a totality” (Skinner, 1994, p. 23). For Gadamer (2004), understanding comes from the ability or of the process of coming back to and revisiting an encounter and / or an experience. To accomplish this re-engagement successfully, or with a semblance of interpretive success one is required to embark on this journey of understanding objectively—with an open mind—and the ability to / or assurance of

not knowing what the solution may be. As there is no set methodological structure or formula that can be used in order to establish an understanding of a text; hermeneutically, one must engage with one's assumptions about the topic at hand first. There is no set "positivistic" hermeneutic process, which lives in a scientific method, or a mathematical formula—rather; this approach is that of a humanistic interpretive one. There is only an attempt at gaining an insight into the relationship of the text being studied. This is what makes hermeneutics, for Gadamer (2004), a holistic approach in understanding for applied hermeneutics is the attempt at understanding the complex structures of the way in which humans function in a particular setting. In the case of this thesis, it is an attempt to uncover or perhaps more realistically having the essence of an encounter / text becomes revealed while / as I seek to formulate an understanding to the complex tensions that are arising within my classrooms with the inclusion of a "smart" digital technology. This methodology forces me to engage with my experiences in meaningful ways.

Eisner (1997) established that a first step in critically looking at one's experiences lies in language and writing and this focus is also reflected in Gadamer's (2004) ideas of understanding meaning making. As it is only through the use of language, carefully and rigorously, that I can come to express and then learn about my classroom encounters. To attempt a hermeneutic inquiry using my phenomenological data places me in proximity to my experiences in the form of narratives / texts, and I provide myself with the opportunity to engage them, to become part of them, again and again. To do so provides for a space where I can glean insights into the relationships formed. In this way, I have the freedom to become attuned to new understandings of my situation(s); and, if this is achieved, (that of becoming aware of something new through each re-lived experience) then I have embarked on the process framed as a "hermeneutic circle".

A process that establishes the idea that understanding happens, always, through a lens of an individual during or at a certain, specific moment, but this understanding of something may always change, as an individual's lens alters. Perhaps I understand Gadamer's (2004) hermeneutic circle too simplistically; however, I relate it to someone who has re-read a well-loved piece of literature periodically throughout his or her life. Take for example, a Shakespearean play, *Hamlet*, which may have altered meanings if one were to read it at 16 years of age, at 30 years of age, and again at 60 years of age. Texts, such as this one, are like streams; one can never step in the same stream twice. Upon every "new" read a nuance or something that was not present for you when you first read it, may become apparent to you upon a second or third read. Some of these new understandings, may be attributed to how closely or carefully the text was read the first time; however, my point in using such a text as an example, is that over time, our experiences shape the manner in which we understand anything—text or human encounter. We never have the "same" lens to look through and our perspectives alter with every decision we make, with every new encounter we have. We are constantly evolving, and so too must our understandings. This is perhaps why a cherished novel never becomes too cumbersome to re-read, as there is always something else to be again taken from its pages. For me, the hermeneutic circle is like this, it is the process of becoming attuned to the nuances that the experiences has offer to us—as a gift perhaps—and we circle back and around each time gaining possibilities revealed for it allows one to have some sort of understand of the complex past-present-future linked nature of human interactions. What a beautiful journey to embark upon—no?

More importantly to discuss is the idea that although this interpretive process is never truly complete, as there is always something to be gained and learned in revisiting experiences,

for Gadamer (2004) understanding is also strongly associated with the way in which one views the world. As mentioned above, briefly with the analogy of a Shakespearean text, it is also true that any sort of understanding, or knowledge that can be granted through this hermeneutic process, must be established because of an awareness of one's filters. These filters cannot be removed from me, nor can it be from you, as it is through these nature-nurture filters that we come to understand any and every human interaction: such as, a smile, a wave, or a nod. These are all body actions that speak a "silent" language; and that we can only understand when we use the filters / lens upon which we have been raised with our mediated contexts. This understanding helps to reiterate that I am deeply part of this work both professionally and personally as how can I be anything else? I am part of the narratives and in that manner; I am part of the context that they have occurred in. And, as the hermeneutic circle invites then any terms of understanding that I come to, ultimately shape my next understandings.

App 2: Hermeneutics applied within my inquiry

In that I have not used my students as a direct means of gathering research data, I have turned to my own writings, those of anecdotal journal reflections, my conversations with other colleagues and / or those individuals who are deeply concerned with educating our youth as well as published authors and philosophers as conversation resources to help me explore and understand the nature of digital technology—cell phones—in the classroom. As such, I have chosen to attend to these research questions:

How does school-based policy focused on digital technology uses address the technological essence of a cell phone?

Where do students go when they are enticed by the multisensory cell phone?

And, finally, does my definition of what it means to be a high school learner need to alter and / or be re-defined in light of a student's use of cell phones?

In offering conversations and anecdotes regarding my experiences with students cell phone usage in my classroom, I have, in essence, turned to language to help me grapple with these 21st century digital complexities that are playing out in my classroom. Gadamer's (2004) text, *Truth and Method*, suggests that language acts as the medium for all hermeneutic experiences. It is through the writing of my classroom experiences then that the spirit of the individual anecdote is revealed—that its essence may possibly emerge in my case, such that this essence becomes an opportunity to understand the overt and covert pedagogical implications of cell phone technology in my classroom. My experiences are the basis for my practical understanding of the tensions that I am increasingly becoming part of. For Gadamer (2004), one's ability to prove their understanding of a phenomenon is linked to their ability to put it into words. Grondin (2002) expresses this concisely and writes:

[t]o understand, in Gadamer's sense, is to articulate (a meaning, a thing, an event) into words, words that are always mine, but at the same time those of what I strive to understand. The application that is at the core of every understanding process thus grounds in language (p. 41).

It is always the phenomenon that requires writing out and representation and expression. In recounting the classroom situations that I encounter in the school environment specific to cell

phone usage, I seek to communicate with you my understandings of the events as they reflexively occurred. In using language to help me express the scenarios as they play out in these formal education environments, I rely on my familiarity with language to help me transport you to and engage you with my classroom descriptively—my reality of dealing and coping with digital ICT technology—specifically, the students’ cell phones.

The narratives I have selected to share with you only gain value and significance when the reader attempts to actively read them, in that I have been summoned to find importance in them, and I have attempted to come to some understanding of them. I can only share that attempt. I have in that manner reflexively engaged in my lived experiences in the classroom. I have chosen to do so, because these instances (as you will come to read) have caused me to pause and re-assess my learning-teaching practices. They have triggered me to question the proverbial status quo actions of the educational system I am found within as a classroom teacher, engaged colleague, and as a learning leader. I am not delusional either to assume that my interpretations and understandings of my experiences are the only valid ones that exist. I recognize that because they are shaped by my daily classroom incidents, I am therefore bonded to them in a way that others may not be. This connection places me, in my attempts at understanding these moments, in a position that is different from others. I am at the center of these and my interpretations of the events reflect my positioning within the walls of my classroom and the individuals found amongst them. Because this work has caused me to stop and reassess the manner in which I enforce the district’s and school’s technology policies and practices in my classroom, I have reached a hermeneutic experience. Gorndin (2002) synthesizes Gadamer’s hermeneutic experience in the following manner, and writes:

[t]he basic hermeneutic experience ... is the experience that our anticipations of understanding have been shattered. Most experience, true experience that is, that delivers insight, is negative he insists... true experience must thus lead to an openness to ever newer experience (p. 44).

This shift of one's ideals, however, can only be derived from an individual's ability to engage critically and meaningfully with their work; it's perhaps important to recognize that Gadamer (2004) suggests that there is no fixed meaning in this interpretation. That the only manner in which one can come to terms with their world, their position in the world, is through hermeneutics (Zuckert, 2002, p. 205). There is no "correct" answer, but rather that through re-experiencing, through re-reading, or re-visiting an experience an aware individual is able to find new meaning. I then engage in my narratives actively, so that through every dialogue with these texts, something more will be gained as "dialogue, whether with text or among individuals, always has something else to say as meaning is produced through an event of disclosure rather than something produced by a text or speaker alone" (Sammel, 2003, p. 159). In this manner every interpretation of the narratives that are presented in this text are always open to new understandings of them. Still, this is one way in which I can come to understand my highly contested school environment.

Gadamer's (2004) philosophy of hermeneutics provides me with an ability to freely reflect on the complexities of my lived classroom experiences. The point of hermeneutics according to Gadamer (1984) is located when he asks, "[is] not *every* form of hermeneutics a form of overcoming an awareness of suspicions?" (p. 313). My attempts and efforts in this thesis to find and come to some form of understanding are done so from the point of view of my

curiosity. It is a suspicion to wonder. Admittedly, I am not one to assume what I come away with in looking at these experiences I have the correct understanding of them—nor do I believe that there is one single correct understanding available.

App 2.0: Hermeneutic Phenomenology: Attending methodologically to the topic at hand

Hermeneutic phenomenology allows me the opportunity to grasp what it means to be a teacher in the context of a 21st century classroom; in a classroom where student cell phones are often—officially or not—accepted and permitted. Hermeneutics permits the opportunity to explore what is embedded in those moments where I wonder what is called forth in terms new insights and questions to the implications of cell phone technology. As Sammel (2003) states, “Gadamerian philosophy and hermeneutic phenomenology is founded on the idea that people make meaning (the hermeneutic aspect) of the lived experiences (the phenomenological aspect) through dialogue from a perceptive where cognition is a product of a particular time and place” (p. 155). Hermeneutic phenomenology is thus the ability to engage with life experiences as they present themselves to me. It becomes a conversation of the tensions that present themselves, as they become apparent within the nature of my work and of my classroom. In engaging critically in these experiences, I attempt to find clarity, for myself, in the often-confusing realm of education and schooling. Such an inquiry allows me a space where I can grapple with the tension of 21st century learning and those teaching practices that govern my actions as an educator. This methodology allows me to find a deeper truth, or understanding, of what pedagogy is best in the possibly contentious settings of 21st century learning. My descriptions of the lived experiences in a classroom become reflexive in the process of re-telling them. I hope to discover meaning in them and this meaning, again, I hope, provides for a sense of “truth”. These anecdotes, as van

Manen (1990) writes, “can be understood as a methodological device in human science to make comprehensible some notion that easily eludes us” (p. 16). Hermeneutically, I seek to uncover that which has eluded me. Through writing and rewriting as the case may be, the ideas that perhaps once eluded me inevitably are called forth. This calling forth is a revealing of the other; of the “it” I am trying to grapple with. This allows me to understand or see the world in a beneficial manner, as I have the flexibility and the freedom to explore the tensions that the introduction of technology calls forth.

What follows is interpretive work that has stemmed from anecdotes of professional and personal experience and the reflexive possibilities that emerged out of them. This is a project that represents a portion of the interactions, which have occurred between myself and the students, colleagues, and classroom environments I have lived in and with over the last few years. As these anecdotes draw from both my professional and personal experiences, they are a chapter of my story as a high school teacher. Although I do remain dominant throughout the work, it is not really about me. This research is about exploring the living bodies found within a 21st century a school responding to societal and district messages regarding digital technology use in a classroom setting. I share with you my anecdotal stories, narratives that reflect Gadamer’s (2004) concept of mimesis. That is these narratives are not mimicked or copied but are rather an “appearance of what is presented” (Gadamer, 2004, p. 118). In wanting to establish honesty and allowing these narratives to still be considered valuable it is also necessary for me to lay bare that these stories are in nature, true composite narratives. In keeping with the spirit of phenomenology although they have been directly sourced from lived experiences, they have also been constructed and co-constructed and as such are exemplars, whereby, as a researcher, I use them to “get at” the essence of the lived experience. It should be noted that individual names that

appear in the following scenarios are not simply pseudonyms; the individuals found within these pages are characters that shape the experiences that I seek to understand and find meaning within. Similarly, the experiences written about are (as mentioned above) composite narratives and as such they do not necessarily reflect one single encounter or conversation. In writing the narratives this way, I am trying to once again “get at something,” I am trying to understand the “whatness” of the experiences themselves.

I invite you to actively read along with me. I encourage you to read my interpretations and see for yourself how I am positioned and repositioned as an experiential meaning-maker in those moments and I ask you to hold the stories interpretations while you are invited along the journey of self-reflection. This is a journey that is important to me as a teacher, but I believe also important to others teaching in the contemporary 21st century high school classroom. As well, a final note: Hermeneutic phenomenology is new to me as a human sciences methodology and as a graduate level masters student. As such, I offer my best attempt to be faithful to its nature and spirit and distinctions as I do to representing my experience with my students and peers.

Chapter Three - Setting up a Personalization of Features: My Desires to Teach and What Teaching Means to Me

As a young girl I was intrigued by the arts. Most of my earliest and fondest memories of my childhood bring me back to lingering afternoons where I would spend most of my time twirling and dancing around the rooms of our house. I used to spend hours choreographing dance performances during these lazy afternoons and in the evenings I would perform these make shift dances for my parents in our family room. I can clearly recall my father's voice bellowing down the hallway, as he would introduce me: "For your entertainment value tonight, may I present Miss Nicola Alexis Tysowski!" I would come running down the hallway to the sound of their applause that would mark the beginning of my dance recital.

My childhood was immersed in and by creativity. Dancing, drawing, and painting: this is what I recall participating in and doing. As I grew older, eventually dance fell to the wayside. I placed more of my energy into other fine arts. Here too, I can distinctly recall painting and drawing during my spare time—I venture to say all of my spare time. Everything was considered a canvas to me, and everything was available for my interpretation. I needed very little to become inspired. It was my outlet, and it was how I came to understand my world, my place in it, and how as a youth, I learned to deal with the sometimes overwhelming emotions. I would paint when I was happy, frustrated, sad, and so on. It was my conduit. Becoming a professional artist emerged as a goal of mine. However, it too would eventually disintegrate.

