

**EDUCATION, TECHNOLOGY, AND THE SOCIAL
CONSTRUCTION OF MY LEARNING SPACES**

by

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ABSTRACT

This thesis is primarily concerned with teaching and learning relationships, in particular the social construction of the student-teacher, student-student, and student-self relationships within the context of technology and education. The exploration of these relationships forms the theoretical arc throughout this thesis, as the author presents differing definitions of technology as it relates to education. While the overall context of the work presented in this thesis, which is a collection of writings from different periods of the author's MA, falls within the paradigm of education and technology, the journey presented here is important to understanding how these teaching and learning relationships relate to the learning spaces within which they enact, representing the next phase of scholarship the author intends to undertake.

Keywords: education; technology; learning spaces; learning relationships; self-reflection

For Christopher Dryvynsyde

My teacher.

My friend.

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CHAPTER 1: INTRODUCTION

The title of this thesis reads *Education, Technology, and the Social Construction of my Learning Spaces*, and I will admit that I see it not as the conclusion of a definitive period of work, but rather the rationalization of this period in preparation for the next phase of my scholarship, which will explore the philosophical relationships between learning spaces and pedagogy. However, before undertaking a discussion of this next phase, which will take place in the concluding chapter of this thesis (chapter 7); it is important to discuss the contribution I hope to make at this time with this thesis. Namely, how have I come to understand the dialectical relationship of education and technology, and what exactly do I mean when I use the term technology.

Overview

For someone described as extremely organized and methodical in much of the activities and tasks that I undertake, I must admit that my writing has never measured up in the same way. This is not to say that my writing style is unorganized or haphazard, but rather to say that when I sit down to write, I never truly know where it will take me. This might be said of this thesis, for it represents approximately four years of individually written pieces, which in the end I am now tasked with weaving together into a coherent representation of the

evolution of my ideas and beliefs as they relate to my journey through my MA education.

It is this journey, which is at the core of this thesis and the writings collected within it, which forms what I believe to be my contribution to the field of education and technology and which helps to understand my future scholarship. The term *autobiographical folio* might better serve as descriptor of this thesis, for the writings collected here were produced at different times for differing courses or audiences, but seem to impart the conflict of ideas I am attempting to work through (through the writing process) at the time. This is important to note at the outset, for each chapter was originally a paper produced for an individual course or presentation, which might lead some to believe that there should not be any direct relationship between the chapters.

However, as I began the process of synthesizing these works into a thesis, I have come to believe that I have been exploring my individual relationship to the topics under discussion in every chapter, in particular my conflict with many of the established and dominant paradigms in the field of education and technology and my attempts to describe alternative ways of viewing the field. This is something I would ask the reader to examine critically in this thesis, for though my intent may have been to explore some of my conflicts with the differing topics in education and technology, my method at times may be too implicit in my writing. It is therefore my hope to identify explicitly in this introduction and again at the end of each chapter, the underlying themes of importance in the chapters I have included, essentially highlighting the *signposts*

that represent a theoretical arc throughout my scholarly development over the past years. This theoretical arc spans three distinct phases in my writing and development: 1) a review of some of the existing scholarship in the field of education and technology (chapters 2, 3 and 4); 2) an engagement with the concept of technology through a Critical Theory lens (chapters 5 and 6) and how education has responded to this techno-science reorientation; and 3) an enacted case-study of sorts, where my definition of technology is expanded to include the concepts of authority and discipline as it relates to education (chapter 7).

When I commenced my MA studies, I was ill prepared for the discussions into the nature of technology uses in the classroom that permeated almost every class I took. Entering the program as a non-teacher, and thereby having only an anecdotal grounding in the *practical* issues of importance to my teacher colleagues, I discovered that much of my interest in exploring the effectiveness of videoconference teaching, to be out of step with the interests of my peers. My interests were not dismissed out of hand, but rather they had difficulty in finding an avenue for exploration in much of the course-based discussions of my MA. However, having now had the opportunity to review much of the writing that I have undertaken in the past years, I have come to see that I was grappling with many of my ideas as to education and technology through the process of writing. Moreover, I am able to see that much of the scholar-*in-training* that I am today, in the development of these chapters and my attempts to work through some of the ideas I address. Namely, my underlying belief, and what I believe to be the theoretical arc throughout this thesis, is the socially constructed nature of

teaching and learning, as it is manifest in the relationships of *student-student*, *student-teacher*, and *student-self*, can be found within all of the works I have included in this thesis. Moreover, the absence of the student-technology relationship is something that I at first found troubling upon reviewing my writing, but as will become evident, is manifest in the later chapters with my expansion of the definition of technology to include the structures of authority and discipline.

Phase One: a review of the existing scholarship in the field of education and technology (chapters 2, 3 and 4)

The first phase of my writing corresponds to the initial course work of my MA degree, namely my introduction to the field of research in education and technology. I have chosen to include these three chapters in the order they were written, an overview of the field of online education (chapter 2), a case study of an online teaching module used at a medical school (chapter 3), and a literature review of videoconferencing scholarship (chapter 4).

In chapter 2, written in the fall of 2004, I begin the process of exploring the history of online education and learning. During this period, I found much of the existing scholarship which focused on the cognitive or behavioural paradigms of teaching and learning with technology (Anderson, 1993; Anderson, Corbett, Koedinger, & Pelletier, 1995; Cognition and Technology Group at Vanderbilt, 1997; Papert, 1993; Piaget, 1952; Scardamalia, Bereiter, McLean, Swallow & Woodruff, 1989; Schank & Cleary) to be out of step with my own socio-historic conceptions of teaching and learning. Instead, I was drawn to two competing histories of online education: Linda Harasim's assertion that it emerged out of a

desire to maximize group intellectual interactions (socialization) through the sharing of information online (Harasim, 1990; Harasim, Hiltz, Teles, & Turoff, 1995; Harasim, 2000); and David Noble's assertion that that it represented simply the latest rendition of the distance/correspondence education movement. The main difference between these two histories was that of the socialization of knowledge, something Harasim accounts for, and Noble indicates has never been of great importance in the distance education movement, and therefore why many forms of online education failed in the 1990s.

I view these two histories as complimentary, with Harasim's account lacking the economic impetus for the wholesale implementation of online education and Noble's account not identifying the communicative affordances of online education as compared to distance education. Through this historical analysis I began to take my first steps toward an engagement with the idea of the different types of socialization which take place in learning (Vygotsky, 1978 and 1987; Knowles, 1950 and 1980), both external and internal to the learner, and some of the underlying motivations which inform the participants.

In chapter 3, I discovered an avenue through which to carry on this discussion of the types of socialization through a minor case study, which examined an online Vitals' Signs blood pressure taking module I had grown familiar with while working at a medical school in the Vancouver area. What I quickly discovered in this examination was that my focus drew on the lack of reflective and adaptive aspects of the module as conceptualized by Diana Laurillard's 'Conversational Framework' (2002). As an example of a student-

technology interaction, I work through an analysis and series of recommendation for the module that might allow for a greater level of 'conversational' interaction to take place. However, in the end I found myself gravitating toward the conclusion that this module might better serve a student's learning as an augmentation of an existing student-teacher interaction.

This serves as the end of my general inquiries into stand alone student-technology interactions, as the question I pose at the conclusion of chapter 3: "should technology be used to replace, or augment the traditional learning process?" informs the discussion in chapter 4, where I begin to explore the usages of videoconference technologies as a way of enabling the traditional student-student and student-teacher relationship. In my discussion, videoconference teaching and learning serves to straddle a new area of the distance education movement, namely fully synchronous interactions between the student and teacher across vast distances. A review of the existing scholarship in this area, much of which is derived from counting the number of interactions which take place via videoconferencing delivery as opposed to face-to-face delivery to determine the efficacy of this new teaching and learning model (Freeman, 1998; Moore, 2002; Schiller & Mitchell, 1993), seemed to me quite limiting for it over simplified the intricacies of the classroom experience.

There was one thread of discussion in chapter 4 that was carried forward from chapter 2, that of the promises of distance education in the past, and now online or videoconferencing education, to allow for greater access to education for a greater number of students. This promise of technology (Feenberg, 1995),

as it served some need in education, served as the catapult into the next phase of my writing which would be to question the relationship between education and technology, namely how technologies could be used as a way of organizing elements of society, with education serving the purpose of responding to this technological organization.

Phase Two: technology through a Critical Theory lens – and education's response (chapters 5 and 6)

The second phase of my writing corresponds to my divergence from the traditional education and technology scholarship I had encountered in my coursework, and the beginning of my exploration of the conceptions of technology within other disciplines of study, namely that of Critical Theory. I found myself in late 2005 and early 2006, wanting to engage with these broader ideas of technology as it related to education, for I had come to see technology as not necessarily a finite tool to be employed in a classroom, but rather a system which determined what was and was not possible, in regard to the teaching and learning that took place in the classroom. Still working in the area of medical education at a medical school in Vancouver, I found myself drawn to how medicine was an extremely technical profession, which seemed contrary to its traditions as a humanist profession (Pickstone, 2000). I have therefore chosen to include two chapters which serve to explore the promises of technology to the medical profession and its education system: the first exploring the history of the medical profession in the 20th century and the corresponding response by medical educators to the increasing pressures of a technology driven field (chapter 5);

and second a thesis proposal I prepared which hoped to explore the usage of reflective journaling exercises (as an educational response) in the mitigation of the pressures put on medical student by the strong technology emphasis of the profession (chapter 6).

In chapter 5, I begin the task of looking at the context of previous work, such as the Vitals' Signs module (chapter 3) and videoconferencing (chapter 4) for clues as to why teaching with technologies was so prevalent and desirable in certain disciplines, such as medical education. Through the course of researching the history of medical education in North America, I began to reorient what I termed the dialectic of education and technology. Namely, the history of medicine in the 20th century indicated the reorganization of the entire profession along technological lines, and the educational component of the profession thereby followed this same reorganization, with the privileging of certain types of knowledge and relationships (sciences) over others (communicative). It is at this point that I began in earnest my exploration of the student-*self* relationship as it pertained to teaching and learning, as I drew on some of the scholarship in the field of medicine which sought to explore the motivations of individuals wishing to pursue a career in medicine (Gerbner, Gross, Morgan & Signorielli, 1981; Mishler, Osherson, AmaraSingham, Hauser, Waxler & Liem, 1981). Rarely if ever was the desire to be an expert technician of the body the overriding motivation, but rather an idealized romantic notion of *doctor* emerged as what first interested medical students into entering the profession.

The disconnect between the idealized self of *doctor*, and realized self of *doctor*, led to a response by medical educators in the profession, namely the attempts to implement reflective journaling exercises directly into the curriculum (chapter 6). This served as an example of how education was attempting to mitigate some of the shortcomings of the adoption of technology into the field of medicine. The organization of the medical profession and its education however, is not unique. Rather, many of the institutions of society, such as medicine, law and education are organized in the same way with the privileging of certain type of knowledge over others (Honneth, 1991). This realization during my exploration of the history and reorganization of medical education in the 20th century, served to push me into the third phase of my writing, where I began to explore the relationship the individual has with physical structures and technologies of education.

Phase Three: technology as authority and discipline in education (chapter 7)

At the heart of this third phase of writing, is an underlying desire to explore some of the idealized versus realized notions of self in the student-*self* relationship within the general auspices of education. Much of the motivation for this exploration comes partly from the previous phase of my writings, but perhaps more telling, my own personal experiences as a student at Simon Fraser University. Between the completion of chapter 6 and chapter 7, I took a marked break from most of my academic studies to engage in advocacy work at the university. This is perhaps the most autobiographical of all of the included

chapters, but it does provide what I believe to be the most poignant example of the different types of technologies, in particular the disciplinary techniques that are encoded into the university learning spaces within which students and teachers attempt to act.

For this analysis, I engage the work of Charles Bingham (2008) and his concept of the *absent* authority figure. In particular, I attempt to explain the history of the central Mall complex of Simon Fraser University, as it pertains to the historical enactments of authority within this space. Being autobiographical in nature, I situate my own lived advocacy experience and actions within this very space, in an attempt to understand the influence upon my own agency by these historical enactments of authority. In essence, the *self* with whom I enter into a relationship when acting within the Mall, becomes dependent upon the remnant of institutional authority that continues to linger within this space long after the enactment of said authority.

Conclusion and future scholarly intent

The underlying theoretical arc within the entirety of this thesis, namely my belief that teaching and learning are socially constructed, are found within the three core relationships of *student-student*, *student-teacher*, and *student-self*. While the overall context of my work has fallen within the paradigm of education and technology, I believe that the autobiographical journey I present in this thesis is especially important when attempting to understand my future intention to explore the philosophical relationship between learning spaces and pedagogical decision-making, pertaining to the aforementioned core relationships of teaching

and learning. I commenced with an extremely narrow working definition of technology, only to expand it to understand the nature of the organization of education, and then once again narrowed it to a working definition of the techniques of authority and discipline that are manifest in learning spaces. I conclude this thesis, at the end of chapter 7, with a discussion of my current and future scholarly work, in particular focusing upon the idealized versus realized notions of the self in differing learning spaces. This final discussion in the thesis is perhaps the most prophetic, for it begins the process of acknowledging the conflicted nature of the actors who reside in learning spaces, as being both the idealized conception and the realized manifestation of either student or teacher. This idealized conception is for the most part subconscious, and if it does influence the actor, is only acknowledged in doing so after the fact during some reflective process. I would describe this *autobiographical folio* in much the same way, for the writings I have included in this thesis, best described as realized manifestations of my thinking, take on greater significance when contextualized by my underlying idealized notions of teaching and learning. It is my hope that the reader will engage with the questions I pose and discuss, and perhaps offer alternative viewpoints for future discussion.

CHAPTER 2: FROM DISEMBODIED TEXT TO VIRTUAL COMMUNITIES IN ONLINE EDUCATION – FOSTERING SOCIALIZED INTERACTION AND KNOWLEDGE BUILDING

Originally written for an education and technology survey course, this chapter represents my first engagement with this field of scholarship. Throughout the course of its writing in the fall of 2004, I can recall many instances of despair overcoming me regarding the state of research in the field and how much of the course content, which explored previous incarnations of technology mediated teaching and learning, had failed to fulfil the many promises of its proponents. This is something that struck a cord with me, but will not explicitly surface in my writing until chapter 5. Moreover, the dominance of cognitive and behaviourist scholarship in the field was something I had trouble embracing, as it seemingly relegated context-based (socio-historic) scholarship to an inferior position, viewing it as overtly obvious or inherently trivial. However, as an opening chapter in this thesis, it does provide a useful insight into my core conception of teaching and learning as being relational in nature, and that the communication which takes place between learners and instructors as being seminal to how I understand education.

Context and Online Learning

An exchange of words across some distance. When a person looks upon the fragment with which that I have chosen to begin this chapter, they may ask

the question: In what context? Are we speaking of a conversation over a telephone, across a busy room, how about a classroom? There is however, nothing in the initial fragment that seems to allude to a vocal and audible conversation. So should our attention shift to a letter, an e-mail message, an asynchronous messaging system? Establishing the context, face to face versus transmitted, and vocal versus text based is the first necessary step in understanding the paradigm of online learning in higher education.

Once the context is established, we need to take a step not necessarily back, but rather away from the preconceptions of the type of experience, those that populate this context encounter. “Many faculty members believe that the online classroom is no different from the traditional one – that the approaches that work face to face will work when learners are separated from them and from each other by time and distance” (Palloff & Pratt, 1999, p. xiv). When an instructor in higher education is asked to develop a course, or all too often, migrate an existing face to face course to a completely online delivery format, the concepts of learner to learner and learner to instructor interactions, as they exist in face to face settings are taken as completely transferable to the electronic medium. However,

...we cannot see the facial expressions and body language that help gauge responses to what is being discussed. We cannot hear the voices or tones of voice to convey emotion...Instructors and their students become, in effect, disembodied (Palloff & Pratt, 1999, p. 10).

These disembodied ideas, in the form of text, can prove to be quite counter productive in the learning process if time is not taken to provide the

participants with an environment in which they feel their ideas are valued and understood.

This chapter will therefore attempt to situate the importance of interactions amongst participants in online education environments, and the participant's place within the created virtual community, as the most important aspect of this tradition. In achieving this end, the tradition of online education must be systemically explored along the following topic areas: an historical perspective to understand the roots of online education (what it is, and what it is not); the unifying idea of social interactions to build knowledge and understanding at the centre of this tradition; how this unifying idea differentiates this tradition from others; and finally a look at the failures of this tradition in the mid- to late- 1990s and the direction in which it is now moving.

The dichotomy of competing histories: a working definition of online education

Without an understanding of the roots of the online education tradition, any attempt at definition for the purposes of this chapter, or any paper, will fail. This may seem an excessively harsh statement, but it is uttered with the temperament of someone that has grappled with the question of defining online education for quite some time. However, when one applies the requirement that some type of virtual community be present that promotes social interactions and exchanges, two distinct competing histories become evident – both contributing to the overall definition. It is my argument that while these two histories may

have developed separately from each other, they do intersect out of necessity – for neither proved particularly successful on its own.

The first and perhaps more expansive history of online education is documented within David F. Noble's *Digital Diploma Mills: The Automation of Higher Education* (2001). This text, written and compiled in the late 1990s, attempts to explain the relative failure of online education in higher learning up to this period. At the core of Noble's argument are the parallels he draws to the 'correspondence education' movement in higher learning and vocational schools throughout the early- to mid- twentieth century. This movement, which in today's world could best be equated to Distance Education, is seen by Noble as being severely flawed from the outset for it is "not so much technology-driven as profit-driven" (2001, p. 1). While this idea of the commoditization of higher learning is note-worthy (and will be discussed later in this chapter), Noble's ancestry of online education to the Distance Education movement is central to this first history.

