

NEGOTIATIONS AND CHALLENGES IN CREATING A DIGITAL STORY:  
THE EXPERIENCE OF GRADUATE STUDENTS

A Dissertation Presented to the  
Faculty of the College of Education  
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In Partial Fulfillment  
of the Requirements for the Degree

Doctor of Education

by

Anh T. Nguyen

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When I decided to come back to graduate school four years ago as a part-time research assistant, full-time student, and mother of two toddlers, I thought I would work through the doctoral program by myself, like a lone traveler trekking across the desert. It turned out I had companions, whose presence and supports shaded my path, shortened my way, and made my study journey at University of Houston the most valuable and treasured time in my life. I am deeply grateful to all of them.

Learning is a life-time undertaking. My first steps on the academic way were actually taken in my early age when my mother held my hand to help me write the first letters and my father taught me how to conjugate the English verb “be.” Thus, my thankfulness and affection at the end of this journey are devoted to my parents—my late mother, and my father, who is half way round the world. They passed down to me the appreciation of the value of education, and the love for learning. They and my younger brothers as well, have never stopped having faith in my ability to move forward in my life.

Writing this dissertation obviously affected those who are dearest to me, my husband Duc, and my two small daughters, Noelle and Kim. It robbed them of my time and attention. I often turned down my children’s simplest requests of driving them to the park on a beautiful day or reading them a bedtime story at night in order to work on my dissertation. I spent a great deal of our family time, when we could have watched an interesting movie together or shared a cheerful dinner, in the computer lab with my participants or at my writing desk. I wish I could return the patience, tolerance, and sacrifice my family has gone through over the past four years so that I could pursue my study.

For those who are most closely involved in the completing of this dissertation, my committee, I think of them with the greatest gratitude. My committee chair, Dr. Bernard Robin, the known scholar and technology guru in the field of Digital Storytelling, introduced me to the genre and set the foundation of my understanding of this new media and learning tool. He was also such a wonderful instructor, facilitator, and advisor. Without his help and guidance, I may not have accomplished my research for this dissertation in a timely manner. I have been fortunate to be his student and advisee. Dr. Sara McNeil was my most influential instructor. She always gave me the best advice when I had problems in my study. She helped me overcome my psychological hurdle that a busy mother could not finish her study soon enough. Dr. Susan Day had great interest in my topic. She closely followed my work on this dissertation chapter by chapter, and offered precious food for thought and helpful advice to improve my writing. Dr. Cheryl Craig, my methodologist, introduced me to narrative inquiry, another way to do research that was suitable to my background, my ability, and my topic. Dr. Cameron White always believed that my topic was worth pursuing for its significance and implications. He also did all he could to facilitate my data collection in his classroom. Last but not least, I'm thinking of my participants with appreciation and admiration. They were so committed to their study, and were also thoughtful, helpful, and patient in providing me with valuable data.

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### Abstract

Digital Storytelling has been popular in various educational contexts as a powerful tool for cognitive and literacy development in the digital age. The creation of a digital story is a complex process in which the creator utilizes different skills and literacies in order to produce a meaningful multimedia text. Learning occurs at different levels and dimensions when the digital story creator draws upon social cultural knowledge, relates life experiences, and interacts with peers and instructors to work through this multi-staged project. Thus, creating a digital story is also a process of negotiation. While deciding on the theme, the images, the language and other elements of the digital story, the creator needs to negotiate internal conflicts, relations with the social world and the different modes used to tell the story.

Although the large majority of the scholarship on Digital Storytelling features Digital Storytelling as a deep reflective learning device, an effective means of self-representation and an original media genre, few studies have been dedicated to investigating the challenging aspects in creating a digital story (see Kulla-Abbott & Polman, 2008; Nelson & Hull, 2008). This dissertation research study is a narrative inquiry into the experience of creating a digital story with the concepts of *negotiation* and *challenge* at the center. As the digital story creator negotiates to make the choices which are going to be presented in the digital story, they may have to encounter challenges associated with these choices.

This dissertation research attempts to reconstruct the experience of creating a digital story at various levels. The first level is the analysis of the internal structure of the digital story as a multimodal text in order to learn how each narrative line (voice-over, imagery, and music) works, and how the lines work together to create the effects of the story. The second level is the examination of the experience of negotiating for the choices presented in the story and coping with related challenges during the creative process. The third level is the researcher's study of the themes and patterns of negotiations and challenges emerging from the experience of creating a digital story. This is also the reflection upon personal experience in an endeavor to search for the meaning of that experience in more general and profound dimensions. Finally, conclusions from the examination of the experience raise useful implications and propositions for teaching and evaluation when Digital Storytelling is incorporated in the curriculum.

Methodologically, the inquiry for this dissertation closely followed three graduate students in their digital story projects in the setting of two linked courses, one focusing on hands-on multimedia technology and the other centering on the methodology of using popular culture in the classroom. The data collected consist of field notes of class observation, teaching materials on Moodle—the learning management system used for the linked courses, participants' postings on the Moodle discussion forum, personal interviews, and the actual digital stories created by the participants. Among the primary concepts in the theoretical framework of this dissertation are the functions of narrative from sociocultural, constructivist, and narrative theory perspectives; Digital Storytelling as a means for self-representation and identity formation; narrative inquiry; the narrative version of knowledge; and knowledge community.

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## **Chapter I: Justification of a Narrative Inquiry into the Experience of Creating a Digital Story**

A narrative inquiry holds its justification at three levels: personal, practical and social (Clandinin, Pushor, & Orr, 2007). This inquiry into the experience of the creator of a digital story was initiated by virtue of my personal experience. Examining my personal experience in creating digital stories lends itself to the recognition that other creators/learners may undergo more or less the same types of experience that had been so significant to me. In reconstructing what I learned and found into a coherent order, I aim to search for the values of the experience which are concurrently meaningful to teaching and learning with Digital Storytelling.

### **The Start of My Inquiry**

I first came to know Digital Storytelling in 2007. I enrolled for the linked courses titled Popular Culture in Education and Educational Uses of Digital Photography in my first semester of the doctoral program with no expectation that the skills and experience I gained through the courses would leave a lasting impression and influence my study and research later.

A large part of the Digital Photography course was hands-on activities in creating digital stories. I still remember I spent hours and hours for weeks doing and re-doing all the tasks in the crafting of a digital story: writing a succinct and meaningful script, searching for images from the Internet or picking them out of family albums, editing the pictures, recording the voice-over, timing the slide motion, and adding the music. Creating digital stories offered me an extremely interesting and challenging experience. I was fascinated by the characteristics of the genre, which presents features of both media

and literature in my opinion. I was thrilled with the excitement of producing for the first time multimedia materials that could be shown on the screen. I was puzzled at what to remove and what to leave when it came to details of the stories. I brought into my digital stories my sociocultural knowledge, life experience, concept of the world, the awareness of my identity in a multi-ethnic society, and emotions beside the newly-learned technology skills. Each story I created in the course was my “work of art,” personal yet easy to share. I would not let my friends read my diaries, but I was willing to send them the links to my digital stories.

Several semesters later, when I was searching for a topic for my dissertation, I found myself reflecting on this experience. It was still so fresh and compelling that it provoked me to try to learn more about it. This is how the roots of this inquiry into the personal experience of the creator of a digital story came into being. It is not simply a personal experience of creating effects or solving problems during the process. It reveals issues of learning, reflecting, self-representing and making sense of life and world beyond the expertise of composing a multimedia artifact. I believe that this favoring of the experiential aspect of creating a digital story and the desire to know it at a more profound dimension are related to my background.

### **My Story**

I was a faculty member of The English Section, The Department for Foreign Languages of NhaTrang Teachers’ College, a large higher education institute in Central Vietnam for 12 years. Those years of teaching EFL directed my interests to linguistics. So during the time I studied for my Master’s degree in Teaching English as a Foreign Language (TEFL) at The University of Sydney, Australia in 1999, I also took courses in

linguistics. When I came back to my college in Vietnam, I was able to teach basic theoretical courses in English such as English Phonetics and Phonology, English Morphology and Syntax. Although I studied a lot of modern theories, I learned most from structuralism in conceptualizing language and its characteristics.

My students at NhaTrang Teachers' College were to become EFL teachers at middle schools and high schools. They not only learned the four practical language skills of listening, speaking, reading and writing but also read Shakespeare, Hawthorne and Hemingway among other well-known authors, as well as took courses in British History and Civilization. While teaching one of these reading courses, I recognized that I needed to seriously study English Literature before I could help my students appreciate the literature. Winning the Fulbright scholarship in 2000, I came to Eastern Michigan University, USA, for my Master's degree in English Literature in 2001. My major was literature but I always considered literature from the view of a language teacher. I considered Roland Barthes one of my favorite authors and enrolled for more advanced linguistic courses during the time.

In 2006, I came to Houston to join my husband, who was studying public health at The University of Texas, and was admitted to the doctoral program in Instructional Technology at The College of Education, University of Houston, in 2007. My switching to another field of study was not a sudden whim but the result of my growing recognition that teaching and learning of humanities in the digital age largely benefit from technology. Although I have had to cope with a lot of challenges in hands-on courses due to my lack of technology skills, I have never regretted that I was admitted into this program. What I have learned in IT has immensely broadened my view and scope of



expertise. It will help me do much better in my future jobs, whether they are teaching, researching or designing.

### **The Key Concepts: Negotiations and Challenges in Creating a Digital Story**

My current study has always been influenced by my previous study. I approach Digital Storytelling from the conceptual framework I gained while studying linguistics and literature. I see in a digital story quite a few features of a literary text. My first impression about a digital story is that it is similar to a short story in several ways: briefness, few but deep impressions on the audience, definite elements that determine the characteristics of the genre, and simplicity that creates the elegance of the form. Later, I found that my idea was shared by authors who compared digital stories to sonnets or haikus (Hartley & McWilliam, 2009).

While everybody can compose haikus, few write them like Basho. It is the same with digital stories. A digital story is easy to create, but I do not believe a really good one can be created without the diligent and artful undertaking on the side of the creator. Works corroborating this perception abound. Authors used the word “crafting” in referring to the process of creating a digital story (Lambert, 2010; Davison & Porter, 2005; Hull & Katz, 2006), and emphasized the expressive power residing in the multimodality of digital stories (Nelson & Hull, 2005). These studies strongly suggest that the textual structure of the digital story and the process to construct it are more complicated than they appear to be.

One of the authors who most influenced me in the field of linguistics is Henry G. Widdowson, a leading modern linguist and stylist. Two of Widdowson’s books, *Linguistics* (1996) and *Practical Stylistics* (1992), have given me the theoretical

framework to consider language and matters related to language. Among the prominent concepts Widdowson (1996) often mentioned was “negotiation of meanings” as the first goal of speech acts. He wrote: “In the first place, they [speech acts] frequently call for negotiation, as we have seen, whereby first person intention and second person interpretation are brought to some satisfactory degree of convergence” (pp. 65–66). Another popular notion in linguistics is “linguistic choice,” which refers to the act of selecting wordings, grammatical structures, and even paralinguistic elements for definite situations of language use or discourse. It is developed into stylistics—the study of linguistic choices for special effects in literary works (Widdowson, 1992). This notion played an important role in my practice of teaching reading in English.

These premises shed light on my conceptualization of the process of creating a digital story. The digital story is a text for a specific communicative purpose, so the creator needs to negotiate for meaning while producing it. (Since all the participants of my inquiry are female, I would like to use the personal pronoun “she” and personal adjective “her” when referring to the digital story creator throughout this dissertation for the sake of consistency). The digital story creator should always ask herself why she chooses to put a certain image in the story, how it serves the communication, and whether it is decorating, illustrating or illuminating the message (Davidson & Porter, 2005). At the same time, she is supposed to bring out specific effects for her digital narrative. She needs to decide, for instance, when to use animation instead of still images or when to change the music to add a tone to her narrative. There are always reasons for choices. Therefore, negotiations occur at different levels because the text of a digital story has different levels of relationship (with the creator and her social world) as well as different

levels of internal structure (within and across the modes used to tell the story). Since I do not believe that creating a meaningful digital story is easy (whether the creator is a seventh-grader or a doctoral student), in the same way I do not believe that writing a good short story or a haiku is easy, in this study I investigated the challenges a digital story creator may encounter in her creating endeavor.

These propositions also originate from my own experience as a learner of Digital Storytelling. I struggled over a lot of choices in trying to express myself with more than one mode of expression. In one of the digital stories I created as a course assignment on the theme of advertisement, I spent a long time considering and selecting images to introduce the attitudes towards commercialism in my traditional culture, which are totally different from those of American society. The reason was while I wanted my audience (my instructors and classmates) to get my message, I was also afraid that they would develop a stereotype toward me (that I was against commercialism because I come from a developing country). Creating my literature review of this study, I came upon articles reporting studies in which the creators of digital stories had similar experiences (see Davis, 2005; Hull & Nelson, 2006; Nelson & Hull, 2008). The choice of what to put into the story to represent the self, the identity or personal experiences of the creator is always a negotiation under the pressure of the awareness of the audience's response to or evaluation of the story. I suppose that these pose challenges to the creator, together with the affordances and constraints of the various modes used in the digital narrative.

As a result, the key concepts in my inquiry are *negotiation* and *challenge*. I define their meanings in the context of the digital story creating process as follows.

*Negotiation* is the process of settling conflicts, which results in choices (of dramatic question, images, voice, modes or other elements) while creating a digital story. Negotiations can be metaphorically viewed as conversations in the mind of the creator raising concerns or questions such as: “Should I represent myself as a superhero or show my real identity?” or “Should I choose jazz or my native music to add tone to this part of my story?”

*Challenge* is the matter posing difficulties to the digital story creator related to her negotiation or her choice. For example, a creator negotiating between her real identity and the wish to represent herself as a superhero may have difficulties in selecting ideas or images to include in her story, or she may fall into the trap of telling an incredible, unconvincing tale about herself.

*Negotiation* and *challenge* are two separate concepts but they are closely related. Not all the challenges the creator encounters in creating a digital story come from negotiations but generally, negotiations entail or influence challenges.

### **Research Questions**

With the two primary concepts mentioned above, my narrative inquiry is a search for the answers to these questions concerning the experience of the creator of a digital story:

1. How does the digital story creator negotiate to make her choices of ideas, images, music, and other features of the story, or how does this negotiating process occur in creating a digital story?
2. What kind of challenges the creator of a digital story may encounter in the creating process?

### 3. How does she cope with these challenges?

#### **Why Is It Important to Know?**

Once, when we were discussing our dissertations in a seminar, after learning what my topic was, a colleague asked me, “Why is it important to know about the negotiating process in creating a digital story?” The brief answer to this excellent question is because the teacher’s assumptions about how students negotiate in producing this multimodal text as well as their experience in the process do not always match reality; therefore, the need to learn how this negotiating process really happens. Learning how the negotiating process occurs means learning how the creator/learner performs the reasoning actions to make the choices presented in their stories. It also means learning how they learn intellectually, cognitively, and socially at the same time.

One of my professors, who is an expert in Digital Storytelling, also asked how the knowledge of negotiations and challenges in creating a digital story helps a practitioner like him (Robin, personal communication, April 2010). Part of the answer to this question lies in the significance of the experience the teacher brings to the students in teaching them how to create and use digital stories. The outcome of the teaching and learning of Digital Storytelling is not only the stories that the students can proudly share but the experience the students gain during the process because, “Experience is not only an event, it is also an achievement” (Eisner, 1988, p. 15). In Dewey’s terms, it is the quality of the educative experience that generates chain reactions on the following experiences in the learner (1938). A student may never create any other stories when the course is done, or she will continue to build more stories, practice her skills to a more advanced level and use Digital Storytelling in her own teaching. This largely depends on the experience she

has during the course, of which, negotiating for her choices and coping with challenges in developing the story play a major role.

Clandinin and Connelly (2006) wrote, “The contribution of a narrative inquiry is more often intended to be the creation of a new sense of meaning and significance with respect to the research topic than it is to yield a set of knowledge claims that might incrementally add to knowledge in the field” (p. 42). In light of this statement, this study is a contemplation from a person-centered perspective the experience of a digital story creator. It is an effort to make sense of this experience, which is a combination of the creator’s learning experience and lived experience. It is an attempt to raise meaningful implications for the use of Digital Storytelling in education.

### **The Turn in Digital Storytelling: Crafting or Clicking?**

Technology develops by leaps and bounces. Programs for video-making like Microsoft Photo Story 3 and Movie Maker have become dated as innovative Web 2.0 tools are invented for free uses such as *Animoto*, *Dvolver*, and *Xtranormal*, to name a few. These tools make it extremely fast and convenient to create cartoons or video clips. *Xtranormal* boasts on its home page, “If you can type, you can make movies” (<http://www.xtranormal.com/>). *Dvolver* promises, “...You can make movies in a few simple steps” (<http://www.dfilm.com/live/home.html>), and *Animoto* claims that making “killer videos” is “shockingly easy” (<http://animoto.com/intro/animoto/5?gclid=CMrO7sydjagCFSRe7AodDVp1EA>).

Indeed, these tools have become widely popular and have been introduced into the Digital Storytelling courses. When I was looking for potential participants for this study, I approached a faculty member and asked if I could invite her undergraduate

students to participate in my research, she responded that she was not really teaching Digital Storytelling because she let her students use *Animoto* to create thirty-second digital stories as an assignment of the course (Pierson, 2010, personal communication). My advisor, whose course on Digital Storytelling I had taken years ago, also discussed the growing trend of using Web 2.0 tools in creating digital stories, and inserted a module on Web 2.0 tools in his current Digital Storytelling course.

These talks triggered, for me, the question of whether creating a digital story continues to be a crafting and negotiating process, given that the story creator with a Web 2.0 tool only has to upload images to the websites of the tool to get a “cool” digital story. I decided to learn more of these new facilities for movie-making by registering for *Xtranormal*, *Dvolver*, and *Animoto* accounts and creating some animations with these tools.

The tools turned out to be as user-friendly as advertised but surprisingly, they confirmed my conviction that the creating of a digital story is a negotiating endeavor. First, the ultimate purpose of negotiating is to make a decision or a choice. All these three websites offer choices of characters, scenes, movements of slides, and so forth. Although the nature of the choices is varied and the range of the choices limited, the creator of a video clip or digital story still has to make a bevy of decisions to produce coherent or enjoyable animation clips. Second, the offered choices limit creativity. The difference between a well-crafted digital story with conventional software and a cartoon or video clip made with a Web 2.0 tool is, most of the time, like that between a dinner with multiple courses and a snack of instant noodles.

An engaging, meaningful digital story is undeniably something unique from the heart, the soul and the mind of the creator; which the use of only technology tools cannot produce. Digital Storytelling touches the humanness in each creator that demands to be expressed with more than just clicks on ready-made icons on the menus of the tools. This confirms the essential role of the creator's craftsmanship in composing a digital story as a multimodal text.

I am convinced that Web 2.0 tools are going to be improved, and creators of digital stories or movies with these tools can enjoy versions with more fancy and striking effects in the future. However, I firmly maintain that negotiation is an unchanged hallmark of the creation of a digital story, because negotiation is the essence of meaningful communication. An inquiry into the negotiating process in creating a digital story is then a worthy attempt to understand the key concepts of learning to effectively communicate with technology in the full awareness of the complex individual-social relationships of the communicator's current world.

This understanding is not just theoretically significant. This knowledge is engendered from the reality of teaching and learning, and highly contextualized in the specific conditions in which teacher and students work. It may call for reconsideration of teaching approach, course design and method of assessment. How to address these needs for change is a separate path to be taken by each individual instructor or teacher who would like to breathe new life into the classroom with this innovative form of composition, but the common attribute is that it will certainly render reconstruction or revision of the syllabus or even the curriculum in which Digital Storytelling is integrated in various ways.



## Chapter II: A Review of the Literature

Digital Storytelling presents all the dynamic characteristics of a form of narrative and a genre of communication. Seeking to build a theoretical framework as rationale for my key concepts of *negotiation* and *challenge* in creating digital stories, I turned to theories which bring forth most illuminative explanations to these features of Digital Storytelling: sociocultural theory, constructivist theory and narrative theory. In this literature review, Digital Storytelling is examined from the perspective of each theory. Thus, Digital Storytelling is considered as the reflection of the individual–social negotiation in narrating life, the manifestation of human nature as telling story, and the means through which humans understand their worlds and their relationships with their worlds. Technically, this is also an attempt to explore how the concepts of *negotiation* and *challenge* are represented in the use of different modes to build a digital story.