As I transitioned into adolescence and I became a high school student, I was fortunate to be surrounded by educators and to be part of a school that supported student individual interests. It was sometime after grade nine, when the arts were replaced with, perhaps, more standard

career goals. It was while attending high school that my dreams of having careers took off. I wanted to become a forensic artist, or an architect, or I wanted to work for the Canadian Embassy, or to become a Canadian Ambassador, or to become the Prime Minister of Canada, or to be a lawyer and an advocate for First Nations rights and somewhere amongst all of these professions, I grew to have a deep love and passion for history. It was this admiration of and interest in the past that led me to attain my first university degree.

It was not until the fall of the last year of my history degree, when teaching and becoming a teacher became a viable option in terms of careers. I recall having a conversation with my mom one sunny and warm fall afternoon. We were working outside in the garden, raking up the fall leaves, and talking about what programs I should apply to for the following year. At the time, my desires were mixed. I was interested in applying to a MA in History, yet I continued to be interested in law and becoming a lawyer and then there was teaching. We stood raking the oak leaves, while making a “pros and cons” list for each of these options. But nothing was decided upon that afternoon, the conversation ended with no commitments for my future.

It was during that fall that I started volunteering with a former high school teacher of mine. I volunteered my time, once a week, at my former high school. Over the next few months, I worked along side him and other teachers. I was involved with helping students learn how to structure papers, how to do research, and I worked with clarifying ideas and concepts with them. I was privileged enough on a number of occasions to be a guest speaker. I recall presenting a few lessons on New France, the Jesuits, and Residential Schools. It was perhaps during those moments, where I developed a stronger interest in pursuing education, as a profession. If you were to ask me if this is where my desire and passion for teaching came from—I suppose I would say it grew and developed through those moments. Although I was not that far removed

from being an adolescent, I realized that youth have a unique way of looking at the changing world. I, selfishly, wanted to see the world the way they do. I wanted to continuously re-live the journey of discovery and, in particular, the discovery of historical movements and developments of and across societies. I wanted to re-experience with young learners the under-pinning of how the Western world has developed and come to the realization that our history is both a long and complex system that continues to reverberate today in all our actions.

As such, I believe that my primary role, as an educator, as a mentor, is to inspire youth to know, to understand, and be good citizens. I would like to think that I provide them with a safe learning environment where trust and respect are deemed the most important relationship qualities. It is through building these relationships with students that I can encourage and challenge them to learn and engage with their learning in a meaningful way. When I come to class excited about the topic at hand, my energy transfers to them, and we are able to embrace a journey together. My belief is that students retain and understand curriculum more when they are actively connected to the content and material. As such, I incorporate project-based lessons and inquiry-based practices as often as I can. In this manner, I become a sort of historical guide.

I feel I am a teacher-guide of student learning. Through creating a classroom dynamic that is supportive and inviting, I urge learners to share ideas and to work collaboratively. I continue to maintain that good teaching practice involves the concept of scaffolding, and I do practice this. I plant the basic knowledge and skills as the essential seeds that they require to understand and once I feel that the class has mastered these primary concepts, we collectively and progressively move onto exploring the complexity of a topic. As with any subject matter, challenging students to extend their learning is sometimes difficult as students are sometimes resistant—as I believe that they fear the sometimes inevitable “wrong answers.” But I am an

advocate that student learning does not only happen because of his or her successes, but also in their disappointments; and, in this, everyone has the ability to continuously improve. I believe the only way someone learns to master a skill is through trying and practicing and experiencing both success and failure.

If I return to this concept of a teacher as a guide and as a facilitator of learning with a desire to spark student interests in the curriculum, I essentially want to set them free as inquirers and critical thinkers. I need students to be free to explore with confidence, free to create and demonstrate learning in a multitude of ways such as: posters, reports, magazines, commercials, videos, podcasts, and so on. But in order for them to have that flexibility in learning, I also need to be disciplined yet flexible. I have to continue to grow with them—my learning never ends either. I have to adapt and learn to attend to how they learn and what they see as beneficial to their learning.

At the heart of it all is that when I engage with students, I am drawn into their world and I am privy to experience the ways they learn. It is those moments that are the highlight of my career.

In trying to maintain and develop good teaching practices, I have incorporated information communication technologies into my classroom. Physically, my classroom remains the standard / stereotypical four walled room; however, with the inclusion of media and digital technologies our walls sometimes disappear. This move to incorporate and use ubiquitous digital technologies continues to force me to reassess what teaching and learning means today. Student use of digital technology also, as you will come to see throughout this thesis, forces me to understand digital technologies differently. I continue to struggle with digital technology and its uses and I have come to believe that my tension is often caused and created due to the nature and

manner of how I use these evolving digital technologies and how I learn, versus how my students today come to use digital technologies and what they deem as learning. It is here in this tension—perhaps the digital native and digital immigrant tension—that my desire and need to understand lives.

As you have been privy to already, this thesis follows a set structure and is organized in a particular manner. Every chapter from here on in begins with a classroom narrative. Following each narrative is my attempt to make sense of it or meaning making from it. I use philosophers and academic writings to help ground my understandings of the narrative events. It should be noted that the literature I use to make meaning from my experiences has been chosen because of the usefulness in understanding this topic, technological tools, and how they act as extensions and enhancements of our human bodies. In doing due diligence, although admittedly I have not read all the criticism of each individuals work, I acknowledge that there are critics that exist within the discussions of these ideas, tools being regarded as “divine like” objects, what the essence of a tool is, the extension of the human body, post humanism, the cyborg “self.” My comfort in using the writings that I have has come from cross-referencing other literature that also speaks of these ideas. Ultimately, I try my best to come to terms with the tensions in my teaching practice, but I know that this work, although written is not complete as, hermeneutically, it can never be so.

Chapter Four - Some Cell Phone Narratives and My Reflexive Engagement with Them

Hot Spot 1: Changing Times, Changing Policies: The Give and Take of (non) Decisions

During the spring I volunteered to participate on the high schools newly formed Technology Committee. Initially, my colleagues and I were presented with an all-call and an open invite from the school administration to participate. My primary interest in volunteering and for committing to attending the meetings and sitting on the Committee was to become more engaged on the topic of digital technologies and their pedagogical use within my school community. I believed that this kind of committee would be a good opportunity for me to demonstrate commitment to the school environment and to understand locally based division and school initiatives. And this was an important initiative—the creation of policies and practices for digital learners and classroom learning. As well, professionally speaking, I hoped participation on the committee would give me an opportunity to become more familiar with the Division’s vision concerning digital technology and its pedagogic parameters and applications and to gain insight into pending mandates that were the driving force behind some of these new school-based technology programs that I was struggling to catch up with.⁵

Our first meeting date of the school Technology Committee was on a cool early spring afternoon. After finishing a busy and high-energized day filled with Social Studies lessons, I strolled down to the school’s Learning Commons to join my fellow volunteer colleagues at a previously set-up round table. While on my way through the narrow hallways, I was proactively

⁵ From the pervious year, the school-based mandate had shifted from requiring teachers to have an online presence through their respective teacher pages, to including and integrating other online platforms in their teaching practice. The use of platforms like Moodle and Google Docs were being strongly encouraged and seemed to follow the movement of supporting student-owned technology devices in the classroom.

planning my strategy for the meeting. Up until this point, I had not placed much thought into whether or not I was going to voice my beliefs or simply listen to the conversation that my peers would engage in regarding the shifting landscape of digital technology presence and use of technologies in the school and in the classrooms we shared with our students. I felt that silence might be the best route as I felt that perhaps there was more to gain through silence than there may have been in expressing my experiences or desires regarding the topic at hand.

As I entered the doors to the common area there were already a few of my colleagues seated at the round table. Most were loaded with their laptops or iPads and were busy trying to respond to the daily emails while simultaneously devouring a snack before having to begin this (another) meeting.

Pat, one of the school's administrators, calls our meeting together and says:

“Our only task this afternoon is to discuss ideas around technology. That is, technology in the form of cell phones, and whether or not we want to see them in the school. Let me rephrase and be clear with what I’m saying to you. We are not allowed to outrightly ban them (cell phones) from the school. So with that in mind, how do we want to see them used in our learning spaces?”

As I sat there listening to Pat's introduction, I surprisingly felt flustered already and I could feel my cheeks begin to turn rosy-red with that colour that offers an insight into one's agitated state. In my heating-up discomfort, I began to shuffle in my chair. However, as I glanced around at my peers, we were mimicking each other's uneasy body shifting language. Here we sat already, as a group, except Pat, uncomfortably shuffling in our chairs and playing with our water

bottles. We were turning the bottles in half movements on the desk, leaving ringed circles of dew on the table where they once sat. Most of us were avoiding eye contact with each other and no one looked directly at Pat.

Our voices seemed momentarily lost. Speechless for a few moments, we sat in silence, which always seems longer than it really is for talk-dominating teachers, allowing the white noise of the ventilation system to fill the silence gap. Eventually, in part, because I was curious and, in part, because I was no longer enjoying the silence, I quietly cleared my throat and I begin to articulate my thoughts, but I find Pat's eyes and body language focusing in on me, and I say:

“Pat, so that I'm clear on what you've said and so that I understand the Division's positions on cell phones specifically and technology directly, I hear you saying we are now no longer promoting the use of technology in the classrooms, but rather accepting it. Regardless of the type of device we, as a school, are moving forward with a vision that establishes little provisions on the restrictions of the types of devices we allow the students to bring into the school and further to that, we are promoting the active use of them during class time. If this is the case, I still remain curious as to why we are unable to place stipulations on the types of devices the students are using and when they are able to use them. I believe we are making a leap to simply assume that students will always use their cell phone for educational purposes as opposed to being sometimes distracted and disengaged in learning by them. And through your opening comments, I hear you say we cannot limit the student's ability to bring cell phones, for example, into our classrooms.”

As I complete my words, Pat begins a response that once again imitates his abrupt tone from his earlier declaration, and he says:

“According to Canadian laws, it is illegal to prohibit cell phones in classrooms and schools, because of the nature of the phones. A cell phone is a communication device and, as such, educators cannot prohibit or interfere with communication between a parent and a child. It is also the reason why educators cannot legally take a student’s cell phone away. On the other hand, according to the Alberta School Act, any property that a student brings to school once they walk through those school doors, no longer belongs to their person, but rather becomes school property; this is what allows us, as educators, a “loop hole” so to speak in having the ability to confiscate the brought-to-school item, just as we would a hat or book. Inevitably, this is what causes the conflict when we’re dealing with cell phones because cell phones today have moved from the traditional two-way communication device to a device or devices that use smart interactive technology that goes beyond basic person-to-person communication. It is this smart technology that allows cell phones to be a camera, a portable gaming device, a voice recorder, an Internet browser, a GPS, or an alarm clock and so on. And, it is these smart technologies that allows for the cell phone to have potential as an academic tool in the classroom.”

While I sit and listen to Pat my inside voice starts to wonder and I think about the student’s uses of their personal cell phone devices in my classroom. I begin to visualize the experiences that I have had in the classroom with my students and their use of such personal communication devices. I have images running through my mind of students using them as

dictionaries, as agendas, as calculators, as writing tools, as social networking tools, as their updating status devices, and so on. And then I continue to go through the rolodex of incidents of cell phones use I am familiar with recently in my classroom categorizing them into my definitions or understandings of “legitimate” and “illegitimate” ones. This mental thought experiment leaves me with the sentiment that there seems to only be two choices: the first is the unconditional acceptance of cell phones in the classroom, and the second is the unconditional refusal to have them in the classroom. I am brought back to the Committee meeting and realize that inferred directly through Pat’s words and tone, there is a growing awareness in me that the only choice here is the full acceptance of his vision of cell phone use. Still, my own thoughts consume my attention again, and I soon drown out the other voices of my politely protesting colleagues from around the table. I wonder (to myself): How does one, a teacher as a first line classroom learning-teaching responder, come up with use limits in one’s classroom if there is district and school policy forbidding the exclusion of cell phones? What are legitimate uses in the classroom for a student to utilize his or her cell phone? Is usage based on the student’s discretion? Is it negotiated between student and teacher? What do learning and teaching circumstances have to do with what is pedagogically proper?

I’m brought back to the Committee table and the discussion when Sara, in a loud and direct voice, states that:

“The issue with the cell phone, as we defined it in our previous staff meeting was that, as a collective staff, we find that students are often using them as a tool—for entertainment purposes, and for texting purposes. These are actions that are perhaps seen as distracting rather than for educational purposes. As the device has the ability to allow

communication to occur with a number of individuals through texting and social networking, we have become apprehensive in allowing them in the classroom as I believe we fear the negative consequences that we know occur: such as cyber bullying and / or like arranging drug deals. I think what we as a staff are trying to say is that although we support this new vision of moving to one-to-one technology devices in the classroom, we do not necessarily see cell phones as a valid pedagogic device.”

Joe continues this conversation by illustratively mentioning a recent classroom experience where he had encountered a student playing an online game via his cell phone while the student was suppose to be organizing and working on his rough draft of his English essay. Joe recounts how he asked the student to put away his cell phone and that the students response was to cite back to Joe the Division’s policy that not only mandates and allows for personal communication devices in the classroom, but also promotes the concept of “any time, any place” learning. The student went on to ask Joe that if that’s what we’re (the Division) preaching about learning, then why does he have to do work on his essay while in the classroom? Why can’t he play a game and do the work later tonight when he wants to? Joe informs us that inevitably he simply let this student continue his game, as he felt that he wasn’t distracting anyone else in the classroom. Joe believed that in this case the only person that was going to ‘suffer’ was perhaps the student if he didn’t get the work completed and completed well.