Desmond Keegan, in a 1980 article "On defining distance education" (from Keegan, 1996), put forward six basic elements of distance education: (1) the 'quasi-permanent' separation of teacher and learner throughout the length of the learning process; (2) the influence of an educational organization both in the planning and preparation of learning materials and in the provision of student support services; (3) the use of technical media - print, audio, video or computer, to carry the content of the course; (4) the student's ability to initiate and/or benefit from communication; (5) the 'quasi-permanent' absence of the learning group

throughout the length of the learning process; and (6) the participation in an industrialized form of education that is considerably separate from the other forms found within the spectrum of education (pp. 44-45). Looking to the first five elements of Distance Education, we can synthesize the following for the purposes of our discussion: (1) there is a distance between the teacher and learner that does not permit direct face-to-face meetings; (2) the content of the course is available to the learner through the technological medium of the internet via a computer; (3) the computer facilitates communication between the learner and the teacher/educational organization, or the learner with fellow learners. This last point is perhaps the most interesting, for there is a presupposition in Distance Education that the learner will not engage in group discussions and/or knowledge building (for in traditional non-computer/internet based Distance Education courses it was not possible), but the option is available (to varying and growing degrees) within online education. I would argue that this is where Noble's linkage of online education to Distance Education is the most poignant, for while the possibilities of knowledge building interactions through the internet are possible in online education, they are not utilized in his historical account of the tradition.

The reproduction of traditional Distance Education forms onto computer and internet-based mediums, and their subsequent failures, is where Noble is attempting to lead his audience in his history of the tradition. One of the premises of Distance Education is the one-to-many transfer of information – one instructor, many learners through a particular medium (or at best the one-to-one,

instructor-to-learner model) – in Noble’s eyes, this wholesale model is flawed for it minimizes the importance of the interpersonal relationship between people (Noble, 2001). How learners and instructors relate to each other and the material becomes secondary to the transferred content and the transmittal medium.

What we find is a link between Distance Education, where group work and interactions are not feasible, to online education where they are possible, but not utilized. Why is this so? Due to the inherent lack (which is by necessity) of community interactions and socialization in Distance Education, the same logic finds an extension as being unnecessary in online education. This becomes a fatal flaw, for part of what the internet provides a user is access to communities that would normally not be available to them. This becomes an expectation of the medium - so why would someone take a course online if there is no virtual community from which to learn and collaboratively explore ideas? Noble points out that in Distance Education as well as in online education, there is an inherent shift from the experience to be had (that of the process of learning) to the content to be learned.

One can understand the competing history of this tradition through the creation of ‘learning networks’, essentially electronic communities, through which knowledge is shared, discussed and in turn built. Linda Harasim, in two separate works (1990, and 1995 with Hiltz, Teles, and Turoff), offers an interesting historical perspective of online education that rather than building upon a former educational model, looks at the development of communications systems as developed through computer networks, and their transference to educational

usages. To this end, Harasim works to make her history as distinct as possible from that of Distance Education: “Online education emerged from systems that focused on enhancing intellectual processes through collaboration among knowledge workers” (1990, p. 40). This distinction cannot be more crucial, for while Noble argues that the tradition emerged from (and still linked to) the evolution of Distance Education in a new medium, Harasim establishes the tradition in an initial desire to maximize group intellectual interactions (something foreign to traditional Distance Education).

Beginning with the “vision of the *memex*” in the 1940s (Harasim, 1990, p. 40), which would organize the knowledge of the user into an easily/quickly retrievable machine, Harasim traces the ancestry of online education through three stages. At the core of the *memex*, and carried forward by further developers was the concept of storing information in an easily accessible system that could be accessed and used for group collaborations. This became the core of the NLS (On-Line System), as developed by Douglas Engelbart in the 1960s – later renamed “Augment” (via the Augmented Human Intellect Research Centre at Stanford Research Institute). The hope for the Augment system was that it could become a tool to support collaborative knowledge work – the building of the group and/or community to interact and share ideas. This is an important, and I would argue watershed moment – for the result was the move in most communications’ network design in “providing tools to support collaborative knowledge work” that could be “time- and place- independent” (pp. 40-41).

This notion that users could collaborate asynchronously via networked communications was at the heart of computer mediated conferencing developed by Murray Turoff in 1970 (Hiltz & Turoff, 1978), which evolved into the Emergency Management Information System and Reference Index, or EMISARI (Harasim, 1990, Hiltz & Turoff, 1978). Harasim links her ancestry of online education directly back to the computer conferencing model designed by Turoff, where the central premise is the communication that is taking place. Where Noble argues that the interpersonal relationships and communication between learners and instructor takes a back seat to the content being transferred, Harasim counters that it is this very communication and interaction that is at the heart of her version of online education, meaning that only by building 'Learning Networks' via computer conferencing can the educational content be built and transferred.

The importance placed on communication, socialized interactions and knowledge building between learners and instructors is then at the centre of this tradition. This learning community, adopting the terminology developed by Hiltz, Turoff and Harasim, emerges through the usage of the technology of computer conferencing (and to a lesser degree e-mail). For Turoff and Hiltz, the goal of building these networks was for the exchange (or socialization) of information, with these socializations resulting in the building of group knowledge, which was contextualized for individual knowledge.

Unifying interaction and knowledge building

This entire process of the socialization of information to build knowledge can be drawn back to two theoretical frameworks – Lev Vygotsky’s “genetic law of cultural development” (Vygotsky, 1978 and 1987), and Malcolm S. Knowles definition of andragogy (1980) and the importance he places on group socialization in *Informal Adult Education* (1950). Looking first to the work of Vygotsky

...every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first between people (interpsychological), and then inside the child (intrapsychological) (1978, p. 57),

we see that the idea of socializing knowledge takes place at two levels. Only after a child interacts with the world around them, usually in the form of interacting with others, can they take what they have learned and contextualize it internally. In much the same way, online education relies on learners interacting via computer conferencing, building ideas collectively and collaboratively, and then internalizing that information in the form of greater understanding.

Interestingly, Knowles draws the same types of conclusions regarding adult education. First, in his 1950 book *Informal Adult Education*, he stresses the importance of the group, and in turn, its interactions, to the formation of greater understand (pp. 9-10). In his 1980 book *The Modern Practice of Adult Education: From Pedagogy to Andragogy*, he works to provide the reader with an idea of what drives his definition of Andragogy (in its most basic sense – the art and science of learning, as opposed to Pedagogy – the art and science of

teaching). In “a comparison of the assumptions of pedagogy and andragogy” (pp. 43-44), he draws our attention to the role of the learners’ experiences: from a pedagogical point of view

...the experience learners bring to a learning situation is of little worth. It may be used as a starting point, but the experience from which learners will gain the most is that of the teacher...the audiovisual aid producer, and other experts. Accordingly, the primary techniques in education are transmittal techniques (p. 44);

and from an andragogical point of view “as people grow and develop they accumulate an increasing reservoir of experience that becomes an increasingly rich resource for learning – for themselves and for others. Accordingly, the primary techniques in education are experiential techniques - ...discussion...” (p. 44).

From both Knowles and Vygotsky’s writings, we see that learning takes place in the world outside the learner – be they children or adults – a world in which the social interaction they have with others form their understanding and knowledge base. This notion of socialized knowledge building, when viewed within the context of online education through tools that promote communications and exchange (i.e. computer conferencing, e-mail, etc.), becomes the most important aspect of the online education environment where face to face interactions are limited and/or non-existent – for only here can learners share their experiences and ideas in relation to the content they are learning.

Socialized knowledge building: a spectrum across traditions

At the heart of the online education tradition is the need for the exchange of ideas amongst learners. These social interactions, which take place primarily in the form of text posting through computer conferencing and e-mail, constitute the primary method through which learners acquire and/or build new knowledge. This process of socializing knowledge therefore becomes the primary learning vehicle. However, this socialized knowledge building is not confined to this tradition; as examples (to a varying degree) can be found across all the education and technology traditions we have encountered this past semester. It is therefore necessary to understand the different types of social interactions found in these traditions, and in so doing understand the importance they place on socialized interactions for the purposes of knowledge building.

In all of the traditions (Cognitive Tutors, Goal Based Scenarios [GBS], LOGO, Anchored Instruction, Tele-mentoring, Computer Supported Collaborative Learning [CSCL], and Online Education), there is one of three instructional modes at work: one to one, one to many, many to many. Each mode has its positives and negatives (which in the context of this chapter will not be discussed), but it can be argued that each provides the learner with a differing degree and type of social interaction, which in turn should result in the formation of greater understanding.

At the heart of the Cognitive Tutor lies the one to one mode of instruction, but where on one side we have the learner, on the other we have a computer program. Essentially, the Tutor is programmed with the processes needed to

work through a particular problem, and in so doing, is able to transfer these processes to the learner. In this mode of instruction, or at least in the context of the Cognitive Tutor, there is very little social interaction, and therefore very little actual knowledge building.

GBSs offer a different instructional mode, for in the vision put forward by Roger Shanks (1995), he describes a model for employee training that could tap the corporate knowledge of senior employees, in the form of experiential stories, to aid new employees in their understanding of a new job. In this one to one mode of instruction, the stories reference back to the desired outcome or goal of the scenario, allows learners a chance to access and contextualize the knowledge of others. However, the actual social interaction of ideas is still limited, for while the learner has access to the knowledge of the 'many', they cannot necessarily build onto this knowledge because they are left to themselves to interrogate the meaning.

LOGO and Anchored Instruction are perhaps the most problematic of the traditions to fit into the framework I put forward here. For while both have elements of a one to one mode of instruction, their success in a learning environment is most often dependent upon the many to many social interactions amongst learners (that explore the problems) that take place away from the context of the technology delivering the initial instruction. These interactions amongst learners provide for the exchange and building of greater knowledge, but it becomes problematic to reincorporate this 'greater knowledge' back into the tradition (many to one). Where the expectation of LOGO was that learners could

'play turtle' and in turn become more effective programmers, it must be noted that it becomes extremely difficult to transfer (or for that matter understand) this social 'play turtle' back into the programming language needed to master LOGO. Anchored Instruction allows learners to develop their ideas together, but limitations are found when learners are isolated from the group and asked to tackle the same types of problems individually (Cognition and Technology Group at Vanderbilt, 1997, p. 55).

Tele-mentoring, Online Education and CSCL are all premised (at their core) upon the many to many mode of instruction needed to promote social interactions and knowledge building. To varying degrees, the initial interactions are augmented by one-to-one interactions amongst the learner and instructor / other learners, or the instructor (mentor in the case of Tele-mentoring) and all learners. The two caveats to take note of in all three of these traditions are the role of the instructor, and the nature of these interactions. In Tele-mentoring, the mentor is seen more as someone to ask questions via computer communications to gain the generalized knowledge that is brought back to the specific questions at hand in the face to face setting of the classroom. In CSCL, the instructor takes on the role of participant in the collaborative interactions that take place online, but is available to resume their traditional role of instructor when the learners reconvene in their face-to-face setting. In Online Education, where there is little or no face-to-face contact, all interactions involving the instructor via the computer communications/conferencing act to building the group's knowledge as in CSCL, but more often than not, act to guide the learners in their development

of their own understanding. In all three of these traditions, the learner to forward their understanding internalizes the knowledge built socially.

From failure...to a new focus

As I referred to earlier in this chapter, Noble put forward a notion that online education was simply another tool, made possible via the internet, which was again attempting the commoditization of higher learning. While I do not necessarily agree with this blanket statement, Noble was right to make note of the many economic realities at play in higher learning, and the view held by many university level administrators that online education might make up for financial shortfalls by maximizing efficiencies, or might even be a source of new revenue. In the first wide scale implementations of online education in the early 1990s, the definition formulated from Distance Education established itself as the standard.

In this first go, the limited uses of social interactions in the learning environments was evident, and more too the point, seen as being completely acceptable. A paper published in 1997, titled “Best and Worst Dressed Web Courses: Strutting into the 21st Century in Comfort and Style” (Boshier, Mohapi, Moulton, Quayyum, Sadownik, & Wilson) offers perhaps the best glimpse of the standard thought to be correct in this first implementation. Assessing web-based courses by 43-separate criterion, it is noteworthy to point out that threaded discussion tools, chat rooms and e-mail, represent the only three criteria that look at social interaction, communication and/or collaboration as part of the web course. Clearly, the valuation placed on these types of processes in online education just did not exist in this first implementation.

It is not a surprise therefore, that with this inherent lack of socialized knowledge building practices in online education courses, there was a rise in discontentment amongst learners and faculty at institutes of higher learning. Noble utilizes the phrase “high noon” for higher education (2001) to describe the situation administrators encountered in the mid to late 1990s. For while they recognized that the discontent from almost all sides was real, the economic realities they were facing meant they had to find a way to make online education more appealing to learners and faculty. Harasim describes this period by identifying the two types of learning environments available, one based on collaborative learning and interaction, and the other based on publishing information online (2000, p. 52). What administrators found was that Harasim’s first model of collaborative learning environments seemed to work, so the adoption of software designed specifically for educational collaborative usage, such as Virtual-U and WebCT began in earnest.

The result was not, however, large-scale adoption of this model of online education. While the technology and software seemed to be available, and Harasim’s design seemed to be feasible, there was an important question that remained unattended: What part did socio-emotional variables (motivation, anxiety and satisfaction) play in the learner’s willingness to engage in the socialized interactions (identified as being the drive behind this tradition)?

As far back as 1984, Knowles had identified a mature individual’s “Motivation to Learn” as being a crucial internalized factor to successful learning (p. 12). However, it is only in recent years, with the seemingly stalled adoption of

online education, that research has begun to explore the learners' motivation to engage in social interactions via computer conferencing software (Bures, Abrami, and Amundsen, 2000). Different designs can be tested and retested, and norms can be identified and implemented, but until designers are able to understand what drives a learner's social interactions, and design environments that compliment these drives, the promise of online education as providing the social interactions and knowledge building that are present in traditional face to face environments, will remain at the periphery of higher education.

My Development and Its Implications

My engagement with two historical narratives, with two competing views of online education, two views I have spent time in this chapter to examine, do, in fact, offer insight into my future writing. As has become clear in this chapter, I am more than willing to explore these histories to not only understand current educational and technological practices, but also to question their very validity as being the only acceptable narrative. As I compared the competing histories as presented by Noble and Harasim, I began to see that they were much more complimentary than either might be willing to acknowledge, and in fact seemed to fill in some of the gaps to the arguments of the other. Through this re-reading of the histories presented in the education and technology scholarship, I began to realize that the way in which a particular history was constructed, was done to privilege a particular argument to the detriment of other competing arguments.

In the further chapters of this thesis, as well as some of the work I hope to undertake in the future, the attention I pay to the historical development of

concepts and ideas can be seen quite clearly. From chapter 4 onward, I devote quite a bit of time exploring the history of the concepts under discussion, and moreover look to explore how a decision at one point which privileged one particular viewpoint, has resulted in the curtailing of what is deemed possible and/or acceptable in the development of that concept.

In the next chapter, in which I present an analysis of an online teaching module, I attempt to engage two disparate ideas. First, I revisit my difficulties embracing the dominant educational psychology (behaviourist and cognitive) paradigms in education and technology, by marrying them to an Apprenticeship Model of teaching and learning, thereby elevating the previously inferior context-based (socio-historic) paradigm into a dominant position. Second, I explore the limitations of an online module containing little to no communicative interaction between the learner and instructor (in this case the module itself), which represents the antithesis of my core conception of teaching and learning as being relational in nature.

CHAPTER 3: ENHANCED TUTORIAL TEACHING IN MEDICAL EDUCATION – THE BLOOD PRESSURE MODULE OF A BC MEDICAL SCHOOL’S VITALS’ SIGNS TUTORIAL

Striking a balance between the necessities of teaching a theoretical principle, while attempting to situate this principle in a real world example has been a challenge since the inception of didactic teaching methods. All too often, “to clarify some aspects of the argument an author will often appeal to experience and use a specific example to illustrate an idea, but the description of that example will have its own complex internal structure embedded within the structure of the text as a whole.” (Laurillard, 2002, p. 45) It is however, possible to mitigate these problems with a structured teaching design that provides learners with the procedural information they need, taught in a conceptual manner that places what they are learning in its natural context.

This chapter will discuss one example of a principle-example (- practice) learning environment used in the education of medical students. Our discussion will be broken down into the following sections: overview of the medical curriculum and its implicit/explicit goals, the theoretical grounding within which medical education is built and this system utilized, overview of the Vitals’ Signs taking system under discussion, analysis of the merits of the system based upon the Conversation Framework for academic teaching developed by Diana Laurillard, recommendations for adaptations to the system to better meet

Laurillard's framework, and finally where I situate my beliefs on the role of technology to promote and enhance the learning process.

Introduction

This chapter will focus on an *online* tutorial module, developed by a medical school at a university in British Columbia for use by first year medical undergraduate students. This system covers three basics of Vitals' Signs taking: Blood Pressure, Jugular Venous Pressure and Peripheral Pulse, all presented in module format – for the purposes of our analysis, we will limit our discussion to the Blood Pressure module of this system. The content in the Blood Pressure module is important to furthering the users understanding of the elements of taking a patient's Vitals' Signs; however, the context in which this material is taught to students, in regard to primary and adjunct materials and experiences, is an important precursor to any analysis of the system. We commence with an abbreviated synopsis of the medical undergraduate curriculum at this medical school and then situate the skills attained by successfully understanding the taking of a Blood Pressure Vitals' Signs.

The Medical Undergraduate Curriculum

Like many professional undergraduate programs, such as law, dentistry, social work, etc. – students whom are admitted into medical school come from a variety of backgrounds and therefore bring with them a huge spectrum of knowledge. (Rawson & Quinlan, 2002, p.86) Though most students have taken equivalent basic science courses as pre-requisites to gain

acceptance into the program, basic clinical and communicative (interpersonal) knowledge does not meet the same equivalences. Furthermore, this school's medical curriculum consists of essentially two distinct parts across its four years: the first half, years 1 and 2, are primarily didactic teaching and learning in the form of lectures and seminars with some limited interactions with clinical patients; and the second half, years 3 and 4, are primarily structured clinical instruction where the student (under the close guidance of an instructor) is allowed the opportunity to work with and learn from patient encounters. It therefore becomes necessary, in preparation for the latter half of their training which will consist of patient encounters, to see that basic clinical and communicative knowledge equivalences, in addition to advanced human biology sciences training, are relatively equivalent for all students in the first half of their medical training.