### Digital Storytelling as an Emerging Genre for Multiple Purposes

Telling stories is an age-old practice of mankind. It represents a primal desire as essential to the species of *Homo sapiens* as the needs of nourishment and shelter (Price, 1985). The desire for humans to tell stories has not changed since the time of the prehistoric paintings on the walls of Lascaux cave to the most recent Oscar-winning movies. What has changed is the means through which humans represent their stories, and thus, their views of life and world. Digital Storytelling—with the capital D and S, as opposed to the phrase in lower case that refers to the narrative of films, computer games, and other forms of interactive entertainment using digital media (Lundby, 2008)—is this link between the old and the new. A perfect combination of the ancient art of oral storytelling and the modern technology, which allows stories to be narrated

simultaneously with verbal language, music, still images, and video clips, Digital Storytelling has become an original form of social networking, a recently-emerging media genre, and a novel learning tool.

Digital Storytelling has proved to be versatile across various disciplines: health promotion, community development, media and communication, and education. In education, whether used in the classroom or outside the classroom, it provides learners with the opportunities to utilize different skills and literacies to view or create a meaningful multimedia text. The building of a digital story is a complex process reflecting an individual learner's performance, her learning strategies, meta-cognitive knowledge, consciousness of the self, and awareness of its relation with the world. Indeed, there are few single educational tools that can provide opportunities for such extensive, in-depth and individualistic insights into learning and psychological factors behind it.

As shown in the modest but growing body of literature on Digital Storytelling since the early 1990s, there have been different perspectives towards Digital Storytelling. In fact, there is not even universal agreement on the definition of Digital Storytelling (Hayes & Matusov, 2005). Also, beside the more well-known form of Digital Storytelling developed by Joe Lambert and Dana Atchley of Center for Digital Storytelling in Berkeley, California, there is another type of Digital Storytelling which is no less influential—Photovoice, developed by Caroline Wang and Mary Ann Burris (Media Development, 2009, Summary section). The typical difference between these two forms of Digital Storytelling is that the former emphasizes personal experience for reflective,

developmental or educational purposes, while the latter focuses on the community for more political or human rights goals.

There are digital stories that instruct, inform or examine historical events (Robin, 2008). Garretty (2009) distinguished five genres in Digital Storytelling: traditional stories, learning stories, project-based stories, social justice and cultural stories, and stories grounded in reflective practice. However, as Bruner (2004) stated, “Even if we set down annals in the bare form of events, they will be seen as events chosen with a view to their place” (p. 692). In a nutshell, there is always a personal element in narrative. Indeed, in a digital story, the ten components, which determine the characteristics of the genre (Robin, 2004), are inevitably constructed from a personal perspective. This suggests why Digital Storytelling initiated by personal experience is more popular in education; it fits the specifications of a small-scale self-representative media form that can encourage cognitive development and improve literacy with the “my story” told in the “me” voice.

### **The Theoretical Perspectives of This Review of the Literature**

Barrett’s (2005) guidance for research on Digital Storytelling suggests identifying its effects on “learning, motivation and engagement” (p. 2). The large majority of the scholarship on Digital Storytelling presents it with all the advantages of a cutting-edge educational and communicative tool (Ohler, 2008; Drotner, 2008; Friedlander, 2008; Lambert, 2009; Lundby, 2008, 2009; Thumim, 2009). This narrative inquiry follows Barrett’s objectives but assumes a different perspective. My work seeks to examine the characteristics and the meaning of the experience of the digital story creator. Hence, this

literature review is an attempt to learn how the experiential aspect in creating a digital story has been studied.

An extensive search of the literature reveals that the concepts of *negotiation* and *challenge* are not definitely featured in the scholarship. Few studies mention the “tension” or “conflicts” learners encounter in negotiating the various modes (words, images, animation and music) juxtaposed to compose a multimedia text, in engaging the creator’s personal voices, or in representing the self in its relation with the social world while creating digital stories (see Kulla-Abbott & Polman, 2008; Nelson & Hull, 2008). The experience of the digital story creator in negotiating for her choices and in coping with challenges while creating a digital story has not been a pronounced issue in the literature. Even if challenges are mentioned, they have been more often viewed as an aspect of the transitional phase of development in learners than obstacles to the production of a meaningful text (see Hull, Kenny, Marple & Forsman-Schneider, 2006).

In an effort to address this void in theorizing on Digital Storytelling, this literature review sought a theoretical framework that can help shed light on the negotiating dimension of the digital story creator’s experience. It considers Digital Storytelling from the perspectives of sociocultural theory and constructivism, two of the theoretical positions which have been most influential in current education in recent decades (Cobb & Yackel, 1996; Jones & Brader-Araje, 2002). These two theories lend themselves as being most effective and powerful tools to understanding humans in their relationships with their world. It should be noted that this does not intend to label studies as falling into the categories of sociocultural theory or constructivism, but to examine the theoretical propositions drawn upon as their conceptual basis.

At the same time, this literature review ventures to explore Digital Storytelling from a less frequented standpoint: that of narrative theory. This is meant to broaden the scope of the critical perspectives toward Digital Storytelling, a practice of narrative in the digital age. It is also hoped that the fundamentals of narrative theory will help explain and account for the experience of creating a digital story as an action performed under the influences of specific social and cultural settings on the side of the creator, as well as in the affordances and constraints of the technology used in educational contexts.

**Digital Storytelling from the perspectives of sociocultural theory and constructivism.**

***Digital Storytelling is individual–social negotiation.***

Vygotsky's questions in *Mind in Society* have founded the basis for the philosophical inquiries leading to the application of socio-cultural approaches in education. His answers to one of the biggest questions he put in this seminal work, "What is the relation between humans and their environment, both physical and social?" offer fundamental concepts to the connection between humans and their society (1978, p. 12). Vygotsky conceived that society is the source of human knowledge and that there is a dynamic interdependence of individual and social processes in the construction of knowledge. At the center of Vygotsky's theory is the proposition that human mind is a mediated mind, as humans interact with their world through tools and language.

Piaget (1951) and Bruner (1966) shared with Vygotsky the objection to the notion that the locus of knowledge is inside the individual. Piaget's principles of cognitive development emphasize the importance of the external influences from environment and society. He proposed that children learn through various forms of social interaction,

among which peer interaction is the most critical factor (Driscoll, 2005). This type of socialization presents opportunities for children to have cognitive conflicts which lead to arguing, debating and psychologically de-centering to consider others' points of view. It may offer more benefits to learning than interaction with adults, especially when children have a lot of differences to negotiate, because same-aged peers are on equal footing and are freer to challenge one another's ideas (Piaget, 1952). This postulation makes an interesting relevant point with regard to discussion and collaboration in the process of creating digital stories among young students. Bruner (1996) corroborated the affirmation of the social origin of knowledge by underscoring the collective nature of the process of constructing knowledge. He contended that humans are social beings, and social interaction provides them with a framework for interpreting experience. This proposition leads to the premise that knowledge evolves through social negotiation and evaluation of the viability of the individual understanding (Savery & Duffy, 2001). Thus, learning is developed by connecting personal experiences to social constructs.

These fundamental learning principles unanimously emphasize the role of negotiation in the individual-social interaction. In creating the digital story, the creator attempts to establish relations between herself and her world, especially when Digital Storytelling is viewed as a media genre. One of the important principles of Digital Storytelling is sharing stories because the sharing of personal experience has "the power to touch viewers deeply" (Center for Digital Storytelling, 2005, "Principles and value" section) and "telling personal stories publicly celebrates our life" (Porter, 2004, "Living memories" section). Most stories are created in the digital format in order to be widely shared (see the web sites of *Capture Wales*, 2005 and *Untold Stories*, 2008-2009). In this

view, a digital story is a highly personal experience that is designed to be told in a highly public fashion (Lundby, 2008). The connection between an individual and his social world is the meaningfulness of this multimodal text to both the creator and the audience. Only through complex negotiations to choose and make sense in the creating process can this bilateral (or multilateral) meaningfulness be attained. This process of negotiation is where development or learning occurs.

The theory of constructivism sets the backdrop for the concept of “community of practice,” which has found its way into educational settings in the form of activities encouraging knowledge sharing, learning and change (Lave & Wenger, 1991). The characteristics of the community of practice can be represented as the temporary dependence of beginners on more capable learners, and their taking increasing responsibility for their own learning and participation in joint activities as they become more experienced. The application of this approach is not limited to the practice of scaffolding. It extends to the forming of learning communities in which teachers and learners of different levels of skills voluntarily mix, interact, and collaborate to achieve certain set goals.

Digital Storytelling nicely spans the gap between individual and social activity in this paradigm. An illustration is The Fifth Dimension network, which grows from an after-school program for inner-city children in San Diego (Davis, 2005). These communities bring together students, teachers, high-school graduates, parents and residents in the neighborhood in order to provide students who are at risk for school failure with supplementary educational experience. One of their main goals is to encourage students “to find good reasons to write and read and develop their literacy in

such a setting” (Cole, 2006, p. 46). In so doing, this model of a learning society provides students with better opportunities to socialize and develop their literacy in a supportive community. Digital Storytelling works well in this environment. Several of the studies cited in this literature review were conducted in the setting of Digital Underground Storytelling for Youth (DUSTY), a literacy and technology program for students in low-income neighborhoods in a Northern California urban area (see Davis, 2005; Hayes & Matusov, 2005; Hull & Katz, 2006; Ware, 2006).

Building a digital story is a two-fold socialized activity. While the creator draws upon her own life experience as the primary material for her story, she needs to join the social world in most, if not every step, of this multi-staged project. Constructivists conceive that “socially shared activities” are transformed “into internalized processes” (John-Steiner & Mahn, 1996, p.192). The term “internalize” is normally defined as “take in” the transferred knowledge and make it become part of one’s own (*The New Oxford American Dictionary*, 2005). In this context, “internalize” means to “retain” and “consider” the learned knowledge before merging it into the stock of knowledge one already possesses. This is a process of negotiation between the schemas of the individual learner and the new knowledge.

### ***Negotiations in creating a digital story.***

The creator of a digital story has to make multiple negotiations between her internal conflicts, between herself and her audience, and among the different modes she uses to tell her story. The more social activities she gets involved in during the process of creating his story, the more negotiations she needs to make. The “story circle” is an instance of the preliminary negotiation between the creator and the audience in creating a



digital story. It is an activity developed by Center for Digital Storytelling in which participants first orally share their stories and give comments to one another's plots, starting by saying, "If it were my story, I would..." (Rudnicki, 2009, p. 17). In other variants of the practice of "story circle," the digital story creator spends time with her instructor on developing the plot and the text of her digital story before actually producing her multimedia tale (Lambert, 2006; Davis, 2005). The result of the "story circle" is that the digital story creator would develop her story not in the way she originally thought but in the way the audience thinks that would make it better. In fact, this is just the resonance of the traditional interaction between the storyteller and the audience from the time when stories were told by the fire. The teller always adjusted the story upon the responses of the audience.

One of the revolutionary effects the digital age has created is the larger freedom users can enjoy when participating in cyberspace communication. In doing this, they not only experience and produce texts but also explore and modify themselves. The choice and creation of avatars are a combination of reality and fantasy, and it reflects both the real identity and the wish to modify that identity of the user (Friedlander, 2008). This morphed identity determines the course of action one takes in a computer game or the narrative one creates on the Internet as a world completely different from the real world, another world whose variety is boundless, and chances and choices are innumerable. Digital Storytelling is a genre for social networking, so it bears the stamp of this desire for heterogeneity, novelty, and escape from reality. In dealing with the issue of representation in narrative, Bruner (2004) admitted that self-narrative "poses problems beyond those of verification, beyond the issue of indeterminacy (that the very telling of

the story distorts what we have in mind to tell), beyond rationalization” (p. 693).

Fortunately, digital stories are not autobiographies in the strictest sense of the term because they operate in their own space—the cyberspace, which allows the participant more control and choice.

Still Digital Storytelling has gaps to bridge. These are where the digital story creator needs to negotiate as she may have to cope with conflicts in her identity formation and self-representation. She may have to make choices between what she really is and what she wants to be and to present her self as, between the wish to transform her identity and the knowledge of the extent to which her tale would be accepted. Investigation into self-representation through digital stories created by young learners has shown that this type of negotiation abounds (Davis, 2005; Hull & Katz, 2006; Hull & Nelson, 2005; Skinner & Hagood, 2008). It could be a journey to search for one’s identity in the panoply of cultural and ethnic experiences one has been exposed to; it could be a struggle against adversaries in practical conditions; or it could be an attempt to re-tell life in a version different from that one really lived as a rejection of the past.

There are various cultural boundaries the creator transcends in order to accomplish these tasks. In most studied cases, the creator of digital story chooses the association strategy, which is the choice of images, characters or incidents from her ethnic culture, pop culture, or local knowledge she would like to be associated with. This choice is the orchestration of a chorus of diverse, even clashing cultural and social exclamations. Thus, a Chinese American youth could represent herself as a member of the generation belonging in the “third culture”—one composed of her original ethnic culture, American culture, and the mix of the two cultures (Skinner & Hagood, 2008, p.

17); a sickly young boy could camouflage his physical weakness with the image of a superhero having unnatural power (Hull et al., 2006); or a failing student at school could self-portray as being more successful in relationships with her family and community (Hull & Katz, 2006). The result is a new identity that assumes the role of an agency striving to escape negative situations, assert power, or object to stereotypes attributed by society.

In other situations, the digital story creator chooses the transformation tactics, which is the dismantling and disguise of her identity (Hull et al., 2006). Consequently, the self-portrait of the creator can only be recognized through disconnected segments of the story. This is a more subtle and complex fashion to express the self and give voice to built-up emotions and attitudes. In case the creator fails in the process of negotiation and the self-portrait is distorted in some sense, the experience could make her develop psychological detachment from the account the digital story represents. Thus, there are various formats of the “symbolic package” of the self of the creator (Davis, 2005, p.7) presented through the narrative of the personal digital story. They reflect how digital story creators make deals in their individual-social relations in order to find their places in life.

### **Digital Storytelling from the perspective of narrative theory.**

#### ***Digital Storytelling is about narrating life.***

The power of Digital Storytelling is often mistakenly thought to lie in the multimedia feature because it offers the author a large array of means of expression. In fact, it is the narrative that makes digital stories engaging (Hartley & McWilliam, 2009; Ohler, 2008). The word “story” here should be conceived beyond its basic meaning of a

series of events chronologically and structurally organized into a plot, to accounts of experience “selected, connected and evaluated as meaningful for a particular audience” (Kohler-Riessman, 2005, p. 1). Thus, “story” in this context is close to “narrative” as it bears connotations which surpass mere fiction and suggest the socio-cultural functions of the storied texts.

Although most theorists treat the words “story” and “narrative” as synonyms, others consider “story” but one form of “narrative” (Rankin, 2002). As a result, “narrative” has more diverse definitions according to the field of study in which it is held as the subject. The definitions widely range from the most exclusive sense that differentiates “narrative” from “argument” (Freeman, 2006) to the most encompassing meaning in Roland Barthes’s view:

Narrative is first and foremost the prodigious variety of genres, themselves distributed among different substances - as though any materials were fit to receive man’s stories. Able to be carried by articulated language, spoken or written, fixed or moving images, gestures, and the ordered mixture of all these substances; narrative is present in myth, legend, fable, tale, novella, epic, history, tragedy, drama, comedy, mime, painting...stained glass window, cinema, comics, news items, conversation... Narrative is international, transhistorical, transcultural: it is simply there, like life itself. (1975, p. 287)

This amorphous delineation of narrative seems to better fit Digital Storytelling. Indeed, only such an unrestricted conceptualization can be applicable to the innumerable types of life experience that can be crafted into digital stories.

It is obvious that the use of Digital Storytelling in education is grounded in the theoretical framework of narrative learning—an educational approach that uses stories to teach and learn, based on the theorizing how humans learn through narrative (Clark & Rossitter, 2008). Therefore, a brief look at the fundamentals of narrative theory would be helpful to understanding the aspects of narrative as shown in Digital Storytelling from a different viewpoint, and to gaining insights into the complex nature of narrative in order to further investigate what negotiations the digital story creator encounters in creating her narrative.

There are three big issues that narrative theory helps explain more thoroughly from a philosophical view of the use of Digital Storytelling in social communication in general and in education in particular. These are (a) story-telling as human nature, (b) the epistemological function of narrative and (c) the ontological dimension of narrative.

*Story-telling as human nature.*

Among the fundamentals of narrative theory is the concept of narrative paradigm developed by Walter Fisher (1984). As Fisher admitted it, his narrative paradigm is initiated by McIntyre's observation that "man in his actions and practice as well as in his fictions, is essentially a story-telling animal" (as cited in Fisher, 1984, p.1). Fisher delineated the narrative paradigm as opposed to the rational world paradigm. This is a configuration of nature and function of narrative that ascribes narrative greater capacities than representing reality. One of the important declarations of the narrative paradigm is the assertion that the world is a set of stories from which we choose to re-create our lives (Fisher, 1984, 1989).

This idea runs in the literature as a prominent theme (Ricoeur, 1985, Fisher, 1985, 1989; Rankin, 2002) and is reverberated in the motto of Center for Digital Storytelling that, “Everyone has many powerful stories to tell” (Principles and Values, 2005, par. 2). Indeed, each human being has numerous stories to tell because a story based on life experience is just a crossing point of different lines of narrative: culture, ethnicity, history, society, economy.... Human life is a series of narratives because the experience of life inherently exists in memory in segments like narrative episodes.

When a teacher brings Digital Storytelling into her classroom, she encourages her students to return to their natural selves of storytellers. Kajder (2004) turned her urban high school students, who had formerly been unmotivated in learning literacy, into active readers and effective writers because she allowed them to create personal narratives from their own life experience. The materials, means and goals of their practice of reading and writing were their own stories, and even themselves. Similarly, Iannotti (2007) and Rance-Roney (2008) stated that their ESL students were more enthusiastic and engaged in building digital stories because Digital Storytelling gave them the opportunity to reflect on their own daily activities or cultural experiences and make sense of them. There is always pleasure in making stories of one’s own life because the material is readily accessible, authentic and endearing; and the experience of narrating with multimodal means is new, exciting and inspirational. This is the power of story-telling coupled with the appeal of digital technology.

*The epistemological function of narrative.*

Within the narrative paradigm, Fisher (1984) attempted to establish a different conceptualization of the human act of narrating and reevaluate its function. The narrative

paradigm does not reject reason and rationality. It only challenges the inveterate notion that human mental activities are dominated by reason, that communication must be an argumentative form, and that reason is attributed only to discourse marked by identifiable modes of inference or implication (Fisher, 1984). It proposes that narrative, as a communicative paradigm, at least could be viable and co-existing with the paradigm of rational world. In his seminal essays on narrative, “Two modes of thoughts,” Bruner (1986) supported this view with the argument that these two modes of thought “(though complementary) are irreducible to one another” (p. 11). In light of this, a well-formed argument and a story are both approaches to respond to reality, and both are meaningful and convincing in their own way—the argument tries to establish proof of truth and the story presents verisimilitude. This posits the important role of narrative structure as a means to understand the world.

Proponents of narrative theory argue that narrative has emerged from denigration or marginalization to occupy the central position in disciplines other than literature like science and mathematics, which have always been the realms of reasoning, as modes of explanation that is necessary for an understanding of life (Rowland, 1989). The epistemological role of narrative has been emphasized in a great wealth of scholastic works. David Carr has assigned narrative a foremost function as “the primary way of organizing and giving coherence to our experience” (as cited in Hanninen, 2004, p. 71). McIntyre designates narrative with hermeneutic attributes that can help us understand others because “...we all live out narrative in our lives and because we understand our lives in terms of narratives” (as cited in Fisher, 1984, p. 8). Recent theorists still confirm

the premier status of narrative: “Narratives represent storied ways of knowing and communicating.” (Kohler-Riessman, 2009, p. 1)

Paul Ricoeur (1985)’s monumental contribution to the study of narrative, his postulation of the three-staged process of mimesis (his reworked conception of Aristotle’s mimesis and interpretation of Augustine’s posit of the role of time in his three-volume book *Time and Narrative*), explores further the epistemological dimension of narrative. It offers a theoretical framework to the understanding of the mutual relationship of narrative and time—narrative as the basic structure of human experience of time, which is at the foundation of all humans’ activities and consciousness (Rimmon-Kenan, 2006; Rankin, 2002), and time is the organizer of events and experiences.