While listening to Joe recount his latest student-teacher cell phone encounter, I am once again taken out of the conversation into my own world. I begin to wonder whether or not this one student, in Joe’s initial cell phone story, was the only individual distracted by this student’s cell phone while in Joe’s classroom; I also begin to wonder whether or not Joe’s reaction in

identifying or perhaps justifying this student's actions as only hindering his own learning was true? On one level I understand this statement because really, how is this student distracting anyone else if he's simply "keeping quietly busy" while others around him are working (at least one is assuming they are). On this same level, I see no difference between when a student falls asleep in class and therefore is not engaged in the learning activity, or those moments when a student drifts away and doodles in his or her note books. However, on another level, I begin to wonder, whether or not this (Joe's) student's actions are fundamentally altering the traditional face-to-face classroom. What happens when the student is physically, academically and / or emotionally or socially not engaged in this, very real classroom space, but is physically, academically and / or emotionally or socially engaged in another removed space; a virtual place? Where is this student really positioned? Between what worlds is this student to be found, and how does that effect and affect the structured learning environment of a time, space, bodied and relationally located teacher I try so hard to create, build and sustain? Does this being here yet absent student alter the sense of self and community and the trust that teachers' work to create in classrooms, as it is in those environments where ideas are shared and assumed learning occurs? Furthermore, if the (Joe's) student does not succeed at finishing his assignment, and his parents ask why not, how does one, as the responsible teacher, explain that he or she simply let this student not participate in school assignments and that it was the student's choice and responsibility? Is it not my duty, as an educator, and my responsibility to motivate (whatever that looks like) students to do their work? There are a tremendous number of complex and complicating issues here in Joe's little anecdote, such as; what does it mean to be present or absent in light of an increasingly ubiquitous digital world? And what of the legal issues, the

learning-teachings and time-space issues, pedagogic issues, power issues, responsibility versus rights issues and so on?

My thoughts are again broken with the sound of a hardy chuckle from our administrator Pat as he responds that Joe's student should have become a lawyer. He continues on by notifying us that this meeting is under a time constraint—that we only have thirty minutes left to continue this discussion and that the expectation is that by the end of this meeting we should have a new technology policy created. What! Obviously, the Committee was set up under different expectation than we the staff understood them to be.

Under this new time-limit parameter, which is not debatable, and the demand that a policy be produced instantly, Kim speaks up by voicing her experiences and ideas while teaching as our Distant Learning (DL) Coordinator. She speaks of the behaviour management concerns or issues she has in the digital classroom with the students who are present. Her statements and sentiments are not specific to any one incident, as Joe's had been, but rather she makes a statement which is a generalization of experiences over her teaching years, and she states:

“I'm simply at a loss as to what to do. I literally feel as if I have no control over the content the students have the ability to view on their screens—computers or cell phones. I'd like to sit here and discuss these ideas—but the reality is, I can't trust students to stay focused on their academic work. This perhaps wouldn't be an issue if they were inherently always motivated to complete their course work, but often when I am circulating the classroom, I “catch” them playing online games or messaging their friends. As a school, we do not have any filters on the Internet so students can and do wander about online. Short of asking them to remove themselves from the computer

laptop or desktop, I have no solution. And, the catch is that if I ask them to get off the computer, then the very real situation sets in that there are no writing surfaces that they can work on in my classroom. The entire set up and design of my classroom was to facilitate for pods of computers, so I have “rows” of desktops. Not to mention even if they had the opportunity to complete the lesson by hand, the nature of the online courses, requires that they submit their work via the Internet. Asking them to complete it by hand then, for them just seems like a waste of time, which I agree makes sense. Furthermore, not only am I competing with the Internet on the school computers, but I’m also trying to fight the battle with their cell phones. I often have taken cell phones from them, as it seems to be my only “real” solution or recourse for their inappropriate use of them: when they are texting or updating their most recent social status. This action or reaction seems to only escalate my already existing classroom management issues. The kids play victims and I play cyber-cop. This situation is especially true since administration has said that they will not interfere with issues concerning a teacher’s classroom management. So, I joined this Committee in hopes of being able to set up regulations as to the use of these devices.”

Pat hastily and seemingly defensively responds to Kim’s experiences by saying:

“First, we—the administration team—are too busy with other issues downstairs and we have little time to deal with cell phone “management” issues of classroom teachers. Unless it’s absolutely necessary we wish not to have this concern on our plates. Second, I advise all teachers to never take student pieces of communication technology away from

them, as when we do this it becomes our (the teacher's) responsibility for it. Which means if something were to happen to the device (if the student were to claim that a setting was altered, that the device was damaged or broken, or in the worst case scenario it was taken by another individual)—the teacher is held responsible for the total cost of the device. This is a cost liability issue. Administration in no way will support the teacher if something were to happen with a student's communication technology device. Third, the cell phone / Internet distraction is a problem, but it's not the teacher's issue, rather it's the student's responsibility. What we're talking about is not the technology itself, which is neutral, but rather the individual's use of it. Obviously, we can't create a policy that holds the technology accountable for the student's action, because, well that's simply ridiculous. Taking away a cell phone is not dealing with the issue. It is only dealing with the distraction. Our policy must focus around the student."

Pat's response triggers my inner voice once again—yes, again. In particular, I can't seem to find much reasonable validation with Pat's last administrative justification for dismissing a teacher's classroom management concerns over student cell phone usage, still I guess it is an intriguing proposition he gives. The idea that the cell phone is not the issue, but rather it is the student's action(s). In this moment, I'm brought back to Marshal McLuhan's (1994) *Understanding Media: The Extension of Man*, where he states that "[a]ny extension, whether of skin, hand, or foot, affects the whole psychic and social complex" (p. 4). Is a student's cell phone not simply an extension of who they are? As a technologies generating and using species, is not our history that of connectivity to or with technologies as an extension of our very being human? Does their use of the cell phone not mediate their senses of self and other in the world? Does this

device not shape how they respond and represent their understandings of the world? And, if so, how can an object like a cell phone be value free, as Pat seems to have suggested by his claim that it is the individual's actions that shape the use of technology? Pat's assumption that a cell phone is neutral in value is a premise, which seems to me to limit the power of any medium—it implies that technology (the cell phone) isn't the issue, but rather the user is the issue. Again, I'm left wondering if this is really true, again, for isn't "the point [of any technology] that the medium is the message" because it is the medium that shapes and controls the scale and form of human association and action" (McLuhan, 1994, p. 9).

Zack breaks my train of thought, and brings my back, as he says:

"Well the simplest solution appears to be to come up with a policy that has a structure like a "three strikes you're out." For example, on first notice, the teacher could pull the students out of the classroom and have a conversation with them about how being engaged with their cell phone distracts and takes them away from their learning, which is the purposes of coming to class. On a second strike / offence the student could serve a detention at lunch, and upon a third strike the student and their parents / guardians could be called and have a meeting with both the teacher and grade level administration as to the acceptable use of cell phones while at school."

Zack's suggestion seems to gain some momentum from colleagues. Kim speaks up and voices that perhaps we can modify this slightly so that upon first offence it is a conversation at lunch while they're serving a detention, the second offence is a conversation with teacher,

administrative representative and the student, and the final offence is downstairs with student, parents and administration. As this idea continues to float around the table, Joe suggests that perhaps the “three strike chances” reflect a pre-strike so to speak, so that parents are sent home a form at the beginning of the school year whereby it expressively states that although the school policies are shifting to follow the Division’s mandate of allowing personally-owned devices, including handheld mobile phones, it is the responsibility of the parents to educate their child on appropriate and adequate use of technology, adhering to these ideas that preach that technology not be used for communication or entertainment during instructional time. He continues to say that if students chose to do so, they run the risk of dealing with administration and consequences that the school finds appropriate....

As Joe continues to speak, midway through his sentence and in a booming voice Pat interjects and says, “No!”

Our heads and eyes turn to him as he continues:

“No, no, no! Administration will not be part of this reprimand of student use with technology. We are here to help you set the policy. We expect that every teacher will work within it. But we are too busy to deal with the micromanagement of it.”

I speak up and offer a question:

“Does this mean you will support our decisions in the classrooms as long as we can demonstrate to you, the administration, that we’ve done due diligence according to whatever policy we come up with?”

Pat responds by saying:

“Yes. In addition it’s 4:45 pm and I have to get going. I’ll take into account what we’ve talked about here, and what I’ve heard from you all. I will write a policy for us to go forward with and I will see you all tomorrow.”

With that closing statement, we had all been dismissed. As I pack up my schoolwork, I look around at my colleagues and exchange the pleasantries of real and fake good-byes.

A week later, through our G-mail document box, our new technology policy was delivered to us and it read:

As professional educators working in a 21st century learning environment, we not only acknowledge but also support the use of multiple forms of technologies with student learning. We see technology as a tool to enhance, challenge, accommodate or diversify their individual learning needs. Because we view it as essential to their personalized learning, we accept and permit all forms of personal devices in the classrooms. The understanding is that students will use their technology within the realms of education, as their primary role while at school is to be a student. If students are not using technology in an appropriate manner, classroom teachers reserve the right to discipline as they see fit. It is the teacher that is responsible for the student and their device. If teachers see fit, they will also inform administration.

I sat in my chair reading and re-reading the “new” policy. Wow, did our Committee set that Policy? I was left with many unanswered questions. My only resonating thought was: *Are we (teachers) to tread these technology waters alone, left, ironically, to our own devices?*

Siri 1: A cell phone use narrative.

How does this school-based policy, an administrative-based policy, address the technological essence of the students’ use of the cell phone? Do cell phones not have a mediating value? They can’t be neutral—can they?

As I write, re-write and re-experience this instance, it becomes more pronounced for me that there were many moments during my Technology Committee discussion with my colleagues where I was obviously taken out of that space and moment, and transported into my own realm of questioning. Perhaps, ironic since my invitation into my own thoughts acts as another realm similarly to what the cell phone arguably does for students and my external world is mediated by my internal world. This place where doubt crept into my mind about assumptions that were being made of student usage of technology as well as the technology itself makes me suspicious regarding the suggested neutral nature of technology, as I do not believe a cell phone is simply just an object that individuals choose to use or not. Prensky (2001) writes that students today have grown up with ubiquitous digital technology all around them. In their personal lives, digital technologies such as MP3 players are used to listen to music, laptops to stream movies, gaming devices to play video games, cell phones to communicate and so on. And cell phones especially with their ability to link up to wireless networks literally place the world at user fingertips; alter my students’ interactions with the world and their learning and with my classroom.

In a world, where technology seems to be present in every space and in every moment and in every moment of an individual's life, how can I, as an educator, not question the value in terms of the projected myth of neutrality that cell phones seem to have? What is the essence of a cell phone? How is what it is and what it does mediate the user? How does trying to reveal or come to terms with the essence of the cell phone help me to understand the practice of policy making and the implementation of it in my school, especially in terms of the complex relationships between administration and teacher and student—that seem to be arising because of the very divisive understanding of the very nature of the cell phone and its users?

In my attempts to grapple with some of these philosophical and pragmatic questions, I turn first to Heidegger (1977) and his essay, *The Question Concerning Technology*. I need his work to help me frame and understand what it is, that cell phones as human technology are, in terms of their core intentionality and essence. I am sure I am asking a good question when I ask: How do cell phones, as a connective technology, mediate our senses of reality? What do I need to know or understand about these devices and the relationship at hand between my students and myself with such devices, in order to more effectively engage our learning time and space? Heidegger (1977) warns us that if we take for granted that technology is simply just that, an object, then we risk not understanding truly how it functions and how and why it affects us; how it presents both challenges and opportunities to us. We must also be clear in establishing that “[t]echnology is not equivalent to the essence of technology” (Heidegger, 1977, p.3). When we are dealing with what may be the essence of the cell phone, we are dealing with our human interactions with it, for “the essence of technology is by no means anything technological” (Heidegger, 1977, p.3). The essence of technology, of the cell phone for example, is the experience and the relationship that it creates for itself in our sense of time and space. We must

understand how technologies have been so deeply rooted in how human interaction and existence both has shaped the actual device itself and how that technology, in turn, shapes us as human beings. In this way, we must not be blindly unaware that technology as an object and as an experience is not neutral in value. Heidegger (1977) cautions us of regarding this condition of reciprocity when he states that:

Everywhere we remain and chained to technology, whether we passionately affirm or deny it. But we are delivered over to it in the worst possible way when we regard it as something neutral; for this conception of it to which today we particularly like to do homage, makes us utterly blind to the essence of technology (p. 3).

The cell phone, as a modern piece of technology, is in and of itself, both a created form and a tool that is shaped by a core human activity—communication. For as with any piece of technology, our interaction with it is dependent on our overt and hidden relationships to it. Ruse (2005) stresses this in his discussion of the non-neutrality of technology when he writes that “[w]e create technology and these creations alter our habit and the environment” (p. 4). The cell phone as an ever ready and, in fact, user demanding communication and entertainment connectivity device guides me and my students’ intentions and actions in both personal and pedagogic ways. The device’s capabilities and capacities mediate our connections to worlds real and imagined and virtual. Cell phones connect us, on demand, to others and activities that are granted by the device’s essential capacities—connectivity. Regardless of how one uses the cell phone, what is significant in this context is that in order for my teaching practice to evolve with

this device, I must understand the cell phone, in a way that enhances my current knowledge of it.

Heidegger (1977) writes that:

Everything depends on our manipulating technology in the proper manner as a means.

We will, as we say, “get” technology “spiritually in hand.” We will master it. The will to mastery becomes all the more urgent the more technology threatens to slip from human control (p. 4).