Medical professionals require a well organized, deep knowledge base and the ability to use that knowledge to solve new problems. There are several educational principles that can be incorporated into an instructional environment that can help students begin to develop the knowledge and problem-solving ability required of experts (Eva, Neville & Norman, 1998, S1).

In keeping with these necessities of training medical professional, the first half of this school's medical curriculum consists of cased-based problem based learning. These case presentations, which groups of students work through on a week to week basis (Monday – new case presented, Friday – case concluded, repeat), are gradually increased in their complexity as the students' knowledge base expands through these two years of the curriculum. In addition to these case-presentations, which usually focus on the advanced human biology sciences, there are several longitudinal courses in which students take part

during these two years: Clinical Skills, Family Practice and Doctor, Patient and Society. The Doctor, Patient and Society course consists of the ethical and social determinants/ramifications of a medical professional's actions, the Clinical Skills and Family Practice courses offer the contextual experiences lacking from the case-based presentations component of the curriculum. It is in these two courses, where the conceptual knowledge of the advanced human biology sciences is transformed into practice in the form of physical examination skills and structured/unstructured patient interactions. The knowledge gained from these physical examination skills and patient encounters provide the base upon which the students can transfer their increasing knowledge from one case to another.

This differentiation of structured versus unstructured patient interactions is a vital determinant of the explicit learning goals and outcomes of any particular session. In the Clinical Skills course, didactic lectures, for our purposes we will look at the Vitals' Signs session, break off into small group tutorials that enable students, under the guidance of physician instructors, practice taking Blood Pressure, Jugular Venous Pressure and Peripheral Pulse measurements, first on fellow students, then on *standardized* patients (individuals whom have been trained and hired by the medical school to play the role of presenting patients to medical students). The controlled nature of these interactions allows students a safe environment in which to work through their difficulties and/or misconceptions on a said topic area, and reflect on the technique they are developing in their interactions with patients – all the while knowing that which is expected from

them at the conclusion of the session. In the Family Practice course, students work with physician instructors directly in their private medical practices, seeing patients in what can most aptly be described as an unstructured encounter – patients simply present with whatever condition(s) that originally led to them coming to see their doctor. While situating the student in a ‘real-life’ encounter with the patient, their limited clinical, communicative and human biology sciences knowledge can lead to the student taking a very peripheral role in the encounter – where they are more often than not an observer rather than a participant being guided by the physician instructor.

An opportunity arose in the 2004-2005 academic year to provide first year medical students with a preliminary Vitals’ Signs session several months before it was traditionally scheduled. The Family Practice course, with which I am involved, was given permission to run the small group tutorial sessions, under the direction of physician instructors, where students would be given the opportunity to practice taking Vitals’ Signs on fellow students. The goal of moving this session forward in the schedule was to provide students with preliminary ‘tangibles’ that they could then take with them into their work with physician instructors seeing patients in unstructured encounters, thereby increasing the likelihood of their participation when assessing patients. Though the session was received positively by students, these ‘tangibles’ did not necessarily transfer into increased participation. There are perhaps two reasons for this inability to transfer these ‘tangible’ skills into increased participation, first the session’s limited scope and duration may have resulted in students’ limited confidence in

their ability to utilize these skills in actual patient encounters. However, the second reason might be more compelling, for without the traditional didactic lecture that precedes these sessions and provides much of the conceptual knowledge that helps them situate these skills in their knowledge base, students may have been unable to understand how to interpret the results they received when successfully utilizing these skills (i.e. taking a blood pressure and transcribing the numerical values into the patient's chart does not mean students understand 1) the significance of the values when they are 'high' or 'low' and 2) the internal body systems to which they are tied).

Theoretical Grounding

This section will identify the differing components of the Vitals' Signs curriculum, and firmly situate it within the *cognition and learning* framework as described by Collins, Greeno and Resnick in their article "Cognition and Learning" (1992).

From the view of educational psychology, there are three parts to conceptual understanding: the nature of knowing, the nature of learning and transfer, and the nature of motivation and engagement. According to Collins et al. (1992), these parts can in turn be interpreted from several educational perspectives:

- Behaviourist / empiricist view – where "knowing is an organized accumulation of associations and components of skills" (p. 16);
- Cognitive / rationalist view – where there is an emphasis on the "understanding of concepts and theories in different subject matter

domains and general cognitive abilities, such as reasoning, planning, solving problems, and comprehending language” (p. 16);

- Situative / pragmatist socio-historic view – where knowledge as a whole is distributed “among people and their environments, including the objects, artefacts, tools, books, and the communities of which they are a part” (pp. 16-17).

These three educational perspectives, while seeming mutually exclusive, can be further synthesized into the three core instructional paradigms described by Farnham-Diggory (1994). The behaviourist/empiricist view breaks knowledge down into a quantified set of skills – the more you know, the more expert one becomes. This ties itself quite well to Farnham-Diggory’s Behaviour Model paradigm, “novices and experts are on the same scale(s), and transformation is accomplished through the mechanism of *incrementation*. A novice is low, and an expert is high” (464). The cognitive/rationalist view understands knowledge to be the complexity of conceptualized knowledge – the ability to adapt this knowledge into different/new situations becomes the basis of an expert. This is not unlike the Developmental Model paradigm, where “novices and experts are distinguished on the basis of their personal theories and explanations...of events or experiences” (465). The situative / pragmatist-socio-historic view sees knowledge within communities and therefore an expert as one whom has a firm understanding and place within that community. The Apprenticeship Model paradigm, understands that

...novices and experts are from different worlds, and a novice gets to be an expert through the mechanism of acculturation into the world of the expert. Actual participation in this world is critical for two reasons: (a) much of the knowledge that the expert transmits to

the novice is tacit, and (b) the knowledge often varies with context” (466).

Farnham-Diggory further recognizes that by definition, these models are defined as mutually exclusive, however, “recognize that more than one model may appear to be operating simultaneously, but close analysis will show that one or two models are functioning as modules within a parent instructional paradigm” (467). The result is a model that includes all three educational views/paradigms and becomes the grounding for our analysis of the medical school’s curriculum. In this model, all learning takes places within an Apprenticeship Model paradigm of teaching where the student begins to model themselves on the physician instructor community with which they have the opportunity to work, concepts are formed and applied across multiple problem cases via the Development Model paradigm, and the finite skills needed by a medical profession, i.e. Blood Pressure Vitals’ Signs taking, are accumulated via the Behaviour Model paradigm.

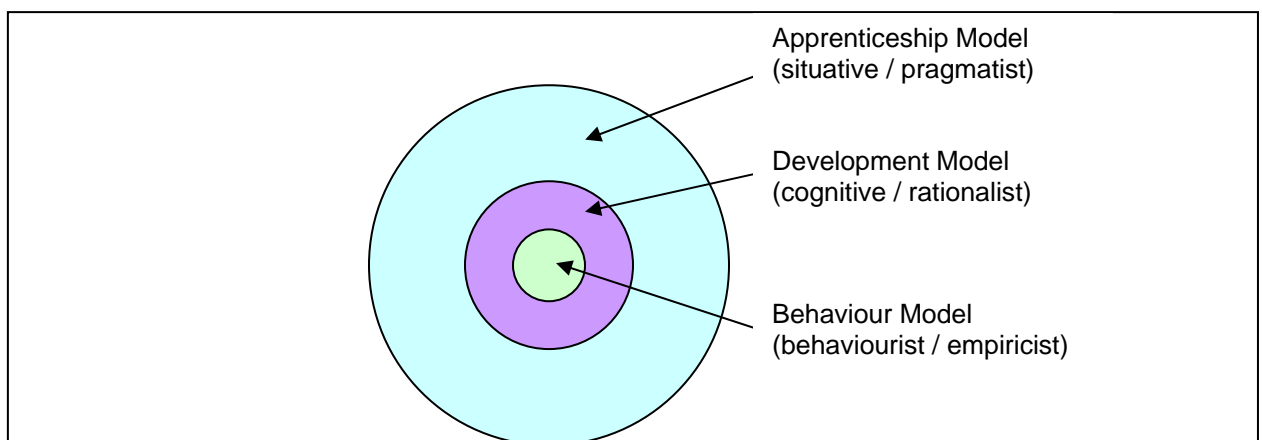


Figure 3-1: Parent Instructional Paradigm

Learning how to take a Blood Pressure Vital Sign from a patient is not a completely behaviourist endeavour. While the procedure and skills needed are uniform in most cases, the student must have a firm understanding of the body system concepts to which the results are tied (Development), and the overall ailment to which these results will be applied (Apprenticeship).

System Overview

The Blood Pressure module, one of the three elements of the Vitals' Signs tutorial system (the others being Jugular Venous Pressure and Peripheral Pulse), is first presented to the user, in our discussion a first year medical student, by way of a 4 minute QuickTime video that loads into the centre frame of the screen upon entry into the system. This video offers a general overview of the procedures and skills necessary in successfully taking a Blood Pressure from a patient (see Figure 3.2).

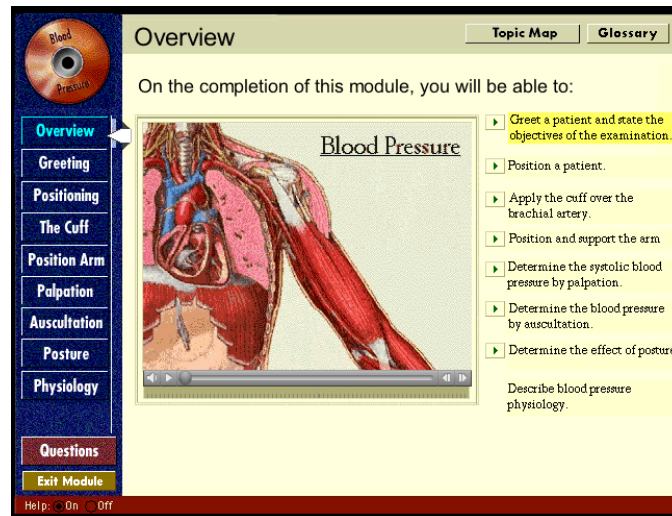


Figure 3-2: Blood Pressure module of Vitals' Signs tutorial – Main Page

There are several features built into the module, however, that quickly differentiates it from a basic narrative tutorial presentation, and situates it as an enhanced tutorial. By way of hypertext links presented on this main page, the user has access, at any time, to move through portions of the video and supporting materials in whatever order they wish. These aspects of the module are:

- Goals/Skills (presented along the right margin – see fig. 3.2) which are highlighted as the video moves forward and the user views the particular procedure the doctor is employing at that time in the video. “This has the added advantage of dual encoding, i.e. conveying information via more than one of the senses. Dual encoding has been found to enhance learning and, if sound quality is good, it may enhance user experience as well” (Adams, 2004, p. 9). These goals/skills are also hyperlinked to more thorough explanations of the material being presented by way of detailed videos, images, animations and text;
- Topic Areas (presented along the left margin – see fig. 3.2) which are hyperlinked to a particular portion of the video and allow the user to view

just this section, while having the added advantage of reviewing more thorough goals/skills along the right margin;

- Topic Map (accessed by a link in the top right corner – see fig. 3.2) that opens a detailed overview of the topic/sub-topics presented throughout the entire Blood Pressure module. The user can quickly ascertain what topic they are currently covering and how it ties into previous and forthcoming topics, as well as skip forward or back to explore a topic in more detail (see fig. 3.3). This enhanced hypermedia element also facilitates a deeper approach to understanding the content (Laurillard, pp. 43-45) than is necessarily provided by the surface viewing of the video and corresponding objectives/goals;
- Glossary (accessed by a link in the top right corner – see fig. 3.2) which opens a new window where the user can look up definitions to the concepts and procedures being presented, all the while benefiting from a Glossary that presents terms that are hyperlinked to other terms within the Glossary list (see fig. 3.4);
- Questions (accessed by a link in the bottom left corner – see fig. 3.2) which provides the user with the opportunity to test their knowledge in a multiple choice quiz format;

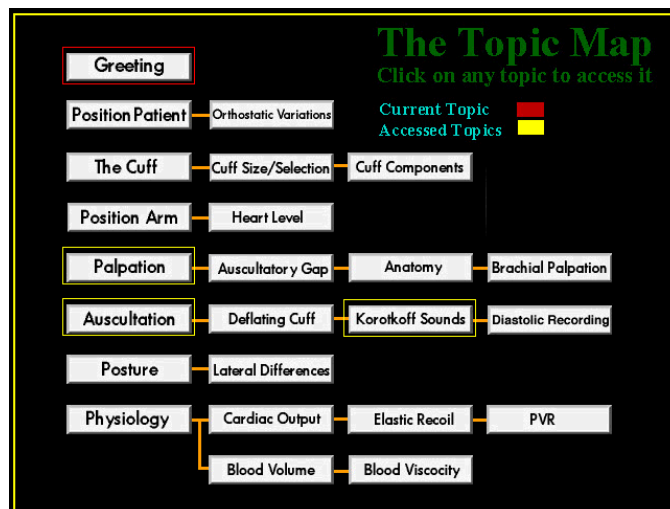


Figure 3-3: Blood Pressure module of Vitals' Signs tutorial – Topic Map

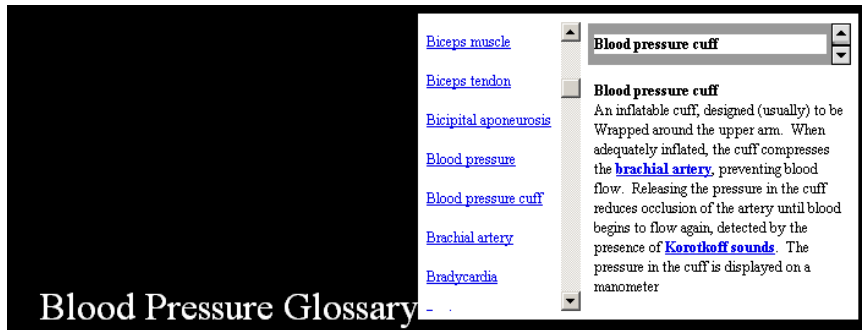


Figure 3-4: Blood Pressure module of Vitals' Signs tutorial – Glossary

In its current form, the Blood Pressure module (in addition to the Jugular Venous Pressure and Peripheral Pulse modules) of the Vitals' Signs tutorial is an optional adjunct to the existing curriculum. Presently, the Blood Pressure Vitals' Signs session is taught at the medical school consisting of two parts: 1) a didactic lecture which introduces students to the conceptual framework of how the cardiovascular system functions in the human body and provides students and instructors the opportunity to communicate their [mis]understandings of the topic to each other; and 2) an interactive small group tutorial which introduces students to the skills needed to assess how this system is functioning in the form of practice on fellow students and practice patients.

The Conversational Framework

The question as to how the learner will use the system remains unclear – as a standalone learning tool or as an adjunct to the didactic sessions they receive with their peers: the students receive little guidance as to how to approach the system and where it fits into their learning. When determining how well the system meets the criteria of the Conversational Framework as

established by Laurillard (pp. 87, 144), it is therefore useful to look at the enhanced tutorial first as a standalone teaching system.

The video presented in the Blood Pressure module of the Vitals' Signs tutorial uses a narrative form of instruction and is the best representation of the "Teacher's conception" portion of Laurillard's framework.