The relation between time and narrative determines the mental actions that need to be performed in order to produce narrative. Ricoeur (1985) cited Aristotle, “Plot is the mimesis of an action” (p. 2). On the basis of this concept, he developed the threefold mimesis construct of plot, which can be briefly stated as pre-figuration, configuration and transfiguration in the process of creating narrative. He proposed the three mimesis as “a reference back to the familiar pre-understanding order we have of action; an entry into the realm of poetic composition; and finally a new configuration by means of this poetic refiguring of the pre-understanding order of action” (1984, p. 2).

From the view of constructivism, this can be interpreted as the process of individual– social interaction during the creating of narrative, and the interaction among the author, the text and the audience after the narrative is completed and released as a product. Simply put, in the first stage or mimesis one, the world is received to perception as silent experience. It may exist in certain semiotic form but it is not yet fully



constructed. In the second stage or mimesis two, narrative is created from the experience. This stage involves “emplotment”—the recounting, shaping and ordering of events and experiences – in order to produce a definite, identifiable textual structure with beginnings, middles and ends, coherence, closure, causality, addressee – the “narrative elements” in Rimmon-Kenan’s words (2006, p. 16). The third stage or mimesis three is the influences the text exerts on the audience, and possibly the author. It may cause changes or transfigure identity and life.

In this view, narrative is constitutive of consciousness. If Roland Barthes’ designation of narrative appears in the nominative case (i.e., narrative is myth, narrative is fable, narrative is epic, narrative is drama...), Theodore Sarbin’s conceptualization of narrative suggests ratiocinative actions (i.e., narrate = recall, narrate = recognize, narrate = reflect...). He wrote, “... Human beings think, perceive, imagine, interact and make moral choices according to narrative structures” (as cited in Hanninen, 2004, p. 71). This is where literary critics and educational psychologists meet. While narrating, the human mind performs reasoning acts which encourage development. Constructivism proposes that learning occurs when humans are connected to their experiences. This connection takes place in more than one chronological direction. Thus, it is not just the reflection on what happened in the past that brings knowledge, but so do the consciousness of the presence and the anticipation of future. This is perceived through the organizing role of time in narrative as proposed in Ricoeur’s theory.

*The ontological dimension of narrative.*

Although narrative is categorized into various modes of existence (*told narrative*—symbolic representation of human events, *inner narrative*—the narrative organization of

experience and *lived narrative*—the representation of the inherent narrative quality in life itself) (Hanninen, 2004, pp. 2–3), there always exists an inseparable relationship among all three embodied in one individual. Together, they work as different aspects of narrative, which reflect interpretation, reflection, self-representation and other-directedness the individual performs through narrating her experience. These are efforts to understand oneself and one's position in life. As Sommers (1994) pointed out in arguing for the relationship between identity formation and narrative, it is “through narrative and narrativity that we constitute our social identity” (p. 606). While creating the ontological narrative, the storyteller plays a very dynamic role in adjusting the story and her identity to make them fit each other.

In digital stories created in the model set by Center for Digital Storytelling, *inner narrative* is most frequently employed because it provides the creator with a way to shuffle or arrange her experience in a certain order that is significant to her (chronology, value, influence on life, and so on). It also offers a free space for expressing, modifying, and even experimenting with the formation of identity as shown in the stories created by young creators in the studies cited in this literature review, which reveal the arduous undertaking they have gone through for self-representation.

From the narrative theory perspective, a digital story performs more than one role. As a product, it falls into identifiable categories of genres and discourses (see Barthes, 1975; Bakhtin, 1981, 1986): It has definite complex anatomy that narrative theorists have much discussed (see Fisher, 1984; Ricoeur, 1985; Rimmon-Kenan, 2006), and it creates undeniable social cultural effects of an artifact. As a product, a digital story is re-shown, re-viewed, edited, and is available to multiple critiques. Current theorists assign another

dimension to the characteristics of narrative—the dynamic dimension of a process as opposed to the static one of a product—narrative as “mode of consciousness.” (Rankin, 2002, p.3) Digital stories are examples of this type of narrative.

In Digital Storytelling, Paul Ricoeur’s mimesis is translated into a configuration in which ratiocinative acts occur while the narrative is being built. It is while working on the “emplotment” that organizes experiences and events that the digital story creator carries out the distinct reasoning acts. It is also the consciousness of the temporal distance between the narration and the events accounted or among told occurrences that constitutes this dynamic status of the narrative. In other words, the position of the happenings on the time axis, whether it is remote past, immediate past, present, near future or far future, does not remain fixed and passive but actively interferes in arranging the order of incidents to construct the plot. Last but not least, Digital Storytelling can reflect the most important aspect of narrative—the relation between narrative as product and narrative as “mode of consciousness”, i.e., narrative as communication.

In light of Bakhtin’s concept of the relation of sign and meaning, which states that no sign has its inherent neutral meaning but receives its meaning and sense through dialogical processes (1981), a narrative is interpreted circumstantially. A digital story is created for a purpose, by a particular intentional creative agency, with a specific audience in mind, and is delivered through certain media. Inevitably, there are mutual effects between the creator and the story—the creator creates the story and the story in its creation also exerts influences on the creator (identity formation or literacy development). This suggests that the influence of Ricoeur’s third mimesis, the transfiguration stage, affects the audience as well as the creator in Digital Storytelling. In our digital age, when

technology-enhanced narrative creating and sharing occur more and more often, the transfiguration should be perceived on both sides.

***Digital Storytelling is negotiating within and across modes of expression.***

The process of building a digital story involves multiple literacies at work: verbal literacy to write the script and create the voice-over, visual literacy to select significant images, and media literacy to utilize cultural symbols, as well as to decide picture motion and the pace of the story so that it can have some of the exciting qualities of screen media. Actually, as the creator is more deeply engaged in the developing process, there are more literacies brought into action: digital literacy, global literacy, technology literacy and information literacy (Robin, 2005). These are the emerging literacies, as opposed to the traditional literacies that have dominated school curricula, and represent the new literacy trend in the digital age. As Ohler (2006) observed, “Through creating electronic personal narratives, students become active creators, rather than passive consumers, of media” (p. 44), the digital story creator is empowered with the participation into producing multimedia communication. In Vygotsky’s (1978) terms, the development of various forms of literacy can be considered as competences in using different sign systems and tools in authoring the narratives of life experience.

Emphasizing the relationship between the dominant literacy of verbal language and the new literacy of media, Ohler (2008) confirmed that “conventional writing is a key component of new media development” (p. 49). This statement maintains that the role of writing continues to be important when multiple modes are brought into the process of creating a text. Kulla-Abbott and Polman (2008) corroborated this premise by

juxtaposing the hallmarks of writing and Digital storytelling (p. 4), which is reproduced in Table 1.

This table suggests an organic connection between the writing skills and media skills brought into the creation of digital stories at various levels. At the individual level, each writing trait has a corresponding Digital Storytelling element with similar features, which proposes that though the written language and the multiple modes employed in Digital Storytelling have their own grammar and conventions, they operate in observance of common rules for rhetorical, visual or aesthetic effects on the audience. Writing the script for a compelling story to be told in 2–5 minutes demands as many skills and techniques as writing an effective argumentative or persuasive essay.

Table 1

*Correlation between Writing Traits and Elements of Digital Storytelling*

<b>6+1 Writing Traits (Culham, 2003)</b>	<b>Seven Elements of DS (Lambert, 2002)</b>
<b>Organization</b> Showcases the central theme or idea.	<b>Point of view</b> “Point” of the story
<b>Ideas and content</b> Clear and focused with relevant details that enrich the central theme.	<b>Dramatic question</b> A structural “setup” corresponding to a logical “payoff”
<b>Voice</b> The writer speaks directly to the reader in a way that is compelling and engaging.	<b>Emotional content</b> Truthful approach that holds the audience’s attention
<b>Word choice</b> Words are powerful, engaging and convey intended message.	<b>Voice</b> Recorded narration of the script of the authors’ voice and inflection
<b>Sentence fluency</b> Sentences have an easy flow, rhythm, and cadence.	<b>Pacing</b> Good stories breathe. The narration uses engaging rhythm.
<b>Conventions</b> The writer utilizes standard writing conventions of spelling, grammar, punctuation, etc.	<b>Economy</b> Using images with meaning allows for economy of words.
<b>Presentation</b> Enhances the readers’ ability to understand and connect with the message.	<b>Soundtrack</b> The sound effects and music can set the mood and impact the story.

The identifying of the dramatic question in Digital Storytelling, like the choice of topic and ideas in writing, belongs with the category of emotional stance towards the theme. There are themes or topics in which creators do not have familiarity or interests; this results in their failure to convey their own voice. Kulla-Abott and Polman (2008) mentioned instances of creators composing “video essays” rather than digital stories about Roman emperors’ biographies or physics laws in a communication art curriculum because they could not convey emotional impacts or a story sequence in what they produced. Even when the creators were successful in building digital stories based on their personal experiences, they may fail to express their voice in stories on other assigned themes. In some extreme cases, when the topic was their life anecdotes, the creators still had difficulties in selecting and organizing ideas to write their plots, as revealed by another study (Hull et al., 2006).

At the holistic level, there needs to be a harmonious combination of all the traits for a meaningful and eloquent piece of writing. From this view, a digital story is a text different from those creators have been accustomed to in that it has an elaborated multimodal textual structure. In order to compose such a “digital sonnet” or “haiku” (Hartley & McWilliam, 2009, p. 5), the creator is required to skillfully observe the conventions of both verbal language and visual grammar, as well as to orchestrate the effects of the different modes to maintain the simple elegance of the format.

Language, in written or spoken forms, is only one mode of communication. In creating a digital story, the creator shifts from using the linguistic mode to employing multiple modes to produce a text that can narrate and display at the same time. There are two fundamental concepts often returned to in discussions on this issue: “mode” and

“medium.” “Mode” is used to refer to the “culturally and socially produced resources for representation” like the verbal language and images, and “medium” is the term for “the socially and culturally produced means for distribution of these representation-as-meanings or messages” like books or screens (Kress, 2005, pp. 6–7). Hence, the terms “multimodality” and “multimedia,” although used interchangeably in various contexts, definitely refer to separate things. It is important to note that each mode has its own affordances, just as each medium has its own facilities; and these specific powers and effects are simultaneously independent from and interdependent on one another (Kress, 2003). The change of modes may entail the need for change in the media, as well as change in the influence on the audience. Thus, a written description of the process of pollination by bumblebees would bring quite different effects from those created by a video clip on the same botanical topic.

While a mode presents affordances, it also operates with constraints, which implies that it can create “certain communicative effects and not others” (Stein, 2008, p. 26). Therefore, in building the semiotic structure of a digital story, the concept of “modality” plays a major role because it is connected to modal choice, to design decisions and to the constructions of reading/viewing paths. In other words, the affordances and constraints of the modes form a kind of grammar that a multimodal text needs to follow in order to become meaningful and culturally accepted. In vein with this idea is the concept of “media grammar” (Ohler, 2008, p. 50), which emphasizes the effects of the untraditional modes employed in a multimodal text. There are no definite conventions and rules in this “grammar,” as it depends on how the digital story creator negotiates the diverse modes and how the modes collaborate toward certain common

effects. However, this concept raises the awareness of the co-existence of the established and emerging modes within a single text, as well as the role of the act of negotiating in this process.

Creating a digital story is designing in multiple modes. To the creator, this is an attempt to reach beyond the linguistic tools to semiotic means. The creator often has to ask himself the question, “What modes of expression I need in this specific situation, granted my interest, with this particular resource, to serve this particular configuration of purposes?” This is a question of choice whose answer demands the consideration of a series of criteria. The creator needs to negotiate with the different affordances when he transcends the borders of verbal language, images, animation or music.

The negotiation across modes may occur in broad bearing such as the inclusion or exclusion of text or images. It could happen at minute extents such as the amount of verbal text and images used where the two modes are both employed. It could still appear in very subtle and fugitive nuances in the conceptualization of the creator about the role of each mode. Nelson and Hull (2008) presented very interesting cases of this type of negotiation. In one case, the creator, an adult English learner, was puzzled how her experience could be represented with images for while she perceived that it was easy to find images for referents, it was difficult to do so for her experiences, because experience to her was represented through verbs. In the other case, the digital story creator had to negotiate with dimensions of meanings of images. She had to decide between including pictures which were emotionally significant to her and replacing them with others which conveyed self-evident symbolic meanings to the audience. In another context, Banazewski (2007) also noticed a defiance emerging from the shifting from the verbal to



the visual mode: his students failed to think visually and therefore could not translate their ideas into meaningful images to effectively express what they wanted to convey.

Although it has not been definitely pronounced as difficulties or challenges, the literature on Digital Storytelling has laid the groundwork for the proposition that negotiations constantly occur to different extents and aspects within modes and across modes in creating a multimodal text like a digital story; and in quite a few situations, the creator has a hard time making choices. This reinforces the idea that negotiations may be associated with and entail challenges in creating digital stories.

## **Conclusion**

Technological progress has made possible revolutionary changes in communication. The rapid shift from the rigidly defined and conventional writing to other forms of representation has marked the rise of multimodality and the multimodal transformations in literacy practice and artifacts associated to it. This sweeping change in the literacy landscape has raised images, music, gestures, animation and other representational modes to the same pedestal as language. Children nowadays not only can write, sing and act in plays but can produce digital movies, design creative graphics, and participate in computer games and interactive websites (Siegel, 2006). Digital Storytelling emerges as a part of these multimedia offerings. However, the fact that most young creators nowadays are digital natives does not ensure that students can naturally create good, meaningful digital stories. Seen from various perspectives of sociocultural theory, constructivist theory, and narrative theory, the creating process of a digital story is a series of complex negotiations in different aspects—mode, medium, idea, identity

formation and self-representation—and at various levels—textual, cultural, individual and social.

Also a digital story is not a personal letter. It is created for more than one pair of eyes, in more than one mode and delivered in more than one medium. This new feature is the most challenging aspect of the genre. While Kress stressed that the modes and the media have their own affordances, he also maintained that “it is critical not only to understand and evaluate the affordances offered by the modes and the media but also to act pedagogically and politically in light of these evaluations” (as cited in Prior, 2004, p. 24). This reminder can be interpreted as an attitude towards multimodality that would help educators see both sides of it in education. Multimodality is both a strength and a challenge of Digital Storytelling. If well used, multimodality no doubt can attain great expressive power that can bring real-life exuberance and vivaciousness to a story. Otherwise, it will produce jarring effects that kill the story or “make the story’s defects more apparent” similar to when “a bad guitarist [is given] a bigger amplifier” (Thornburg, 2008, p. viii).

This understanding of the role of multimodality in creating narrative laid the groundwork for the direction of this study. Although the creating of digital stories is a highly idiosyncratic process, it would be helpful for teaching and learning with Digital Storytelling if it could be identified patterns of specific negotiations and challenges creators may encounter during the process of creating a digital story, as well as solutions they use to overcome these challenges. The implications would help predict the difficulties students may have in creating digital stories and strategies to help them solve problems on the side of the teacher. Additionally, there would be more consideration for

appropriate application of Digital Storytelling in different educational contexts once it is recognized that such a versatile device may also have its own constraints.

### **Summary of the Review of the Literature**

Two main themes emerge from the literature concerning Digital Storytelling: (a) In education, Digital Storytelling is a powerful tool for literacy development (Iannotti, 2007; Kajder, 2004; Ohler, 2008; Robin, 2004, 2007) and self-representation (Davis, 2005; Hull & Katz, 2006; Hull et al., 2006; Nelson & Hull, 2008); and (b) Digital Storytelling is a new genre for communication and community development in the digital age (Hartley & McWilliam, 2009; Lambert, 2006, 2008; Lundby, 2008). Most studies highlight the digital story as the outcome of a creative process, and the studies on the use of Digital Storytelling in educational settings tend to set more weight on the product—the story than on the process of its creation and the experience of its development.

On the other hand, very few studies mentioned the challenging aspects of Digital Storytelling and the experience of the digital story creator (see Kulla-Abbott & Polman, 2006, Nelson & Hull, 2008). Given the negotiating characteristics of communication, the issues to be addressed are negotiations and challenges emerging during the process, the relationship between them and the experience of the digital story creator during the time. They set the firm rationale for my narrative inquiry into the experiential dimension of Digital Storytelling

From the perspective this study takes, this literature review is an attempt to construct a theoretical foundation that supports the concepts of *negotiation* and *challenge* in the experience of creating a digital story. It sought to approach Digital Storytelling from three different perspectives: sociocultural theory, constructivist theory, and

narrative theory as they propose more illuminative theoretical positions in understanding humans and their social relations.

The theories converge and complement one another to create a backdrop that accentuates narrating as a sense-making act typical of human beings, and the role and functions of narrative in the social, cultural relationships of mankind (Bruner, 2004; Kohler-Riessman, 2009; Rankin, 2002; Rimmon-Kennan, 2006). The concepts of negotiation in individual-social interaction (Piaget, 1952; Vygotsky, 1978) and in communication (Kress, 2003, 2005; Stein, 2008) largely corroborate the concept of negotiation for choices in creating a digital story. Studies of the practice of Digital Storytelling in various educational contexts implies types of negotiation a digital story creator may get involved in: with internal conflicts, with the audience, and within and across modes of expression used in the story (Hull et al., 2006; Kulla-Abbott & Polman, 2006, Nelson & Hull, 2008). Although these works do not emphasize the challenging facet of Digital Storytelling, they provide helpful implications for investigation into the relationship between negotiations and challenges in creating a digital story. Thus, this scholarship confirms the significance of my inquiry.

### **Chapter III: A Narrative Inquiry into Telling Stories with Digital Technology**

This inquiry is based on the assumption that the creator of a digital story needs to engage in a series of negotiations when creating a digital story. While the story receives a great deal of attention from both the story creator and the audience as the product of a creative process, what is often largely hidden from view is the experience of negotiating and coping with challenges during the process. A creator may spend days developing a digital story that plays for only 5 minutes. This experience becomes the gold dust left in the pan after the water has been drained.

To study the process of negotiation, a research methodology is required that will allow in-depth exploration into the personal experience of the digital story creator. Narrative inquiry satisfies this goal. It focuses on experiential narratives as a valuable source of data and “produces storied accounts which render the data meaningful” (Polkinghorne, as cited in Elbaz-Luwisch, 1997, p. 79). Clandinin and Connelly (1990) additionally explained, “Education is the construction and reconstruction of personal and social stories, and teachers and students are storytellers and characters of their own stories” (p. 9). In light of this assumption, my inquiry aims to study stories of teachers as instructors and students as creators of digital stories in an effort to examine their most educative experiences. It will additionally spotlight particular moments of learning and the meaning derived from them.

#### **What is Narrative Inquiry?**

Narrative provides an “avenue into human consciousness” (Webster & Mertova, 2007, p.14). It is a mode of “cognitive functioning” that has its “distinctive ways of

ordering experience, of constructing reality” (Bruner, 1966, p. 11). Narrative knowing, complementary to paradigmatic knowing, is one of the two essential ways humans make sense of their world. Narrative is vital to framing human experience because it has the ability to capture and analyze life stories, document critical life events and reveal “holistic views” (Webster & Mertova, 2007, p. 18). These qualities render stories essential text for research.

Narrative is concrete and substantive in many ways. Narrative exists in the linguistic forms used to tell the story and is highly contextualized as its construction is influenced by when, where, and by whom, the story is told (Merrill, 2007). When an incident is narrated, it is immediately located in the stream of time with the landmarks of past, present and future, and bears the implications of significance, value or intention to the storyteller and his audience. This temporality brings about the dynamism, tentativeness, openness to revision of narrative, which makes narrative the suitable approach to studying matters bearing the impacts of the ongoing and changing nature of life.

Studying narrative has become a respectable and popular approach in social research. The focus on narrative is essential on the research agenda across different disciplines: anthropology, ethnology, cultural studies, psychology, to name a few. In recent decades, the use of narrative as an approach to research has been considered “the reflection of the movement away from the search for universal truths toward the search for an understanding of contextualized human experiences” (Willis, 2008, p. 219). Among this research scholarship, narrative inquiry, initiated by Clandinin and Connelly (1990, 1999, 2000), emerges as a powerful line of research in the field of education that

engenders inquiry into teachers' and students' experience in their own terms and with their own emotions. Narrative inquiry is a new voice in educational research as it raises awareness of the relationship of the teacher and the curriculum, demands the legitimization of teachers' and students' experience, and questions the shaping effects of educational contexts.