I think this is what is missing in the educational conversations that are occurring in my school. In light of the above Technology Committee narrative, as educators, we are missing fundamental groundings with regards to the inclusion of cell phones in the classroom. That core link between the cell phone and the classroom is not located in the unfamiliar with what they are and how they operate, since all seem to have some experience, novice or otherwise with them. Rather, the cell phone is invested in discriminatory power, entitled privileging and demanding presence. Perhaps, I am naïve regarding how students use cell phones while in my class; however, I am increasingly becoming suspicious that I may know why cell phones are so essentially seductive besides the surface need for communication.

In the possibilities and abilities of that smart phone to connect me to everything, it is also a phenomenological transporter. According to Heidegger (1977), in order to effectively understand the essence of a technology, one must ask “[w]hat is the instrument itself?” (p. 4). So, I ask: What is a cell phone itself? Goggin (2006) not only reinforces some of the emergent ideas I have regarding cell phone technology as being ever-present and a time and space consumer in our lives and writes:

... activities revolve around cell phones: staying in constant contact, text messaging, fashion, identity-constructions, music, mundane daily work routines, interacting with television programs, watching video, surfing the Internet, meeting new people, dating, flirting, loving, bullying, mobile commerce, and locating people (p. 2).

But Goggin (2006) also provides me with some insights into cell phones and their technological evolution. He suggests that the cell phone is an interesting piece of technology to study and explore in terms of relationship(s) to the social context of society, because as a piece of technology—in an evolutionary context—they can be studied and regarded in the following manner(s):

Cell phones are often classed among information and communication technologies, and here we observe that, while communication has always been materially embedded and mediated, the importance of new forms of technologies is quite pronounced at the present time, as the use of the Internet, computers, and telecommunications demonstrates.

Viewed from another angle, however, we might see cell phones as just one alongside many other technologies for living, whether these be commonly associated with the home (the microwave, vacuum cleaner, television, or baby monitor, transport (global positioning device, combustion or jet engine, railway track), workplace (elevator, computer, office equipment, ... (Goggin, 2006, p. 10).

Historically speaking cell phones, or the technology of them and their wireless abilities, are linked to the World War years. It was during the Second World War that military infantry had the capabilities to communicate through radio transceivers. Meyers (2011) takes readers through a visual history of the evolution of cell phones dating back to 1938—where these “walkie talkies” and “handie talkies” evolved through the war efforts. This technology was later used and manipulated for the purposes of cultural and social lives for the “average” individual. In 1946, the first commercial cell phone was established and placed in vehicles. As Meyers (2011) writes: “[t]he original equipment was large, weighing 80 pounds ... with limited calling bands available ... [and] [n]ot really intended for regular Joe Blows, these devices were used by utilities, truck fleet operators, and reporters”.⁶ In fact it would not be until 1982, when the first international cell service would be launched; marking “the first-generation (1G) of mobile communications.”⁷ This, perhaps, primitive version of what we have come to know today as the cell phone continued to be adapted and eventually in 1993, as Meyers (2011) both illustrates and writes in his article:

Perhaps the world’s first smartphone, IBM Simon was a mobile phone, pager, fax machine and PDA, all rolled into one. It included a calendar, address book, clock, calculator, notepad, email, games and a touchscreen with QWERT keyboard⁸

⁶ Meyers, Justin. (2011) “Watch The Incredible 70-Year Evolution Of The Cell Phone.” Business Insider. Retrieved from: www.businessinsider.com/complete-visual-history-of-cell-phones-2011-5?op=1

⁷ Meyers, Justin. (2011) “Watch The Incredible 70-Year Evolution Of The Cell Phone.” Business Insider. Retrieved from: www.businessinsider.com/complete-visual-history-of-cell-phones-2011-5?op=1

⁸ Meyers, Justin. (2011) “Watch The Incredible 70-Year Evolution Of The Cell Phone.” Business Insider. Retrieved from: www.businessinsider.com/complete-visual-history-of-cell-phones-2011-5?op=1

Arguably, it was perhaps only a matter of time, so to speak, before today's smart phones came onto the scene. In fact, since the 1990s, it seems that the evolution and creation of the next generation phone becomes available and popular to the masses within a matter of months rather than years, as it had been. In fact, today we have moved from the 1G cellular phones to the 4G standard. It's no wonder that today's cell phone, itself a mutating object, is a wireless communication device by which individuals through their engagement with it become connected to another body or another space. Those individuals who use cell phones extend their physical bodies into another virtual space. McLuhan (1994) writes that:

Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned. Rapidly, we approach the final phase of the extensions of man—the technological simulation of consciousness, when the creative process of knowing will be collective and corporate extended to the whole of human society, much as we have already extended our sense... (p. 3).

Arguably, this is perhaps where we are currently in today's society with the use of personal smart cell phone technology. We are in a technologically progressive society where, at any given moment, through the use of these portable device, we can be brought out of our present physical reality, called into a moving response by the William Tell Overture, or Bugs Bunny's voice or a computer generated ring tone and transported to the one calling upon us. The connection is not just voice-linked but it is also emotional and empathetic and often phenomenologically visual. We—as human beings—often listen and talk in images, gesture

with our hands as if the other person can actually see us and, indeed, with apps like Facetime, or the use of Skype, they can. In many provinces in Canada and American states, cell phones are the primary reason for distracted driving laws.⁹ Why? Simply, we do not only listen, we visualize when attending to the cell phone. The cell phone invites, indeed requires, an escape of the physical confines of the person's present world and we are often taken into another realm of metaphysical reality. For instance, the cell phone permits someone to be in a very public physical space while still engaging in and maintaining a very private and personal and virtual moment. Take, for example, an individual who is riding public transit in a "sardine-packed" bus cramped with passengers, yet through one's cell phone a person could be having a meaningful or not conversation with a person on the same bus or in another country. I wonder if my students do not use their cell phone in the same manner. Just as the bus rider uses his or her cell phone as an extension of his or her words, or thoughts, so may my students when they disengage with the classroom and engage with what or who is on the other end of their cell phone. However, the other end is not the other end—that end is present at the student's end. Through the active use of their cell phones, many students, I feel, enter, perhaps willingly or perhaps they do not realize it, into another realm where although they are not physically there, they are because they are deeply affected by what is occurring in that "other" space.

In looking at a cell phone, as a portable device that continuously mediates the world in any given moment, perhaps one of the characteristics of a cell phone is the limitless possibilities that it offers us. This idea applied to a classroom setting and a student's use of his or her personal

⁹ According to the CAA Distracted Driving Web Site, all Canadian provinces and two of our three Territories have some form of legislation that prohibits cell phone use and distracted driving. Retrieved from CAA Distracted Driving Website: <http://distracteddriving.caa.ca/education/distracted-driving-laws-in-canada.php> .

cell phone might then help to explain or illustrate how the use of a cell phone, in a traditional structured classroom, might very well disrupt, alter, and essentially shift the co-existence or co-habitation of the relationship between student and teacher.

Historically, students were considered present in class when they entered into that very well structured design of the four-walled classroom. For the students, and for myself, we continue to enter into this very confined space and on a daily basis we partake in the ritual of attendance taking based on their physical bodies found seated in their desks. But unlike in the past where technology did not necessarily transport them into another space, today their cell phones do permit them to “escape” or “exit” or “become displaced” from my classroom. Which begs the question: Where are their bodies then in relationship to their use of and their being used by such a technology? This question for me is fundamental to my inquiry within this narrative as my attempt to understand the cell phone as a non-neutral technology object and as a mediating object that re-defines relationships. What is going on here in the relationship between subjectivity, inter-subjectivity and objectivity?

Returning to the Heidegger (1977) the complexity of what technology is lives in relation to what it does and frames acknowledgement that it is not only a “means to an end” but also a “human activity” (Heidegger, 1977, p. 3). For Heidegger (1977), technology should be understood within the realm of how it is a mediating connection to our use of it. It is this interconnectedness which should perhaps be the focus of the policy creation in my school in terms of understanding how cell phones mediate the environments of schools. Verbeek (2006) paraphrases Heidegger’s idea whereby human generated “tools” are used through an at-hand example of the hammer and the nail:

Heidegger indicated the way in which tools are present to human beings when they are used as “readiness-to-hand.” Tools that are used for doing something typically withdraw from people’s attention; the attention of, for example, a person who drives a nail into a wall is not directed at the hammer but the nail. A person’s involvement with reality takes place through the ready-to-hand artefact (p. 364).

Perhaps, then, I should explore how the cell phone provides for endless connected potentials and what that truly means for classrooms, teachers and students. If it is true that through the use of a tool, an individual becomes involved with a reality that is different than what it was prior to using that tool my question is: How does a student’s use of a cell phone, re-shape, or co-shape his or her sense of reality, ethics, and power in a high school classroom? If the cell phone mediates their world and their relationships with the world, in creating a school policy around cell phones, what needs to be at the core of it is the understanding that it makes a difference as to whether or not we, as educators, individually or collectively approve or disapprove with cell phones being present, but rather how the cell phone magnifies or reduces our sense of “beingness” in relation to its use. The issue of the cell phone is not about accepting it in a classroom as a valid or invalid tool for teaching, but understanding what tool-ness actually means in the context of this technological object’s use.

My ability to adapt to this evolving sense of knowing and understanding regarding the cell phone classroom itself as a multi-purpose device becomes dependent and related to those individuals who use cell phones in my classroom without the sense of being consciousness of its technological phenomenological mediations. In a sense, the tool pedagogically mediates—it teaches us required ways to be both present and absent, and what counts as power and control in

a sense of self and others relationships. In this manner or with this understanding of how a cell phone technology, object becomes a micro or macro-extension of a person's subjective being, and thus part and parcel of his or her real and virtual reality, it is a strange thought to believe that we may "police" ourselves as teachers with any coherence as the administration in my case would suggest we do. This is not just a case of proper cell phone etiquette and policing the politeness of users. Quite simply, how can it be?

If we are simply going to place the "black and white" rules of an end-user policy onto the students to govern their use of cell phones and policed by teachers while in a physical classroom space by simply reducing the usage to a set of observable politeness protocols, then we have totally misunderstood the relationship between tool as a non-neutral object and as mediating engagement. If we do this, which is, what I believe Pat, the administrator in the Technology Committee narrative, was asking us to do, then we, like him, have assumed that cell phones are neutral in value and that they have no or limiting mediating abilities. To believe this, is to think of the cell phone as a still object that waits for someone to use it in order for its abilities and potentials to be "unleashed". I venture to suggest that cell phones are not like this—neutral and non-mediating. They are not a "Genie in a bottle." The cell phone is not a still object that simply awaits our use of it. May I even suggest we might not control the cell phone? We may have come or grown to become dependent on it, and dependency comes at a cost, and perhaps that is what this device may alter, our sense of what counts as readiness as a user. We cannot dismiss the fact that we are constantly being altered and changed by our interactions with technology including the cell phone.

Pat, the administrator, seems to assume that the cause of this tension between teacher and student has to do with the power struggle of appropriate usage that erupts in physical classrooms

throughout the building when students are using their cell phones in ways that “we” (those of us as teachers designed as being in authoritative positions) deem inappropriate. Whether or not there is any justification for this battle field of appropriateness seems to have created two camps: (1) school administrators who need to make sure the school looks progressive in terms of 21st century technology and cite legal consequences for non-compliance, and (2) teachers in classrooms who struggle with time constraints regarding covering the curriculum, assessment, learning and teaching engagement. These two camps affect the relationships between student, teacher and administrator on a daily basis.

Let me be clear here in establishing that I do not think that the cell phone policy requires a comprehensive list of appropriate and inappropriate uses and corresponding consequences, rather, that it needs to incorporate and encompass the complexities of the device. Perhaps McLuhan (1994) illustrated the complexities of technology and human action and interaction best when he described them as a complex system and structure that cannot be systematically divided and separated into a means of control. McLuhan (1994) writes that, “[i]n a culture like ours, long accustomed to splitting and dividing all things as a means of control, it is sometimes a bit of a shock to be reminded that, in operational and practical fact, the medium is the message” (p.7). The issue of cell phones in the classroom is not going to be resolved through over simplifications and generalizations of beliefs that students should be controlled via “policing” of their use of cell phone technology while in the classroom. For, as discussed earlier, the power of the cell phone is not dependent on a student’s use of it, for it is a media that exists with an already mediated experience that is both overt and covert in what it does. And what it does it does in a specific ways that deems its use “normal” and “normalizing”. Embedded in the normalizing is an experience with phenomenological seduction and located us via our very

bodies in being present elsewhere. And when we use the device, we naturally feel being presently elsewhere is not an issue, and obviously then when a teacher calls a student back to his or her classroom; he or she seems to wonder what the “problem” is.

As an educator, who finds herself often “on the front lines” so to speak, I am pedagogically less concerned with what tool my students are using to accomplish their learning needs and obligations, and more concerned with whether or not learning is actually taking place at all, and if this learning is being internalized as something meaningful and transferrable for them. What, if anything, should dictate a student’s use of a tool, like a cell phone in my classroom?

Through my research into the literature and both my professional and personal experiences, what seems to guide most individual’s actions in reference to the use of a technology, is the technologically mediated context in which a person is already located. It is the technology at hand environment that guides our interaction(s) with any tool. As I have come to discover, this is also a simplified understanding of how one’s context influences the use of a technology because technologies generally have always been shaping and guiding our humanness; an idea that is supported through Weaver’s (2010) research in relationship to the posthuman¹⁰ condition that we have always been connected to as tool imaginers, makers and users and that we are currently finding ourselves in as a defining overwhelmingly ubiquitously technologically framed world. Weaver (2010) uses the works of Sumara (1996) to express the man-machine complexity nature that we find ourselves in, and Weaver (2010) writes, “[i]n the Western world we have not been very successful at understanding the way in which our bodies

¹⁰ Here, I’m using Weaver’s simplistic definition of the posthuman condition that “implies the merging of humans and machines in order to enhance or improve human capabilities” (Weaver, 2010, p. 11).

are ecologically caught up in and with our environment. More specifically, we do not seem to really believe that our body is an environment in itself” (p. 25). Weaver (2010) goes on to emphasize this environment shaping, if not determining, as he writes:

If the most important point to draw from Sumara’s work on embodied actions is that “the environment is as much a reflection of the biology of the species as the species is a reflection of the environment,” then in the posthuman world it is essential to ask what happens to the body when the environment is technologically constructed? What happens when the artificial environment merges with the natural body such as when an individual plays a video game, interacts with a simulation, receives an organ transplant, [and] undergoes gene therapy...? (p. 25).