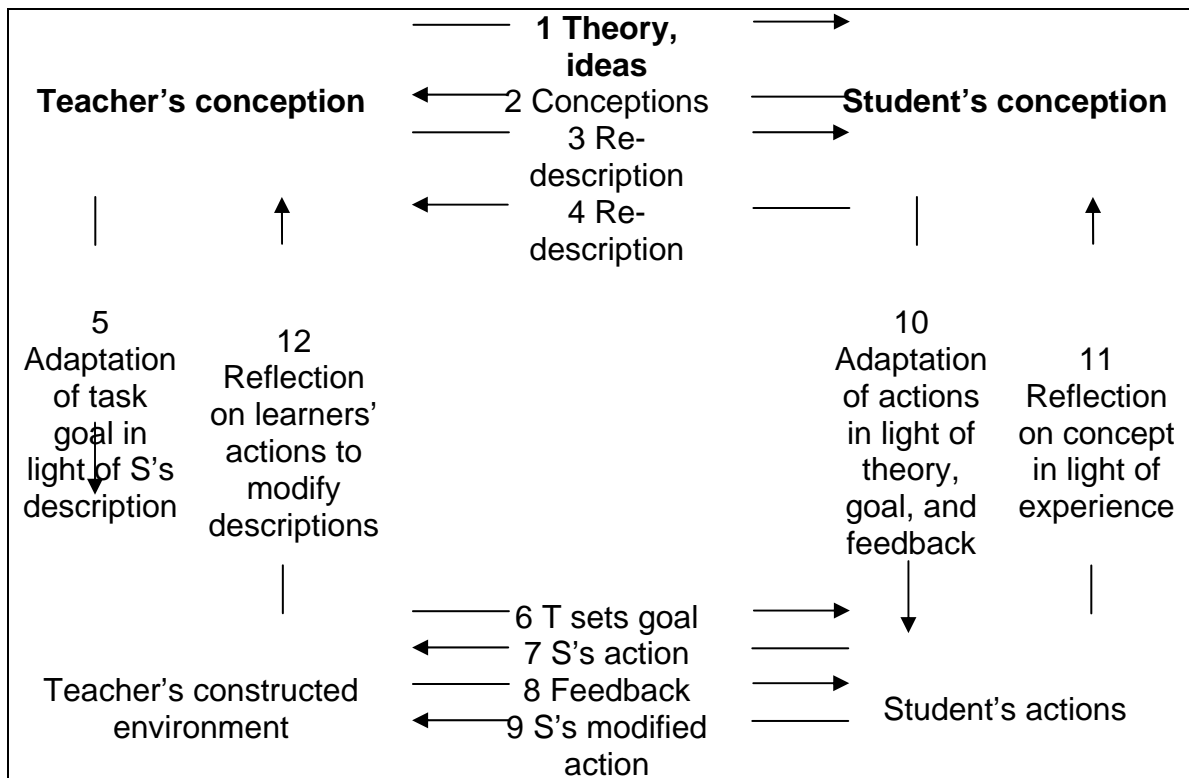


Figure 3-5: The Conversational Framework identifying the activities necessary to complete the learning process (Laurillard, 2002, p. 87)

However, further analysis is necessary to understand how the module, in its presentation of the video (Teacher's Conception) and the many options available to students to explore the content in greater depth, meets the criteria of the Conversational Framework as presented (in Figure 3.5). As relayed in Table 3.1, we see that some, but not all of the criteria are met:

Criteria		Enhanced Blood Pressure module of the Vitals' Signs tutorial
1	T can describe conception	X
2	S can describe conception	X
3	T can re-describe conception or action	X
4	S can re-describe in light of T's re-description or S's action	X
5	T can adapt task goal in light of S's description or action	
6	T can set task goal	X
7	S can act to achieve task goal	X
8	T can set up world to give intrinsic feedback on actions	X
9	S can modify action in light of feedback on action	
10	S can adapt actions in light of T's description or S's re-description	X
11	S can reflect on interaction to modify re-description	
12	T can reflect on S's action to modify re-description	

Table 3-1: Summary of adaptive media characteristics (Laurillard, 2002, p. 144)

The first four criteria, where the Tutorial and the Student describe and re-describe the conception, is successfully relayed in the module through the video, especially the usual student misconceptions and re-descriptions by way of the narrator's multiple "However, remember to...because" comments while performing the various procedures presented in the video. As the student works through any particular section of the video presentation attaining the lists of Goals/Skills, represented by criteria #6, they are given the opportunity to explore areas of interest/difficulty by way of the available hyperlinked text, criteria #7, and

the system responds by providing more thorough information and explanations, criteria #8. By providing more thorough information, the student's conceptions may be furthered, and in turn may determine how they continue through the module (i.e. perhaps accessing less hypertext as the need decreases due to greater conceptual understanding), criteria #10.

There are however, several criteria that are not met by this enhanced tutorial which fall within the reflective and adaptive aspects of Laurillard's framework. As the possible feedback, in the form of hyperlinks and more thorough explanations is finite, a student may click on every link available and still not receive the information they believe necessary to further their understanding and alter their actions, criteria #9. Furthermore, without the opportunity to physically engage in doing a Blood Pressure, the amount of reflection on the interaction, which is limited to a review of the presented material, the student can engage in is very limited, criteria #11. The systems ability to adapt and change as a result of the student's actions and descriptions, criteria # 5 and #12, are perhaps the most limiting aspects of the current design, for information presented remains static regardless of any possible student action.

Recommendations for Adaptation

As a standalone teaching system, there are several alterations to the design of the Blood Pressure module which could be employed to help it meet more of Laurillard's criteria. In its current form, the Questions and Glossary sections of the module are presented only when the student specifically

accesses them. However, if the designers were to embed these sections directly into the presentation, it would allow the student greater access to information as it is presented. In regard to the Glossary, as the video progresses, the goals/skills for any particular section become highlighted along the right margin as they are presented, but the meanings of some of the terms might remain unclear. If the Glossary was embedded along the bottom of the Main Page, definitions of terms could be presented for student review just as the goals/skills are presented and highlighted along the right margin. This 'scrolling' effect, might allow for the student to process this increased form of feedback, criteria #8, and therefore modify their ensuing actions, criteria #9. The embedding of the Questions section, or at least parts of it, perhaps at the end of each Topic Area, might allow the student to reflect upon the information they have just encountered and quiz themselves as to what they truly understand. Furthermore, the current feedback in the Questions section is comprised wholly of 'Correct'/'Incorrect' responses, so by embedding the questions, the feedback to incorrect questions could be a link back to the pertinent sections of the presentation, thereby meeting criteria #5 and #11.

There is an alternative method which could be employed to allow this system to meet more, if not all of Laurillard's criteria. By employing this module as an adjunct to the existing curriculum (not optional but as a part of the existing curriculum), several of the reflective and adaptive aspects which the system currently does not address, could be made up through the student interactions with a live instructor. Situating the module after the initial didactic lecture that

introduces students to the conceptual foundations of a Blood Pressure and the cardiovascular system, and before the interactive small group tutorial which introduces students to the practical skills they will need to successfully take a Blood Pressure Vital Sign, would allow the student to better formulate their own conceptual understanding and relay that to the instructor of the small group tutorial. Furthermore, the small group tutorial provides the opportunity to physically engage in doing a Blood Pressure, so the student is able to reflect on the actions they make to re-describe the conceptions and take modified actions, criteria #11 and #9, and the instructor is able to reflect on the student's actions to provide further re-descriptions and set out new tasks, criteria #12 and #5. However, the instructor's role in adapting the experience in light of the student's understanding of it (#5), and their internal reflection on the learner's actions to modify their own instructional practices (#12) are not guaranteed:

Clinical teachers in medicine are usually competent practitioners of their craft. They are required to have a reasonable knowledge of medicine and, surprisingly, this is all they need to be recruited to teach. The 'see one, do one, teach one' principle still applies in most academic milieu... There is a tacit assumption that expertise in practice will translate into proficiency in teaching (McLeod, Steinert, Meagher, & McLeod, 2003, p. 638).

It therefore becomes necessary to ensure training for all tutorial instructors in not only the content they are delivering, but also the techniques through which they can be most useful to their students. While some physician instructors "usually possess knowledge of content-specific pedagogy – a special form of knowledge which develops through an apprenticeship model of observation and experience" (McLeod et al., p. 638), it is important to engage actively all

instructors, perhaps in the form of reflective feedback sessions where student conceptions and difficulties can be discussed.

The Role of Technology to Promote and Enhance the Learning Process

As discussed in the last two sections, the Blood Pressure module of the Vitals' Signs tutorial meets quite a few of the criteria as established by Laurillard to promote the learning process. However, in order to meet all the criteria, I recommend two very disparate types of recommendations, the first being to make the system completely stand alone by enhancing elements of the interface, and the second being to utilize the system as an adjunct to existing didactic practices. This is an extremely important differentiation, for it highlights a very interesting dichotomy I have struggled with for quite some time, namely, should technology be used to replace, or augment the traditional learning process.

The commonalities I noted earlier, in the educational perspectives presented by Collins, Greeno and Resnick, and the core instructional paradigms described by Farnham-Diggory, form the basis of my beliefs of the learning process. When the Apprenticeship-Development-Behaviour model is taken into account and represented in the design of an educational technology system, the technology will be able to successfully replace the traditional learning process. However, very rarely can it be said that all of these elements of the model are met, for aspects of the system may be able to address parts, but never the entire learning process, especially in regard to the Apprenticeship Model paradigm's need to transfer knowledge within a community via actual participation and interaction with experts. Until such time that a technology or design emerges

that can offer this most critical of aspects to the learning process, technologies such as the enhanced tutorial discussed in this chapter will be most effective as adjuncts to traditional learning processes.

My Development and Its Implications

In this chapter, I have revisited my difficulties embracing the cognitive/behaviourist dominant discourses within the field of education and technology, but did so in an attempt to merge them with an Apprenticeship Model of teaching and learning. In so doing, I have been able to invert the traditional dominant discourses within the field by making them wholly dependent upon the context of the learning environment (socio-historic paradigms of teaching and learning). As well, I have begun the process of elaborating upon my core conception of teaching and learning as relational, by engaging the ideas of Laurillard's *Conversational Framework*. The result of this chapter has thus been two fold, for it represents another example of my increasing comfort with historical analysis – in particular, the marrying of seemingly competing theories, and it identifies my belief in the necessity for the need to listen, reflect and respond in teaching and learning relationships.

By singling out the importance of these conversational elements of teaching and learning, namely the act of listening to, reflecting upon and then responding to the other participant(s), I am left wondering how online education, or education technology in general, can be effective without these types of relational communications? Moreover, as I explored ways of continuing my exploration of different forms of online education, I came to the realization that

my definition of online education was quite narrow, as having to include this communicative component.

In the next chapter, I continue my discussion of online and/or distance education by looking in particular at examples of videoconference-based teaching and learning. I commence with a review of videoconferencing's historical development, and how it does not neatly fit into the traditional distance education paradigm. It is not surprising, then, that this discussion focuses quite sharply onto the types of communication/interaction that take place within and across videoconference classrooms.

CHAPTER 4: DISTANCE EDUCATION REDefined – INTERACTION AND THE VIDEOCONFERENCING CLASSROOM

Originally written in the summer of 2005 as part of a research methods course, this chapter is perhaps the last in this thesis that engages with topics within the traditional education and technology field. The synthesis of existing histories of videoconference teaching and distance education informs the first half of this chapter, as I contend that videoconferencing occupies a previously unattainable position within the distance education paradigm, allowing for completely synchronous communication across multiple geographical locations, previously an impossibility in distance education. The second half of this chapter then focuses upon the types of communications that take place in these new classrooms, surveying the current scholarship in the field and its focus upon interaction-based research. The result of this chapter, however, is a sense of closure to the topic of videoconference teaching that first drew me to graduate studies. Instead, a question emerges near the end of the chapter that would force me to begin rethinking my conception of the relationship between education *and* technology.

Introduction

Declining public support for higher education became the reality in the late 20th century as fiscal conservatism meant a decrease in government funding to

education (Blumenstyk & Cage, 1991; Clayton, 1992). While overall funding has decreased, demand for university level credentials has significantly increased, as the realities of the new information age and the need for highly educated professional have become more evident (Altbach, Berdahl, & Gumpert, 1994; Cameron & Institute for Research on Public Policy, 1991; Giberson, 1995). Lack of funding to create new academic student seats, hire new faculty or build new campuses to meet growing demand, has required higher education institutions to adopt new hybrids of distance education delivery that maximize access for students, while minimizing long-term operating costs. A growing number of higher education institutions have turned to one of these hybrids, videoconferencing technologies, in an attempt to provide a vast number of students access to instructors from varying geographical locations (Motamedi, 2001).

At its essence, multiple numbers of campuses, representing an ever growing number of students, are provided access to and instruction from a limited number of instructors. As with many technology-based innovations in the field of education such as Computer Assisted Learning (CAL) and online learning (Harasim, 2000; Palloff & Pratt, 1999), videoconferencing classrooms have yet to prove their effectiveness as a replacement to traditional face to face classrooms. However, comparing videoconferencing to traditional face to face classrooms is a flawed comparison, for the roots of videoconferencing technologies are not found in the traditional classroom based environments, but rather the evolution of distance education technology and delivery methods. The following literature

review will therefore examine the current state of research into videoconferencing (also known as interactive television / video conferencing – ITV or IVC). Emphasis will be placed on the nature of student-instructor interaction in videoconferencing classrooms as this has been identified as one of the primary affordances provided by this new hybrid of distance education (Heath & Holznagel, 2002; Keegan, 1996). By reviewing the main research trends of videoconferencing classrooms that have evolved in the late 1990s, it will become evident how these trends are being situated into existing theoretical models of distance education and how these models are evolving to account for distance education's changing possibilities. Finally, there will be an examination of an alternative teaching and learning strategy in an attempt to better bridge the need for interaction in the videoconferencing classroom.

Distance Education

The traditional definitions of distance education have placed their emphasis on the types of teaching and learning that take place when the instructor and learner are separate due to geography. In recent years, a more refined definition has been developed

Distance education is planned learning that normally occurs in a different place from teaching and as a result requires special techniques of course design, special instructional techniques, special methods of communication by electronic and other technology, as well as special organizational and administrative arrangements (Moore & Kearsley, 1996, p. 2).

The late 20th century has seen an increase in the number of academic institutions offering distance education courses. Keegan has emphasized that

“distance education is a valued component of many education systems and has proved its worth in areas where traditional schools, colleges and universities have difficulties in meeting demand” (1996, p. 4).

Perhaps the most significant factor contributing to the increase of distance education offerings is the increased ability to communicate over distances. Newer and faster communication technologies have allowed for the emergence of forms of distance education that blur the lines between the traditional asynchronous distant education delivery models (i.e. correspondence and *static* online courses) (Garrison, 1993; Keegan, 1993; Keegan, 1996; Moore & Kearsley, 1996; Noble, 2002), and those facilitated by the newer synchronous communication technologies (i.e. videoconferencing). One result has been a shift in the definition of distance education to meet the realities of the synchronous technologies with new terminology and educational paradigms. Garrison (1993) and Keegan (1996) go so far as to note between the types of distance education (asynchronous and synchronous) which differ on several important criteria. The first criteria is that of Time – synchronous distance education takes place at one time when all instructors and students need to be in communication, while asynchronous distance education is not confined by this criteria. The second criteria is Accessibility – synchronous distance education is limited by the location(s) of access and the strict time(s) of access, while asynchronous distance education has no such limitations. The third criteria is Economics – synchronous distance education delivery is much more costly (usually due to the delivery technologies) than asynchronous distance education.

The final criteria is Didactics – the skills required of instructors and students in synchronous education are along the same lines of traditional face-to-face education, while the importance of self-directed learning skills is more necessary in asynchronous distance education.

As the technologies used in synchronous distance education are relatively new and only adopted gradually, the research conducted into videoconferencing classrooms has been relatively disjointed. In his review of the usage of videoconferencing in American distance education, Motamedi (2001) commences with a detailed overview of the delivery methods of distance education in American and global education markets. He introduces examples of the different technologies that have been utilized for delivery, and how they have in turn shifted the focus from entirely asynchronous to a growing synchronous distance education model. Videoconferencing and web-based learning are identified by Motamedi as the two main modes of synchronous distance education that have emerged through the 1990s.

Videoconferencing

With the advancement of technology and the increases in available bandwidth in the late 1990s, occurrences of videoconferencing classrooms as a mode of distance education have increased (Motamedi, 2001). Heath and Holzmagel generally define videoconferencing as “live, two-way audio and full-motion video communication” (2002, p. 2). With the ability to connect more than two locations at one time, Laurillard defines it as an “one-to-many medium, making it a sensible way to provide access for many sites to a remote academic

expert” (Laurillard, 2002, p. 166). While it is often true that this one-to-many or transmission model becomes the norm, one of the benefits of videoconferencing is its ability to allow learners synchronous interact with each other, as well as with the instructor, though separated by distance.

Benefits of Videoconferencing

Many instructors whom have taught in videoconferencing classrooms have produced lists of benefits and drawbacks they have developed as they have pioneered the medium. Reed and Woodruff (1999) provided four main advantages of teaching with videoconferencing technologies. First is the visual connection of participants, both instructor to student, and student to student. This leads to the second advantage, which is the *opportunity* of increased interaction and interactive teaching strategies. Third is the opportunity to connect with external resources, namely remote experts and resources. And finally, videoconferencing allows for the sharing of documents and other media resources that “facilitates collaboration and feedback” (¶5).

Additionally, a study on the effectiveness of videoconferencing in the synchronous teaching of multiple undergraduate class sections (Freeman, 1998), found that there was a reduction of duplication of teaching on the part of the instructor(s). Furthermore, students found the use of the technology to provide more equitable access to content as they received instruction all at the same time.

Drawbacks of Videoconferencing

Motamedi's literature review of the use of videoconferencing in American distance education (2001), notes many of the same advantages, but the disadvantages are discussed more thoroughly. Though the costs of bandwidth and videoconferencing hardware have decreased in recent years, the initial start-up costs and ongoing costs remain substantial – in addition to the time and labour needed to support its delivery, all of which must be justified by the benefits the technology brings to its participants. Once operational, another drawback that arises is the length of time needed to master using it, both by instructors and students. Often, the participants only achieve a level of comfort with the technology and its delivery formats after many hours of instruction, so any initial 'distractions' "could dramatically affect their [student's] concentration and learning" (Freeman, 1998, p. 204). Furthermore, students and instructors sometimes feel that the lectures, learning activities and interactions are not improved, but often slower and result in a reduction of learning time (Freeman, 1998; Goddard, 1995).

Another drawback is the number of participants that videoconferencing can realistically accommodate. Motamedi warns of the lure to amalgamate large numbers of students together into high occupancy videoconferencing classrooms, but for the medium to be effective in allowing for the interactive aspects that are advantageous, participant numbers must be kept manageable. This reinforces Freeman and Goddard's contention that participants in large videoconferencing classrooms often felt a decrease in total learning time as quite

a bit of time was expended trying to accommodate the greater numbers (Knipe & Lee, 2002). Motamedi also reports that a common problem reported in the current literature is that instructors are not trained to use videoconferencing technologies in ways that are pedagogically sound. He indicates that instructors routinely spend too much time lecturing on screen without much use of interaction strategies such as questioning, which often leads to less than desirable classroom experiences (i.e. “talking head”). This often leads learners to adopt two coping mechanisms, first is the lack of questioning on their part as there is an anxiety to ask questions that would mean they would displace the “talking head” on screen (Chandler & Hanrahan, 2000), and second what has been termed the ‘passive viewer’ syndrome (Jameson, O'Hanlon, Buckton, Hobsley, 1995) of simply watching the instructor as though they are watching television.