The theory of narrative inquiry is grounded in John Dewey (1938)'s educational philosophy, which holds important values and significances of educative experience, and argues for the active role of humans as knowers in reflecting on experience, making sense of life through experience and taking action on the grounds of things learned from experience. This theoretical position also highlights the connections between experience and the influence of its immediate contexts. Inquiry into experience, then, is necessary, as it "enables us to reflect on our actions and then take actions with foresight" (Johnson & Golombeck, 2002, p. 4).

Narrative inquiry takes as its center the narrating of lived experiences and interpreting them in a storied way. Narrative is both the phenomenon and the methodology because it "names the structured quality of experience to be studied and it names the patterns of inquiry for its study" (Clandinin & Connelly, 1990, p.2). Narrative inquiry adopts Dewey's notion of experience and his framework of conceptualization of experience. The criteria of experience, as Dewey (1938) pointed out—continuity, situation and interaction—are represented in the temporality, the context and the personal and social nature of the narrative of experience. In educational research, narrative inquiry is also guided by Schwab's (1973) commonplaces: subject matter, teachers, learners, milieu, and

curriculum-making, which map the bodies of experience constituting the meaning of education.

Narrative inquiry as research methodology is not just telling stories and reflecting upon experience. A hallmark of narrative inquiry is to make an analytic examination of the “underlying insights and assumptions” of the experience the stories illustrate (Bell, 2002, p. 208). The second characteristic of the approach is the “making sense of narratives as they are lived or as living entities” (Pinnegar, 2006, p. 247). The researcher “enters the inquiry” and “finds himself in the midst” of everything—the life of the participants, the work they are doing or the occurrence of an event. This involves “entering into lives in context and into relationship” and negotiating to make meaning out of them (Craig & Huber, 2006, p. 256–9). Thus, narrative inquiry is a powerful tool to delve into human experience as living stories that connect past, present and future, and make a bridge between the individual and the society. Narrative inquiry is an exploration into the nexus of multilateral relations in human life through the means of experiential narratives.

### **Why Narrative Inquiry as the Methodology of This Study?**

Narrative is the best way of “representing and understanding” (Clandinin & Connelly, 2000, p. 18) the learning experience that is unobservable and unnoticed. At the same time, narrative has implications for the need to understand the learner’s experience. A concern for the digital story creator’s narrative through narrative inquiry methodology would help bring to the fore the thinking and the needs the creator has during the creating process that may be neglected with other research approaches.



The interpretive tools of narrative inquiry, broadening, burrowing and re-storying, offer means to approaching experience from different angles. “Broadening” considers the experience as a part of the general landscape of the issue in question, “burrowing” examines more personalized qualities of the experience and searches for their origins, and “re-storying” brings the participants whose experience is investigated into the active role of the agency urging for revisiting the experience and re-living the event to create changes to the significance or value of the experience (Clandinin & Connelly, 1990, p. 11). Using narrative inquiry to learn about the digital story creator’s experience is to construct a narrative structure of story in story. Each participant’s story constitutes a part of the larger framework of negotiations and challenges in creating a digital story, and presents its own process of negotiating to make sense in the multifaceted individual-social relations of its creator.

The negotiating experience in creating the digital story is complex and dynamic because it reflects various actions in the thinking order, from lower to higher: understanding and applying new technical skills gained from instructors and peers, reflecting events, comparing, analyzing, synthesizing and evaluating to make choices in the construction. It is also highly idiosyncratic in nature. Different creators undergo different negotiations and encounter different challenges; their solutions and strategies vary accordingly. The literature review of this study suggests three types of negotiation: within the creator, between the creator and the audience, and within and across the modes used to tell the story. However, it is apparent that not all creators have to perform these three forms of negotiation; and those who do, do not experience them in the same way. The form and content of their digital stories dictate the dimensions of their negotiations.

Narrative inquiry pays special attention to individual participants and the narratives of their “lived stories,” which are then re-lived and re-told. It probes into the uniqueness of the creator’s feelings, expectation, intention, perception and knowledge brought into telling the digital story that may not be well investigated otherwise.

The creator of a digital story does not build her story solely on the foundation of her present knowledge. Underlying reasons for her choices of the theme, the images, the music and other elements of the story, as well as her skills to negotiate and cope with challenges may probably be originated from her past experiences. Narrative inquiry involves both the researcher and the participants in “narrative thinking” (Clandinin & Connelly, 2000, p. 18). This view establishes the connectedness of experiences along the chronological dimension, and the relationship between participants and their contexts and situations. For the digital story creator, it offers a chance to relive and reevaluate her experience. For the researcher, it suggests a way to write about experience that maintains its primary criteria of temporality, sociality and place (see Clandinin & Connelly, 2000; Clandinin, Pushor, & Orr, 2007).

Although this study initiates a different view toward the act of creating a digital story (i.e., it is a series of negotiations for the creator to make that may entail challenges for her to encounter), it does not aim at discovering new insights or rejecting established practices. It revisits popular conceptualization of Digital Storytelling from a fresh perspective. Narrative inquiry supports this type of research goal and the nature of the knowledge it searches for. As Elbaz-Luwisch (1997) emphasized it, although narrative inquiry also collects and analyzes forms of narratives, it does not try to arrive at generalizations about the subjects being studied or issues in question like other qualitative

approaches to research. In short, the results are the stories (Clandinin & Murphy, 2007). Focusing on the negotiations of individual digital story creators, narrative inquiry accepts the idiosyncrasies of the negotiating process and legitimizes the experience as a type of practical knowledge of learning with Digital Storytelling that is worth knowing and sharing.

### **My Role as the Researcher**

The researcher who follows the path of narrative inquiry plays multiple roles throughout the research. To establish a mutual collaborative relationship with participants, the researcher normally gets involved in their activities and lives the experience under study with them. My inquiry into the experience of my participants slightly diverged from this routine. While creating digital stories requires social interaction, it is also a private, un-interfered learning process when the digital stories are course assignments in a graduate curriculum. I entered my research site with the willingness to be a peer, a fellow student of my participants, but there were times I decided to be a silent observer in order to create truthful, accurate field texts.

For that reason, my involvement in the process that generated the experience I examined was primarily listening to and recording the stories of digital story creation. I also talked and shared my thoughts and experience related to Digital Storytelling, but for the better part of the time, my participation was limited to the constant presence in the classroom and the computer lab, as well as the close observation of my participants' activities. However, as Clandinin and Connelly (2000) put it, "education and educational studies are a form of experience" (p. 18), my experience as a researcher is no less important than the learning experience of my participants. Although I completely stayed

out of their process of creating their digital stories, my effort of contacting them and establishing collaborative relationships with them so that they could trustfully share with me their thoughts, feelings, or difficulties during the progress of their stories, was an attempt to actively live the experience with my participants, and as a researcher.

The linked courses used Moodle, a learning management system with functions similar to those of Web CT or Blackboard Vista. With a Moodle account provided by one of the instructors, I had access to the web site as a student of the class. I read their exchanges and reports, and watched their digital stories from the view of an insider, with profound insight and understanding due to my close involvement in all of their activities in class. Although I did not post in their forum, my participation was taken for granted. When one of my participants changed her script for the third time, she included me in her audience, “Ok...the script aka my albatross. It has changed again (Sorry, Anh)” (Moodle, Forum, October 24, 2010). She mentioned this again in our next talk, asking if I had read her most recent post. I answered that I did, and assured her that as the creator of her story, she had the right to make any changes to it (Personal interview, October 25, 2010). My presence in the classroom and computer lab was also accepted, which gave me the feeling of being a student in the courses again. More than once, I found myself restrained from raising questions to the instructor to learn more about the technical skills he was teaching while we were in the computer lab (Field notes, November 8, 2010).

My relationship with each individual participant was also favorable, though the extent of friendliness was not the same with all of them. Usually in the first interviews, I asked questions and led the conversation, but later on, my participants initially chose to tell me about their negotiations and challenges, their favorite choices or their difficulties

in the progress of their projects. Unless when they were in a hurry, they appeared to be communicative and glad that their experiences, positive and negative, were heard. Thus, I was accepted into the circle of the digital story creators of the Digital Storytelling course Fall 2010 not only as a researcher, a journalist, and storyteller, but a member, who was a digital story creator herself with first-hand experiences to share. This feature also legitimized my participation in their community.

While assuming each of these roles, I was mindful to maintain the spirit of narrative inquiry. Approaching my participants, I managed to make them feel that their stories were worth being heard, and ready to tell them. I tried to be sensitive to their willingness or hesitation in telling stories, and facilitated their telling stories with techniques that encouraged communication. I respected the authorship of the participants and often checked with them the accuracy of my notes and the faithfulness of my interpretations. As the writer of the final text, I avoided monopolizing the narrative. My research text—this doctoral dissertation—is composed of learning stories in rich, multi-stranded voices.

### **Field Texts**

Narrative inquiry does not involve only stories as text. In this inquiry, I employed a variety of field texts which included: field notes, conversations, research interviews, teaching materials, digital stories created by the participants, and their online exchanges in which they discussed their experiences of creating digital stories. Below is a matrix of the time I devoted to create and study these field texts.

Table 2

*Time Matrix of Field Text Collecting and Studying Activities*

<b>Activity</b>	<b>Length of time</b>	<b>Quantity/ participant</b>	<b>Number of participant</b>	<b>Total (hour)</b>
Field notes/ observation	4 hours/w			60
Conversations	15 minutes	4	3	3
Students Interviews	30 minutes	4	3	6
Instructor interviews	30 minutes	2	1	1
Studying digital stories	3 hours	1	3	9
Studying online discussions	1 hour/w			15
Studying instructional materials				4
Total time:				98

**Field notes as field texts.**

Field notes are detailed accounts of what the researcher observes, hears, experiences and thinks in her course of collecting data “in the field” (an educational setting) and reflecting on the data (Fraenkel & Wallen, 2009, p. 506). They are a sharp tool in capturing the dynamic and ongoing status of the issue in question. As the subject of narrative inquiry is “lives in motion” (Craig, in press, p. 19), field notes play the major role in catching slides of “lived stories” (Conle, 2000, p. 12) which reflect the whole underlying themes of the issues being studied. The time I observed the classes in the linked courses was the time I made field notes. My field notes presented my direct experience of being in the classroom and the computer lab with my participants, following the instructions, joining the learning community of the linked courses, and

addressing my research questions from the points of view of a character in the incident and a researcher.

### **Instructional materials as field texts.**

The experience of creating digital stories is not an isolated entity. Like any other learning experience, it is the result of the creator's interaction in the five commonplaces in education that Schwab (1973) pointed out. In this light, the course materials posted on Moodle such as syllabi, guidelines, tutorials, class activities, assignments, and resource links provided an insight into the knowledge the students were formally taught, and the instructional approaches. Studying these materials helped me recognize that they were the factors constituting the setting of the linked courses in which my participants created their stories.

### **Online discussions as field texts.**

The participants' online discussions formed the essential field texts in my inquiry as they reflected the real, ongoing process of creating a digital story. These discussions revealed the participants' conceptualization of their negotiations for choices, the challenges they encountered, their learning conditions, their technical skills, as well as their evaluation of their own and their peers' work. The exchanges concurrently allowed me to capture the thinking of the creators and see how they interacted with their peers and instructor in the progress of their projects. Thus, I could gain access to two types of negotiation the creator of a digital story might perform while developing her project: within the creator, and between the creator and the audience through the online forum.

### **Conversations and interviews as field texts.**

The differences between these two types of interaction with the participants lie in the structure of the discourse and the formality of the conduction. Conversations are unstructured and less formal than research interviews. Informal conversations offer the researcher and the participants opportunities to relax so that they can go with the “flow” of the talk. This following the “flow” is expected to bring the participants into a communicative mood for more detailed and extensive accounts of their experience.

I interviewed each student participant for 30 minutes four times during the semester on the basis of the progress of their digital story projects, the negotiations, and challenges related to their digital stories. We were also engaged in brief informal conversations during breaks, or before or after class time once every two weeks. I conducted 30-minute unstructured interviews with the instructors at the beginning and the end of the semester on their expectations and evaluation of their students’ achievement, as well as related matters. I always recorded all the interviews and talks.

The purpose of the interviews in this study was to make the participants *tell* their *stories*, so they were more talks than interviews based on a rigid structure because a structure would thwart the desire to tell stories of the participants (Clandinin & Connelly, 2000). I often asked open-ended questions and listened to my participants talk freely once they were engaged in telling their negotiations and experience of coping with challenges while working on their projects. This technique obviously encouraged them to reconstruct their experience rather than remember it. I also noticed that the conditions of the interviews (time, place, atmosphere, and so on) largely influenced the extent of communicativeness and the amount of experience revealed. I normally saw my



participants on campus, before or after class. This ensured that we met on a regular basis. Once, one of my participants was out of town and she invited me to her house to make up for the time lost. In the comfort of her home, she was welcoming and provided me with the most elaborate answers to my questions. For me, it was the best interview I had ever had.

### **Digital stories created by participants as field texts.**

The digital stories created by the participants were an important source of field texts in this study because the results of the negotiations—the choices the creators made—are presented in the stories. Like the participants’ narratives, they are both phenomenon and the method to approach the experience of the digital story creator. I found it quite necessary to conduct analysis of the participants’ digital stories to gain a thorough understanding of the “structured quality” (Clandinin & Connelly, 1990, p. 9) of my participants’ experience. The stories were analyzed as independent multimodal texts, and used alongside our conversations and interviews to help the participants recall “critical events” (Webster & Mertova, 2007, p. 78) during their process of negotiating or coping with challenges. I would watch a digital story together with its creator, and we paused to discuss how she selected certain details or created certain effects. Sometimes, the participant pointed out to me the issues she had with technology that emerged in the story. Other times, she identified images or details of her favorite choices. This offered invaluable opportunities for me to perform triangulation because I could compare and refer what I perceived among the three sources of field texts: online postings, digital stories and personal interviews.

## **Other Features of the Inquiry**

### **Timeline.**

The timeline for my data collection or creating field texts was the Fall semester of 2010, from September 15 to December 15.

### **Research site.**

The Department of Curriculum and Instruction of College of Education of a large urban university in Houston offers linked courses on popular culture and Digital Storytelling in the Instructional Technology programs. The Popular Culture course gives the students the opportunity to take an overview of American popular culture themes and get a concept of how to bring them into the classroom. The Digital Storytelling course focuses on hands-on activities in creating digital stories and using Digital Storytelling in education. When these two courses are brought into conjunction, the popular culture themes provide materials and ideas for the creation of digital stories, and the technology presents readily available methods to use and create the media. First offered in 2006, the linked courses have been considered successful as students recognize that Digital Storytelling is “a powerful teaching and learning tool that engages and motivates students in almost every content area” (Robin, 2007, p.8). My inquiry into the experience of creating a digital story took place in these linked courses. The specific characteristics of the linked courses, which were highly influential to the process of creating digital stories, will be investigated at length in the next chapter.

### **Participants.**

The graduate students attending these courses were in teaching and administrative positions in schools and colleges. A number of them might have created digital stories and used them in their own classrooms but many of them might be the first-time creators of a digital story. My inquiry needed both instructors and students as participants. The emphasis of the study was primarily on the students' experience but the information collected from the instructors on course design, course objectives, purposes of specific assignments, teaching approaches and grading policy was necessary for analyzing the field-texts representing the experience of the students. Due to the time required to work with each participant, I decided to work with three students and the two instructors. This would ensure that I had sufficient time for each participant and could collect enough field texts from which to compose a research text.

I obtained the permission of the instructors of the linked courses to conduct research in their classes. Although the central part of my study was the students' experience related to Digital Storytelling, I attended both classes with my participants because what they learned in the linked courses would greatly influence their process of creating digital stories. I spoke to the students in class about my study, and sent an invitation via email to invite them to participate in it. My first participant responded to my invitation immediately, and the other two contacted me somewhat later.

### **Questions for the inquiry.**

The key concepts in understanding experience as initiated by Dewey are continuity, situation and interaction (1938). Clandinin and Connelly (2000) constructed a practical framework for investigating into experience based on these concepts called "the

three dimensional narrative space” (pp. 49–52). They metaphorically used these terms for the dimensions of experience: *place* (situation), *forward* and *backward* (continuity/temporality), and *inward* and *outward* (interaction /personal and social relationship). This framework of narrative was applied in my inquiry to reconstruct the experience of the participants in creating digital stories. Questions for interviews and informal talks were meant to explore these depths of their experience. They included but were not limited to the following.

*Backward*

1. What kind of previous experience did you have with Digital Storytelling?
2. Have you ever created a digital story?
3. How would you describe the experience of creating a digital story?
4. Did you have to make choices (dramatic question, ideas, images, modes...) while creating that digital story?
5. Were you satisfied with your choices? Why or why not?

*Forward*

1. What are the things you have to make choices of when you create a digital story?
2. What are the factors that influence the choices you make in your digital story?
3. How do you negotiate with these factors to make your decisions?
4. Do you think that these negotiations/choices are associated with challenges?
5. What are the challenges you have encountered during the negotiating process?
6. Why do you think they are challenges?
7. How have you coped with these challenges?

8. Do you think this experience of negotiating and coping with challenges is going to be useful when you create digital stories in the future?

*Inward*

1. Do you like creating digital stories?
2. Tell about a digital story that you have created and what you like about it.
3. Do you have to negotiate with internal conflicts ( the way you want to represent your identity or your ideas, the story you would like to tell and the knowledge of the extent to which your story would be accepted...) when you make choices for your digital stories?
4. How do you choose the topics of your digital stories?
5. To what extent does your digital story represent your real-life personal experience?
6. What is your attitude toward the digital stories you have created?

*Outward*

1. Do you think your audience is an important factor to be taken into consideration when you create a digital story?
2. How do you think your audience would influence your negotiating process or the choices you make in your story?
3. Do you often ask for your classmates' and instructors' opinions and comments on your digital story project (unfinished work) while you are creating it?
4. Do you think the opinions or comments of your peers and instructors during the process would influence the choices you make in your story?

5. When your story is finished and shown to your audience, does its feedback make you edit it?
6. How large an audience (the circle of classmates, your community or YouTube, for instance) do you like to have for your digital stories?

### *Place*

1. What is the significance of the experience of negotiating in creating a digital story in this class to you?
2. Do you think that you can express more with a digital story than using other means of expression? Why or why not?
3. What do you think may be the affordances and constraints of telling stories with digital stories / digital technology from the experience you have just gained in the course?

## **Research Text**

### **Transformation of field texts into research text.**

All the field texts were transformed into research texts through a process of triangulating and threading. The texts were then classified and arranged in a significant order of time, importance, theme, type and dimensions of negotiation, for instance. Recordings were transcribed and sorted similarly. Part of the research text is the reconstruction of the participants' experience in an effort to search for its meaning at a deeper level. The content of the recordings were then combined with the other types of processed field texts where they corroborated one another. For example, negotiations for constructing the script emerged as a large theme in the inquiry. The field texts related to this theme, including the recorded communications, were pulled together and arranged

coherently to represent this theme in each of the participants' individual narratives and their shared cumulative narrative. The transforming of field texts into research text was also a selective process. Not all the field texts were used, but all of them were thoroughly examined before they were decided to be included in or excluded from the research text.

### **Interpretation and analysis of the field texts.**

Narrative inquiry is an approach that seeks to construct the whole from parts. In light of this conception, my inquiry into negotiations and challenges in creating digital stories was also the search for the understanding of how the narrative knowledge of the process was built up. Each separate, scattered stories or segments of stories about the experience of my participants, if well considered and correctly connected, would reflect the holistic visual of the matters under study. On these grounds, I looked for narrative threads, themes and tensions emerging in the process of creating digital stories of my participants in the specific setting of the linked courses. Metaphorically, I wove together pieces of experiential narratives selected from the field texts, following the traces of their patterns within and across the individual experiences of the participants.

### **Analysis of the digital stories.**

The word "text" has been used to refer to a digital story since the beginning of this dissertation. Now it is time for it to be thoroughly explained as to how the word conveys concepts essential to analyzing a digital story. "Text" traditionally meant only the writing, but recently has been applied for all modes of communication. The specific form of the mode in which a communication is conducted, determined by the characteristics of the communication such as its purposes, its channel or its substance is the textual shape of the communication. Kress (2003) suggested, "Text is the result of

social action, of work: it is work with representational resources which realized social matters” (p. 47).