Questions concerning cell phones open up these essential questions of what it means technologically to be a human being. I believe, as will become evident throughout this thesis, these posthumanism issues or concerns have been creeping up in my classroom experiences for some time now. Students, through their use of their cell phones, are being transported into artificial environments that feel phenomenologically as “real” when they engage with their devices. Regardless of what they are doing on the cell phone (for example, game playing, texting, using it to link up to the Internet) is not the issue when dealing with cell phone use in the classroom. The issue is we, as educators, are failing to understand what the cell phone actually is and we rush to use it for the projected educational implications related to a student’s learning opportunities. Weaver (2010) discusses the ills plaguing education and educators today when we do not truly understand the influx of technologies in schools and blindly rush to accept them as

educational, and he warns us that if we fall into the “all technology is good educationally” trap, that arguably Pat has, whereby he reduced technology to a simple neutral tool, we inevitably become the technology’s normalities. Weaver (2010) plainly states that by, “reducing technology to tools of instrumentality they [educators] block the very thing they want to nurture in the schools: imagination” (p. 28).

I fear that the school-based policy of cell phones, which was framed around the conversations that emerged out of the Technology Committee’s meeting, is simply an appeasement document. I fear it continues to deflect the issue at hand; that of understanding cell phone technology but not addressing its educational usage. The policy at the heart of this narrative makes classroom teachers the sole bearer of all responsibility and of enforcement of use or not of student cell phones. By extension this kind of policy, asks me as a classroom teacher, to not only ignore my understandings of how technology mediates our lives and changes the way in which we interact and understand, but it also limits both my and the students’ abilities to perhaps use the cell phone in a truly educative manner. The unaware use of the cell phone, for example, and thinking of the cell phone as an object—as an “it-thing”—effectively positions us such that “[i]t restricts educators from utilizing technology as a form of poetry and creativity” (Weaver, 2010, p. 29).

Hot Spot 2: A Competition for One’s Already Divided Attention

It was a lovely warm spring afternoon and my grade eleven English (I teach English and Social Studies) students were filing into the classroom. The end of lunch bell chimes and the beginning of classes resumes. As I peered out my classroom windows, I am able to see swarms of students rushing into the school. They are walking and running in from the football field

located just outside of my classroom. Today, I decide to stand at the door of my classroom and I await their arrival. I feel I need to give them the benefit of the doubt since I empathize with their desire to be outdoors on such a lovely day. It is one of the first nice days of spring so far this year and so I understand why lingering is evident—indeed, necessary. Once all the stragglers entered into my classroom, I begin our afternoon lesson.

Good afternoon ladies and gents. I see the weather has kept you busy this afternoon. I must admit that I too would like to escape these walls and find myself outdoors.

And then the usual, if not necessary, question emerges: *Miss T, why can't we have class outside?*

With a smile, I respond with:

Ah, a great question Logan, but it's simply not permitted and because I don't feel like getting into trouble from Mrs. Renaud.¹¹ This is where we will stay. So, switching gears, let's talk about beginning this next unit in our studies. Our class novel study! As I mentioned at the beginning of this semester, we are the guinea pigs so to speak for trying online novels in the classroom. Here's the deal. We have a class set of iPads and we have downloaded an electronic book for our novel study¹² onto them. I have booked the iPads out from the Learning Commons, which means that you and I have access to them daily for the next month. The only hiccup with this arrangement is that you cannot take these devices home, which means that all reading must be done in class. As this is the case, I have worked in more time for reading while in class, but I

¹¹ For the purposes of this narrative, Mrs. Renaud is the high school principal. She has imposed a strict rule that prohibits teachers from holding their classroom instruction outside of their respective indoor classrooms.

¹² Aldous Huxley. (1998). *Brave New World*.

have on the flip side regrettably given you a little more homework than you're used to for this class. I want you to keep in mind that this is a short study unit, and that we have the power to change lessons depending on where we are and what we need to cover.

Damian interjected: *Miss T. This is simply ridiculous and quite frankly, stupid! What if I wanted to read a real book? Do we not have any?*

I'm sorry to say Damian that is simply not a valid option for this unit of study. But to you and the rest of you who feel you want your own personal print copy, here is what I can suggest. We do have a few hard copies in the library so that if you'd like to take them out / sign them out through Miss Blake¹³, you may. You can also purchase your own copy. It's not an expensive book and our local bookstore will have them, and used bookstores should have copies as well, I'm sure. Or, for those of you who have your own personal devices such as: iPad, iPod, or E-Reader, whatever the case maybe, if you'd like the text on your device, we can certainly work that out for you also.

I watch their bobbing heads as they nod them; seemingly, if not in some cases begrudgingly, agreeing. Their anxiety levels seem to have been calmed by the solutions I've provided. I tell my students that I'll give them all forty minutes of silent reading today; the expectation is that they get through the novel's forward section and the first chapter.

If you are finished early, you can log onto your Moodle¹⁴ account, and while still in possession of the iPads you can respond to the blog questions regarding the novel I have posted. Your homework tonight is to respond to the two questions online. However, today's class time

¹³ Miss Blake in this narrative is our Learning Commons Leader: also known as the Librarian.

¹⁴ Moodle is one of the many learning management systems (LMS) that our school division has started using.

will focus on a discussion around the book title and what insight we've gained from the first chapter.

I openly invite them to sign out an iPad following the school's sign out procedures¹⁵ as established whereby they are to write out their names and the number of their taken devices. My final comments to them are that I trust that although they have access to the Internet and the Web through these devices, that they will use these devices for the purposes of reading, looking up definitions, and blogging rather than using them as a "fun escapist tool."

I give them a few moments to settle into using the device; a hush soon comes over the classroom. In the silence I take attendance entering it online, and then I quickly go over the points of interest that I want to discuss with them post-reading. After reviewing my notes, I start to wander about the classroom. Glancing around the classroom, the students appear to be on task. I wander up one aisle and down the next—whereas in the past, my shoes may have made the only clicker-clack noise on the tiled floor, today it is different. As I move about I hear the students tapping on the iPad screens as they electronically flip pages or as they type up their blog responses. Eventually, I make my way to Simon, a young man in a bright yellow tie-dyed t-shirt. I notice that the iPad is resting on his desk, yet his body positioning and gestures do not resemble or reflect those of his engaged peers.

In a whisper, I ask: *Simon, what are you up to?*

"Ah, you caught me Miss T. I'm playing a game on my phone."

"Why?"

¹⁵ This procedure was established by our Learning Commons Leader / Librarian as a preventative lost or damage measure. It is meant to deter students from using the iPads inappropriately and to instill some sense of ownership / accountability so that they do not damage these devices.

“Because I don’t feel like reading.”

“Simon, you’re an avid reader and based on our conversations I feel like you’ll enjoy this novel—truly. It is about conformity, compliance and, of course, resistance.”

“Yep, I believe you, and I’ll read it. But I’m going to do so later. I’ve already texted my mom and asked her to pick me a hard copy up from the bookstore on her way home from work today. So, I figured I’d sit here silently and just keep busy while everyone else reads.”

“Considerate of you Simon, but I still maintain that you should read the first chapter as we’re going to discuss it in a while. Deal?”

“Oh, alright.”

I leave Simon and continue to wander about the classroom. I weave in and out of the rows of desks peering over my students’ shoulders to make sure they are on track and engaged. I sit up at the front of the room for a while, and I read or re-reading the novel as the case actually is. I finish the first two pages, and I look up once again. I reposition myself to allow my eyes to meander across the classroom. My students’ heads are down. I go on to read the next page. Upon finishing the last sentence, I decide to mosey amongst them again. The classroom is still silent except for the iPad tap tapping. I return to Simon to find that the iPad still displays “page one” and that he continues to play his online game on his cell phone. I ask to speak with him in the hallway. Obliging he walks with me outside the classroom doors.

“Hey, so I thought we were clear on the expectations Simon.”

“Yep, I thought so too. But I just can’t stop. Have you ever played this game Miss T? It’s so addictive. It’s like once you start, and you just can’t stop. And you really can’t fault me, can you, I’m just a kid.”

“Kid or no kid, the cell phone needs to go away. You know you bring a backpack to school daily and you have a locker. I’m sure one of those two places is an ideal spot to store this device. The issue isn’t so much that you’re distracting others, because granted you’re not; however, the issue is your use of the cell phone... on...well, my time—the school’s time and your learning time. Time that has been set aside, I say purposely, for you to be engaged and to learn. And this young man, is not what I would consider learning...it’s amusement. So, I’m no longer asking you, but telling you this time, to put the cell phone away, please. Got it?”

“Get it. But you should really play this game.”

“Well, come back to me later at the end of the day and I’ll try it for you if it would make you happy. But right now, you need to read...clear Simon?”

While still in the hallway Simon turns his phone off, and as we both re-enter the classroom and I observe him placing the cell phone in the top pouch of this backpack. He places the iPad at a comfortable reading angle and begins to read.

Siri 2: Cell phone as transporter.

Where do students go when they are enticed by other places and spaces offered by the multisensory cell phone? And, is it possible for a teacher to structure the classroom so as to not have to compete with the seductive and addictive nature of the cell phone and what it seems to offer?

In trying to grapple with the realities of my classroom and those moments of interaction where my students seem to digitally leave the classroom, and give over, sometimes fully, their attention to a cell phone screen I’m left wondering about why my students become so fully

interactive with their personal cell phones. I begin to wonder, if this “seduction” does not have something to do with the ability to be transported from one realm into the next; to become fully engaged with the virtual as a place sometimes more interesting, than say perhaps a physical space, here and now, classroom. I question this positioning, because of the above narrative, *A Divided Attention*, as Simon, although physically present in a classroom where one form of technology was being used Simon continued to be “distracted” through the use of his personal technological device—his cell phone. This instance is interesting, because both tools (the school’s iPad and Simon’s cell phone) arguably have the same kinds of “powers”— do they not? These devices seem to have similar capabilities such as: communication through email, Skype, messaging, exploration of new and perhaps different virtual places, ability to search for information, and to store and represent information and so on. So, what is so seductive about the cell phone, that even with the availability of other modern technologies, students like Simon, still give their attention fully to their cell phone?

To generate a response, I return to the works McLuhan (1994) and Ihde (2002). McLuhan (1994) writes, “[w]ith the arrival of electric technology, man extended, or set outside himself, a live model of the central nervous system itself” (p. 43). This idea of an extended nervous system speaks to me in relationship to the question of how students might see and experience a cell phone as an extension of their bodies. What I believe McLuhan (1994) is suggesting is that technology, regardless of its form, is able to extend our physical bodies, in ways that enhance the engagement or stimulation of our sensory organs (sight, touch, taste, smell, sound) in the same way that other, perhaps more “natural” elements (like wind, or light, or heat) have traditionally done. This is how I am coming to understand Simon’s desire to use his cell phone and why he wants it in his close proximity and seems so attached to it. My students become engaged with

their cell phones because it reawakens or “lights up” sensory faculties that would otherwise remain “lower frequency” or perhaps even “dormant.” Perhaps, Simon is so consumed by his online game because it revives something sensory and perhaps sensual within him. Through the cell phones ability to mimic sounds, display colours and images, and by design the “physicalness” of it, simply re-wakens or hyper-stimulates his sensory organs. Perhaps it is not only a revival of his senses, but also an intensification of them, because the “game” playfully creates this agency. Perhaps, even though my lesson incorporates technology within it, that technology is used for a traditionally text-bound and passive reading experience and this type of engagement with the iPads and its downloaded book seems very prescribed and contrived as an online experience. Not only is the school’s technology “controlled” in reference to how I structured my lessons, but it is here and now and present space is confining and task-required comparative to his freeing, agency-drive cell phone. The technology of the iPad, although as advertised in commercials, has the ability to function and be manipulated and personalized for the specific individual that uses and owns it but here in the school, it does not have that ability. The system functions and apps have been pre-set for student academic uses. Or, perhaps there is more to this tension between technologies? What about this idea that, whether through a conscious or unconscious act, Simon already sees and experiences the cell phone as a nerve system extension of his brain and body. He held it in his hands so many times, that it simply acts as an extension of his hand and brain and perhaps he will not chose the iPad, not because it is not a “good” piece of technology, but rather because it will not provide for him the sensory responses that he is searching, craving, and wanting for. Is Simon a posthuman—a cyborg?

I do strongly believe in the notion of technology and tools having the power to mediate our experience and our lives. In accepting this, I admit that through the use of iPads in my

classroom, I was already inviting my students into a world that was not the physical one as iPads have the ability, similarly to cell phones, to invite us into a space that is virtually created. This is an idea that is supported through both Ihde (2002) and Weaver (2010) and, in fact, Weaver (2010) even uses Ihde's philosophy of technological experience when elaborating on technology neither being simply a tool or object of instrumentation. Weaver (2010) speaks toward Ihde's (2002) ideas when he writes that, "[t]echnology is a medium enhancing human perception. It is a phenomenological and hermeneutic mode of seeing, and embodied interaction with the world. Ihde believes there are two worlds and at least two ways of seeing these worlds" (Weaver, 2010, p. 33).