More generally is the notion that videoconferencing is the second best option, compared to the traditional face-to-face classroom (Dallat, Fraser, Livingston, & Robinson, 1992; Freeman, 1998; Schiller & Mitchell, 1993). Dallat, Fraser, Livingston and Robinson reported this finding in instances where high interaction between participants was essential to the success of the class. Schiller and Mitchell offer a slightly different take on this drawback, by noting that the participants in their study that were of a younger age (early 20s) generally compared the experience to the traditional face-to-face lectures they were accustomed too, while the older participants (early 30s) generally compared the experience to other distance education courses they had previously taken part in.

This observation may warrant further research, especially if an emphasis is placed on the learner's previous experiences with distance education courses, and the learning strategies they accordingly adopt in videoconferencing classrooms.

Research Trends in Videoconferencing

Heath and Holznagel (2002) and Moore (2002) provide summaries of the research in videoconferencing classrooms. Most of the studies they present have explored university level courses or professional usages of the medium, and have taken the form of descriptive research and/or case studies. Of those studies that have compared videoconferencing to traditional classrooms, a majority have tried to situate the effectiveness of the medium in terms of student attitudes, satisfaction and achievement (Moore, 2002). An increasing number of studies have attempted to build on this by exploring learner characteristics, classroom interaction and effective course and lesson design. It is these areas of exploration that are of most relevance when videoconferencing is correctly situated within the distance education paradigm, for they allow for greater connections to existing distance education contexts.

Interaction Research

Generally, there are thought to be three main types of interaction in a videoconferencing classroom: learner – content; learner – learner; and learner – instructor (Moore, 1993). The learner – learner types of interaction have been relatively absent from traditional distance education contexts, but “the most

important evolution in distance education has been the development of highly interactive telecommunications media...[which]...allow a new form of dialogue that can be called inter-learner dialogue” (p. 32). The result of this inter-learner dialogue has meant that distant education has begun to have the capacity of looking more like traditional education by allowing for interaction initiated between learners.

Most studies that have looked at interaction in the videoconferencing classroom have focused in the frequency of student – instructor interactions rather than the types of interaction (Freeman, 1998; Moore, 2002; Schiller & Mitchell, 1993). The findings have shown that the frequency of interaction has been either equal or less in videoconferencing as compared to traditional classroom.

A study by Oliver and McLoughlin (1997) that did examine interaction from the instructor perspective compared five types of teaching interactions: social, procedural, expository, explanatory and cognitive. These teaching interactions were derived from the types present in computer mediated communication as established by Henri (as cited in Hearnshaw, 2000; Oliver & McLoughlin, 1997). Oliver and McLoughlin’s analysis found that expository and procedural types of interaction occurred with the greatest frequency, however, without a comparison to a traditional classroom experience or a discussion as to whether these interactions are exclusive to videoconferencing classrooms, these results remain an area for further research.

Influences on Interaction

Classroom interaction has many influences acting upon it (Moore, 1993), including: frequency of communication opportunities; number of students in a class; the physical environment of both the instructor and the learners; emotional variables of both the instructor and the learners; personality; and content being taught. As interaction is a complex occurrence which is affected by many variables, building an environment that presupposes interaction as highly possible, does not ensure that interaction actually occurs. A traditional classroom presupposes that interaction can be easily encouraged, the classroom may take on a highly interactive nature, or may not, depending upon the instructor, learners, course content, or any of the other factors above. However, is classroom interaction actually that important to learner learning?

Drawing from a constructivist model of instruction and learning, the answer is a resounding yes. The process of socializing new information in the form of interactions to build knowledge can be drawn back to two theoretical frameworks – Lev Vygotsky’s “genetic law of cultural development” (Vygotsky & Cole, 1978), and Malcolm S. Knowles’ definition of andragogy – in its most basic sense, the art and science of learning, as opposed to pedagogy – the art and science of teaching (1980), and the importance he places on group interaction (1950). Vygotsky surmised that

...every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first between people (interpsychological), and then inside the child (intrapsychological) (1978, p. 57).

The notion that knowledge is 'created' at two levels is extremely important. Only after a child interacts with the world around them, usually in the form of interacting with others, can the child take what they have learned and contextualize it internally. Learners interact with fellow learners and/or with the instructor, which aids in building ideas collectively and collaboratively, which in turn allows for the internalizing of the information in the form of greater understanding.

Knowles drew the same type of conclusions regarding adult education. He stressed the importance of the group and its interactions, to the formation of greater understanding (1950). In his comparison of the assumptions of pedagogy and andragogy, he draws attention to the role of the learners' experiences. From his definition of pedagogy

...the experience learners bring to a learning situation is of little worth. It may be used as a starting point, but the experience from which learners will gain the most is that of the teacher...the audiovisual aid producer, and other experts. Accordingly, the primary techniques in education are transmittal techniques (p. 44),

and from his definition of andragogy

...as people grow and develop they accumulate an increasing reservoir of experience that becomes an increasingly rich resource for learning – for themselves and for others. Accordingly, the primary techniques in education are experiential techniques - ...discussion [with fellow learners and the instructor] (p. 44).

From both Knowles and Vygotsky's writings, it is clear that learner learning takes place in the world beyond the learner's own thoughts – be they children or adults – an educational world in which the interactions they have with others learners and instructors form their understanding of the knowledge being

transmitted to them. In the context of the videoconferencing classroom, the instructional strategies that promote interaction amongst participants therefore become essential.

Instructional Strategies to Promote Interaction

One of the challenges for instructors in videoconferencing classrooms is to create learning opportunities that are *at least* comparable to those of the traditional classroom, thereby ensuring not only the opportunity for interactions, but also its actual occurrence. Reed and Woodruff (1999) suggest that “teachers who use two-way video must challenge basic learner preconceptions and set new expectation to maximize learning...Fortunately, good two-way video instructional strategies are also good classroom instructional strategies” (¶12). There have been repeated calls for a move away from the “talking head” model of videoconferencing instruction (Motamedi, 2001), though it is worthwhile to note that the talking head non-interactive lecture is not ideal in the traditional classroom, and rather represents an example of bad pedagogy in any setting.

Instructors, whom employ good instructional strategies in a traditional classroom and thereby should be adept in the videoconferencing classroom, should also employ a series of additional skills. Some practitioners have noted the importance of creating presence amongst all participants (Cyrs, 2003; Reed & Woodruff, 1999) by employing some of the following strategies: using visualization techniques; using visual props (diagrams and models); effective questioning with remote sites; and planning and managing remote site activities such are buzz group discussions and student presentations (Cyrs, 2003).

A Learning Strategy to Promote Interaction

The majority of research on interaction in videoconferencing classrooms has concentrated on the instructor and their design and implementation of the learning environment (Moore, 2002). In placing the onus on instructors to be responsible for encouraging and facilitating interaction, learners are seemingly not recognized as full participants in the desired interaction. The inter-learner dialogues that have emerged from learner – learner interactions (Moore, 1993) and are found in traditional classrooms by way of learner initiated questioning of instructors and fellow students, are not allowed an opportunity to develop.

A study conducted at the Central Queensland University (CQU), provides a possible model for fostering inter-learner dialogues (Andrews & Klease, 1998). In the first semester of 1996, CQU commenced a videoconferencing trial for a level 1 chemistry course, which consisted of three participating sites, one with a local instructor, and the other two receiving the instructor at a distance via the technology. At the conclusion of this first semester, it was noted that there were considerable challenges in developing effective interactive multi-campus teaching and learning models. As well, the role of staff development activities and time for skills acquisition are critical to the success of developing these models. On-campus students were generally under prepared for technologically mediated teaching and learning environments and operated more effectively in these environments following preparation programs prior to the commencement of class (19).

Though the participants in this study originally set out “to explore the interactive aspects of the technology, what in fact resulted was a fairly didactic teacher centred model of learning moderated by attempts to involve students in discussion by questions from the lecturer aimed at eliciting responses from students” (¶10). Based upon these initial findings, it was decided to move to a more learner centred teaching and learning model based on group work.

Using the same group as the initial trial, learners were taught the set roles of manager, questioner/sceptic and recorder/checker within the context of group work. Furthermore, videoconferencing was used at the commencement of the semester to train all the learners to these roles and the corresponding tasks, activities and suggested strategies needed to fulfill their set role. Groups were assigned to present on a weekly problem, and all participants were previously “provided with information on the problems each group would discuss, thus encouraging open interaction during the video conference sessions” (¶15).

The results from this group work approach were quite positive. Learners were much more comfortable with the technology, in that they were able to present on their weekly findings and were “less inhibited by the presence of the camera” (¶17). Furthermore, interactions such as interrupting and offering opinions, or even disagreeing with the majority opinion seemed to be easier for learners. Instructors found that their ability to interact increased as well, by “providing positive feedback or clarification and explanation as required” (¶17). While not the most definitive study on overall instructional and/or learner strategies, the CQU experience does provide valuable insights into the

importance of a need for more learner centred teaching methods. By allowing learners to take an active role in the delivery of content, and perhaps more importantly providing them with concrete group work strategies for asking and responding to questions, inter-learner dialogues were allowed a chance to develop in relation to the videoconferencing technology.

Conclusions and Questions for Further Research

Videoconferencing classrooms are a growing part of the distance education landscape. The reality however is that this growing landscape is beginning to look more like, or at least offer the types of interactions, normally found exclusively in traditional synchronous classrooms. The new definition of distance education with its encroachment on the traditional classroom experiences provides an opportunity for further research into the learning strategies employed by participants. One question in need of immediate research is the connection between videoconferencing classrooms and existing distance education learning strategies: Is there a relationship between variables such as participant age, previous experiences with traditional distance education (including online education) and face to face classrooms, learner self-reported learning factors in these environments, and how well videoconferencing classrooms fulfill these learning factors? The results will provide instructors and videoconferencing classroom designers with a greater understanding of the factors important to learners to succeed in this environment and how well current videoconferencing classrooms are fulfilling these factors. For instructors and designers, this greater understanding will help them to design more detailed

instructional models and strategies that fulfill these student needs through differing types of classroom interactions.

My Development and Its Implications

This chapter represented the last writing I undertook within the traditional education and technology field. Not surprisingly, my focus once again returned, like previous chapters, to the synthesis of existing histories and my concentrating on communication/interaction in the examples of videoconferencing I discuss. With videoconferencing existing in a relatively new point within the traditional realm of distance education, I take some time to reconceptualise my working definition of distance education. In particular, I attempt to reconcile the new challenges presented by videoconference-based education as being completely synchronous, but still limited due to the geographical distances between participants.

However, perhaps the most significant realization from this chapter is that while the existing scholarship in videoconference-based education does concentrate upon communication/interaction amongst participants, it does so in a very superficial way, with its primary concern being the quantity rather than quality of these exchanges. With this realization that much of the scholarship in education and technology, especially in my interest area of videoconferencing, was far more concerned with justifying its existence/usage by proving there was no net loss in teaching and learning, I began to refocus my attention on to the motivations for the usage of differing technologies in the classroom. It was at this

point that the failures of technology in the classroom, as I alluded to at the end of chapter 2, re-emerged as a fundamental question in need of discussion.

Carrying forward into chapter 5, I begin my exploration of not necessarily the usage of technology in education, but rather I reconceptualise the relationship between education **and** technology. In particular, I begin in late 2005 and early 2006 to question the definition ascribed to technology first in the realm of education, then in culture and society. What I discover, is that far from being benign tools crafted and used by individuals, many technologies in the 20th century have served to provide a model of rationale organization of different disciplines. I narrow my discussion in chapter 5 to medicine and its educational organization, and draw the conclusion that its organization is dependent upon a technological view of the human body.

CHAPTER 5: THE HUMANIST (RE-)TURN IN MEDICINE – THE SCIENCE OF CURING AND THE ART OF HEALING IN LATE-MODERNITY

In an ongoing analysis the whole personality of both patient and doctor is called into play. There are many cases which the doctor cannot cure without committing himself. When important matters are at stake, it makes all the difference whether the doctor sees himself as part of the drama, or cloaks himself in his authority. In the great crises of life, in the supreme moments when to be or not to be is in question, little tricks of suggestion do not help. Then the whole being of the doctor is challenged...The doctor is effective when he himself is affected. 'Only the wounded physician heals'. But when the doctor wears his personality like a coat or armour, he has no effect (Jung, 1983, pp. 155-6).

This chapter, written in the spring of 2006 during my studies in a graduate seminar exploring the notion of modernity in the School of Communications at Simon Fraser University, serves as the beginning of my analysis of how technology can determine the organization and makeup of differing disciplines, in this case, medicine. Here I pick up from my previous interest, as alluded to at the end of chapter 2, of exploring the underlying promise of technology, namely how this can influence decision-making and the overall organization of a field. Through an historical overview of medicine's development in the 20th century, the context of current medical education initiatives, such as reflective writing to better prepare students for the standardization they are to encounter in their training and practice, becomes clear. As well, during the course of writing this chapter, I was drawn to thinking about the reflective writing initiative as a response to some conflict being caused by the technological organization of the medical education

field, particularly the notions of the realized self as doctor-*curer* compared to the idealized self of doctor-*healer*.

Introduction

In the late years of the 20th Century, medical education and practice was informed it was in crisis. With increasing frequency, medical schools across North America and Western Europe moved forward with the adoption of “behavioural and social science and humanities” (Novak, Epstein & Paulsen, 1999, p. 516) courses into their respective curricula. The justification for this introduction of *soft* courses, as compared to the *solid* basic science courses which dominated the curriculum, was the *perception* amongst educators and practitioners that the “science of curing [had] overshadowed the art of healing” (p. 516); the medical profession was in crisis with increasing numbers of physicians exhibiting dissatisfaction with the profession, turning to alcohol or illicit substances in an attempt to cope, in the end burning-out and becoming a hazard to both their patients and themselves (Shaw, Wedding, Zeldow & Diehl, 2001). The call went out for the embracement of humanist ideals, “a mode of thought or action in which human interests, values, and dignity are taken to be of primary importance” (Rogers, 1981, p. 30), in the creation of the humanistic physician. This physician would not only understand the patient and their needs in a doctor-patient relationship, but they would also understand their own needs and expectations from this relationship. However, the explicit goal of creating these *physician-healers* (Stein, 1990) has been problematic from the start. In a curriculum filled to the rafters with a basic sciences core which medical students

are instructed will be the foundation for their future abilities, little time is left over for students to reflect on their own *self* and how that *self* will interact with colleagues and patients in the future.

It is therefore the goal of this chapter, to explore the emergence of the *physician-healer* in the historical context of medicine and modernity, in the hope of proposing an alternate and complimentary reason for its inclusion within medical curricula and practice. This is not an all together straight forward endeavour, for an understanding of the development of the medical *profession* in the 20th Century and the pressures it has placed on the doctor-patient relationship are complex. However, the inclusion of an example from the perspective of the doctor in training, will attempt to expose the limitations of the doctor-patient relationship in its current form in late modernity, and offer the justification for a humanistic turn in medicine by way of reflective thinking and practice. Finally, the conclusion of this chapter presents the possibilities that emerge by way of inter-connective technologies, in the teaching and exercise of reflection-in-action.

Medicine and Modernity: Historical Development

John Pickstone (2000), an historian of medicine, surmised that science, technology and medicine have evolved through four chronological, distinct, yet porous phases: biographical medicine, analytic medicine, experimental medicine and techno-medicine. Biographical medicine is best thought of as a technique that situated the patient, at the direct centre of the medical encounter, for it was their personal narrative that was preeminent in diagnosis and healing. Analytic

medicine laid the roots of the cause-effect relationship embedded into medical thought process, where diagnoses are determined from a review of the presenting patient and their symptoms. However, it is the later two phases, which merit the greatest attention, for they coincide with the commencement of the industrial revolution (experimental medicine), and the eventual industrialization of western economies (techno-science medicine). The phase of experimental medicine carried through to near the end of the 19th Century, and saw a turn toward the commodification of experimental – laboratory processes for the first time. These newly commodified processes became the product traded by doctors in the techno-medicine phase, and as a result led to the eventual consumerist impetus on the part of patients.

The techno-medicine phase best describes the series of changes to medicine and its delivery that helped shape the medical profession in the 20th Century. Max Weber described the beginnings of this phase as the *rage of order* for it took the form of

...a constellation of social processes and forms...included the growth, differentiation and integration of bureaucracy and other organizational and managerial systems; the standardization and routinization of administrative action; and the employment of experts to define and order such systems” (Cooter & Sturdy, 1998, p. 1).

This drive for a rational order, unified by an organizational structure would serve to ensure conformity by its “development and application of scientific and technical productions” (p. 1) which would lead to further transformation of the traditional forms of social legitimization.

The Flexner Report and the Reordering of Medicine in America

In the case of medicine in America, this unifying organizational structure took the form of the 1910 Flexner report (commissioned by the private Carnegie Foundation for the Advancement of Teaching) which led to substantial changes in “the number and nature of medical schools, their curricula, and the research and clinical roles of American physicians” (Mishler, Osherson, AmaraSingham, Hauser, Waxler & Liem, 1981, p. 227). Two points in the Flexner report stand out: (1) it institutionalized a positivistic view of medicine that included a mechanical construction of the human body, and (2) it was part of a much larger reorganization of American society into the *professions*. This reorganization was in part due to the shift from a largely rural agrarian economy to an industrial economy. This resulted in the destruction of traditional forms of hierarchical “social control and organization”, and the need for a new technical – professional class to manage this new economy.

The mechanical view of the body would have long-term implications as the medical profession organized in the first half of the 20th Century and gradually became, like all professions, functionaries of the state. As Mishler et al. observe, this mechanical view of the body from the 1910 report has engendered all aspects of the techno-medicine phase since its implementation, with its “strong emphasis on (1) *the parts-of-a-whole curriculum*; (2) *a reductionist approach to the human body*; (3) *the central role of instrumentation* in diagnosis and therapy, and sub-specialization of the physician; and (4) an emphasis on *efficiency and*

standardization, with relative inattention to the social context of treatment” (p. 227 [original emphasis]).