In light of this, a digital story is a text that is normally composed of three lines of narrative: the imagery, the voice-over and the soundtrack. There are stories with less than these basic narrative lines, only images and music or images and narration; and there are those with more adds-on like graphic text or video clips. The different modes in a digital story collaborate to make it special. Multimodality brings forth effects that can be created by none of the modes when they work separately. All the narrative lines and additional components cooperate to tell the same story, touch the senses of the audience, initiate their imagination and convey to them meaningful messages. Lambert (2010) wrote, “If an image acts as the hand that leads us into the river, the voice is the riverbed below our feet” (p.11). The music and ambient sounds also work alongside the voice to set the tone and the mood of what is told. Compositionally, each line of narrative is a layer of meaning. The analysis of a digital story is then an examination of the forms and effects of these layers of meaning.

Hull and Nelson (2005) suggested a model for text analysis of a digital story which is based on the principles of “temporality and segmentability to each mode” and the “common denominator” among modes to “parse a piece into analyzable multimodal units.” Thus, the analysis of a digital story starts with the identification of the active modes constructing the story and the segmentation of the story into appropriate units of analysis. The next step is to visually transcribe the story, which means to present the story in a way that shows the “co-presence of the modes and segments in focus”. This stage is then followed by an examination to search for visual or thematic patterns



emerging in each mode and across modes. While this appears to be a very clear-cut guideline to analysis of multimodal texts, Hull and Nelson also emphasized that “there is no one formula for transcribing multimodal texts; the time scale (if there is any one at all), segmentation scheme, and so on must be created in direct relation and response to the modes and questions with which one is concerned” (pp. 235–236).

In this dissertation study, I adopted this model of parallel presentation and segmentation of the digital story. However, my application diverged from Hull and Nelson’s method in that it was not trying to parse a digital story’s components on the basis of common denominators among modes. (What is more, there is no definite way to determine the common denominators). The segmentation of a digital story as a multimodal text in this research was based on the structure of one or two prominent modes/narrative lines (normally the narration, as the participants developed their stories on the basis of their scripts). This could help identify how each narrative line works and whether the lines really collaborate to tell the story and create the effects the story presents.

Another difference is that Hull and Nelson’s model was invented for analyzing a highly artistic digital story, “a transcendent synthesis of forms and meanings across a variety of semiotic modes,” (p. 238) and in so doing, emphasizes the power of multimodality. The application of Hull and Nelson’s method in this study was not for a “fine-grained” (Hull & Nelson, 2005, p. 230) speculation of each slide for this purpose but for the examination of the large features of the narrative lines in a digital story, whether it is a perfect one or not, in order to better understand the negotiations related to the choices in the modes. The parallel configuration of the narrative lines was meant to

visually demonstrate the cooperation or reveal the gaps or lacks of collaboration among the lines (if there are at all). In this application, it offered the convenience of a format for juxtaposing analyzable units of digital stories and the participants' narratives of their experiences related to those sections.

Denzin and Lincoln (2008) stated that, "qualitative research, as a set of interpretive activities, privileges no single methodological practices over another.... Qualitative researchers use semiotics, narrative, content, discourse, archival and phonemic analysis, even statistics, tables, graphs and numbers" (pp. 8–9). This encouraged my adaptation of Hull and Nelson's model to perform text analysis for the digital stories created by the participants. I found that this model was a powerful tool for analyzing the features, effects of the texts, and the interaction of different modes used to compose the stories. Chapters V, VI, and VII of this dissertation present quite a few illustrations of the adaptation of Hull and Nelson's model.

### **Writing the research text.**

The participants in this study created digital stories as their course assignments. Each of the digital stories was the result of a laborious construction of a narrative since the creator had gone through serious research and a long process of diligent crafting to develop it. The participants told their lived stories of negotiating and coping with challenges during their projects to me as the researcher, and I, in my turn, am narrating them together with my own research story interlaced in this text. While writing it, I found that the experience of each of my participants was too important to miss or mix. Therefore, I devoted an entire chapter to the narrative of each of the digital story creators. This structure of story in story is like a set of Chinese boxes, which presents the complex

and multi-layered reconstruction of the participants' learning experience in a highly contextualized setting of the linked courses they took, as well as the conditions and environment of their study. It explains the structure of my dissertation and the progression of the chapters.

### **Validity, Reliability and Generalizability**

Theorists hold various views towards what determines the legitimacy of narrative inquiry as an approach to research, but they have agreed upon dismissing reliability, validity and generalizability (in the sense these terms are used in conventional research methods) as criteria of narrative inquiry. Amsterdam and Bruner (2001) maintained that, “stories derive their convincing power not from verifiability but from verisimilitude—they will be enough if they ring true” (p. 55). Webster and Mertova (2007) also confirmed this point. They declared that, “Narrative research does not aim to represent the exact ‘truth’, but rather aims for ‘verisimilitude’—that the results have the appearance of truth or reality” (p. 6). Guba and Lincoln argued for “transferability” to be established as a quality of narrative inquiry as social research (cited in Connelly & Clandinin, 1990, p. 7). This feature is close in nature to another criterion of judgment—resonance—suggested by Clandinin, Pushor and Orr (2007). Resonance is conceived as the quality of the research narrative that invites readers to “lay their own stories alongside” the told experience and find its relatedness in their own practices (p. 33). Conle (2000) approached the trio of criterion of research methodology from another stance. Based on the “validity claims” of rationality in communication suggested by Habermas, she proposed four criteria which narrative inquirers can use as anchors to prevent the narrative of their research from

sliding into fiction. These criteria stress the importance of truth—the truth in the stories and the truthfulness in the way emotions or intentions are represented (p. 59).

To work with “social data,” which reflect the “experiential, the embodied, the emotive qualities of human experience,” (Guba & Lincoln, 2008, p. 272) there needs to be a dynamic concept of validity or the “criteria for judgment” of narrative inquiry (Clandinin, Pusher & Orr, 2007, p. 33). This inquiry attempted to establish these criteria of narrative inquiry, which were most appropriate to its research design and context: verisimilitude, honesty, authenticity, and transferability (Connelly & Clandinin, 1990, 1999, 2000; Webster & Mertova, 2007; Denzin & Lincoln, 2008).

Verisimilitude, honesty and authenticity were set and maintained by the accuracy and faithfulness in the procedures of field text collection and analysis. Additionally, they were represented in the narrative of the inquiry through respect of the participants’ voices and the multiple truths they tried to express. Transferability is the nature of the participants’ experience. The experience they had through the negotiating process while creating digital stories in this class, though idiosyncratic, might relate in informative ways to the experience of other creators under similar conditions. The final text of the inquiry—this doctoral dissertation—strives to deliver this message, and in so doing, make a valuable contribution to the understanding of the experience of creating narratives with digital technology in educational contexts.

## **Chapter IV: The Setting of the Linked Courses and Its Effects on the Creation of Digital Stories**

Any story involves a plot, a scene and characters. Research texts do not tell fiction nor do they entirely reflect historical truth (Spence, 1982); still, a narrative of any type has a beginning, a middle, and an end; a space in which the incident occurs, and agents acting upon its development. Translated into narrative research, a narrative inquiry is an endeavor to understand experience through the “collaboration of researcher and participants, over time, in a place or series of places, and in social interaction with milieu” (Clandinin & Connelly, 2000, p. 20). Thus, the narrative of an inquiry is the building of the three-dimensional narrative space, the reconstruction of dimensions of experience: temporality, sociality, and place. In the linked courses, these dimensions are present in their setting. It offers a timeline, interactions, conditions and situations in which the participants created their digital stories.

Additionally, “all events take place some place” (Connelly & Clandinin, 2006, p. 481). The place of this narrative is basically the building in which the College of Education of a Houston urban university is located and where the classes of the linked courses were held, but it also varies because the creation of digital stories did not always occur on campus. The place in this study is the concrete and physical environment of the classroom and the computer lab where students of the linked courses convened once every week, their school libraries where the participants searched for materials for their stories after teaching periods, or their desks at home where they worked on their digital stories in the late hours. For my part as the researcher, this inquiry also took place in different contexts. It happened before the classes began as one of the participants

managed to talk to me after her one-hour's drive from her school to the university. It took place in the classroom and in the computer lab where I attended every session of the linked courses to build my field texts. It also occurred at the living-room of one of the participants who was kind enough to invite me into her home.

However, the physical place did not exert its influence on the participants as much as the setting in which they worked. As graduate students, the participants of this study came to the classroom and the computer lab for the linked courses only four hours a week, and they had full control of the duration of their presence in these spaces. In a study by Clandinin and her colleagues (Clandinin et al., 2006), the influence of the physical place on the participants was featured when one of the participants was described to stand in the hallway of her school while the national anthem was being sung when she arrived at school late, how she managed to get to her classroom with her late slip and caught up with the activities of the class. The narrative conveyed the sense that the place entirely accommodated and even confined the participants' activities while they lived their experiences.

In comparison with school-based studies of this type, where the researchers and their participants (who are often teachers and school students) normally spend most of their time at one location such as a school or a classroom, this research stood out for the mobility of the participants and the multiplicity of places where the activity under study—the creation of digital stories—was carried out. For that reason, the place in this narrative should be considered a part of the setting of the learning and creating digital stories of the participants, more specifically, the setting of the linked courses—their structure, their purposes, their requirements, the educational content and methods of assessment,

together with the facilities and teaching approaches. All of these have become critical factors to the participants' learning. This chapter will delineate the characteristics of this setting and investigate how it influenced the participants' process of creating their digital stories. The other essential elements of a narrative, the characters and the plot, will be introduced and unfurled in the following chapters with the analysis and interpretation of the field texts.

### **The Characteristics of the Linked Courses**

The linked courses of Popular Culture in Education and Educational Uses of Digital Storytelling had been offered to students of the College of Education of this urban university since 2006 (Robin, 2007). Each of the courses formed half of a six-credit hour block. Each course had its own focus, but they were designed to provide the students with clear concepts of how popular culture themes and technology are effectively incorporated in the curriculum of various content areas, especially social education. The courses were "linked" in their goal of integrating technology in classroom practice and also in the way they were scheduled back to back in one evening.

The rationale of the "linked" initiative was "the idea of technology by itself is not as useful as when it is paired with the content" (Robin, personal interview, October 6, 2010). It was also the hope that the students taking these courses can "apply new technology out of the classroom because most of them are teachers, curriculum specialists or technology specialists" (White, personal interview, December 16, 2010), and that the conjunction of a technology course and a content course would attract more students to study instructional technology. As a matter of fact, the convenience of the

linked model in time and effort was taken into consideration as well because the students had to get on campus only once a week for two courses.

### **Features of the Popular Culture course.**

The syllabus of the Pop Culture course stated that, “Teaching and learning social education takes on new dimensions through the integrated use of technology.”

Technology in this course was introduced as both the means and the end. One of the primary concepts of the course was using technology to transform and empower teaching and learning, and this concept was realized in the concrete conditions enabling the teaching and learning of the instructor and students in this specific context.

The most prominent characteristic of this course was that it encompassed various levels: Doctoral, master’s, and undergraduate students, many of them being veteran and first-year teachers, met in the same physical space once a week. This was not deliberately designed by the course instructors but demanded by the limitation in funding on the side of the university in terms of class organization. As a result, there were tensions between the students and the course structure. These were “disconnects” caused by the fact that undergraduate students did not have to take the Digital Storytelling course, so they focused on the popular culture component rather than on the technology part, that their goals for taking the course (getting certificates or going to teaching in the next semester) were different from those of the graduate students, and that there were students (majoring in technology or medicine) who enrolled in the course but did not have the foundational knowledge to follow it (White, personal interview, December 16, 2010).

However, the positive thing was this mixed group of students created a complex learning community in which each individual student brought their prior knowledge,



skills, and identity to construct meanings of the themes and trends they discussed regarding popular culture. Constructivism was present in the instruction and the form of organization of the class. The instructor maintained that the linked course structure “enhanced the idea of constructivist approaches to education, the kind of collaborative, student-centered approaches.” He stated, [We] “allowed for negotiation with the students on how we designed the projects, what kinds of stuff they do in the class and what we mean by new technology, that kind of thing” (White, personal interview, December 16, 2010).

Another distinguishing feature was the use of technology in the classroom. Technology played an essential role in the teaching and learning activities of the course as the instructor astutely observed, “You can’t teach pop culture without technology” (White, personal interview, December 11, 2010). Popular cultural themes were introduced through the media, and students used laptop computers throughout the sessions. The interaction in the classroom occurred in multiple patterns, but three were most noticeable: instructor–student, student–student and student–screen (of laptop or projector). At other times, when the instructor introduced media artifacts or held general class discussions, the interaction went in the pattern of instructor– students–screen.

Assignments in this course ranged from discussing online, conducting research on cultural themes, writing reviews on cultural products that the students researched during the semester, developing lists of resources and classroom activities, to creating digital stories. A presentation on a selected theme was the culmination of the activities. The presentation was generally supposed to consist of an overview of the theme or subtheme in focus and demonstrations of how to use popular culture resources coupled with

technology to teach the theme in various content areas. While students of different levels mixed and interacted in their class activities, the requirements and assignments were different for the different levels of students. Undergraduate students could work in pairs or group for their presentation, but graduate students had to prepare it individually. For the graduate students, creating a digital story and including it as the technology component of their presentation was compulsory. The social education thematic strands introduced in the course were outlined in Figure 1.

- |  |
|--|
| <ol style="list-style-type: none"> <li>1. History (Time, Continuity, and Change)</li> <li>2. Geography (People, Places, and Environments)</li> <li>3. Economics (Production, Distribution, and Consumption)</li> <li>4. Government (Power, Authority, and Governance)</li> <li>5. Citizenship (Civic Ideals and Practice)</li> <li>6. Culture (Diversity)</li> <li>7. Science, Technology, and Society</li> <li>8. Global Connections (Interdependence)</li> <li>9. Individual development and Identity</li> <li>10. Individual, Groups, and Institutions</li> <li>11. Social Education Skills</li> </ol> <p>(Course syllabus, 2010)</p> |
|--|

*Figure 1.* The social education thematic strands introduced in the Popular Culture course.

The instructor of the course stated, “This is a methodology class.” As such, the focus of the course was on pointing out what resources are available in popular culture, to what extent these resources could be exploited as teaching materials, and how to use them (field notes, September 20, 2010). The students were expected to use the suggested themes and subthemes in their presentation and demonstrate with specific activities of their own creation how they employ the media, technology and other popular culture artifacts to convey the educational objectives of the strands. The list of themes and subthemes is shown in Figure 2 below.

Themes	Themes	Subthemes
Music	Toys/Games	Music of the times to teach history
Film/Movies	Television	Censorship and music
Advertising	Magazines	The sixties through film
Visual Literacy / Art	Comics / Cartoons	Cartoons and social issues
Technology	Books / Literature	Media and bias
Theater	News / Journalism	Marketing to youth
Fads/Trends	Propaganda	Science fiction and social issues
Sports	Globalization	Women and television
Food	Fashion	
Commercialism / Shopping	Media Literacy	
Representation	Politics and Media	
(Popular Culture Course Syllabus, 2010)		

Figure 2. Themes and subthemes for presentation in the Pop Culture course.

### Features of the Digital Storytelling course.

Because Educational Uses of Digital Storytelling was an instructional technology course, it was highly focused on developing technology skills. It brought about hands-on experience when the students were engaged in the process of creating digital stories as course assignments. It was self-contained in structure, but when the course was linked to the popular culture course, this was meant to give students more specific guidelines concerning ideas and themes for their digital stories, and how to use Digital Storytelling in the classroom as a potent tool. The instructor said,

*Since I wanted students to be able to create digital stories on particular topics that had some educational value, [the instructor of the Pop Culture course] and I decided that we could teach our two courses together and be innovative in a linked fashion so that the students would explore the popular culture topics in his course and then they would create digital stories on those popular culture topics, and that worked out really well. The students liked it, we liked it, and we thought*

*the project turned out better than in the past when I wasn't doing the course with him, and my students could create digital stories on any topic they chose.*

(Robin, personal interview, October 6, 2010)

Unlike the Popular Culture course, this course was open only to graduate students. The number of students enrolled in this course was small in comparison to that of the Popular Culture course. This presented favorable conditions for typical activities in the process of creating a digital story, which are more suitable to small groups, such as story circles and peer review of scripts or digital stories. It also offered better opportunities for closer interaction among the instructor and students. The instructor could always give advice or discuss technical problems the students encountered while developing their digital stories. Once, the instructor even provided additional resources for the topic of the digital story of each of the students. He posted the information under the names of the students on Moodle, a learning management system similar to Web CT or Blackboard Vista, which was used for the linked courses. For the three participants of this study (Laura, Jenny and Theresa), the websites the instructor suggested for their further reference were as follows.

**Laura:**

What Makes Superman So Darned American?

<http://books.google.com/books?id=BEkB2J-Wb4sC&lpg=PA331&ots=kOgNfxNFXE&dq=superman%20and%20heroes&lr&pg=PA331#v=onepage&q=superman%20and%20heroes&f=false>

Superman Mythology

<http://everything2.com/title/Superman+Mythology>

The Story of Superman's Symbol

<http://metropolisplus.com/Superman/>

**Jenny:**

The Cult of Celebrity - What Our Fascination with the Stars Reveals about Us

<http://books.google.com/books?id=hQDPYS13CwAC&lpg=PP1&dq=cult%20of%20celebrity&pg=PP1#v=onepage&q&f=false>

**Theresa:**

The False Controversy of Stem Cells

<http://www.time.com/time/magazine/article/0,9171,1101040531-641157,00.html>

(Moodle, Resources, Class Eight)

Although students' opinions were always heard and appropriately responded to by the instructor and peers, and the ambience of the class was comfortable and conducive to learning, the distinguishing mode of in-class instruction in this course was teacher-centered (Field notes November 25, 2010). The instructor always taught new skills, reviewed technological knowledge or answered questions related to technical difficulties, so he was the speaker most of the time. The class was routinely convened in the computer lab, and the instructor showed video clips or demonstrated techniques with a computer and projector. The interactive pattern in this course was most often three-directional: instructor–students–screen (Field notes, October 8, 2010).

However, this does not mean that the students were always passive learners. In the forum on Moodle, they proved to be active participants in discussions and constructive learners in sharing knowledge. The instructor was prompt in appreciating valuable contributions. This is an example of an online interaction between the instructor and one of the participants:

Discussion topic: *Conduct some research on the web to see if you can find any resources (other than those already listed on the Moodle pages) that deal with*

*writing scripts for digital stories, that you feel has information that will be useful to the others in our course.*

*Laura wrote: ...The readings for this week were much more extensive and helpful—the BBC readings contained writing tips that could be applied to almost any writing situation. I did find some other good resources though.*

*<http://www.digitales.us/index.php>*

*Not only does this web-site have a cute, cartoony name, but it also provides relevant resources for digital storytelling...yes, the same seven key elements but others as well like music and image sites for royalty free downloading. PLUS the creator of this site puts on digital storytelling workshops in some mountain cabin in Colorado. If I don't show up one day to class, it is because I'm communing with other digistory[sic] people.*

*<http://net.educause.edu/ir/library/pdf/ELI08167B.pdf>*

*This resource has a number of goodies hidden in it from research articles, music/image downloads, sample lessons, and example digital stories in all subject matters (personal, information, etc.). It is very detailed and worth checking out.*

*(Moodle, Discussion Assignment for Class Five, October 2, 2010)*

*Instructor responded: [Laura], the Digital Storytelling Tips and Resources from Simmons College is very helpful. I added it to the Educational Uses of DS website, under the Essential menu. Thanks for pointing out this useful resource.*

*(Moodle, Discussion Assignment for Class Five, October 4, 2010)*

Thus, while the students spent most of their in-class time listening to the instructor and watching his demonstrations, they could use Moodle as an extended space for more active multiple-directional interaction.

As happens in most instructional technology courses, the materials for this course extended beyond reading resources to computers with access to the Internet, common Web browsers (Internet Explorer, Mozilla Firefox) configured for access to multimedia materials online with helper applications (Adobe Acrobat Reader, RealPlayer, QuickTime Player). Free or inexpensive programs for audio and video editing (Audacity, GoldWave) were needed in the course. Additionally, digital cameras, microphones and hardware for data storage such as flash drives or portable external hard-drives were also necessary for the course, and many of these items were made available for students to check out of the College of Education's computer lab (Digital Storytelling course syllabus, 2010).

Students were required to create an educationally meaningful digital story for the final semester project with the theme or subtheme covered in the course on popular culture. Most of the participants in this study chose to create a digital story that could serve the purposes of both courses—a digital story with all the features demanded for the final project and that can be used as a part of their presentation on a popular culture theme. However, students did not have only one digital story project. They had four digital story assignments arranged in the order of simpler to more sophisticated technology skills as depicted in Figure 3.