The two bodies and two ways that Weaver (2010) is referring to here are Ihde's (2002) concepts of bodies (body one and body two) and ways of reality, those of RL (real life) and VR (virtual reality). Ihde (2002) speaks of body one as a body that is present and existing in the world through "our motile, perceptual, and emotive being-in-the-world" (p. xi). Ihde continues to explain that this is only one way in which we are and live in the world. The second body that we inhabit is that of body two. Body two is the manner in which our environment influences and shapes us. Ihde (2002) writes that, "we are also bodies in a social and cultural sense, and we experience that, too" (p. xi). Ihde (2002) discusses these modes of being and bodies in relationship to the RL and the VR. Weaver (2010) synthesises the worlds when he writes that, "[t]he first world is often referred to as the real world, the world in which our body interacts "naturally" with its environment. . . . The second world is a virtual world where our body interacts with its environment via some form of technological mediation" (p. 33). What is significant in this discussion is that regardless of which body one inhabits and which world one is being mediated by neither world is more significant or more "real" than the other. Ihde's (2002)

premises, in the phenomenological sense, is that “both RL and VR are part of the lifeworld, and VR is thus both “real” as a positive presence and a part of RL” (p. 13).

I wonder if this enhanced embodiment perception is what people mean when they say that technology is “engaging” or “sexy”? The ability for Simon to escape the physical confines of the very structured world invites his entering a space that is amorphous in that he becomes the engaged form that structures it and in doing so, he gains mediated sensory pleasure from the playful constructing task. Perhaps this unstructured yet structured space allows for an invitational sense of liberation, exhilaration, and accomplishment? What keeps him “there” attached to his cell phone screen? Is Simon’s addiction to that space a reflection of both how servant-personalized the cell phone as an tool-object with individualized and personalizing functions is, as much as, how the game truly engages him? McLuhan (1994) touches on the issues of media and gaming being a highly personalized experience when he writes, “...all games are media of interpersonal communications, and they could have neither existence nor meaning except as extensions of our immediate inner lives” (p. 237-238). This speaks to the complex nature of how we have become technologies mediated and attached to the technologies that we create and, in turn, shape our world. Simon, through playing his cell phone game, was experiencing something through the artificial transporting nature of his cell phone, and in this manner he was not only experiencing something different from his peers during my class, but was also being repositioned by the technology, in the sense of where his bodily experiences were being had and found. In that moment, arguably his interaction with the world and his learning was different for him.

In accepting the idea that technology acts in some way as a transporter of brain-bodies, I again, turn to Ihde (2002) to help explore the nature by which we interact with both the real world and the virtual world through technologies engagements. Ihde (2002) who builds from

Heidegger's ideas writes about how we, humans, have different modes or abilities to interact and experience the world. As mentioned earlier, Ihde (2002) suggests that we have two bodies and a third dimension available to us depending on where and what we are interacting with, or perhaps being mediated by. These factors seem to shape that body we embrace. Our first body, body one, "is the existential body of living, here located bodily experience" (Ihde, 2002, p. 69). This first body is then the one by which we use to perceive things, to orient ourselves with, to actively respond to what is "coming at us" (Ihde, 2002, p. 69). In short, it is the body by "which we experience the world around us" (Ihde, 2002, p. 69). This body is significant when dealing with how we respond and react to our environments, because it is a bodily experience that is a fundamental constant in our reality. Ihde's (2002) second body is a body that is constructed through both culture and society (p. 70). Body two is the body which uses its cultural, social, and political understandings of its context in order to take a perspective from another—to become embodied from another view point, allowing a perhaps more diverse or insightful knowledge of an experience. The third dimension, or perhaps body three (although Ihde never refers to it as such), is perhaps the most significant body when dealing with Simon and in reality the other students using iPads in my classrooms, is the body which is found in the virtual space that is created through the use of a technological tool, whatever that tool at hand maybe such as a cell phone, or iPad, or movie, or game, and so on. Ihde (2002) writes that what links body one and two is technology (p. 71). What happens then to Simon and perhaps arguably to my other students while using digital technologies in my classroom is that while although physically seated in my classroom, through their actions and interactions with the technology, they inhabit that third body. That space that is neither here nor there. It exists in the virtual realm created somewhere between where they are seated and where they are reading, writing, interpreting, or

meaning making, and for Simon virtually as a space of engagement within a game. It becomes evident to me as an educator watching this embodied-ness / disembodied-ness play out in my classroom, and as a researcher writing and interpreting this incident, that digital technology tools all mediate an individual's world(s) and then his or her ability to make sense and respond to that world(s) seems dependent on how they personalize use of that technology and not on how we as education prescribed the use of technology.

Perhaps Simon is so attracted to his cell phone and the feelings he acquires through its ability to mediate his world, for the following reason—I ask you here, to indulge me and give me a little leeway as I lay out the groundings for this idea first. McLuhan (1994) writes that:

To behold, use or perceive any extension of ourselves in technological form is necessarily to embrace it. To listen to radio or to read the printed page is to accept these extensions of ourselves into our personal system and to undergo the “closure” or displacement of perception that follows automatically. It is this continuous embrace of our own technology in daily use that puts us in the Narcissus role of subliminal awareness and numbness in relation to these images of ourselves. By continuously embracing technologies, we related ourselves to them as servomechanisms. That is why we must, to use them at all, serve these objects, these extensions of ourselves, as gods or minor religions (p. 46).

McLuhan (1994) frames his belief that humans must embrace the use of technology at a level of awareness that is greater than our “normal” use of these devices, for otherwise we simply become servants to the technology itself. McLuhan (1994) establishes that these tools are

placed at the level of divinity. I wonder if this is true. If technologies are powerful, like gods, are we not empowered through them, and then placed of a level of divinity also, as through our use of them, their power act as extensions of us? This is a “mind bending idea” this concept of humans having a relatable power of the divine through our actions of using technology—yet I find it not an inconceivable one. Weaver (2010) further explores this idea through the use of a Greek mythology. Weaver (2010) uses the myth of Prometheus and Epimetheus to describe how humans acquired their self-defence mechanisms. As the myth goes, Prometheus and Epimetheus were brothers and Epimetheus was asked by Prometheus to arm (with weaponry) all living worldly creatures with a defense means of protection and he did so obediently, beginning with the animals. He gave creatures various characteristics such as, “qualities, such as swiftness, cunning, strength, fur, wing.”¹⁶

However, by the time Epimetheus got to human beings he had already run out of defenses to give. Epimetheus returned to Prometheus to convey his “bad” news, and in trying to help his brother solve this issue Prometheus stole from the Olympus Gods’ defenses in order to give humans a form of protection, and he “decided to make man stand upright as the gods did and to give them fire.”¹⁷ This “gift of fire” is a “technology” related to the ability and skill to create, make and / or invent. Our human protection mechanism became the ability, out of necessity or not, to invent or create tools into order to survive. This survival gift is evident in our historical context of the development of technologies over time. And like god-gift of fire all these

¹⁶ The Creation of Man by Prometheus. Retrieved from: http://www.greekmythology.com/Myths/The_Myths/Creation_of_Man_by_Prometheus/creation_of_man_by_prometheus.html).

¹⁷ The Creation of Man by Prometheus. Retrieved from: http://www.greekmythology.com/Myths/The_Myths/Creation_of_Man_by_Prometheus/creation_of_man_by_prometheus.html).

technologies created or made both give and take, and produce and consume. We have invented many technological tools, which have provided us the ability to control or have some semblance of control over our natural and human environments. That is technologies such as the wheel, the light bulb, water dams, airplanes, weapons, trains, telephones, medicines and so on. Weaver (2010) uses the example of human memory and the evolution of technology in relationship to how we have come to remember. He writes that “[t]echnology is how humans remember. Books, lectures, myths, folktales, songs, films, television, and information technologies are all memory technologies” (Weaver, 2010, p. 144).

If this is the “posthuman condition”, regarding everything we have created or made, from language to nuclear weaponry, from memories to ascensions that our god-gifted “defense mechanisms” change the way in which we interact and come to understand and live in the world and ultimately, changes our physical, social, emotional and mental and environmental make up. Any, and every invention, then, seemingly provides us a sense of empowerment, because through it we master our environments or other with new skills. Imagine that little boy at the concert so many pages ago, playfully working so hard at mastering that digital puzzle. I come to understand this myth and the concept of how it leads us to a sense of empowerment in the same manner and as such, I come to understand, for example, other historical events like the Industrial Revolution. Let me return to the example of man having the knowledge to create a new invention, like the light bulb, which at first seems like a solution to the inevitable complete and utter darkness that exists after sunset, then light as a technology must remain valued higher than darkness. As such, light negates darkness and light represents all that is empowering and good and darkness all that is evil and disempowering. However, as McLuhan (1994) further discusses this technological gifting, it is even more complex than that, because although invented

technology does solve the issue of having and providing light, when there would not be any natural light such “light” artificially is also a way of controlling our “darker” natural environments. And in the creation of light there is a ripple effect as to how we come to interact resourcefully with the world. A simple light bulb is not simply a means of giving light; it is an industry, it is a language, it is a metaphor, it is a power and it extends and alters our worlds, lives and relationships. Regardless, fundamentally and functionally, the light bulb changes relationships. It turns night into day and it changes our biorhythms and thus changes who we are and might become. This concept of controlling the natural and human environments, which spiritually speaking, seems to come from the divine, places us at the same level as the divine—for we have mastered, in our and for our own defense, an aggressive demanding form of control. Does this not place us in the realms of the gods both heavenly and fallen?

Does Simon’s cell phone not relate to this idea also? The cell phone, in fact provides for more control and the ability to manipulate realities and worlds for it is a replication of and the betterment of the world, at our “god-like” fingertips. The cell phone fits in our hands, and in our hands we have a mini-universe where we may playfully and creatively connect with other people, shop, bank, watch television shows, research topics, play virtual reality games (that, again, mimic yet also create real life). How could these functions not give Simon a greater sense of even small “d” divinity? Is cell phone technology another example of forbidden fruit?

Perhaps, I am at fault here in misunderstanding the pedagogical implication of technologies in the school. Although the iPad does potentially have this same ability to give personalizing power to those who use it, since it is a loaned “school” device, the personalization of it is different. These iPads are circulated and rotated throughout the school and we have limited the abilities for students to manipulate settings or house and keep information on them. In

fact, these iPads are all uniform in appearance. They all have the same black casing on them and their wallpaper is the standard blue background with the school emblem on it, and the apps are all academic ones that the school has purchased. Students are unable to save any work on them, and do before using them have to sign them out. These structures perhaps then affect the connection that these students have, as users with this device making it “feel” rather domestic and mundane, and well, school-like.

Simon’s cell phone, on the other hand, lives whereby everything is personalized and unrestricted. In that way, his cell phone is a replication, a reflection and a representation of his world and through that simple little game he mimics his control production—consumption actions in this real world. His reactions and interactions with that virtual-real world are thus an extension and replication of his human inventive and creative spirit and abilities. It is a playfully divine device that allows him to communicate and to imagine the possible and to make him omniscient so to speak within that realm. This idea of embracing and imagining what is possible reminds me of the little girl who lost herself in the world transforming moments of life into dance. Pedagogically speaking, I wonder what is similar and different to the embodied escapism that I experienced as a dancing child to what Simon is embodied experiencing while in class with his cell phone?

Hot Spot 3: Photos as a means of Note Taking

Every year I look forward to introducing and working with my students and presenting our curriculum “prescribed” Shakespearian play¹⁸. Still, there are challenges for today’s

¹⁸ This year, at this grade level, with this course of students it was William Shakespeare’s *Macbeth*.

students, and yesterdays for that matter, regarding understanding Shakespeare’s “Old English” language as well as the contextual differences between 21st century North American here and 17th century Elizabethan England there in terms of establishing an understanding of setting, character development, plot advancement and theme. My students generally respond with sighs and apprehensive body language when I even suggest we are set to engage Mr. Shakespeare. Eventually, however, I would like to believe, and I do have some learning and teaching experiences to note, that once the play’s narrative ignites learning passions, the play opens up for us—teacher and student alike—with an engaging energy.

This spring semester, my students and I have been studying Shakespeare’s tragedy, *Macbeth*. I pick up the unit of study, for this thesis narrative, when as a class, we had recently finished reading Act I. In an attempt to aid the students in deciphering and comprehending what we are reading, I introduced them to this assignment:

Well, now that we have finished our introduction to Shakespeare’s dramatic plot structure, and we’re going to work on identifying and synthesizing this first Act. Our task, or perhaps more, your task, working in pairs or small groups, is to select ten quotations that you believe are the most important in the Act. You are to (1) write out the quotes with proper line citation, (2) name the speaker(s) of the quote, and, finally, (3) you are to place the lines within the context of the play (Miss T., 2012. Macbeth Unit. Grade 11 English).

After a few minutes of individual group discussions, I ask the students for volunteers to record their quotation work up on the White Board. I circulate and weave through their desks

with a bucket of colourful markers in one hand and, in the other, a container filled with sweet treats. Within a few moments, there were a dozen student bodies up at the front of the classroom both recording their ideas on the white board itself and providing moral support to one another as those students who were not writing but were editing via what appeared to be acts of whispering, and still more detailed ideas were being produced. Soon, as each student returned to his or her respective seats the white board became more visible and, eventually, the students had developed substantial “quote notes”. What was left to do for the class was to copy the note quotes down into their notebooks, a standard operating procedure.

As the last student took her chair, I began reading aloud the notes that had been written on the White Board. As I went over each quotation note, I made a conscious effort to not only praise what had been presented to us, but also provide some context and meaning enrichment around the quotations. I was perhaps midway through responding to the quote notes when, from the corner of my eye, I saw a student holding her cell phone up with her right hand. It was an activity that I found so unusual in the classroom that I found myself slowing down my speech and eventually I stopped. I had lost my concentration. My attention was on this cell-phone hoisting student.