War and the Professional Specialization in Medicine

Though the Flexner report heralded the commencement of the reorganization of western medicine, it was the First World War with its mass mobilization which enabled a never before seen level of administration and organization. In the context of war-related research during the First World War, the notion of “total war” or mass mobilization allowed for the recruitment of traditionally disparate professionals in an attempt to assist the government “in organizing the nation’s resources for the purposes of fighting the war” (Cooter & Sturdy, 1998, p. 11). This mass mobilization, coupled to “increasingly interventionist state machinery” (p. 11) in the nations at war, helped create medical practices and administrations which for the first time spanned the civilian-military/state divide. However, the question as to what effect this coupling of medicine to the war machine had on the “dehumanization of medicine, not just among the demonized losers, but also among the victorious, whose wartime activities have largely been obscured behind a veil of moral rectitude” (Cooter & Sturdy, 1998, p. 7) remains unanswered by almost all medical historians.

Medical professionals were more than simply experts to be turned to in order to perfect ‘innovations in military *materiel* and technique.’ They [physiologists in particular] represented a unique [up to that point in history] “ability to liaise between and help coordinate the work of different sections of the

government machine, including both military and civilian branches of the state” (Cooter & Sturdy, 1998, p. 12). This ability found its roots in the “rational analysis and management of natural phenomena, and the forms of social organization needed to sustain such procedures” that were already prevalent in experimental physiology (Sturdy, 1998). One of the results of this recruitment of medical professionals for organization of the nation’s resources in the production of total war was the emergence of new medical specializations (cardiology), which were meant to manage growing manpower problems from particular ailments amongst soldiers (‘Soldier’s Heart’) that were a result of the conditions and environment created by this mass mobilization (Howell, 1998). This saw one of the first reorganizations of disease along rational scientific lines, namely heart disease was redefined into new functional accounts and definitions that were based upon cardiac processes within living bodies, as opposed to anatomical defects, which lent itself much more effectively to the management of those bodies and their long term rehabilitation. These specializations, while appearing at first to be necessary merely by the labour problems and administrative innovations of war and therefore of limited long-term viability, began to solidify themselves as part of the new medical administrative model that emerged in post-war periods to meet the needs of disabled soldiers, now pensioners of the state.

However, this organization of medicine and the functionary role taken on by doctors was not without discord. Doctors found themselves forced into the management of ‘malingerers’ – soldiers that were exaggerating or feigning illness in order to be relieved of duty. This represented the first large scale use of

medicine as a disciplinary tool by the state to control its mobilized citizens. Many doctors, especially the front-line general practitioners found themselves in a direct conflict with their Hippocratic Oath, for they were being instructed by the organization of their profession to abandon their trust in their patient and his pain (a traditional role of doctor), and rather to adopt the role of detective actively trying to disprove that pain (a functionary role of the state). Many doctors resisted this new role of disciplinarian, for they began to understand that the intrusiveness of the state into their practice while in service of the military would very likely extend into their practice in civilian life (Cooter, 1998).

Structural Functionalism in Medicine

The period extending from World War One to post World War Two represented a unique coalescence of state interests and the interests of the medical profession. The large-scale reorganization of medicine was justified by the immediate needs of the state, and in turn, the machinery of the state allowed for a relatively smooth adoption of the foundations of the Flexner report with little to no noticeable outcry. The resistance of doctors to their new disciplinary role as functionaries of the state during wartime was deproblematized by Public Health and Healthcare initiatives announced by the state and implemented by the medical profession. The role and definition of doctors shifted with these initiatives, for they became the deliverers of a public good, to which they could hardly resist without forsaking their very identity as doctors! In the 1950's and early 1960's, Talcott Parsons began the process of trying to explain this 'new' organization of the medical profession within the larger reorganization of society

that had taken place with the industrialization of the economy. His ideas from *The Social System* (1951) were formalized as structural functionalism in medical sociology. This was an important development, for Parsons began the process of exploring the roles of those involved in medicine, from the patient to doctor to administrator. He made a distinction between the traditional “private practitioner” (p. 435) and the new reality that

...an increasing proportion of medical practice is now taking place in the context of organization...[which was] necessitated by the technological development of medicine itself...[and] greatly alters the relation of the physician to the rest of the instrumental complex. He tends to be relieved of much responsibility and hence necessarily of freedom, in relation to his patients other than in his technical role (p. 436)...

as service provider or gatekeeper. This reformulation of the role of physician as defined and constrained to the organization of the medical profession as system, was not limited to the physician but extended to the patient in their *sick role* when within the organization (pp. 436-439).

A Response to Parsons: The Medicalisation Critique

The *medicalisation critique* emerged in the 1960s and 1970s, as a response to “Parsonian structural functionalism that dominated medical sociology...and was viewed by its critics as being overly politically conservative and supportive of medical authority” (Lupton, 1997, p. 95). There were those that likened medicine to the traditional role of social regulator performed by the law or religion. At the heart of this critique was the notion that no person should have their autonomy constrained by “more powerful others” (p. 96). This powerful other, in the form of the authoritative group (in this case the medical profession),

by virtue of its ability to 'medicalise' is able to determine how others should behave. Drawing on liberal humanist ideals, the medicalisation critique represented the first concerted effort of recognition and perhaps a return to the humanist roots of medicine.

Ivan Illich established himself as one of the most vocal proponents of the medicalisation critique. His discussion of the medicalisation of pain is a clear attempt to reintroduce the ideals of humanism, to give attention to the social context of ailment and treatment originally willed away by the Flexner report [point 4: emphasis on *efficiency and standardization* (Mishler et al., p. 227), with relative inattention to the social context of treatment). Modern medicine's medicalisation "transforms the experience of pain...[it] tends to turn pain into a technical matter and thereby deprives suffering of its inherent personal meaning" (Illich, 1976, p. 133). The performative act of *suffering*, which in a traditional sense was seen as a natural and neutral part of human life and an ordeal to be traversed with the aid and guidance of a healer, is suddenly detached and deemed irrelevant or unnecessary. No longer is pain and suffering contextualized as being a part of something more than the physical body-system and therefore in need of understanding. Rather pain is seen as being a *result* of some type of defect in the body-system and therefore in need of control. This need for control of pain is far reaching, for pain and defect of body-system become synonymous.

The example of child birth can be viewed in this light, for the pain and suffering a mother traditionally encounters during child birth, beyond its biblical

understanding as retribution for original sin (Horrobin, 1977, p. 72), can be recognized “as an intrinsic, intimate, and incommunicable ‘disvalue’” (Illich, 1976, p. 137) which signifies the woman’s progression into motherhood and the deep and lifelong connection she will share with the child. The medicalisation of pain, in this example the cottage medical industry of the *pain-free* childbirth through the usage of drugs and/or elective Caesarean section, represents just this shift in meaning from suffering as a natural performative function to that of something to be controlled and removed from the experience.

Medicine re-framed: Foucault and resistance by the docile body

The orthodox medicalisation critique represents an extremely negative view of western medicine. This difficulty is evident with the dichotomies it presents: medicine as disabling instead of enabling people’s health status; doctors more interested in reinforcing their own power over patients rather than wishing to help them; patients as passive and disempowered due to the crushing of their agency by the medical profession (Lupton, 1997). These constructed dichotomies leave very little in the way of alternatives, for the patient, rather than being the beneficiary of medical care always becomes a victim of this uneven exchange. Perhaps as a response to the medicalisation critique, the theories of *power* and *body* by Foucault (called the ‘Foucauldian perspective’ by Lupton) found a place in the critique of the medical system.

Drawing once more on Illich’s example of pain being classified a disease by social judgments made by those in authority in the medical profession, a Foucauldian perspective goes “somewhat further in contending that there is no

such thing as an 'authentic' human body [or pain] that exists outside medical discourse and practice. Rather, the body and its various parts are understood as constructed through discourses and practices, through the *clinical gaze* exerted by medical practitioners" (Lupton, 1997, p. 99). The object of this *clinical gaze* is the 'docile body.' This is a profound statement when considering the doctor-patient relationship, for the 'docile body' as patient may or may not be a reality. In fact, the supposed uni-directional dominance of the exertion of the discourse of *clinical gaze* by doctor in this relationship can in fact be resisted by the patient should they chose – simply by control of the context of the interaction or not fitting the expected norms of the discourse. Fisher writes, "...from a Foucauldian perspective, medical dominance is an inappropriate term and it is neither possible nor desirable to specify who is subjecting or dominating whom" (as cited in Lupton, 2003, p. 120).

Lupton, referring to her own empirical study indicates that the patient is actually not docile in the least, for the possibility of resistance to the exertion of the *clinical gaze* is always present:

The medical encounter involves a continual negotiation of power that is contingent upon the context in which the patient interacts with the doctor. Such factors as the type of medical complaint, the age, ethnicity and gender of the patient and doctor, emotional dimensions and the patient's accumulated embodied experiences all shaped the encounter in diverse ways. In their interviews, patients said that at times they sought to dominate their doctor, to adopt explicitly consumerist positions, sometimes directly expressing hostility and anger" (Lupton, 1997, p. 104).

This seems to indicate a possibility, on the part of the patient to move away from being acted upon by the doctor, toward a more empowered consumerist position

in the exchange. The implications on the doctor-patient relationship seem clear, for where the *clinical gaze* may have been formulated upon well defined criteria in the past, this active negotiation between the patient and doctor, seems to allude to the need for a flexibility on the part of the doctor to address the consumerist needs (which are informed by their humanist needs) of the patient! How is this to be done? Perhaps more importantly, what are the repercussions when a doctor is unable to be flexible?

One final point is in need of address, for neither “the orthodox medicalisation critique nor the Foucauldian perspective has adequately taken account of the mutual dependencies and the emotional and psychodynamic dimensions of the medical encounter, preferring to rely upon a notion of the rational actor” (Lupton, 1997, p. 108). However, the emotional and psychodynamic dimensions of the encounter cannot be rationalized with any degree of certainty, so the need arises to understand the motivations of the irrational actor. Realistically, this may not be possible in a direct fashion, but might rather take the form of a doctor exploring their own self and motivations. In his later works, Foucault undertook such a project, the exploration of self, “to identify ‘subjugated knowledges’, or those knowledges that tend to be buried and disguised beneath more dominant, often more ‘scientific’ or ‘expert’ knowledges” (Lupton, 1997, p. 104). This process of exploring their ‘subjugated knowledges’ and humanist motivations which inform actions (rational or irrational), might allow doctors the increased flexibility they need during the doctor-patient relationship to

account for the patient's motivations and in order to refocus the *clinical gaze* accordingly.

Limitations of the traditional Doctor-Patient Relationship

At the heart of the doctor-patient relationship lays an unspoken assumption: the doctor is confident in her/his decisions. However, study after study pertaining to the training doctors go through have shown that the period of indoctrination and socialization into the medical profession is one of uncertainty and self doubt (Shaw, Wedding, Zeldow & Diehl, 2001; Stein, 1990; Kearney, 2000). So what happens when these medical students become medical professionals? Does the uncertainty and self-doubt simply fade away thanks to their medical diploma and enable these new doctors to enter into the doctor-patient relationships with the needed flexibility to meet the challenges of this new consumerist minded patient?

Socialization into Medicine

Upon entrance into medical school, a conversion "from layperson to a medical professional" (Stein, 1990, p. 180) commences. However, there is more taking place than the simply acquisition of knowledge and technical techniques. During this process of socialization into the medical field, a medical student's "view of oneself and of the world is restructured...one learns ways *not* to be, think, and feel and how to replace these with prescribed ways of being, thinking, and feeling commensurate with the clinical role and status one eventually hopes to assume" (Stein, 1990, pp. 180-181). From almost the beginning of their

training, medical students are taught to stop thinking as they normally would and adopt the prescribed expectations of how a doctor should think. This is usually their first indoctrination into the discourses of medicine, and begins them on their way to adopting the clinical gaze.

However, the uncertainty and self-doubt in their own abilities is ever present, for “many instructors begin the first day of medical school warning the auditorium filled with...students that there will be a prodigious amount to know, that they must know it all, that they cannot possibly know it all” (Stein, 1990, p. 184). This is doubly concerting when coupled with the expectation by patients, society and themselves that they be autonomous, decisive doctors. However, the true nature of the learning environment and eventual practice is one of working within an organization, as a member of a team. “The more the corporate team player becomes a reality in medicine, the more tenaciously many physicians (and other health practitioners) adhere to the image of the practitioner as Lone Ranger – either as an ideal or as an object of nostalgia” (Stein, 1990, p. 184).

Conflicts with the idealized notion of doctor

For many medical students, their “genuine desire to help others” (Shaw, Wedding, Zeldow & Diehl, 2001) is partially influenced by that idealized Lone Ranger like physician-healer. This idealized healer however, may or may not truly exist (or ever have existed in the era of techno-medicine), as media depictions of the ‘doctor’ from popular culture, like ‘Dr. Kildare,’ ‘Ben Casey, M.D.,’ and ‘Quincy’ all represent the ideal of a doctor that is able to mediate the

techno-medicine realities of the profession, all the while being accessible and connected with his patients (Turow, 1989; Lupton, 2003). A 1975 study by McLaughlin (as cited in Gerbner, Gross, Morgan & Signorielli, 1981), indicated that the doctor “found [on] television ‘symbolize power, authority, and knowledge and possess the almost uncanny ability to dominate and control the lives of others’...the work of the television doctor is one of personal and almost mystical power over not only the physical but also the emotional life of the patient. ‘If he just followed the rules,...or left private matters to the patients themselves, or did not risk life, limb, love, or money, things would not work out’” (p. 902).

Reconciling this idealized identity, with the realities of medical training, and the eventual needs of patients, can be difficult. For though the notion of practitioner as Lone Ranger is appealing, medical students “spend most of their training practicing for docility” (Stein, 1990, p. 184) and conformity as expected by their training and profession.

A New Approach toward the Doctor-Patient Relationship

The realities of medical organization and the conformity expected by the profession, can lead to inflexibility as medical students gain the ideas and techniques that inform their discourse. By working through and thereby working out the anxieties created by the dichotomy of the idealized autonomous healer and conformist student-professional, perhaps a more flexible doctor is enabled, one able to approach the doctor-patient relationship with more confidence in their own role. This might make the doctor more receptive to and able to cope with instances that do not conform to traditional medical discourses. The *clinical gaze*

is therefore allowed a new degree of flexibility and creativity, for the doctor becomes much more comfortable with the individuality of patients through an increased comfort in their own. Seeking this comfort with individuality and *self*, a humanist ideal, has taken the form of medical students exploring their own *self* through active reflection. What follows is a short overview of the development of current reflection methodology in medical education and practice.

The Reflective Practitioner in Medicine

The value placed upon reflection in thinking and learning is accepted as being an important part of professional training (Strauss, Mofidi, Sandler, Williamson, McMurtry & Carl, 2003) and professional practice (Schön, 1983). The contemporary definition of reflective thinking refers to “assessing the grounds of one’s beliefs” (Dewey, 1933, p. 9). Put another way, assessing the justifications of the assumptions through which one comes to believe a particular piece of information – how one justifies their beliefs. This process of learning is comprised of the “intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciation” (Boud, Keogh, & Walker, 1985, p. 3). This most often takes the form of recording an experience and then revisiting it to better understand the underlying beliefs that led the individual to see the experience in a particular way.

As Boud, Keogh and Walker (1985) indicate, the process of reflection has two distinct parts, intellectual (cognitive-rational) and affective (emotional-irrational). The irrational component is especially important, for during the reflective process an individual’s feelings and perceptions serve to influence the

experience – *affective reflectivity* (Mezirow, 1990) and create either flexibility toward the situation, or cause an inflexibility that can effect decision making and interaction. In being able to identify and work with their irrational motivations, a medical student is able to gain a more confident understanding of their *self*, and how that *self* interacts with others. In the doctor-patient relationship, this humanist approach to understanding the *self* can inform the *clinical gaze* as it attempts to understand the patient-other.

Conclusion: Writing and Possibility

There are several methods for promoting reflection into the humanist *self* amongst students in professional training. However, journal writing has come to be one of the primary exercises students undertake in many curricula, for it enables students the chance to externalize their experiences in a written format (Stickel & Trimmer, 1994), analyze these experiences in reference to the current discussions (Andrusyszyn & Davie, 1997), and explore their own irrational motivations and how they influence their *self*.

Personal Web-publishing applications, in particular the Weblog (blog), have emerged in recent years as a platform upon which reflective journaling can take place (Stiler & Philleo, 2003; Wagner, 2003; Williams & Jacobs, 2004). The traditional Weblog takes the form of a reverse chronological web page, where individual postings written by the user are time stamped and archived, and then be commented upon by readers. This looks very much like the traditional reflective journal. However, the interconnectivity of Weblogs, both into themselves and previous writing, and to other's external ideas and comments,

offers a unique situation in which a medical student can begin to explore their *self* in constant interaction with their own ideas and those ideas of others. The notion that this virtual world is detached and different from the real becomes irrelevant by the express purpose of exploring the humanist ideas that constitute and inform the *self* through the medium of writing. These ideas, usually subjugated to a secondary or subconscious level, become real in the process and existence of the writing. Once real, they allow the opportunity for interaction through their relationship with other ideas. This process can help the medical students gain the confidence and flexibility they need in their own *self* and ideas, as they move into the doctor-patient relationship.

As Foucault wrote in his later writings, an ever active and empowered patient is changing the traditional relational interactions of the doctor-patient encounter. The actors involved at the heart of this relationship, are both rational and irrational. Understanding the two irrational, humanistic actors is therefore the goal of reflective journaling in medical education. The patient, as an irrational actor, becomes accessible with the greater understanding of the doctor to his or her own irrational *self*. Through the interconnective possibilities enabled by Weblogs, a medical student becomes more reactive and flexible with their ideas and the discourses-*clinical gaze* they enable.