**Project 1:** Still images + text, but without narration  
**Project 2:** Still images + text + someone else's audio  
**Project 3:** Still images + text + narration + music  
**Project 4:** Still images + text + audio narration + video clips + music

(Digital Storytelling course syllabus, 2010)

Figure 3. The progression of assignments in the Digital Storytelling course.

## How Did the Setting of the Linked Courses Influence the Creation of Digital Stories?

The features of the linked courses made it different from other educational settings in which learners create digital stories. It presented both positive and negative effects on the creating of digital stories.

### **Positive effects.**

#### ***The “double-dipping” of assignments.***

To most students who were teachers, this structure of the courses should be very helpful as they worked in two successive steps in a process of creating educational materials—the first provided ideas, and the second honed the skills and means to turn the ideas into some useable artifacts. The advantage for most graduate students was that they were able to create one digital story that would result in credits for both courses. This is where the two courses were practically “linked” as seen by the participants of this study. Laura created the digital story “Superman,” which she used in her presentation on using comics in the classroom. Theresa developed a digital story on technology in medicine and she showed it as a part of her presentation on using simulation in medical education. Jenny did not take advantage of this option as she created a simple digital story for her presentation on women in the media, but she apparently used the idea of this subtheme for her project in the Digital Storytelling course.



*The expertise of the instructor.*

The expertise of the instructor of the Digital Storytelling course was another favorable condition. Students found him a most resourceful and excellent instructor in many ways. They could always seek his advice for trouble-shooting with technical problems and improving the artistic aspect of their stories (Field notes, November 15, 2010). Below is a part of a conversation between the instructor and Jenny about her difficulties with her digital story on Anna Nicole Smith. Jenny had introduced in the latest version of her story the comparison of a modern entertainer like Anna Nicole Smith to a gladiator in ancient Rome by adding a picture of a gladiator at the end but was not able to coherently integrate the new idea in her story. The instructor knew exactly where Jenny had made the change to her story without asking her again. The exchange shows that the instructor closely followed the progress of the digital story project of each student and was willing to talk and suggest workable solutions to individual problems with which they had to cope. What follows is the conversation that took place between the instructor and Jenny.

Jenny: *...Last night I dealt with the idea of the gladiator. It was driving me crazy because the more gladiator stuff I put in visually, it just... it didn't go right...*

Instructor: *You only have the gladiator at the end, right?*

Jenny: *Right, right.*

Instructor: *So the way... If you're going to use the gladiator at the end, I think you may want to start off with a gladiator picture and a sentence that says, you know, we think we are progressive, we think are civilized but aren't we the same as we*

*have been for thousands of years? And then show the... may be the same picture...*

*Jenny: Right.*

*Instructor: And then that would tie in... because the disconnect is that you introduced something totally new at the end...*

*Jenny: Yeah, it was so...*

*Instructor: If you stop your story with it, people would be thinking what's going on...*

*Jenny: Yeah, and my videos, I was thinking of something at the beginning showing her behaving like a crazy bozo, you know, on YouTube I found... a picture, I'm sorry, a video in which she was falling down or showing her ridiculous over the top, but then again, I want to show the human aspect of her and ...I guess, not so outrageous, and I thought it may be cool to do some of those real cool graphics or gladiator-type video clips too. But it just seems so jarring, you know what I mean?*

*Instructor: Yeah, did you... have you looked extensively for video clips like the funeral maybe or announcements on TV that she died or reactions?*

*(Recorded conversation, November 1, 2010)*

### ***The great equipment and facilities.***

Although the computer lab was not state-of-the-art, it was well-equipped and could provide the students with most of the software they needed such as Microsoft Photo Story 3 or Windows Movie Maker. For the hardware, if students did not buy their own equipment, they could check out essential items like high-quality microphones from the

lab. In addition, students could use the Whisper Room, a professional sound-proof booth, to ensure high quality for their audio recording (Field notes, November 8, 2010).

***The timeline for the digital story projects.***

Students in the Digital Storytelling course had four assignments, but they did not have to submit four different digital stories. They could develop one digital story from the beginning and add required features over the sequencing of the course. Two of the participants of this study followed this path, so they had the advantage of time (at least three months of the semester) and of concentration to devote to developing the digital story they were to submit as their final project. Jenny chose to create a digital story on the life of Anna Nicole Smith, and she maintained the idea from the beginning to the end of the semester. She added new features of the digital story and improved it to meet the requirements of the course assignments, so she had the greatest stretch of time. Theresa did almost the same thing with her digital story “Technology in Medicine,” except for changes in the script and use of images. Laura was the only one of the three participants who created three different digital stories for the four course assignments, but her two first digital stories involved simple technology skills which seemed not to claim much of her time. She started her third digital story and final project on Superman in the sixth week of the semester, which left her about two months to finish it. In comparison to the timeline for creating a digital story in other settings (normally two weeks in a school classroom, for instance), this length of time was a major advantage the students of this course could have.

### *The use of Moodle.*

Communication in both courses was facilitated through Moodle. A free, open source and user-friendly learning management system (LMS) created with constructivist philosophy in mind, Moodle offers a learning environment that encourages both individual effort and teamwork. Teachers and learners can find on Moodle an assortment of tools such as blogs, a chat room, a database, a discussion forum, and a glossary in addition to traditional course management tools such as quizzes, lessons, assignments, and calendars (Holton, 2010). In the linked courses, Moodle provided three main functions: an online forum, a resource pool, and data storage. Here the instructors posted the course syllabi, requirements, activities, guides, grading policy, and reading materials; students and instructor exchanged ideas; and students submitted their digital stories as well as other assignments weekly (Field notes, September 20, 2010). Moodle played an essential role in the out-of-class interaction among instructors and students, and highlighted that technology was an integral part in the structure of the courses. Figure 4 shows a dashboard of the front page of the Digital Storytelling course on Moodle.

The use of Moodle in these linked courses is an illustration of the effective flexible delivery that facilitates interaction among learners and instructors in synchronous or asynchronous conditions, same or different locations. The forum on Moodle offered spaces for many comments such as the following ones.

Jenny described one of her experience with Audacity in the following passage:

*I tried to record my (not too good) script into Audacity. It worked but my issue was that I could still hear my background music while recording. It was disconcerting and I couldn't figure out how to get it quiet while I recorded. I had*

*it completely turned down on the track in Audacity. I also tinkered with the exterior volume control, which didn't work. Finally, I turned down the master volume control in Audacity, not the track volume, and it worked.*

The instructor responded:

*This is good information about Audacity. Let's plan to go over this in class to make sure everyone knows how to do this. Thanks.*

(Moodle, Forum, October 3, 2010).

Concerning Laura's theme of comics, a classmate wrote:

*[Laura], I like your topic, and as a history teacher, I do think it is important to move from why comic books may have been considered unacceptable resources to the current acknowledgement that they are an both a transition and extension to more advanced text.*

(Moodle, Forum, October 17, 2010).

Regarding Jenny's dramatic question, another classmate commented:

*[Jenny], I was very intrigued by your analogy of Anna Nicole to a gladiator. Having seen your other projects on her as a topic, I was able to visualize some of the images you might use, but it would be helpful to know what sorts of ideas you had for images/video/audio that you could use to supplement what you were saying. Overall I think you have a lot to work with and it's just a matter of finding the right images to go along with it.*

(Moodle, Forum, October 16, 2010)



Figure 4. The interface of the Digital Storytelling course on Moodle.

As the Digital Storytelling course convened only two hours once a week, the development of the stories occurred out of the class. Moodle provided a great means for learning and reflection because all the posts and submissions were organized temporally and stored in the system. Students could review their classmates' work, trace their own progress from week to week, and get comments on their own projects. The story circle, the stage when the students shared the script of their stories and received feedback, was formed in class, but the instructor and students continued to post their comments and responses on scripts via Moodle throughout the creating process. Moodle offered a network to conduct communication of this type, which was vital to the success of the course (Field notes, Nov. 15, 2010). As multidirectional communication is essential to learning constructively, Moodle excelled in the role of the most readily available and

convenient means for this purpose. In the linked courses, the role of Moodle went beyond that of a learning management system. It was a social networking system through which the digital story creators interacted with their first audience—their instructors and classmates. In receiving and responding to feedback on Moodle, they were engaged in the negotiation with their audience, a type of negotiation indispensable to the creation of multimedia materials.

### **Negative conditions.**

*It was hard to find themes for digital stories which would be suitable to both courses.*

As expected, the linked courses were to provide better directions for choosing topics for the digital stories. As the instructor of the Digital Storytelling course stated, before the two courses were linked, the topics of the digital stories were “all over the map” and when the two courses were brought into conjunction, the topics were supposed to “revolve around certain themes,” and popular culture presented a source of good themes as it was widely open and accessible to everyone (Robin, Personal interview, October 6, 2010).

In fact, the participants of this study found that the linked courses constrained their choice of topics for their stories. Two of them had difficulties in searching for the topic of their digital story, which would be able to serve the purposes of both courses. Laura, who was an English teacher, tried to introduce the use of comics in the classroom as the topic of her presentation. She originally wrote a script on the same topic for her digital story but found it boring, incoherent, and devoid her of the inspiration needed to sustain her project. She wrote on Moodle in response to a classmate who also struggled to

connect the two courses, “I think the combination of the pop [culture] class and the digi[tal] story class is making my script for the latest assignment a big pile of doo doo. Seriously. I'm trying to do two things without doing anything well” (Moodle, Forum, October 15, 2010). Laura had a hard time finding another topic that was both inspirational and functional in her presentation. The result was a focus on Superman, a popular comic hero, which was a compromise. Theresa, a healthcare professional, found it almost impossible to marry popular culture themes to teaching her medical students. She said,

*The biggest challenge for me was actually picking a theme that would fit both classes. In the first class, we have pop culture and try fitting something with the pop culture class and then do a digital story that I'm actually interested in. The field that I'm in is medicine, which has almost nothing to do with pop culture.*

(Personal interview, October 25, 2010)

She managed to come up with a loosely relevant topic of technology in medicine for her digital story as a part of her presentation on the use of simulation in medical education.

***The assignments of the Digital Storytelling course may cause tensions.***

The order of the assignments was meant to build “scaffolding” for the students over the course (Robin, personal interview, October 6, 2010). Each assignment was followed by the next one with more complicated features. The final project was a digital story exhibiting all the features the students had learned to create over the semester. While more intricate features were supposed to add more effects to the digital stories, some features like video clips or music with lyrics required more caution and crafting



efforts, which may demand negotiations, because they tended to cause tensions during the process.

Laura experienced this type of challenge when she tried to insert video clips into her story. The quality of the downloaded video clips was not high and this influenced the technological standard of the whole story. When Laura recognized this, she decided to fix it by re-downloading the clips and using video editing and file converting software. However, she still did not achieve the desired quality of her story with the clips as soon as she expected. As Laura remarked, this took so much time because it was not a linear process of adding features but reconstructing part of the work she had previously done (Personal interview, November 15, 2010). While watching one of the versions of her story uploaded on Moodle, the visual quality of which was not stable, she complained,

*I uploaded that one but I didn't want to do any more work on it because you see... what the video's doing? And so I started to... re-download all of them. I mean do you see how it is choppy and jumpy? It's not the way it's supposed to be and I don't know why it's doing that. So I didn't want to do a whole lot more work on this because my videos are bad.*

(Personal interview, November 15, 2010)

Another problem was the disruption to the coherence of the digital story caused by the inserted video clips. Laura's story "Superman," which she showed in her presentation, was completed and impressive, but its next version appeared to lack the previous succinctness and coherence as her narration was interrupted by the video clips she added. This disruption to the flow of the storyteller's narration is illustrated in the graphic below.

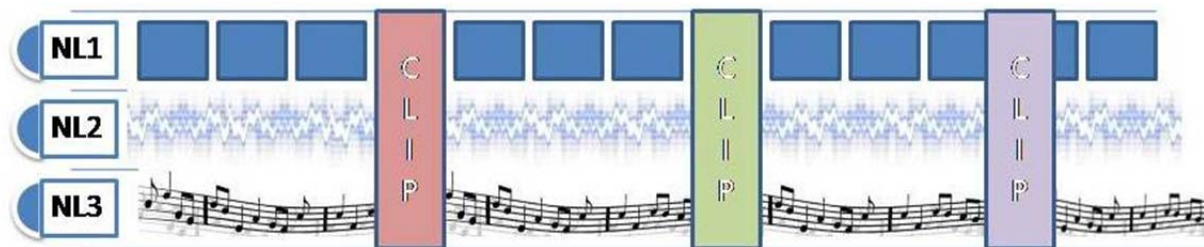


Figure 5. The structure of a digital story with inserted video clips.

The structure of the digital story is represented with the three main narrative lines of imagery (NL1), narration (NL2), and music (NL3), which are conceived to run in parallel and work in collaboration to tell one single story. Video clips from other sources may not run along the narrative lines of a digital story but form separate multimedia blocks in the story because they are not created but embedded, and the story creator cannot control the features of the clips the way she does the imagery, narration, and soundtrack of her own creation.

The issue can be dealt with when the digital story creator recognizes that the inserted video clips must become part of the story and manages to edit them for that effect. Otherwise, the adding of video clips would be redundant or dissect the unity of the digital story. The instructor of the Digital Storytelling course remarked,

*What some of the students did was that they took video clips that other people narrated and that just seemed to be interjected into their digital stories, and it satisfied the requirement of using video clips but it didn't make the video clips part of the story and it was an add-on, and in my opinion, it was an unnecessary add-on.*

(Robin, personal interview, December 8, 2010)

Like some students in the Digital Storytelling course, Laura seemed not to be well aware of this. She coped with the challenge of inserting video clips in her story by removing a large part of her own voice-over and trimming her story so that it would smoothly fit the clips of her choice. However, as she did not recognize that the clips should seamlessly merge into the story, she chose a video with outstanding narration, let it overwhelm her voice-over in parts, and therefore created an effect of two narrators in her otherwise perfect digital story of “Superman” (Digital story “Superman,” December 1, 2010).

### **Conclusion**

As the creation of a digital story is a highly contextualized endeavor, the setting in which the digital story creators worked played an extremely important role in the creating process. From the narrative inquiry perspective, the setting of the linked courses could be considered as the place, time, and the milieu influencing the participants’ activity under study. As students, they created digital stories for the ultimate goal of meeting course requirements under specific influences of their instructors and peers, in concrete facilities of their physical contexts and within enabling and constraining conditions of their situations. In terms of the two key concepts of this study—negotiations and challenges in the creation of digital stories—the setting of the linked courses required very typical negotiations and presented challenges to the creator of a digital story as those the participants of this study encountered: choosing topics for their stories, adjusting and editing their scripts to suit the feedback from their audience and maintain their ideas at the same time, coping with technical challenges in creating their narration, using video clips in their digital stories, and so forth. The specific negotiations and challenges in each of the participants’ effort to create her story will be analyzed at length in the following

chapters, but the conception to be brought over in each of the next narratives is that the setting of the linked courses largely influenced the creation of a digital story, and determined to some extent the types of negotiations the participants engaged in during the process.

## **Chapter V: Superman: The Story of Heroism in American Popular Culture**

### **The Portrait of the Creator of the Digital Story “The Superness of Superman”**

Laura had been an English teacher for ten years. Originally from Louisiana, she was teaching freshmen at a high school in Houston when she participated in this study. She was also a wife and a mother. Her two-year old toddler was so “wonderful” that Laura would like to spend “every minute every day with her” (Personal interview, September 20, 2010). Laura was in her early thirties. Her sweet features combined with the determination and self-confidence in her eyes gave the impression that Laura was a delicate and soft-hearted person but also one who would be dedicated and strong when she needed to be. These latter qualities emerged in her efforts to create her digital story.

Laura enrolled in the linked courses because she was in the doctoral program in education with an emphasis in Instructional Technology. She was a most conscientious student. She was always on time for the class and one of the first students to post her assignments on Moodle. Laura had deep interest in the use of technology in the classroom. She said, “I’m no way near to being a computer programmer, but I’ve always been interested in how technology is a tool for expanding students’ learning and how they can express and communicate and do things that are not in the traditional forms” (Personal interview, September 20, 2010). On the other hand, Laura admitted that she could not use technology as much as she wished in her classroom because of limitations in resources and time in her practical teaching conditions.

Laura did not have previous experience with Digital Storytelling in the sense of the experience she was going to gain in these courses but she had “skills and experience” with Movie Maker, a video-creating program. In her own classroom, she would ask her

students to tell their personal stories with pictures, using Movie Maker. This was as an optional assignment but she had got half of the class to create their “photo stories” (personal interview, September 20, 2010). To some extent, what she would do in the Digital Storytelling course was a reflection of what she had done with her students in her teaching.

### **The Digital Story “The Superness of Superman” as a Multimodal Text**

Laura’s digital story “Superman” was an attempt to construct a visual representation of the concept of heroism through the image of Superman. With the dramatic question, “What makes Superman so gosh darn likeable?” and a script that is a short expository essay on the theme (digital story “Superman”), she tried to explain how and why Superman has become an iconic superhero of American popular culture. The story presents a lot of information on “Superman” as a fictional character and a cultural icon. More importantly, it reflects Laura’s questioning of the meaning of a social phenomenon in an effort to convey a meaningful message. When asked what category in which her digital story “Superman” would fall, Laura said, “It has to do with his story as it explores where he came from ... Maybe discovery, as we discover why Superman is so much part of our existence” (Personal interview, November 29, 2010). Indeed, this digital story is one that can be roughly classified in the social critique genre for the purpose of informing a wider audience (see Hull & Nelson, 2005).

Five minutes and 47 seconds in duration, “Superman” consists of 51 still images, seven short video clips from various cultural products on Superman, and music from three different sources. Most of the images are explicit, which is suitable to the genre of the script. The imagery and the narration emerge as the two primary narrative lines in this

story, which run side-by-side or intertwine at times. Sometimes one line of narrative is replaced by another or temporarily ceases for effects, for instance, when the imagery comes to a transition with a black screen and when the voice-over is momentarily paused at the end of the introduction, but most of the time, the imagery and the narration are co-present to create a clear expository multimodal text.

As its script is a well-structured essay, “Superman” can be divided into parts corresponding to the script’s introduction, development, and conclusion. The segmentation scheme of this story can follow this structure: the introduction and conclusion of the story can stand as analyzable units; and the development can be further divided into smaller components: the position of Superman in culture, history of Superman, Superman as a super hero, and Superman as a normal human. These analyzable units are normally marked by transitions, which are turning images, black screens, or black screens with large white text as illustrated in Figure 6.

The black screens with text can serve as both thematic and visual transitions. A good writer, Laura uses them in her imagery like discourse markers and punctuation in writing, which is an illustration of the orchestration of the images and language in a multimodal text. In the introduction of the story, while Laura is mentioning the commonly conceived characteristics of a hero in her narration, the graphic text with the words “bravery,” “self-sacrifice” appears on the screen to confirm her words. As this sentence in the narration concludes the subsection on the general concept of heroism, the graphic text transition marks the termination of the series of hero images (a statute of a Greek hero, a close-up of Martin Luther King, and a picture of Abraham Lincoln), and opens the set of video images showing Superman flying. In other places in the story,

Laura uses this special type of transition to introduce her dramatic question (“Why Superman?”) or call attention to Superman’s characteristics (“What about Superman that makes him so darn likeable?”).

The introduction of the digital story “Superman” is an example of an analyzable segment in Hull and Nelson (2005)’s model. Laura opens her story with a series of portraits of heroes through time. The images unfurl in a linear order that introduces the perception of what a hero is like and then narrows down on the unanimous agreement of the Superman persona. This introduction is as coherent in both imagery and narration as that of a well-written essay. Beside the two main narrative lines of imagery and narration, the manipulation of the soundtrack as a third one is quite effective in the introduction. The familiar heralding music in the 1978 version of *Superman* brings about the feeling of watching Christopher Reeve’s movie, which is then reinforced by the appearance of the S shield, the symbol of Superman, in the immediately following slide.