“Lana. What are you doing?”

Lana’s head turned around to the back of the classroom where our eyes met. A smile comes across her face, and she said: *“What do you mean, Miss T?”*

“I mean, what are you doing? I find it odd that you are taking a picture of... what are you taking a picture of?”

“Of the board. I’m taking a picture of the White Board.”

“Why?”

“I’m too lazy to write the quote notes down by hand.”

“You realize that you most likely have some of these quotations already in your notes. We have discussed almost all of these at some point during the pervious classes. I’m willing to bet that you and your partner had similar top ‘tens’ in your notes which means you likely could just highlight or check the repeat ones from the White Board in your notes.”

“Yep. That’s too much effort. Do you mind?”

“Are you truly going to look at this image again once you take it?”

“Yes.”

“Then, I suppose I do not mind.”

As these words slipped out of my mouth, most of the other students jump up. Their cell phones are out of their pockets and before I know it there are two lines of students moving towards the front of the room all taking pictures. I watch as they and their phones zoom in and out, as they turn their phones horizontally, then vertically, and click away. They preview their photos after taking them to make sure that they could read the image-notes and that the glare from their flashes had not interfered with the content. It is in this moment that I suddenly realize the conventional manner of note taking, which for me is writing down the notes, was to be no more—at least in my class with these students! The act of reproducing or copying our collective notes had been replaced all together with a cell phone image-snap shot.

I repeat this Shakespearean quote-note learning activity with my afternoon class. Again the same type of cell phone image-taking response occurs.

‘Wow... “Fair is foul, and foul is fair.” (William Shakespeare, *Macbeth*, 1.1’) I thought to myself.’

Siri 3: Images work for me.

Is having my students snapping a still image photograph of our classroom summary discussion notes, a valid means of retaining a copy of notes? How is the cell phone mediating their understanding of what it means to be an engaged learner? Does my definition of what it means to learn need to alter and be re-defined in light of their adaptations—in this case, of taking visual representations of word-concepts?

Today’s cell phones are built and designed for a multitude of functions. In this instance, with Lana, the cell phone was not used as a form of communication or entertainment but, rather, perhaps in a more constructively meaningful manner for the students as a means of taking notes—through the function of ‘snapping’ a still-image photograph of the white board (although I am sure video imaging was also an option for some). Although some may deem this photographing as a perhaps more acceptable “educational” use of a cell phone while in class, and one of those potentials that administrators often refer to as good pedagogic use of a technology, but seldom can provide an example of. Still, I am curious about what happened in my class. Is taking cell phone image-photos in a classroom situation instead of writing class notes in a traditional manner an example of 21 century ICT-oriented learning? Is this what the adult educational community had in mind when promoting 21st century learning and its associated ICT-useable teaching practices? If I permit this change to occur in something as simple as note

taking and it becomes the norm to re-practice that activity of writing then where do I draw the line in how this tool is used in my classroom?

In trying to grapple with any of these questions, I first must take a step back and understand, or at least begin to understand, the significance of what is, technologically a photograph? The best that I can come to understand is that the development of photography was significant because it was the first time in our history that we had the ability to create a still (time-locked) replication of our constantly in motion world and, “photography mirrored the external world automatically, yielding an exactly repeated visual image” (McLuhan, 1994, p. 190). Just as the students’ cell phones mediate their worlds, so to do photographs, and as McLuhan (1994) suggests “[i]n the age of the photograph, language takes on a graphic or iconic character, whose “meaning” belongs very little to the sematic universe, and not at all to the republic of letters” (p. 196). If this point by McLuhan (1994) is true, then photographs and still images do not have the ability to transfer knowledge and understanding in the same way that symbolic letters do. Is this why Lana’s action of taking a photo of the notes is a cause of uneasiness in me as an adult teacher who grew up in a communication-literacy world where reading and writing were prioritized? I am just not sure at this point in my graduate student journey that I know enough so that I really can address that tension.

I have to admit that I am not entirely certain that Lana taking a picture of the notes is “the real issue” either as I think about it. I write this because even if she had copied the notes by hand into her notebook the final product for her is still only a reproduction of what was already on the board and I am assuming that in her mind (I am guessing) just as taking a photo of the notes is simply a reproduction. The physical difference between these two ways of note taking is through the tool used. In one instance, Lana used a cell phone to take an image copy of the notes, while

in another instance; she could have been written the notes by using a pen or typing using a keyboard. However, I need to unpack this difference a little further. I think that at least the pen, and to the lesser degree the keyboard, is a physical locator—that is, one must be in contact with something an instrument and therefore, there is transfer processes at stake. I have to read the notes to de-code them, and then hold them with me, and then transfer to my paper or screen by re-coding them, and this means there is a requirement for a transfer-learning-process to occur. In the instance of a pen and keyboard, there is an individual who is in contact—physically—with something—pen, pencil, paper, keyboard, and screen and so on. Although my teaching practices do not necessarily solely or entirely reflect the cognitive learning theories I learned at university and in my teacher preparation, I remain “hard stead” in believing that students and to a greater extent all individual brains operate basically like a computer—input equals output. The inputting requires the mind or the software of my analogy with computers, such that students are required to participate in their learning, even forced to participate through something as simple as writing notes. I believe this requires of them a form of meaning making and therefore, they retain information and knowledge from or of it. This means for me that learning is not a passive activity, but rather it is an active one. I believe that Lana was learning and did exhibit stages of learning while actively participating in the classroom discussion; however, I question how much more or less was retained, understood, synthesized, restructured for her, and ultimately becomes transferable when she decided to (and I allowed her to) take a photo of the notes? For her, and my other students that followed in her footsteps, I wonder about how much more they may have understood or retained through being required to write down the white board notes. Was I just allowing visual learners to be visual with a piece of technology that plays to the strength of the visual? Requiring them to copy down the notes that collectively we had created together would

have provided for one more means of sensory learning, and arguably could have provided them one more opportunity to know the concept. This idea that through listening one absorbs a certain amount of information or understanding, and through visually creating (or re-creating it) they can recover or recreate or grow another level of understanding all together that were perhaps missed the first time is probably been taken up by someone. Still, I wonder and I know I must learn more in this regards.

Arguably, Lana has been born into the age of images and her acceptance and use of the cell phone, as means of taking notes seems like simply a normal extension of her user-world. Through reading some of Postman's works (1992) I begin to wonder if his ideas about what he refers to in modern society as "sign wars" between words (spoken, read and written) and images (still, moving, and performance) could be extended to that of the cell phone with its multiple capabilities. Is the cell phone a sight, cite and site example of the embodiment of the "war" between words and images (and their associated literacy) that is taking place as ICT-digital technologies proliferated? This movement to images—still and moving—is evident in many social aspects of the world today. We have virtual-real sites such as Facebook, You Tube, Flickr, and so on. We have word-image fusion technologies like television, online games, e-magazines, and advertisements that influence and mediate our worlds through the use of word visuals fusions. The real question, then, becomes what gets lost or gained over any other sense when we come to prefer and, indeed, use, and perhaps privilege, the eye over our other senses? What is the pedagogic value of writing in relation or in contrast to taking an image of writing?

As established in an earlier narrative and discussion, our disposition as human beings is to use the skills and knowledge that we have to continuously engage in our progressive quests for societal and human advancement. Historically, we have evolved through the innovations and

inventions we created; we are gifted and talented at developing new tools to make our lives “easier” or “better” or more “complete”. Yet, every new tool imagined and created has a ripple phenomenological (experiential) and hermeneutic (understanding) effect. Tools and technology have become our saviours and our markers of progress; yet tools and technology have also contributed negatively to our society. Postman (1992) even states this point clearly when he writes that, “[e]very technology is both a burden and a blessing; not either-or, but this-and-that” (Knopf, 1992, para. 2). There is absolutely no doubt about it; technology redefines our understanding of the world. Technology as a Prometheus gift produces and mediates our knowing, being and doing, and we often become consumed in such productions and, perhaps, we have always been part human and part technology. The problem as I am coming to understand it is this—which part is which? The technology that we use every day uses us and is thus linked to how we see and know our world and how we come to interact with the technology framed an often dependant environments we find ourselves within. Postman (1992) writes that, “[t]o a man with a camera, everything looks like an image.” (Knopf, 1992, para. 10). This brings me back to Heidegger and his notes earlier regarding the hammer—when one has a hammer in one’s hand, everything looks like a nail.

Perhaps this is what has happened in the context of Lana’s learning—perhaps learning has taking on a new form and knowledge and what it means to know something and recall it is not what I have grown up with, nor what I have been taught to do / teach like in a classroom, but then I am not Lana—my normal is not her normal. I also find it interesting, that through her ability to and means of taking a photograph of the notes, she is once again individualizing her learning. Lana, just as Simon, through the uses of their cell phones, have entered into a personalized learning space, while still physically located in a traditionally bounded structure of

a school. Is this the natural progression of schooling? Of learning? Of teaching? Are the tensions I am experiencing like what happened when literacy, and language and composition and computation were located in learning sites? Is digital technology redefining learning from a community location back to an individual location and am I experience / witnessing a movement from a collective and collaborative environment, where human contact and means of communication still exist within a physical space to a more removed, individualistic learning style mediated by personalized technologies?

The use of cell phones, as I have come to explore them, is beginning to feel like a double edge sword. These devices have the ability to invite a user into other worlds, which are arguably larger and more collective than the world that is located in front of us. There is no doubt about it, that access to the Internet through a cell phone connects you to amazing people and places, wonderful ideas and knowledge, as well as predators and numerous falsification. You become connected to the global world and it to you! This is pretty awesome, yet on the flip side of this, though connected to these other worlds, you withdraw from your local present physical community, and in this way, your actions become individualist, and on occasion hedonistic and self-serving. Perhaps, we become, via personalized technologies, available to show more mediated narcissistic or hedonistic tendencies as we may become lost in our playfulness and dream worlds where can often be anyone or anything we desire. Perhaps, this empowers us as individuals, but what is lost in terms of our here and now community?

Does Lana's learning become isolated and confined to the photographed image that she snapped of the notes? Perhaps, not! Perhaps, I am being a little dramatic over this one instance. Will her brain be triggered in the same way of recalling the classroom discussion or its nuanced antics while reviewing the photo in the same way that historically physically writing and copying

down notes may do? Further more, if learning evolves into this personalized structure / space, what does it mean for the communal context of schooling? Do we need schools or classroom as physical gathering places? In the 21st century Province of Alberta context of schooling and the evolutionary digital shift that we seem to be moving towards, these questions become relevant to ask. Alberta Education's document "Inspiring Education" seems to promote and look at these ideas also. Principles outlined in "Inspiring Education" reflect the very idea of total personalized learning which is named the top principle outlined in the document when the claim is made that all learning must be "learner-centered."

Is this simply the natural progression of technology and society? Will the inclusion of the cell phone add to / or take away from the present manifestations of the classroom? Is such a technology going to completely change the classroom—well, yes! It is currently doing something to my classroom? Again, yes! The tension that new technologies create, I believe, is perhaps because as educators we may be under educated about our long and complex history with technology and its use implications. Perhaps, like Pat, most of us as adults and teachers tend to still view technology as an object in and of itself and we do not recognize that students today are deeply connected to the experience of using, in digital native ways and as digital immigrants we may never understand it or be able to experience that nature of digital technologies in particular because they seem to be different in terms of their nature than assistive or mechanical or electrical technologies Weaver (2010) suggests that technology is the posthuman's skin and in that way is also his or her shadow. Forever part and parcel of that which we were, are, and will be, as humans symbolically always gifted technologically. The students in the narratives above, I wonder about. I wonder: Is digital technology opening up our societal awareness of not these young people so much as posthumans with their rampant use of digital technologies, but their

presence is raising a new level of conscious in adults about our denial that we were once as young learners ourselves a version of the posthuman. As an educator and researcher, I find myself wrapped around this following thought of Weaver's (2010):

In the digital age, one cannot educate one's self, so to speak, without acknowledging the role technology plays in shaping reality and the tremendous impact technology has in extending the sensorimotor potential of each individual to educate one's self in the world. Technology in this sense does not dictate what the meaning of the world is, it merely serves as a means for each individual to education themselves and create meaning for themselves (p. 15).

If this is the case, what happens then to the traditional role of teacher and student? I assume it changes like it always has. I assume the ecological context of the classroom will mutate and adapt. Then, again, is not this writing my evolving attempt to educate myself and create meaning as a person and as a teacher, and as a posthuman myself?

Chapter Five - Some conclusions and a way forward: Turning off? Press any key to abort this Action.

I started this journey of inquiry and discovery in terms of trying, as a teacher, to grapple with and understand how cell phones present themselves in a classroom through students' use. My ultimate hope was to wrestle with the "essence" of the narratives and then have some sort of deeper grasp of what it means today and tomorrow to teach students that have essentially grown up with this type of "smart" technology. In a naïve way, I was also hoping that any insights generated from the research was perhaps going to lead me to suggestions or ideas about a possible pedagogic shift that is becoming increasingly evident and necessary in education. I was not thinking, when I began, of a philosophical pedagogic shift, but rather the practical teaching one. I am after all a teacher—my life is ruled by being pragmatic. I wanted to know what all this change would mean for me, as an educator, in terms of real classroom practices. Granted this hope was perhaps, a little disillusioned. OK, let's be honest, it is in fact a disillusioned hope especially in light of how I have come to understand this type of smart technology through my little inquiry project. For even with several new insights that I have gained through this inquiry project, and through a new-found way to be reflexive about my work and myself, and through accessing thoughtful scholars and researchers (Heidegger, McLuhan, Ihde, Weaver, and so on), I have come to realize that within these pages, I have only started to scratch the surface of the complexity of this topic.