My Development and Its Implications

As I have mentioned, this chapter was originally written for a seminar in the School of Communications at Simon Fraser University. What I discovered through the writing of this chapter was my need to rethink some of the underlying

questions in education and technology. Namely, the primary question should not be what are we doing with the technology in our classrooms, but why is said technology there in the first place? By being able to understand this historical context of how technology and its promises have been allowed to organize education, I came to believe that trying to understand individual classroom usages would in turn become easier.

The discussions undertaken in the chapter are continued into the next two. In chapter 6, I discuss a research study I designed which seeks to explore the motivations for reflexive curricula in medicine, by analyzing the memories and training, of the very educators trying to implement the innovations, through the medical education system they are now trying to change. In chapter 7, I again engage the concept of the ideal versus realized notions of self, this time looking to my own experiences at Simon Fraser University.

CHAPTER 6: AN EDUCATIONAL INNOVATION AS A RESPONSE TO A RATIONALISTIC ORIENTATED STRUCTURE – THE HUMANIST (RE-)TURN IN MEDICAL EDUCATION

This chapter emerged at the completion of my MA course work in the summer of 2006 and it presents an overview of a research project that I had hoped to commence. It therefore includes elements typically found in such a proposal: Introduction, research paradigm, and research methodology. It is important to mention at the onset, though, that at the time of writing this chapter, my definition of education technology had evolved from simple tools such as mobile phones, computers and the internet in the classroom, to a much fuller appreciation of the relationship between education **and** technology, most notably my observation that education was more often than not, organized along what the technology could and could not allow for.

Introduction to a Proposed Research Project

At the heart of innovations in education lies a very simple premise: the *response*. When educators attempt to try something new and innovative in their classrooms, they sometimes find that they need to justify their decision-making and underlying assumptions quite vigorously – just for a chance to implement their new idea! All too often, these innovations are seen as novel, unique and distinctive attempts to reorder the established curricula at a particular academic

institution. However, the underlying decisions to try something new, and the assumptions upon which this is founded can be seen as a *response* to some type of shortcoming the educator has perceived in their own practice or overall profession. In 1983, Donald Schön wrote in one of his seminal pieces, *The Reflective Practitioner: How Professionals Think in Action*, that the need was emerging for reflection by professionals in order to cope with and *respond* to the new realities of learning environments and workplaces which were increasingly rationalistic and technologically orientated (1983, pp.326-332). The idea of teaching students how to reflect (Boud, Keogh, Walker, 1985; Dewey, 1933; Jung, 1983; Kearney, 2000; Mezirow, 1990; Novack, Epstein, Paulsen, 1999; Rogers, 1981; and Schön, 1983, 1987) has since been adopted by many educators, and has seen itself manifested in many instances of professional education, medical education being one example which will be the focus of this proposal. However, one of the difficulties faced by these innovative medical educators in their attempts to implement these reflection-oriented teaching methods, is the need to convince not only students of their utility, but also fellow medical educators and administrators who may not perceive the same shortcomings in the nature of their collective teaching and practice.

In the realm of medical education and practice, there appears to be a need to share with medical educators, practitioners, administrators and students, how an innovation such as reflection-oriented teaching methods (i.e. reflective journaling) are *responding* to the limitations of the rationalistic technology orientated medical profession.

At first, this may seem an odd match for a research thesis in Education and Technology, for the orientation of the program at SFU Education seems to be one that explores the nature of technological innovation to meet the needs of educational practice. This particular view, while warranting the intense study it now receives, seems to neglect the dialectical relationship between education and technology. To argue that technology *responds* to the needs of education, but that education ***does not respond*** to the new realities of an increasingly rationalistic and technological world is extremely short-sighted. There is a need, more present than ever, to explore the educational response to the technologies that now embed almost all parts of society. The goal of this exploration is one of increased understanding, to focus attention on the new realities of our technological world, and thereby justify the reasons for educational innovation such as reflection-oriented teaching methods.

Critical Theory has taken up the exploration of how society has responded to this new rationalistic and technological world in the works of Karl Marx, Max Weber, The Frankfurt School, Jurgen Habermas, Jacques Derrida, Roland Barthes, Michel Foucault and Andrew Feenberg (Feenberg, 1995, 1999, 2002; Honneth, 1991). Education, as an institution within this rationalistic and technological world, is not exempt from the pressures and changes exerted by these new world realities. Take for example the wide-scale usage of province/state/national/international-wide standardized examinations in particular courses and grade levels, which have the effect of standardizing, or rather rationalizing curricula across a whole society, which is possible due to the use of

technology-enabled marking systems. The opportunity therefore arises, through the usage of applied critical theory in the form of Critical Discourse Analysis [CDA] (Fairclough, 1995; Fairclough & Wodak, 1997; Gee, 1999, 2004; Jager, 2002, Meyer, 2002; Parker, 2004; Rogers, 2004; Wodak, 2002), to explore how a particular educational innovation is not just *responding* to a perceived local shortcoming in a particular curriculum, but rather is *responding* to a shortcoming in the overall rationalistic technology-oriented organization of education as it exists in society.

The goal of this thesis is therefore to explore how a medical education innovation, in particular reflective journaling, is formalized and legitimated by innovative educators as a *response* to 1) their local, 2) their institutional, and 3) the organizational structures of medical practice and experience. The hope for this research is that future medical educators, administrators, practitioners and students will be able to apply its findings in order to better engage with and justify their own turn toward reflective journaling and other reflection-oriented teaching/learning methods. This will be undertaken by exploring the process of three medical educators involved in the implementation of reflective journaling at their institution(s) (medical schools). Through a CDA method of inquiry which examines their individual experience as being a result of and *response* to 1) their local, 2) their institutional, and 3) the organizational structures of medical practice and experience, it is hoped that this greater insight will not only become clear, but will allow for a general social theory which situates the innovative educational action as emerging from and a response to an existing social structure.

Research Paradigm

The issue of the goal of this research is paramount when attempting to situate the exploration topic and method in a proper context. The reason I say this is that if the educational innovation is of most importance, there would be a need to situate this research in the realm of a naturalistic exploration of a particular phenomena (reflective journaling implementation) as being the result of *or* response to its environment. However, if the nature of the environment is of most importance, or rather the structure of the environment is of most importance, the research is situated firmly in the realm of exploring social structuralism and the phenomena is seen as a result of *and* a response to this structuralist environment. In order for a CDA method to be utilized to its fullest, and following its traditional Critical Theory foundations, the phenomena must be seen as a result of and response to its environment. As the goal of the research is to situate the phenomena of reflective journaling implementation within its greater context, there is a need to adopt a hierarchy which sees a structuralist social world as the overarching frame for exploration, with the phenomena located at the other extreme as an exemplary action which adheres to and resists this structuralist system (Fairclough, 1995; Fairclough & Wodak, 1997; Jager, 2002, Meyer, 2002; Rogers, 2004; Wodak, 2002). Therefore, in order to understand the phenomena of reflective journaling implementation, a phenomenological approach is needed to understand how the need for reflective journaling came to be of importance to the three medical educators. The texts of these interviews will then be analyzed using a hermeneutic approach that seeks to understand the power relations and meaning relations of the medical

educators' experiences and decisions. These experiences and decisions are not to be thought of as independent and individualistic, but rather an integrated part of medical practice and education.

A literature review, focusing on the development of medical practice and education, in particular during the 20th Century and its current techno-medicine phase (Pickstone, 2000) will prove extremely useful for this hermeneutic analysis. Furthermore, the literature review will highlight three distinct periods within the techno-medicine phase: 1) the professionalization and specialization of medicine [~1890 to ~1950] (Cooter, 1998; Howell, 1998; Mishler, Osherson, AmaraSingham, Hauser, Waxler & Liem, 1981; Sturdy, 1998) 2) the emergence of a structural functionalism in medicine and its discourses [~1950 to the early 1970s] (Parsons, 1951); and 3) the medicalisation critique (Horrobin, 1977; Illich, 1976) and the 'Foucauldian Perspective' on medical discourse [~mid 1970s to present] (Foucault, 1967, 1975, 1977, 1980, 1986, 1988; Lupton, 1997, 2003). It is during this third period within the techno-medicine phase that calls are made for a humanist (re-)turn in medicine (Kearney, 1990; Jung, 1983; Novak, Epstein & Paulsen, 1999; Rogers, 1981; Stein, 1990); while in education calls for the teaching of reflection became prevalent (Boud, Keogh, Walker, 1985; Mezirow, 1990; Schön, 1983, 1987).

One final point is necessary in the discussion of this paradigm, namely, the role of the researcher undertaking the study. In the existing CDA scholarship, "CDA scholars play an advocatory role for groups who suffer from social discrimination" (Meyer, 2002, p. 15), this can at first seem problematic

when weighing the need for objectivity on the part of the researcher and the inherent problems to validity that arises when the researcher is not neutral. However, the reflexivity of the researcher is used as a way to respond to these problems to objectivity and validity, for the researcher must always understand and be able to explain how they approached the data within the discourse under study. This becomes evident in the final write ups/reports/papers found within CDA scholarship, for rather than presenting distilled concepts and themes, the original textual discourse (data) is directly engaged within the writing so a reader is able to follow the construction of an argument and/or build their own conclusions.

Research Method

There are multiple possibilities, or rather existing methods of applying CDA that can be employed for this study. However, three particular authors are noteworthy in this study as they align themselves most neatly to the goal of understanding the phenomena of reflective journaling in its structuralist context, and all build upon the theories of society and power in the tradition of Michel Foucault. First, Siegfried Jager (2002) has suggested a type of CDA that works to build a general or grand theory to explain a system and the phenomena found within it. Second, Norman Fairclough (2002) has developed what is known as a 'mid-range' theory to explain not the entire system, but rather the specific sub-systems of a society. Third, Ruth Wodak (2002), drawing upon the linguistic history of discourse analysis (Critical Linguistics) has developed an approach which seeks to understand a context along its mainly historical development and

how that history is embodied in the discourse (language, actions, and thinking) of a particular context. To align myself with any one author (and his/her methodology) at this time would be premature however, for without a complete and concise literature review which will influence the focus of inquiry in the interviews with the three medical educators and the subsequent analysis, adopting a particular CDA methodology could prove problematic in that it might constrict the possibilities of inquiry.

However, a general discussion of the overall structure the method will follow may help to identify points that are in need of further exploration. As already mentioned, the literature review, focusing on the history and development of medical practice and education (discourse), the emergence of the humanist-need in medicine, and the emergence of reflective journaling in education and practice, will guide the data collection and analysis. Three medical educators, all who have had experience implementing reflective journaling, will be interviewed as part of three concurrent case studies. I envision the interviews as a way of exploring the decisions each educator made concerning implementation of journaling, based firmly in their experiences during practice or their own learning at a particular time. A biographical-episodic interview would work best to achieve this goal, for I could explore four distinct moments in their medical education and practice: 1) the decision to enter medical school; 2) the most disheartening moment during their education/training; 3) their first patient encounter when in practice or their first *difficult* patient encounter when in practice; and 4) their motivations for exploring reflective journaling as a

teaching method. Each of these four distinct moments represents a culmination of experiences that took place previously in a particular discourse, as well as a particular action which was a result of and a response to that discourse. The transcribed interviews would form the foundation for the analysis, which would be ongoing from the time of the initial interview in the form of field notes, observations and reflections. This information would be organized in a Web Log that would be maintained throughout the research study.

The initial analysis of the transcripts would take the form of reading and re-reading the whole transcript or sections there of, all the while making note of any relationships (causal, sequential, logical, etc.) which emerge. After some time, a small group of peers familiar with the literature review and the CDA method will be convened to review sections of the transcripts as a form of reliability checking. Once any unexpected or new insights are reconciled, I will arrange a second meeting with the interviewee and present sections of their transcript in an attempt to illicit their own opinions, and then review my own observations. This is a secondary reliability check, for the medical educator interviewees will be able to 1) offer a perspective firmly situated in the discourse under study, 2) highlight the different stance I have taken toward the transcript due to my grounding in the literature review, 3) focus my attention on any points of disconnection between myself and the interviewees in regard to the common transcript, and thereby provide the final focus for subsequent analysis – an exploration of these points of disconnection.

After this subsequent analysis has taken place, and before the final sections of the thesis are written, there will be one last interaction with the medical educator interviewees. After synthesizing my final discussion, I will present my literature review and transcript analysis, in written format, to the interviewees. This synthesis will include, at the very end, the 'general social theory which situates the innovative educational action as emerging from and a response to an existing social structure' which was synthesized from the analysis. The interviewees will be asked to respond to this general theory in written format, approximately 250-500 words in length. The analysis of these written responses will form the concluding sections of the thesis, and may serve as the final validity check in that they will agree, disagree, or indicate the shortcomings of the current general theory and provide the direction for subsequent work in this field.

My Development and Its Implications

Once again, this chapter was a *proposed* research project. Its completion is not to be found in this thesis. While this chapter does build upon some of the discussion from chapter 5, I realized that by its conclusion, much of my interest in the relationship between education and technology had shifted. While the underlying motivations of educational innovators was still of interest to me, I began to wonder how that motivation was informed. In particular, how did the conflict which emerged via the idealized versus realized self of these educators inform their motivation to innovate? Further, I began to wonder if this conflict was the same from the perspective of a student, and what some of the influences

upon this conflict could be? Therefore, in the next chapter, I present the beginnings of my exploration of the influences of architecture and the acts of authority (as a type of technology) over the actions of students, and the student's construction of the idealized and realized self.

CHAPTER 7: BOUNDED ADVOCACY – INSTITUTIONAL ACTS AND THE LIMITS TO HUMAN/STUDENT AGENCY

This chapter, first written for presentation at the 2008 Canadian Philosophy of Education Society meetings held in Vancouver, BC, is perhaps the most cogent example of where my research interests are currently going. Having redefined my personal definition of technology as it relates to education over the previous chapters, I broaden the term technology to include techniques employed by authority for the purposes of control within a particular system or context. However, this is not all together successful, as my use of language interchangeably, technology versus techniques, is problematic at times and highlights my own continuing difficulties with these concepts, though this does offer a direction for future work in this area.

In fact, this chapter represents an ongoing reclamation project: the project being the author and the reclamation an attempt to reconcile the sense of powerlessness and despair that fills the author when he walks through the halls, walkways and open spaces of Simon Fraser University. This might be a good time to note that SFU has a reputation for two things: 1) a place where hippies go to teach and learn – the aptly marketable slogan of *Berkeley North* comes to mind; and 2) due to its location on the top of a rain soaked mountain and constructed with the drab colours of concrete, where hippy students happen to commit suicide. To allay what I believe might be the audience's uneasiness with

my personal identification as the project under discussion, and my last reference to SFU's unfortunate moniker as the suicide capital of Canadian academies, I ask you not to worry about my well being, for though what I am about to impart to you is heartfelt, it is not necessarily a point of existential angst.

Before commencing my studies at SFU, I will admit that these two points, hippies and suicide, were the only knowledge I had of the university, and hence my first years on campus were coloured by these apparent truths. As I took in this monolithic concrete campus, I was overwhelmed by a sense that it was a relic from days gone by, when students and faculty had been at the vanguard of the social movements which in the 1960s swept through Western nations. But these days were long gone, replaced by a new generation of students who saw their education and degrees as items which they could barter in exchange for employment, stability and the status quo of a condo and a SUV. Needless to say, as I walked the halls of the university as a newly admitted Masters of Education student, I saw this dichotomy all around me, and the romanticized notions of the university as a focal point for resistance to the injustices of the day were buried as classes, papers and deadlines quickly took hold as the only reality I could fathom.

But being buried did not necessarily mean these notions were dead. Quite the opposite in fact, for what I discovered in mid 2006 was that my romanticized notions of the university had in fact become the subconscious counter-narrative to my studies in education and my ever growing disillusionment with the current state of the university. I began to act out – and I found my

emotional outlet in the form of a movement to oust the leadership of SFU's student society, which had become increasingly authoritarian and unresponsive to concerns raised by the membership. This may not have been as noble as the civil rights movements of old, or even the recent fight to keep tuition fees down, but in my mind and that of those around me, this fight was of utmost importance and took over much of our time and lives.

We lived and breathed this movement, and it climaxed on a cold, rainy day in late October 2006 in the central Mall of SFU, the same space as occupied by thousands of concerned students in the past, supporting the movements which transformed them from students to activists. However, my sense of euphoria and accomplishment at the conclusion of this particular movement was not only short lived, but perhaps more telling, nearly non-existent. I began to ask aloud if our little movement had truly represented resistance to authoritative power. Even more troubling was a sense that the physical space of resistance, the central Mall of SFU, while historically having been the site of resistance to the university administration and its external interests as manifest by the corporate Board of Governors, somehow did not allow for these same forms of organization, dialogue and resistance. Something had changed during the course of SFU's history, which to my mind, stripped the sense of empowerment [and fight] the central Mall had provided to students, and instead replaced it with complacency and a sense that resistance should act out within the set rules as much as possible.

These thoughts plagued me for quite some time, and I began to wonder of the relationship between the spaces in which we as social, agent actors reside, and the influences upon our actions within these said spaces – by these very spaces. Returning to my opening assertion that this chapter is part of an ongoing reclamation project, and having now described to you the context within which I am writing, please indulge me for a bit longer, as I endeavour to share how I have come to reconcile student agency within the bounds of university space.

A broad strokes history of SFU

Originally conceived as a four year college meant to relieve the pressures of increased enrolments at the University of British Columbia (MacDonald, 1962), the commissioning and building of SFU, the “Instant University” (Stainsby, 1964) was an extraordinary process which culminated in its opening in September 1965, a mere 18 months after the start of construction. The driving force behind the university, the first Chancellor of SFU, Gordon Shrum, the “committee of one” as Shrum termed his own leadership (Shrum, 1986, p. 342) since for the first 2 months of his appointment he was the only member of the Board of Governors, was marked by his intense drive and work ethic, but also by his overbearing nature and his arbitrary usage of authority to force his designs for SFU to the forefront of any discussion.