<b>Images</b>	 <div data-bbox="1000 1283 1196 1333">video clip images</div> <div data-bbox="1268 1283 1403 1333">transition</div>				
<b>Narration</b>	When studying about Greek heroes in literature, I always ask my students to define what it means to be a hero. Student answers are surprisingly consistent.	There are some who cite well-known public heroes from history studies like Martin Luther King	or Abe Lincoln. There are others who describe everyday heroes in our lives and the characteristics they possess	like bravery or self-sacrifice. But the overwhelming majority always emphasize <b>one man</b> .	<b>No voice-over but the images of the clips is a more eloquent way to introduce who this man is.</b>
<b>Music</b>	Light thoughtful music				Music from the motion picture <i>Superman</i>

Figure 6. The introduction section of the digital story “Superness of Superman”



Laura has been successful in braiding the narrative lines for the effect of wholeness at this part. At the end of the key sentence that introduces Superman in her narration, she emphasizes the phrase “one man” before the voice-over pauses to give way to the video clips with images of Superman in action. This creates a dramatic effect like a fanfare on the stage. The use of the black screen as a transition combined with the two symbols of Superman which have been familiar to generations of Superman’s fans—the opening music and the S logo—has aptly prepared the audience for an exploration into the world of Superman over several decades. The absence of visual and verbal narration at this transition accentuates the music, which, in turn, reminds the audience of one of their favorite cultural artifacts on Superman, something that connects Superman to our lives.

The imagery of the story is abundant and complex. Laura mixes still, black-and-white pictures with multicolored photos of different styles and times together with video clips. This depicts how rich the theme of Superman in popular culture is as Laura tried to emphasize it, “I also wanted to show the breadth and reach of his character because he has pervaded so much for this culture’s media, so I searched for colorful images from his movies, comic books, comic strips, cartoons, and television” (Moodle, Assignments, Final Report, November 29, 2010). Laura finds the answer to her dramatic question in the origin and the dual identity of Superman. There are three visual and thematic patterns in this story: the history of Superman, Superman as a super hero, and Superman as the normal human Clark Kent. She arranges images in series to demonstrate these themes in the way a writer would use groups of connected sentences to develop an idea into a paragraph. Again, what Laura has managed to do in these segments of the story is the synchronizing of the narration and the images. Not all the narration is her own because

she inserted several video clips, but she was successful in keeping the narration and the images in pace most of the time.


<b>Images</b>					
<b>Narration</b>	Why has Superman been imprinted on my psyche and that of the rest of America	so that he is cited so much more than many laudable realistic heroes?	Faster than a speeding bullet <b>(narration from another source)</b>	More powerful than a locomotive,... <b>(narration from another source)</b>	Look, up in the sky! ... It's Superman! <b>(narration from another source)</b>

Figure 7. Superman as superhero.


<b>Images</b>			
<b>Narration</b>	...especially in the role of Clark Kent he is as human as the rest of us.	His dual identity symbolizes our own human yearning to be something better than we are.	We have the opportunity to go beyond what we think imaginable if we just overcome our fears.
<b>Laura</b>	<p>...the Clark Kent section of the digital story script is important because it answers the essential question about why Superman has endured. It is the reason behind the digital story, and it is what makes it the most interesting. I tried to find images which would compliment his human side just as the Christopher Reeve image shows his super hero side. The image [in the middle] is particularly fun because, while he appears mild mannered with Fedora, dark business suit, and goofy glasses, his smile shows that there is something more to him than we know. If digital stories could be longer, I would have loved to include more specifics about how he represents our ideal "human" hero.</p> <p>(Moodle, Assignments, Final Report, November 29, 2010)</p>		

Figure 8. Superman as normal human Clark Kent

The conclusion of "Superman" is the "coda" of the heroic Superman theme at a higher level (Hull & Nelson, 2005, p. 251). Superman is shown flying, not through the air or from roofs of high-rise buildings as in the introductory part, but in outer space, with Earth below. Despite this difference, the thematic repetition is revealed in a series of images of Superman similar to those at the beginning of the story, and the replay of the

symbolic music and the red S. This makes the final section almost symmetrical with the introduction of Superman earlier and creates the effect of the refrain of a song. This use of imagery in Laura's digital story is indicative to the writing process. The skills of expressing with images and explaining with language may be kin to another in some aspects. That Laura can use images to create thematic patterns suggests a mutual relationship between writing and visual literacy, and that writing still plays an important role in composing multimodal texts.

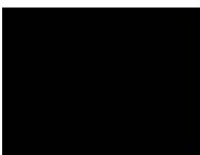



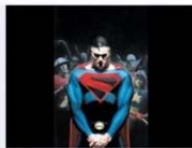


<b>Introduction of Superman</b>	video clip with images of Superman flying				
	The symbolic music from the movie <i>Superman</i>				
<b>Conclusion of the story</b>			video clip with images of Superman flying in outer space		The Superness of Superman
	The symbolic music from the movie <i>Superman</i>				

Figure 9. The similarities in the introduction and final sections of "Superman"

As Hull and Nelson (2005) pointed out, the segmentation of the digital story needs to be confirmed by the conceptual framework of the "local multimodal relationship," i.e., the nature of the pairing of an image to the language or music, and the "global multimodal relationship," i.e., the functioning of a segment in relation to others or the whole (p. 236). While Laura could create a closed "local multimodal relationship" throughout her story, she failed to build good "global multimodal relationship" for all its segments. The part about Superman's origin is a section of a video clip Laura embedded in her digital story. Visually and thematically, this segment between the two transitions is

complete in its own structure, but the juxtaposing of Laura’s voice-over and the voice of the male narrator of the clip creates the effect of two narrators in one story. This impediment in the “global multimodal relationship” was mentioned in the previous chapter and is evident in the transcription that follows. Attention should be paid to the three last slides in Figure 8. The two narrations are divided by a very brief transition 0.1, and Laura’s voice immediately continues the theme of the narration in the clip from the slide after the transition. The unity of Laura’s story could have been maintained if she had replaced this information- overloaded clip with her voice-over and captured some of its images to corroborate her narration.


Images								
	The narrator of the video clip (male voice)							Laura's voice
Narration	Transition with a turning of the image in 0.1 s	According to the comic book, Superman began life as baby Kal-El	born on the planet of Krypton. But Superman was actually	conceived in the imagination of two teenage boys, Jerry Siegel and Joe Shuster.	More narration on the history of Superman...	... that sold for a dime at the time when an average American worker made less than 75 dollars a week.	Transition with a turning of the image in 0.1 s	Once the Superman character was sold to DC Comics in 1938, he literally flew off the shelves.
Music	Music of the video clip which changes according to the tone of the narrator							Light thoughtful music

Figure 10. The disconnect caused by the inserted video clip narrating Superman’s history.

### The Negotiations and Challenges in Creating “Superman”

Laura often divulged in interviews that her project was an on-going process. Indeed, Laura’s experience of creating the digital story “Superman” left the impression that the developing her story would never come to an end. She would always need to edit her script, trim the wording of her narration, or improve the quality of her video clips. Although she knew what required features she needed to add to her story, she could never

definitely say when she would finish it or what exact changes she would make to her story. The digital story “Superman” she constructed as her assignment for both the Pop Culture course and the Digital Storytelling course had more than one version—the first version was without video clips, the second one was with video clips but the visual quality was not very good, and a third and final version with improvements made to the video and audio and a slight modification of her narration (Field notes, November 29, 2010). The following analysis of the creative process of the story is an attempt to investigate how the creator negotiated her choices and coped with challenges while developing the story over the time.

### **The negotiation for the script of “Superman.”**

Most digital stories start with a script, the essence of the story that will form the narration of the digital story. Joe Lambert (2010) emphasizes in his *Digital Storytelling Cookbook* that, “If we are made of water, bone and biochemistry, we are made of stories” (p. 5). However, consciously constructing a narrative to tell a life experience or convey a meaningful message in a digital story is not always an easy and natural task. Quite a few studies report cases of young digital story creators who struggled to find “stories” to tell or to compose legible texts as their scripts (Hull et al., 2006; Davis, 2005). This also happens to adult digital storytellers because the writing of a succinct and compelling script is a demanding task. Economy, one of the seven elements of a digital story, dictates that,

Digital stories are short; great stories, often just 200 words long. The writing form has a poetic sensibility in that the most effective digital stories are very thoughtful about the use of every word, phrase and pause. The editing process almost always

consists of pruning away ideas that are redundant, or don't contribute to the central focus of the story. (Robin, Moodle, Resources, Class Eight)

Perhaps this was the first thing Laura had to negotiate when she started to write her script. She posted these remarks in the class forum after the fifth class:

*It is ironic that I'm the English teacher, yet I don't know where to begin my own digital story script. I decided to do some research to see if I could find anything else that could help me, but all I really found were more sites containing the same information—the same seven key steps to storytelling over and over again. There really wasn't much out there specifically about crafting scripts.*

(Moodle, Forum, October 2, 2010)

As an English teacher, Laura expressed in the word “crafting” her full awareness that writing the script of the story was not merely the task of producing a one-page long text of what she would read as the audio part of her story.

Laura's first script was an essay on comic books and how to use comics in the classroom as she meant her digital story to be a part of her presentation on the same theme in the Popular Culture course. She did not write only the narration; she built up a verbal storyboard. As shown in the box below, Laura had created both the narration and the visual representation of parts of her story in the script. It was simple and rough, but it suggested that she had a holistic view of the structure of her story and the materials she would use for it.

Take #2 (10/10/10)

**Comics are vulgar, explicit, sexual and violent. They should not be in the hands of young people.**  
(another's voice to depict difference in viewpoint)

Text—quote from Fredric Wertham's Seduction of the Innocent 1954 with a picture sound clip "Smack" or the Comics Code of 1954

Text and picture slides opening—flashes of old comic book words—bang, pow, etc—with voice-overs or music of traditional comic book heroes

**I used to think that comic books were only for the males of our species because of the depiction of guns or big busted girls or science fiction aliens from outer space, but now I see that my own opinion of comic books has been guided by the research of a psychologist named Fredric Wertham who published in 1954 a study which put forth that juvenile delinquents were influenced to do violence because they were comic book readers. Wertham's research was so influential during this time that a Senate Committee took up the charge and began to order that the content of comic books be censored. This was almost sixty years ago. When I reflect on the past I naturally think, "what the heck do they know?"**

**Fast forward sixty years into the classrooms of America today.**

(Text slides with students' comments about boring school and how they don't learn and school isn't relevant—quote about how awful reading is—statistics about achievement in reading and the difference between boys and girls)

**Comic books of today can be thoughtful, engaging, and worthwhile of much study, discussion, and debate in the hands of young people. Because of the visual nature of this material, they are perfectly suited to grab the attention of students who live in a world full of images that need to be deconstructed. Students who struggle with reading will finally connect to literature again.**

**Comic books come in all forms from classic literature adaptations (Beowulf, the Odyssey), history (the Cartoon History of the United States, the Salem Witch Trials), nonfiction (the 9/11 Commission, Still I Rise, Johnny Bunko Career Search), science (Investigating the Scientific Method), and even math (Logicomix: The Epic Search for Truth). Reading comic books produces a multisensory critical thinking experience. Students read the text, interpret the pictures, synthesize the connections and evaluate the message. This is not an exercise in futility; this is education at its best.**

text—not said—The objective of any good teacher is to educate, even if the method seems unconventional

**Comic books offer a solution to the disconnected student. While they might not serve as the entire basis for learning in a classroom, they should be used to adapt and extend curriculum choices.**

(Moodle, Forum, Class Five)

*Figure 11. Laura's script on comic books.*

After all the students had posted the first draft of their scripts, they held a story circle in class in which each of them read aloud his or her script and explained it. During the story circle, Laura received very positive feedback from her classmates, and suggestions for improving her script in the following online discussions were for minor

changes. However, Laura was still struggling with her script. She wrote the following in response to one of the comments she received:

*I'm not happy about the depth of the script. I'm still working on it, and this is in no way a final version...I'm actually thinking about going in a different direction. I keep trying to force the "use comic book" message when I don't think that is really what I want to say. It just seems too simplistic and contrived.... I kept thinking that with the overlap of the two classes that I needed some type of introduction for using comic books...*

(Moodle, Forum, October 15, 2010)

This was where Laura recognized the tension between what digital story she really wished to create and what she planned to do in response to the requirements of both courses. She was trying to tie the digital story as an assignment in one course to the presentation, which was also an assignment, in the other course. When the tension in finding a topic for her story that could serve both courses emerged, she felt constrained. This can be seen as a challenge associated with a negotiation between internal conflicts of the digital story creator. In Laura's case, it is the conflict between the digital story creator's interest and the purposes she set for her story.

Laura was reflecting and thinking over the time when she was searching for ideas for a more engaging script. She did not completely discard the idea of comics but she was trying to approach it from another perspective. She wrote on Moodle:

*...but I think I'm going to make this digital story more about something a student could do to demonstrate learning through comics rather than my lackluster attempt to make teachers use them...how about that for a turn around? Thanks*



*for your help though. It showed me what I already knew but was really trying to avoid. I need a direction...*

(Moodle, Forum, October 15, 2020)

The direction Laura needed was the personalizing she lacked in her previous draft. In the story circle, the instructor suggested that Laura should have more personal experience with comic books. He told her to stop on her way to the campus at a bookstore specializing in comic books. A week later, Laura came to the class with a copy of *Kingdom Come* (Field notes, October 18, 2010). She was later determined to make good use of the book as she wrote in her final report, “I also wanted to include some images from the comic book *Kingdom Come* so that it wouldn’t be a total loss. I did buy the comic book for seventeen dollars after all; I needed to get some use out of it” (Moodle, Assignments, Final Report, November 29, 2010).

Another personal element Laura tried to include in her script was the interactions with her students and getting to know their concepts of comic books and comic heroes. She admitted that her students had given her the inspiration for the second script and Laura managed to make a dramatic turn in the next version of her script, which focused on “Superman,” a specific comic hero, instead of teaching how to use comics in the classroom. “Superman” arose from her curiosity in her students’ answers to the questions, “What defines a hero?” “Can heroes be human?” or “Do heroes represent the beliefs of a society? If so, which ones?” It was also triggered by her sensitiveness to language use as she found that an online thesaurus listed “superman” as the synonym of “hero” (Moodle, Forum, October 15, 2010 and personal interview, November 29, 2010).

Even though she had identified a direction to move toward, Laura's construction of the script for "Superman" was still an endeavor. She had to make more than one script-writing attempt. This is her first Superman script (and her third script in all), which she posted for comment in the class forum:

**This script/digi[tal] story is meant as an example of a project a student could do which links literary heroes to personal ones. Better??**

In life, we often encounter the concept of heroism—those people who go above and beyond themselves for the good of humanity. Superman is no different. I know. I know, he doesn't really exist except in a fantasy world, but he represents the ideals of the culture that created him.

In *Kingdom Come*, another installment of Superman's story, he has grown older complete with graying temples and a few wrinkles. He has actively shunned society for ten years because his nemesis, the Joker, killed Lois Lane. But this isn't the only factor that troubles Superman. A new breed of superhero killed the Joker before he received a fair trial. It is surprising to me that Superman didn't exact revenge himself for Lane's murder; rather, the man of steel placed his faith in a system of judgment by a jury of one's peers. Fast forward ten years, and the world on earth is dominated by a these new superheroes who have total disregard for human laws and life. They hinder and help the populace based on purely on selfish caprice which finally culminates in an atomic explosion which wipes out the entire state of Kansas.

Superman rejoins society because of the Kansas explosion and a bit of cajoling from Wonder Woman. He is the only superhero who is physically and morally strong enough to battle the dark days on earth. When he returns, he collects opponents and puts them in prison which incites further rebellion, but this isn't Superman's only battle. Lex Luther has been brainwashing Captain Marvel, the only superhuman who can directly contest Superman's strength. In the end, Superman's prison is about to explode due to all the power locked inside, so he goes to quell the fire meeting Captain Marvel on the way. The two are locked in battle when the altogether silent human beings have sent three stealth fighters to drop atomic bombs meant to kill all. Even though Marvel is under the influence of Luther's mind control, he remembers his life as a human being and elects to sacrifice himself to save the lives on the ground. He flies to the bombers and explodes them while still thousands of feet in the air thus saving humans and metahumans alike. Superman, accepting responsibility for this tragedy and his actions, flies to the UN with the cape of Captain Marvel and agrees to lead the human race instead of directly enforcing justice as in the past.

Throughout *Kingdom Come* issues of heroism and responsibility are of great consequence; Superman is the character most in conflict and most noteworthy of discussion. Even though it seems he is surreal, unapproachable, and ethereal, he really isn't. Yes, we need to look past the kryptonite (which he is now immune too), the x-ray vision, flying capability, and extraordinary strength. He is more human than we give him credit for and it is in his humanity that his heroism lies.

Superman represents characteristics of everyday heroes. He has suffered emotionally from the love and loss of Lois Lane. He isn't immune from feelings of the heart which ultimately provokes him to return to help human kind. Our everyday heroes need to have heart to guide decision making. I think about policy makers, one in particular an old family friend, who stays up at night reading bills and thinking about how a bill can impact his constituents. He often votes against his party and the majority to use his voice as the voice of the people. He is a hero.

Superman also values human life above all no matter how criminal. He doesn't pretend to possess the ability to enact final judgment on a man. Despite his extraordinary abilities, he doesn't place himself above individuals, in fact, he puts others above himself. He is humble. I think about a colleague of mine who is in her thirtieth year of teaching. She is no ordinary teacher; she is vibrant and flexible, kind and generous to all. Even after something like 4000 students, she still gives each one of the respect and individual attention. She is my professional hero.

If anyone were to ask me what defines a hero, my initial answer would encompass the heroes of ordinary reality. They walk among us treading softly yet consistently applying an exceptional moral code that we all wish to live by. I don't want to set these people apart from others in our world. They aren't superheroes like Superman, but they share common qualities of the man from Krypton.

(Moodle, Forum, Class Six)

Figure 12. Laura's first script on Superman.

In this script Laura offered a plot with a more balanced combination of her knowledge of comics as popular culture, her perspective on the theme, and her personal experience with it. It narrowed down to one single comic theme and found the representation for that theme in one concrete comic character. It spoke less of “comics” or “comic books” and more about “we” and “I” in our conceptualization of comics and its effects in our life. Laura was a good learner from the feedback she received. This script on Superman reflects how she screened through the comments of the story circle, how she turned to her social and professional relationships for personal experience, and how she maintained her own interpretation of the popular culture symbols of heroism in Superman.

As she admitted in her final report that “arriving at the topic of this digital story was a major undertaking,” Laura's writing of the “Superman” script was not only an effort to create a meaningful message about a popular cultural phenomenon, but a process of making meaning of her world through a popular culture theme. She expressed this in her following forum posting.

*Superman. He is the beginning of all comic book heroes, during an informal poll he ranked #1 with my students, and he has topped several online lists of being the #1 hero of all time (yes, there are some who don't think as highly as him, but for the most part, he is it). So I asked myself why. Why, when I/we think of hero,*

*does Superman pop into the head first? This is my critical/essential question.*

*What is it about Superman that makes him so extraordinary?*

(Moodle, Forum, October 24, 2010)

Her third version of the “Superman” script involved her attempt to answer this question.

*Deliberate thought music*

When studying about Greek heroes in literature, I always ask my students to define what it means to be a hero. Student answers are surprisingly consistent. There are some who cite well-known public heroes from history studies like Martin Luther King or Abe Lincoln. There are others who describe everyday heroes in our lives and the characteristics they possess. But the overwhelming majority always emphasize one man.

*Superman movie intro sound with black screen fading to Superman S.*

Superman is at the top of their lists. I have to admit that I automatically and almost without thought as a gut reaction visualize Superman as a hero regardless of his fictional status. The cultural icon, the man of steel, the man of tomorrow, defender of the weak.

I began to question and wonder why Superman? Why not Batman or Spiderman or Captain Marvel or heck, someone real? Why has Superman been imprinted on my psyche and that of the rest of America so that he is cited so much more than many laudable realistic heroes?

*“Faster than a speeding bullet” voice clip*

The building of the Superman persona has been seventy years in the making. He was first the vision of two high-school aged Jewish boys, Jerry Siegel and Joseph Shuster. They drew up the first comic in 1932 and published him ironically as a bald villain; this account however no longer exists today because it was supposedly burned because it was so awful. The two then rethought and created the predecessor of the Superman we think of today. *Picture of 1<sup>st</sup> Superman with deliberate thought music.*

*Pictures of comics in a PP file showing many titles.* Once the Superman character was sold to DC Comics in 1938, he literally flew off the shelves. Comic books and comic strips were being published regularly by Siegel and Shuster. They hired a team of artists because they couldn't keep up with the demand. Superman was ubiquitous. It is difficult to follow the timeline of his publications. He starred not only in his own comics, but he also made appearances in the comics of other heroes. Between the comics, radio shows, television episodes, cartoons, movies and music it's a wonder his image remained the same with so many having a hand in his creation and development; yet, seven decades have schooled Americans about who Superman is.