The implication of cell phones in the classroom is more complex than I ever thought it could be. And this I have come to understand because there is never an invention that is truly and solely created for the purpose and intention that the inventor had when they designed it. I have

learned that humans and our interaction and action with any object or item is going to be different and unpredictable because human activity is predictably unpredictable. Such is our gift—to make something out of something otherwise.

The narratives and experiences that have been expressed throughout this thesis all revolve around the implications evident of a digital communication tool—the cell phone—being introduced into a classroom. As a researcher my goal throughout this thesis has been to try to understand or bring some sense of deeper meaning to my classroom experiences with students using their cell phones. I ask(ed) myself what does it mean to allow students to use cell phones in my classroom? This question, which although I have some insights into now, still is not completely developed as the question I need to ask. And I am not sure what the next question really needs to be, but I know it will arrive sooner than later. All I have to do is keep working with my students, because they are the source of all learning in this regard.

This journey, my journey, of meaning making began with a noticing of a child playing with a cell phone, and evolved into an awareness of cell phone use in my classroom and then formally into a narrative on the creation of a school-based policy regarding students' usage of cell phones within the school and then two more narratives; one focused on a young man creating his own brave new world as he decided ironically to game online via his phone and read (if one can believe it) a hard copy of the novel—*Brave New World*, and the last narrative is about students taking photos of white board notes as opposed to writing them down. In addressing and reflexively trying to unpack these narratives, the theme of this text, then, began to evolve into wondering about what is the function of a cellphone? When as a teacher, I found myself asking and having a strong need to respond to such a question coming out of my staff member and student engagements with and about cell phones, I needed to take some time to

understand why cell phones are so attractive, if not seductive, tools / devices for my digital native students. I had to explore what the essence of the cell phone was as a certain kind of technology. All this flowed from the narratives. For example, Simon's usage was quite different from Lana's, for whereas Simon used it as an escape from the classroom, and Lana used it as a means of note taking. Simon's obsession with his game and the intensity that he played with, allowed me to explore the 'seductive' nature of cell phones and what gratifying emotions they seem to provide for us. Lana's 'photo op' however, provided me insight to the tension that seems to be emerging between images and the written word. If anything these three narratives have forced me to focus on the relationship that individuals have with and perhaps amongst technology. This desire to understand how the cell phone, as a piece of digital technology, not only mediates us, but how we mediate it via its use, led me to the works of Weaver (2010) and his observations regarding human beings as posthumanism. What does it mean, as a posthuman teacher, to teach other (student) posthumans?

I have come to believe that through their very design cell phones make all interactions personalized and because everything that occurs on that screen is geared to the owner of the cell phone, it is an external natural network extension of who they are. From the screen saver, to the phone jacket protector, to the ring tones, and apps and these elements and more are updated to suit that owner's specific needs and desires. In addition to housing and storing their images, those photographs they have snapped, their music collection, and so on—in this way too, becoming part of them; eyes, brains, hands and a technology intertwined such that one becomes indistinguishable from the other. The greatest fear and the greatest threat to most young people today is the loss of their cell phone—phones ARE their lives.

This device, as discussed earlier, also allows my students a form of communication and to interact in any form that they desire, such as: the perhaps the more traditional voice, or the more “new aged” Skype, or email, or texting. In this way the cell phone, because it is so closely linked to the users’ personality and identity, becomes an extension of who they are. It is with them always, 24-7, and it is how they make sense of the world around them. As Weaver (2010) wrote, such a technology it is like their skin and their shadow—inseparable (p. 27).

The irony here is that although the cell phones do personalize any experience through the use of them, which is a valid process in learning and understanding concepts and curriculum, cell phones also allow and permit those individuals who are using them to become disengaged with the physical real world they are situated in. This idea has played out in my classroom several times, where students, although physically seated in the classroom, are not partaking in the collective learning processes. I am aware that technology, of any sort, arguably moves any environment from its traditional ecological flow. Franklin (2008) suggests that, “[t]he task of schools is the pursuit of education. In this enterprise, we try to create an environment in which knowledge and understanding can grow, while taking great care that the link between the two components remains unbroken” (p. 251). Franklin goes on further to discuss that these two elements are strongly connected especially when situated in a group setting where people are “learning something together” (Franklin, 2008, p. 251). Franklin’s (2008) example focuses on the concept that while in a group setting, there is always explicit and implicit learning occurring; however, she suggests that this is no longer the case with the introduction of “external devices” (Franklin, 2008, p. 251). Franklin (2008) posits the idea of humans moving from a traditional biosphere environment to a virtual bitsphere environment and this seems like a relevant avenue to explore when helping me to understand the use of cell phones in the classroom, and especially

in light of my current pedagogic understandings of learning and what it means to teach. Looking beyond my thesis, this will be part of further ways forward in my learning.

Returning to my teaching practices in the classroom, I am a teacher who believes that the best way to learn is to enter into a learning-teaching inquiry journey with others. My unit plans are riddled with collaborative projects and even my most mundane “stand and deliver” lessons are less of lecture and more of a “choose your own adventure” lesson as I invite my students into a story and allow their questions to guide the narrative at hand. We embark on historical journeys taking us through time and space and in most often cases, likely through collective and collaborative and social engagements with others. In this way, we learn where each of our individual strengths are, how to trust each other, how to respect each other. Without others in my life, and the give and take of those relationships, I would not have grown as a person. These “life lessons” are to me foundational and fundamental to becoming a learner for self and with others. In such communal life lessons lives the give and take of learning and teaching. Perhaps it is this loss of what I consider to be a real community that I am experiencing and projecting on to the face of the cell phone as a provider of individualized and personalized life lessons. So when students like Simon disengage, as I believe he was, I wonder what happens to skills of relationship building or social interactions? To extend this even more, what happens to those “beloved teachable moments”? Franklin (2008) writes that, “[t]o a new generation, many of these changed relationships appear so normal, so inevitable, that they are taken as given and are not questioned. Altogether there seems to be a very drastic change in what it means today to be human—what it means to be a woman, a child, a man; to be rich or poor; to be an insider or an outsider” (p. 243).

Franklin (2002) writes:

The existence of the bitsphere enables an unprecedented acceleration of the deconstruction of traditional work patterns. When people no longer work together in the same place--...opportunities for social interactions, for social learning and community building disappear, just as the implicit learning opportunities in the classroom can vanish when the cohesion of learning in a group is eclipsed by the device-assisted, individually paced acquisition of knowledge” (Franklin, 2002, p. 253).

So, how do I as an educator who has come to understand that most, if not all, technology (pen, radio, television, VHS, and so on) when introduced to a classroom has altered and shifted that learning environment come to understand and work with the cell phone which is like those technologies but also different?

Perhaps the simplistic response is to say that I turn to the concept of technology and what it means to be posthuman. “Today, the signs of technological posthumanism have become so ubiquitous that most of us, on most occasions, have ceased to take notice.... Indeed, many of us are more likely to feel the absence of these technologies than their presence” (Cecchetto, 2010, p. 1). The idea of posthumanism and technology, this link and correlation between them, establishes that “technologies today can no longer be adequately thought through the lens of “extensions,” but must instead be understood as profoundly implicated in our being. That is, technologies are not tools that we use, nor objects in relations to which we are servomechanisms, but are rather pathways through a relational ontology (which may be another way of saying that technologies are also all those things that they are not)” (Cecchetto, 2010, p. 3). In this way, I have come to see “those things that are not” in terms of the cell phone and my students

interaction such that the essence of the cell phone in relationship to students use is that it provides for and allows the dichotomy of both the absent yet present student, the immediate / instant vs. gradual / regular, and the individual vs. communal to live asynchronously and synchronously.

As I conclude this text, I eagerly await classes tomorrow, so that I may continue my learning about how to teach as a posthuman in a posthuman world. I will embark further upon this journey and will do so in the most humanizing ways possible. I have a desire to further investigate this idea of “self” and how that new understanding of “self” is being shaped and perhaps even transformed through the use of the cell phone. I need to find out more about how the “essence” of different technological tools come to shape the way in which we interact with the world as our interactions change how we identity ourselves. I remain curious about the embodiment or perhaps the re-embodiment that is occurring with students today due to their access and use of the technology. I still wonder about how the cell phone is not simply a tool that is an extension of our physical body, but rather is also a tool that is influencing our mind—and as such is again related to a way of being-in-this-world. In the future exploration of some of these ideas, I hope to be able to answer some questions that have arisen for my teacher-self such as: What does the implication of cell phones mean for teaching practice? What is learning like for students who use their cell phones? It is this possibility that I feel I am ready for.

Reference

- Barone, T., and Eisner, E. (1997). Arts-based educational research. Retrieved from:
http://www.public.iastate.edu/~bestler/arts_based_articles/two_arts_based_articles/barone_eisner_arts_based_research.pdf
- CCA Distracted Driving Web Site. Retrieved from:
<http://distracteddriving.caa.ca/education/distracted-driving-laws-in-canada.php>
- Cecchetto, D. (2010). *A Practiced-Informed Critique of Technological Posthumanism and its Ideologies*. (Doctoral Dissertation). Ottawa, ON: Published Heritage Branch.
- Eisner, E. W. (1997). The Promise and Perils of Alternative Forms of Data Representation. *Educational Researcher*, 26(6), pp. 4-10. Retrieved from:
<http://links.jstor.org/sici?sici=0013-189x%28199708%2F09%2926%3A6%3C45%3ATPAPOA%3E2.0.CO%3132-5>
- Franklin, U. (2008) Educating at the Interface of Biosphere and Bitsphere. (pp. 243-255). Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1744-7984.2008.00145.x/abstract?systemMessage=Wiley+Online+Library+will+be+disrupted+on+11+May+from+10%3A00-12%3A00+BST+%2805%3A00-07%3A00+EDT%29+for+essential+maintenance>
- Gadamer, H-G. (1984). The Hermeneutics of Suspicion. *Man and World*, 17, pp. 313-323. Retrieved from:
link.springer.com.ezproxy.lib.ucalgary.ca/article/10.1007%2FBF01250456?LI=true
- Gadamer, H-G. (2004). *Truth and Method*. Donald G. Marshall, (Ed.). London, GB: Continuum Publishing Group.
- Goggin, G. (2006). *Cell Phone Culture Mobile Technology in Everyday Life*. New York, NY: Routledge Taylor and Francis Group.
- Grondin, J. (2002). Gadamer's Basic Understanding of Understanding. In R. J. Dostal (Ed.), *The Cambridge Companion to Gadamer* (pp. 36-51). New York, NY: Cambridge Press.
- Heidegger, M. (1977). *The Question Concerning Technology*. pp. 3-35. Retrieved from:
http://simondon.ocular-witness.com/wp-content/uploads/2008/05/question_concerning_technology.pdf
- Ihde, D. (2002). *Bodies in Technology*. Minneapolis, MN: University of Minnesota Press.
- McLuhan, M. (1994). *Understanding Media The Extension of Man*. Cambridge, MA: MIT Press.

- Meyers, J. (2011). "Watch The Incredible 70-Year Evolution Of The Cell Phone." *Business Insider*. Retrieved from: www.businessinsider.com/complete-visual-history-of-cell-phones-2011-5?op=1
- Music Source Book. *Funga Alafia*. Retrieved from: <http://suprenandmusicsourcebook.weebly.com/funga-alafia.html>
- Outhwaite, W. (1990). Hans-Gerog Gadamer. In Quentin Skinner (Ed.), *The Return of Grand Theory in the Human Sciences*, (pp. 21-39). New York, NY: Cambridge University Press. Retrieved from: www.uky.edu/~addesa01/dcuments/Outhwaite.pdf
- Parker, M. (2011). *The Science of Qualitative Research*. New York, NY: Cambridge University Press.
- Postman, N. (1992) *Technopoly the Surrender of Culture: The Judgement of Thamus*. Retrieved from: <http://csis.pace.edu/~dwyer/Fall2005/CIS101/CourseDocs/Postman.pdf>
- Prensky, M. (2001). Digital Natives Digital Immigrants. *On the Horizon*, 9(5). Retrieved from: <http://www.marcprensky.com/writing/prensky%20%20digital%20natives,%20digital%20immigrants%20-%20part1.pdf>
- Ruse, M. S., (2005). "Technology and the Evolution of the Human: From Bergson to the Philosophy to Technology" *Essays in Philosophy*, 6(1), Article 27.
- Saldana, J., Leavy, P., and Beretvas, N. (2011). *Fundamentals of Qualitative Research*. Retrieved from: <http://www.amazon.com/Fundamentals-Qualitative-Research-Understanding-ebook/dp/B004Q9SC3S>
- Sammel, A. (2003). An Invitation to Dialogue: Gadamer, Hermeneutic Phenomenology, and Critical Environmental Education. Retrieved from: <http://cjee.lakeheadu.ca/index.php/cjee/article/viewFile/244/107>
- The Creation of Man by Prometheus. Retrieved from: http://www.greekmythology.com/Myths/The_Myths/Creation_of_Man_by_Prometheus/creation_of_man_by_prometheus.html
- van Manen, M. (2011). Phenomenological inquiry is practiced as phenomenological writing. *Phenomenology Online A Resource for Phenomenological Inquiry*. Retrieved from: <http://www.phenomenologyonline.com/inquiry/writing/>
- van Manen, M. (1990). *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*. London, ON: University of Western Ontario.

- Verbeek, P-P. (2006). "Materializing Morality: Design Ethics and Technological Mediation." *Science Technology Human Values*. 31, 361.
- Weaver, J. (2010). *Educating the Posthuman: Bioscience, Fiction and Curriculum Studies*. Boston: Sense Publishers.
- Zuckert, C. H. (2002). Hermeneutics in Practice: Gadamer on Ancient Philosophy. In R. J. Dostal (Ed.), *The Cambridge Companion to Gadamer* (pp. 201-224). New York, NY: Cambridge Press.