This top-down approach as embodied first by Shrum, then the eventually appointed Board of Governors, and finally the administration, would serve the university well in its early years of construction and commissioning, particularly in terms of expediting such an ambitious project. However, it would also ultimately

set the stage for the clashes to come with students and faculty that defined SFU in the late 1960s, many of whom drawn to SFU by the lure of innovation and a desire to participate in the creation of something new. This was immediately expressed in the architecture of campus, but also in the curricular decisions being made – the trimester academic year, the elective-oriented degree programs, etc. As students and faculty began the process of finding their own place and defining their own expectations for the university, they invariably encountered an administration, previously unencumbered by the presence of (and therefore unresponsive to) students and faculty, with its own set of desires and expectations for *their* new university.

The student movements that sprung to life in the early years of Simon Fraser University should not be viewed in isolation. Where one may (and many have) argue that the architectural concept conceived by Arthur Erickson and George Massey for this new university perched atop Burnaby mountain allowed for the radicalization of the campus in the years following its opening (Johnston, 2005; Rossi, 2003; Camley, 1999), it would be naïve to believe that architecture alone promoted this new sense of student and faculty empowerment at SFU. However, it can be said that the unique and innovative architecture did promote something relatively new on a Canadian University campus: a sense in all the students that they belonged to the same institution thanks in part to the shared spaces in which they all resided (Rogatnick, 1968, p 264). Perhaps the most striking physical representation of these shared spaces, is the central Mall complex of SFU, the large plaza-like centre of the university, which was

described by Erickson and Massey in their original design competition submission as

...the campus heart – “The Mall” flanked by the library and the bookstore on one side, the auditorium, playhouse, exhibition area, cafeteria on the other side. The Mall, furnished with notice boards, speaker’s lectern, benches, etc. is open to the air but covered as a “gallaria” with a weather fast translucent roof. This is the meeting place of the university, the point of arrival from the bus stop, the place for rallies, and in spring and fall, the termination of the convocation procession from the Academic Quad (1963, p. 2).

While originally envisioned by the architects and the university administration as potentially being a “meeting place of the university”, it was seen foremost as transitory in nature as students made their way from the bus loop/dormitories/student society to the library and then classes. The arrival of students and faculty quickly saw it transformed into a space for discussion, the airing of grievances, and the organization of students and faculty for collective action. The SFU Student Yearbook in 1967 described the Mall as

...the heart of the University Campus...Conceived by architects Erickson and Massey, the Mall is a living example of the ancient Greek and Roman forums. Here formal learning is represented by the Library and teaching areas of the Academic Quadrangle blend with fresh new experiences in learning in the creative centers to the South and West. Here in the Mall, hallowed tradition has been attacked and defended. Here, new ideas have been spawned, and old ideas have died violent deaths. Many times the Mall has been a stage for both unity and conflict. On September 9, it was the stage for the opening ceremonies. Since then it has been the setting for numerous heated debates such as the fee issue and Viet Nam debates. It has been the scene for science and art pranks and electoral stunts...During the Summer semester it is the scene of dancing, folk singing and studying. From the loud soap box debates to the quiet discussions on the elegant flowing steps, new ideas have radiated through the axis of the Mall out to the fringes of the academic community, molding and shaping the destiny of a university (p. 134).

As Hugh Johnston writes in *Radical Campus: Making Simon Fraser University*, “the presence of an activist [student] minority [w]as refreshing...Now that students would speak up for themselves, a dialogue was at last possible” between students, faculty and administration, which was an idea that became a common refrain in Canada in 1966 (2005, p. 127). However, in its first year of operation, SFU’s student body was notably lacking in its concern “about the social issues and the great debates of the day” (p. 129). This would begin to change, though, at the end of the first academic year (summer – fall 1966), when the student body of SFU was first galvanized by the proposal of the Board of Governors to allow construction of a Shell service station on campus. While the Board considered this a matter of the overall governance of the university, and therefore strictly their domain, students began to question why they had neither voice nor representation in that governance, and hence such decisions that affected the space of the university. Multiple student protests took place against the building of the service station during this period, both in the Mall as well as at the site of the planned station. This forced the Board and Shell to promise to address student concerns about the service station.

The emergence of student leaders and an ever growing network of socially concerned and active students arguing for the democratization of the university during this period (with *The Peak*, the student run newspaper, ensuring that their perspective was known to the greater student body) began an era in SFU’s history which saw students become more vocal, more confrontational, and thereby more radical in regard to their demands for their vision of the university

(Johnston, 2005; Rossi, 2003). However, it was not until early 1967 that the student leaders and activists fully realized their ability to sway the decision-making authority of the Board and administration through their mass organization and mobilization of fellow students. In mid-March of that year, five Teaching Assistants took part in a rally at a high school in East Vancouver in support of a grade twelve student that were suspended for publishing a parody of his school's literary magazine and his English teacher. For the TAs taking part and speaking at this rally, the issue was one of academic freedom and freedom of speech. However, with the rally descending into chaos as police arrived to disband it, and several of the TAs being arrested for causing a disturbance, the Board took the opportunity to make an example of the students "by dismissing all five TAs instantly" (Johnston, 2005, p. 264) for the negative publicity they had generated for the university. By the next day, the university was forced to a standstill by a rally attended by nearly two thousand students in the mall (enrolment at this time was only about 3000). The issue for the students and faculty that assembled that day was one of free speech, not only for the dismissed TAs, but also for themselves going forward, as the Board had initiated a dangerous precedent of punishing members of the university community for actions undertaken outside the wall of the university. The disconnect between the Board, which had arbitrarily dismissed the TAs without contemplating how it would be received, and the university community as a whole was substantial, and further served to embolden student activists when the Board was forced to reinstate the TAs after facing the prospect of further and escalating walkouts by students and faculty.

Later that year and into early 1968, these newly radicalized student leaders at SFU, growing impatient at the rate of change, came to believe that the time for mass confrontation and the establishment of a new student oriented governance structure was at hand. However, with increasingly confrontational stances by these students, their numbers and support began to wane as greater numbers of students and faculty began to fatigue of the seemingly unending rallies. During this period, the first President of SFU, faced an open revolt by his faculty association over an issue of tenure appointment for one of its members, and was dismissed by the Board and which resulted in a censure by the Canadian Association of University Teachers. The irony of this situation was how the student leaders, who claimed the victory of his dismissal as their own, and grew ever more emboldened by it.

The issue that eventually saw the largest confrontation between the students and the administration was over that of transfer credits. By the 1967-68 academic years, students who had been attending many of the community colleges that came into existence the same year as SFU began enrolling at the university thinking that they would be able to continue in their third year. However, “they then discovered that that they could not get university credit for all the courses they had taken at the college” (Johnston, 2005, p. 284). The aforementioned confrontation was an occupation of the university’s administration offices by nearly 180 students, in November 1968. This marked a stark shift in the traditional tactics of student activists on campus, whom in the past had organized in public/neutral space (the Mall) or contested spaces (such

as the Shell service station site) of the university, but rarely had engaged directly within the private administrative spaces of campus. The degree to which the student activists misunderstood the changed climate of activism on campus could not be starker, 114 students were arrested for their illegal occupation, made even more poignant when almost 2500 students voted “two to one against a strike in support” (Johnston, 2005, p. 284) of those arrested.

My differentiation of public/neutral space, such as the Mall up to this point, and the private administrative offices, as sites for potential confrontation, has been purposeful. Clear lines were drawn with the Mall being a public space that was accepting of confrontation. This was clear during SFU's second convocation ceremony, which took place on May 15, 1968 in the Mall. The last minute convocation speaker that day, filling in for someone who had fallen ill, was the provincial minister of education, Leslie Peterson. Peterson took the opportunity to speak of orderly societies, and addressing student protests in particular, he spoke critically of the upheaval on the streets of France at that very time. He faced hisses from the gallery for these comments, from the students who lined the elevated walkways and stairs that lead to the AQ (Johnston, 2005, p.135). In that moment, the Mall was truly a public space, where issues could be addressed and responded too in any forum.

In fact, students began writing signs in that very moment, as a response to his address, saying such things as “Shrum Sells Degrees”. He spoke facing a large red banner that read “Internationale for Student Power”. In the end, Peterson cut his speech short in the face of this overwhelming adversity, and the

student rejoiced in the control they had over the discourse of the space that day, as they pushed back against the institutional authority as encapsulated by the convocation ceremony.

As I already indicated, by November 1968, merely six months later, the mood on campus had shifted in regard to what was considered contestable public space. In fact, over the course of a few days in September of that year, the university administration pushed back, and thereby began the process of redefining the very nature of the Mall.

In “summer 1967 [the Student Council] purchased a plaque called Freedom Square which was to be attached to the speaker’s lectern and podium to commemorate the mass [TA] rallies and mark the importance of the east side of the mall as a central space in politics on campus” (Camley, 1999, p. 41). Finally mounted on September 11, 1968, in a ceremony attended by several hundred students, the newly minted Freedom Square was to serve a few days later as the backdrop for the first address by SFU’s new president, Kenneth Strand, to the student body.

Strand made his address from his own podium back on the raised stage, and explicitly refused to use the Square’s speaker lectern and podium. While the president of the Student Council did provide a response to Strand’s address, he was forced to use the Square’s podium, as Strand left immediately after his own address and promptly had the power to his microphone cut. In essence, the university administration legitimized the space known as Freedom Square, but in the same breathe dismissed it by refusing to use the accepted speaking lectern,

which reinforced the democratic nature of the space. By his action of using his own elevated lectern, on the stage of what would come to be known as Convocation Mall (the covered section of the Mall), renamed in 1982, the administration began the process of privileging the convocation ceremony as the true embodiment/purpose of this space.

As if in response to the harsh treatment received by Leslie Peterson during the second Convocation ceremony in May 1968, the recollection of the activist history of SFU began to take a markedly conservative tone in its retelling for official university purposes. By the May 1993 convocation address, this retelling of SFU's activist history was almost complete

...most of the students did not take part in the demonstrations unless they needed some distraction, particularly at mid-terms...All but a couple of hundred students were interested in getting an education and the life of the university went on without too much disruption...Many of the protesters were from off campus and not SFU students...It may be said that the younger brothers and sisters of the ardent protesters thought that their siblings had not accomplished a great deal, and had delayed their completion of their university studies to no great purpose or gain..." (Lettie Wilson: Unpublished Speech July 1993: SFU Archive File: 'General Information About SFU').

This retelling as well as the renaming of the Mall further calcified the notion that its ultimate purpose, in its entirety, was the convocation ceremony. This ceremony and its sanctified traditions, served as a projection of institutional authority into this space, not just to those taking part, but also for all those having to traverse the peripheries of this space during the ceremonies, which took place during regularly scheduled classes.

Authority and the absence of the convocation ceremony 50 weeks out of the year

I will now work to conclude this chapter with a discussion of what I believe to be the student's relationship to this institutional authority, as manifested by the Convocation ceremony, but now embodied at all times within the very consciousness of the Mall. Charles Bingham's new book *Authority is Relational: Rethinking Educational Empowerment* (2008) offers an interesting and what I believe is an extremely useful lens through which to understand the potentials and limits of student agency when acting within the Mall at SFU. Though Bingham's discussion pertains to the student's relationship with the authority of the teacher, I will go so far as to express my belief that his ideas can extend to the authority of the educational institution, and thereby its actions, rules and ceremonies.

Bingham introduces us to the work of psychoanalyst Jessica Benjamin and

...offers an understanding of how educational authority might actually straddle the spaces of presence *and* non-presence. As Benjamin reminds us, the experience of an other may at first be a matter of being with that other. But ultimately, it is also a matter of *not* being with the other. Benjamin's work helps to flesh out the relation between people who experience the relation of authority even in the absence of an identifiable subject of authority. And more specifically, it helps to flesh out the relation of authority as it is experienced by students and their absent authority figures" (pp. 92-93 [manuscript version – dated Sept 2007].

Bingham is clear to indicate that much of the current scholarship in regard to education and authority is clearly routed and biased by a "*presentist* orientation" (p. 93). This presentist orientation sees authority as being ever

present – or face-to-face in an educational context. But something that is often overlooked in this orientation is the question of how “authority reverberates *after* the classroom experience” (p. 93). Bingham argues that the presentist orientation constructs an undesirable dichotomy, where at one extreme there exists a sense that authority is Omni-present and static regardless of the presence of the teacher, and at the other extreme there exist the sense that authority is fleeting and disperses without the presence of the teacher. The oscillation or space between is where Bingham contends most students reside – where authority is neither static nor Omni-present, but not completely fleeting. It is in these instances when authority lingers. It is the aspects of *lingering* educational authority that Bingham believes are in fact central to educational authority, “Absence has bearing on presence. And contrariwise, presence has bearing on absence. Non-presence and presence are two symbiotic components of authority” (p. 95).

A student is recognized for his/her efforts initially by “an authority who is actually *there*” (p. 97). However, this initial presentist recognition, leads to

...further efforts when the teacher is no longer present...during such times...the student is still under contract with the teacher who has offered affirmation in the past...[so] when we are no longer in the physical presence of such an authority figure, the authority figure still lingers in what Benjamin calls ‘inner space’. Outward contact with the Other entails the beginning of an *inward contract* with the Other (p. 97).

Bingham argues that this inner space is influenced by the *remnant* of the educational authority that once acted upon the student in the face-to-face setting.

...the remnant plays a significant role within the *ongoing* process of education. The remnant, while indeed facilitating the presence of a non-presence when the student is out of reach of the teacher, is also an anchor point by which further interaction with the teacher will be meaningful" (p. 98).

Returning to the consciousness of the Mall and the authority bestowed upon this space by the institutional act of the Convocation Ceremony, I contend that a remnant of this authority is always present in the mind of students whom traverse and attempt to act within the space of the Mall. This remnant has the effect of tempering not only the actions of activist students within the Mall, but all who traverse its boundaries, for it imparts in us all a sense of what is acceptable and unacceptable within that space.

While the remnant may be wholly mine, meaning under my control and therefore open to my manipulations, and therefore providing me an agency to act out within the Mall in whatever way I choose, the remnant is still an extension of institutional authority and therefore always subject to its tacit approval or disapproval. This is something that can never be escaped and forms the boundaries within which agency is manifest in a space such as the Mall at SFU.

So the result is...

Returning once more to my original assertion, of this chapter representing on ongoing reclamation project, I am happy to inform you that the project, namely me, and the reclamation, my sense of the university and its public spaces, is doing quite a bit better. For through this process of exploring the history of activism at SFU, and its invariable connection to the usages of the physical spaces of the university, I believe I have achieved a better understanding of the

forms of relational authority acting upon my decision-making, from animate and inanimate people, things and places. Moreover, as I once overheard Charles Bingham say, “Recognition of authority is the first step in thinking about one’s response to it.” But what form does this response take?

As Bingham describes

...that while the remnant is a safe space, one where I am in control, the remnant remains a space *of fantasy* unless it is tested up against the real. Real agency cannot be fostered solely by remnants because agency is ultimately enacted in real life. In order for the teacher’s recognition of me to count, she must have the real-life, presentist opportunity *not* to offer me recognition. In order for my agency to count, that agency must be tested in circumstances that could in fact end in disappointment. Thus, the remnant and the real exist in a symbiotic relationship (pp. 100-101).

It is in that symbiotic relationship where I find the constraint placed upon the potential that is my agency. To act independently and truly resist the authority of the institutional acts and the history with which they encode the public spaces of the university, we must have the courage to accept disappointment from those around us, and we must have the courage to accept the negative consequences of our actions.

However, and this is the question I wish to pose to you all today, is this courage still within us? For the symbiotic relationship between the remnant, over which I have control, and the real world in which I must act, and therein be judged by, is one based upon my need for approval – or more generally, my need for a **result**. By this token, this need for a result, a seemingly finite resolution of sorts, seems at the core of not only the Mall and its Convocation ceremony, but also students movements, the academic educational project, and

perhaps even the very nature of the modern lives we lead. By that very same token, are any of us willing to question such a fundamental aspect of the limits we place upon our own agency, by our own needs for this finite result and resolution?

Concluding Remarks

The result of this chapter is what I would classify as closure to my earlier discussions regarding the relationship between education and technology, and my wholehearted embrace of the need to explore the relationship between an individual and their idealized self. Namely, using myself as an example, what role does the student I wish to be (ideal) have in influencing the student I actually am (real), and how does conflict or distance between these two selves inform my decision-making?

Of course, this new exploration of the self has emerged gradually over the past years and the included chapters of this thesis. In chapter 1 of this thesis, I posited my belief that the underlying theoretical arc within the entirety of this thesis was that teaching and learning are socially constructed, and can therefore be found within the three core relationships of *student-student*, *student-teacher*, and *student-self*. In the first phase of my writing (chapters 2, 3 and 4), I explored the *student-student* and *student-teacher* relationships within the education and technology paradigm. However, with my reconsidering of the relationship between education and technology, I began the exploration of the student-self relationship in the second phase of my writing (chapters 5 and 6). This all leading of course, to the final phase of my writing (chapter 7) where I began the

process of viewing the student-self relationship in relation to the acts of authority imbued within the confines of the educational process. In particular, the *self* with which the student enters into the relationship is one influenced by the history of previous techniques of authority that have acted upon the student in the *student-student* and *student-teacher* relationship.

It is this notion of *self*, idealized and realized, formed and acting within the educational process and its history of the relations of authority, which I believe represents the new phase of my writing, which I will undertake in my future scholarly work. In particular, I situate the idealized and realized *self* into which the student enters into a relationship, as being dependent upon the relations of authority that are in turn dependent upon the physical landscape of the educational settings in which they are enacted. Simply stated, the physical landscape and design of the institution, and in turn the classroom, act upon the process of teaching and learning and in turn its techniques of authority as manifest in the *student-teacher* and *student-student* relationships, thereby influencing the *self* with which the student carries on a life long relationship in regard to their own teaching and learning.

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