Seventy years of constant exposure is bound to imprint on one's subconscious, but is it more than that? Superman is popular for a reason, and it isn't because DC Comics has spread his face everywhere. Rather his popularity enabled DC comics the means to continue spreading his face universally. So what is it about Superman that makes him so gosh darn likeable?

He represents the very nature of American hope and ideals. He fights for truth, justice, and liberty even when the odds are stacked against him. He upholds the value of all human life. He completes random acts of kindness for the sake of doing good. He has an unwavering moral compass. He has had to search for his own identity when his own planet was lost. He fights crime. But I think, most importantly, he is unerringly normal and human. Yes, he possesses great strength which increases over time and with exposure to yellow solar radiation. Yes, he can fly, which is why the original artists made him have a cape by the way to more easily depict him flying. Yes, he is invulnerable to disease, toxins, and age. Yet in his role of Clark Kent he is as human as the rest of us. His dual identity symbolizes our own human yearning to be something better than we are. We have the opportunity to go beyond what we think imaginable if we just overcome our fears. Superman is the embodiment of this totally American value.

(Moodle, Forum, Class Seven)

Figure 13. Laura's second script on Superman.

Much more concise with clearer visualization of the accompanying images, video clips and music, this script represented a long journey from the beginning when her ideas for

the story were still “intriguing” and “muddled” as her peers perceived (Moodle, Forum, October 15, 2010).

During the whole time, Laura experienced the pressure of the “double-dipping” purpose of her digital story. Her task of writing the script was a two-fold negotiation in which she had to make choices for the meaning of her message and for the requirements of her presentation. By choosing to write on Superman, she made another decision at the same time:

*I think the newest script is more meaningful. Through this process I have tried to force the connection between Pop[ular culture] and Digi[tal] Storytelling. I haven't thrown the connection out of the window, but I have begun to ignore that this Digi[tal] Story has to go in my Pop presentation. Instead I have concentrated on making a digi[tal] story that means something instead of simply forcing information to seem like it is important to me. Once I threw caution to the wind, I am finally beginning to feel some sense of ownership (so this means I'm NOT writing a new script ever again). This is my story, and I'm sticking to it.*  
(Moodle, Forum, October 24, 2010)

With the decision to ignore the connection of her story in the Digital Storytelling course and her presentation in her Popular Culture course, Laura had freed herself from the constraints of the conjoined courses. She became very definite in her next steps. Her process of writing the script, editing and changing it over the course of her developing “Superman” was an illustration of how one negotiated to reach her choices in creating parts of the digital story like the script or the voice-over. There were a plethora of factors influencing the negotiations. In Laura’s case, it can be said that the first crucial

negotiation she made unexpectedly came from the setting of the linked courses. More than once, she said it would be much easier for her to write the script for a story from a topic of interest without having to use it in her presentation in the Pop Culture course (Personal communication, November 23, 2010).

Although Laura was determined to stick to her story, she had to modify her script many times when she settled down to actually develop the digital story. She cut sentences and words to match the pace of the narration and the slide movements. When Laura planned to insert video clips having parts of their contents similar to her narration, she decided to remove a large portion of her voice-over. She discussed this dilemma the following conversation she had with me:

Laura: *You know I have the video. I think I have to redo parts of my narration just to make it all flow and...I'll cut from there...*

Anh: *So you are going to do it again, the cutting part?*

Laura: *Oh, yeah, yeah, I'm not done. This is a working progress. I'm totally not finished, especially with a video like that.*

Anh: *You found the whole thing, the whole video? Would you cut any part of it?*

Laura: *Actually, I downloaded like seven things. So it's all cuts from the seven clips of stuff.*

(Personal interview, November 15, 2010)

With all the cutting and inserting, the script went through many alterations. It was still the story of Superman, but the wording was not exactly the same in each version. Whenever Laura made a minor change to her story—shortening the length of a video clip or cutting

an image—she adjusted her narration. The story never appeared identical from one version to the next. It was always under a “work in progress” as Laura emphasized.

The negotiation for a meaningful script was also a critical event (see Webster & Mertova, 2007) in Laura’s process of creating a digital story. It became a turning point, which marked a thoughtful, struggling beginning of a communication effort in a highly contextualized situation. It also reflected the type of negotiation Laura prominently engaged in at the initial stage of her project—a stage marked with internal conflicts.


### **The search for images of Superman.**

As “Superman” is a large popular culture theme, Laura did not have problems finding images for her story on the Internet. She enjoyed the rich resources she had access to and seemed to be excited with her findings. She told her classmates after changing her mind on the script, “The pictures and the music that I found are awesome! Once all of them are put together Kryptonite couldn't take it down” (Moodle, Forum, October 24, 2010).

However, Laura also struggled to select specific images for her story. The tension did not come from lack of images, but on the contrary, from the large abundance of the materials on “Superman.” Laura was a highly selective and critical chooser of visuals to corroborate her narration. She wrote in her final report, “There are certain parts of the digital story that are the most significant to me, so I thought I would share them. First, the picture of Superman...” (Moodle, Assignments, Final Report, November 29, 2010). Her choice for this image of Superman is an illustration of the “critical events” Laura experienced while creating her story. It seems Laura had very clear criteria for the portrait of Superman. She pointed out that,

*At one point in the story though, I wanted a still image that showed all his costume looking splendidly heroic.... Plus, I really wanted this still image to be of Christopher Reeve. Growing up with his Superman movies and reading about his later life experiences, it is hard for me not to picture him as representing the man on and off the screen.*

(Moodle, Assignments, Final Report, November 29, 2010)

<b>Image</b>	 <p><b>Dynamic:</b> This image appears in the third slide of the introduction of Superman. The slide movement starts from the lower right corner, moving up to show the top of the picture, down again and then stop on the S on his chest before fading.</p>
<b>Narration</b>	<i>...red cape, shiny black hair, blue suit, red S...</i>
<b>Laura</b>	<p><i>It took me hours to search for this image. I just want to have a picture of Superman standing still. Most of the time, his pictures show him doing something, flying or rescuing someone. Nobody knew I would like to have a picture just like that.</i></p> <p>(Personal interview, Nov.15. 2010).</p> <p><i>Being so specific made the search harder, but I finally found this picture on the CapedWonder.com site. It could not be more perfect. I was able to insert the picture into the digital story and use the movement to highlight each part of the costume that I visualize when thinking about Superman.</i></p> <p>(Moodle, Assignments, Final Report, November 29, 2010)</p>


<b>Image</b>	 <p><b>Dynamic:</b> The focus is on the lower part of the image then moves upward while it is being zoomed in. There was some seconds' pause on the red S on Superman's chest before the slide is faded.</p>
<b>Narration</b>	<i>Superman is the embodiment of this totally American value.</i>
<b>Laura</b>	<p><i>The images of Superman in his prime years representing pensive thought are from this comic; it is easy to pick them out because he looks so quietly serious.</i></p> <p>(Moodle, Assignments, Final Report, November 29, 2010)</p> <p><i>Superman is eternally young and in that particular comic book he's older, he's well passed middle age, so it's kind of his progression in life</i></p> <p>(Personal interview, October 25, 2010)</p>

Figure 14. Examples of Laura's negotiations for images of non-acting Superman.



Apparent here is the negotiation of content of the pictures of Superman. This choice of “not-acting” images of Superman among innumerable portraits of Superman was illustrative of the main theme of the story: Superman’s identity. The amount of graphics on the Internet depicting Superman flying down from the roof of a high-rise building, raising his fists toward the sky, lifting a car or fighting with monsters must be many times the number of pictures showing him standing still. This tendency of featuring Superman in action demonstrates the general concept of Superman in popular culture. Laura’s decision to represent Superman not in action in this slide, the comic Superman slides, as well as the normal journalist in the Clark Kent section (Figure 6) involved her personal negotiation to reinterpret the popular culture concept of heroism. She seemed to throw the spotlight on the composure and stateliness, the attributes of power in Superman. Laura could have stopped in the middle of her search with another picture of Superman and thought, “This picture is not exactly the vision in my mind but it is useful.” In fact, she continued her search until she found the right image. This negotiation took a great deal of her mind and time.

### **Challenges associated with Laura’s negotiations in creating “Superman.”**

The choice of the music for the digital story was a time-consuming undertaking to Laura. Earlier in the course, when she was still at the stage of collecting materials for a digital story on comics, Laura appeared to have a selective ear for the soundtrack that would go with her story. She described her screening for the right piece, “When I’m going through the music, I become kind of brain-dumb like, no, this doesn’t work, I’m listening to 5 seconds of every song, nope... nope... nope... nope..., I keep doing it over

and over again” (Personal interview, October, 4, 2010). Laura later stated her experience with the search as one of the significant things she learned up until then.

*I have learned that I need to become a professional music producer because it seems that I never find quite the right sound to fit the mood of the digi[tal] story I'm working on. I find things that are close, but never the exact match. This most recent comic book digital story has proven to be quite the challenge (need more patience when searching through hundreds of music files).*

(Moodle, Forum, Class Six, October 10, 2010)

Only when Laura nailed her topic down on Superman did her search for music culminate in a final selection: She would use the *Superman* Movie Soundtrack from the 1978 release by John Williams. About this choice, Laura wrote, “With this music, I automatically envision Superman’s exiting the phone booth on his way to save the world in some huge moment of glory, so it makes sense that this music would reveal Superman in the digital story” (Moodle, Assignments, Final Report, November 29, 2010).

Laura’s search for video clips to use in “Superman” seemed to be smooth sailing, but selecting the right clips to insert in the story was not as easy. As she described, Laura downloaded seven clips in all, but she used only one clip and cut it into sections to suit her purposes. Again, there emerged the negotiation concerning which clip to take, and Laura chose the one with the content closest to her script, the one that provided “most information” on Superman and the history of the comic (Personal interview, October 25, 2010). The challenge associated with this choice involved the technical snags with which Laura had to cope. The video clip was 10 minutes long. It took Laura much more time to

download and convert the file format, but the quality was far from satisfactory. She described this problem in the following conversation she had with me:

Anh: *Ok, but is it just because of the quality of the video or anything about the content?*

Laura: *I had no idea. I mean the quality is the problem right now... and I mean I need to cut some more to make it fit the way I want it to fit but I didn't want to continue to cut and continue to work on it.*

Anh: *I see...*

Laura: *I have to redo it again anyway.*

(Personal interview, November 15, 2010)

Laura also wrote a long account on this “most harrowing part” of her “digital story journey.” She expressed her frustration, “I just couldn’t keep converting video after video and discovering that the quality was pathetic. I was wasting a lot of time, and the project needed to be completed early” (Moodle, Assignments, November 29, 2010).

However, as Laura set her mind and soul to this digital story, she would not surrender to the challenge. At a point in her process of creating the digital story, she had learned significant things when working with technology. She wrote,

*So far during this course, I have learned the meaning of patience. These digi[tal] stories always take more time than I think they will and nothing works the way I expect....Patience is a hard lesson when juggling multiple tasks at late hours after working all day.*

(Moodle, Forum, Class Six, October 10, 2010)

With this new-found patience, her determination to solve the problem, and her inquisitive mind, Laura tackled the video obstacle. Her strategy to deal with the snag was to buy access to Media Converter, a web site that offers the function of converting large video files. Laura fiddled with converting the video and fumbled with the resolution of the video and audio until she got a version of the clip with satisfactory quality. This was an achievement. She claimed, “FINALLY, after all the video downloads and countless hours (I really should have logged them, so you wouldn’t think I was just exaggerating), I had a video that I could finally start clipping around my digital story from project #3. Finally!” (Moodle, Assignments, Final Report, November 29, 2010).

### **Laura’s Living Her Experience**

For a graduate student who was a full-time teacher and the mother of a two-year-old toddler, the largest constraint Laura encountered while creating her digital story was her lack of time. She admitted that it was drudgery when she had to redo things over and over again, especially at late hours after a long day at school. Laura would put her child in bed at 8.00 in the evening and spend hours working on her project before she turned in at midnight (Personal interview, October 18, 2010).

Laura’s process of creating her digital story involved a series of negotiations and challenges. Her experience throughout this project was the demonstration of her commitment to learning and being true to herself. Laura would try her best in every course requirement and at the same time stayed with her own standards for her work. During the time of the study, Laura always said that she was not a perfectionist, yet her project was the demonstration of great efforts to reach perfection. Her digital story was highly appreciated when shown in her presentation on educational uses of comics, but she

continued to improve it by adding features and painstakingly bettering the quality of the video and audio.

Hard work did not deprive Laura of her enjoyment of the project in some aspects. She described her feeling when she finally managed to come up with an inspiring topic for her script in this way: “Then came the epiphany. At that exact moment in time, the demons were exorcized from the CITE computer lab. Angels were singing on high as [the instructor] and my classmates spoke about Superman. Why not include him as the focus since he is a popular culture icon? Brilliant!” (Moodle, Assignments, Final Report, November 29, 2010). She was in the same high spirits when she found the music for her story. She said, “I hummed the piece when I went to bed at night and in the morning, I found myself humming it when I got out of my bed” (Personal interview, October 18, 2010).

The experience Laura lived during this time was also her great learning experience. She took careful notes in the computer lab and kept all her images and project files organized. She was eager to seek answers and solutions when she experienced technical problems (Field notes, November 25, 2010). Although Laura might feel stressful at times about the time-consuming assignments and the challenges she encountered. She reflected on her overall experience this way:

*I have learned more than just digital storytelling throughout this course. I feel much more comfortable messing around with Audacity and splicing and blending audio tracks. I have a new found love for YouTube and its massive amounts of video. I know the names of file formats and those which are not compressed, but most importantly, I learned to just try it out... “It” refers to trying new*

*technologies that I'm not comfortable with. If it doesn't work as expected, I learned to figure out another way or to research possible solutions. This is an important lesson because so much of technology can be hit or miss and flexibility is the key to moving forward with advancements.*

(Moodle, Assignments, Final Report, November 29, 2010)

Thus, Laura's living and telling, and re-living and re-telling the digital story project was a valuable learning experience that she recognized would be useful to her far beyond the scope of a technology and a popular culture course.

## **Chapter VI: Anna Nicole Smith: A Story of Women in Media**

### **The Portrait of the Creator of the Digital Story “Anna Nicole Smith–A Modern Day Gladiator”**

Jenny was a Master’s student at the College of Education and a fifth-grade teacher at an elementary school in the city. She was a beautiful woman in her early thirties, and the mother of a small boy. Jenny loved her students, the people with whom she worked, and enjoyed teaching. She taught all content areas to her fifth-graders in a “self-contained” class. Jenny thought that her life as a person was more interesting than as a teacher. She had worked in various fields—advertising and fashion—before entering education; and had travelled widely, but the common things spanning her profession and personal experiences were culture and her interest in culture (Personal interview, September 20, 2010).

Jenny’s experience with Digital Storytelling was limited but significant. She did not know much about Digital Storytelling technology but she had used a Web 2.0 program to create a digital story about the Arts and uploaded it on the web site. Though not a veteran digital story creator, Jenny had a solid understanding of Digital Storytelling. When discussing her preliminary experience with Digital Storytelling in the first interview, she used the term “digital story” for traditional media forms, which is a correct extension of the concept. Jenny maintained that her experience with digital stories started in the 1980s, long before Digital Storytelling was developed into the currently popular media genre, as it came with MTV, the media and commercials. She stated, “To me, each of these is a story” (Personal interview, September 20, 2010).

Jenny’s view toward the creation of a digital story confirmed several important principles in creating digital stories often emphasized by authorities in the field. She said,

*I like to start with a story and a background rather than starting with a photograph. To me Digital Storytelling is not just photos, it's sometimes blogs, sometimes the written words or sound, music, so for me, starting with just images is... an injustice to the story.*

(Personal interview, September 20, 2010)

Claiming herself to be an “idea person,” Jenny asserted that she loved working with ideas. She said, “I love taking two weeks of my brain or an hour of my brain and being able to put it into something” (Personal interview, October 17, 2010). Jenny believed that a good story was the driving force behind each significant message a storyteller tried to put across, and that Digital Storytelling, with the use of multiple modes, offers another great medium to express. Not undermining the technology part in Digital Storytelling, Jenny maintained that the use of technology was a skill that could be developed with practice (Personal interview, September 20, 2010). This perspective, which emphasizes the importance of ideas and the role of the creator in the creation of a digital story, was evident in her work on her project “Anna Nicole Smith—A Modern Day Gladiator.”

### **The Digital Story “Anna Nicole Smith—A Modern Day Gladiator” as a Multimodal Text**

This story considers Anna’s life from another perspective. As Jenny tried to explore the theme of women in media for the Popular Culture course, she captured Anna as a representative of celebrities in the entertainment industry whose lives feature what she called “the Hollywood life cycle:” rise to fame, big crash, downfall, and end of career or untimely death (Personal interview, September 20, 2010). However, Jenny conveyed through her story a message that is beyond sympathy or compassion for a falling star.



With the dramatic question, “Are we civilized?” (“Anna Nicole Smith—A Modern Day Gladiator”), she questioned the morality of modern society and implied an accusation of its enjoyment in seeing humans ruined in a metaphorical way similar to that of the ancient Roman audience when it took pleasure in watching gladiators being killed at the Coliseum.

With a length of 3 minutes and 57seconds, “A Modern Day Gladiator” is a condensed biography of Anna Nicole Smith from Jenny’s standpoint, shown in 18 images and graphic texts, and four short video clips. The digital story can be roughly divided into analyzable units (Hull & Nelson, 2005) of an introduction which raises the dramatic question of the story, a development with milestones in Anna’s life, and a conclusion that reiterates the theme. Also, there are three main narrative lines in this story: the narration, the imagery and the music with lyrics. The story takes the narration as the main line around which the images and the music build up to effects that lead the audience through an intriguing retrospective narrative of Anna’s tragic life.

The imagery conveys the impression of a photo album. The special feature of this selection is that it consists of only Anna’s close-ups. The focus on the close-up photographs implies the examination of the human aspect in Anna, physical sometimes, but for understanding rather than criticizing. The arrangement of the photos in chronological order suggests time and change, which is a very effective way to get at the theme. While the tone of the narration seems reserved and matter-of-fact, the imagery is suggestive and continues the language where it leaves things untold to represent Anna as viewed by society and by the digital story creator. The video clips of Anna’s interviews

gives the effect of a close contact with Anna's real person revealed through her own words, gestures, and facial expressions.

Thematically, the introduction is the most complicated part of the story. The story starts with an SBC video clip announcing Anna's sudden death, the screen title, the graphic text reading, "Are we civilized?", and the painting *Pollice Verso (Thumbs Down)* by the 19<sup>th</sup> century artist Jean-Leon Gerome depicting gladiators at the Coliseum. At first sight, these visuals seem to create a jarring combination, but the linear order helps the seemingly incoherent images make sense like pieces of a jigsaw puzzle falling into place. The preceding image prefigures the following one. Half of the screen of the opening video clip shows a photo of Anna in black with a serious face, contrary to her animated smiling and waving images on the other half. This visual contrast catches attention of the audience while the voice of the announcer declaring her surprised death and questioning with shock, "What happened?" The video serves as a foreboding prelude to the story, which is immediately introduced with the black- and- white title screen "Anna Nicole Smith—A Modern Day Gladiator." While the word "gladiator" seems rather out of context, the running question in the graphic text "Are we civilized?", and the image of gladiators in the following slide are illustrative of the ancient barbarous practice of slaying for fun. During this time, the voice-over proposes the dramatic question, leads the vision, and draws an analogy between Anna Nicole Smith and Roman gladiators.




Images	<div><div></div><div><div>Anna Nicole Smith</div><div>A Modern Day Gladiator</div></div><div><div>Are we civilized?</div></div><div></div></div>			
	<div>Video clip</div>			
Narration	<p>The surprised death tonight of Anna Nicole Smith, just thirty nine years old, what happened?</p> <p><b>(Narrator of the clip)</b></p>		<p>Do we, as a society, get enjoyment from seeing people fall? Are we still in the same place we were two thousand years ago when Romans built the Coliseum?</p>	<p>That civilization enjoyed throwing gladiators to ferocious animals and watching them killed or maimed. I propose that we still enjoy participating in destruction of lives.</p>
Music		Judy Garland singing "Over the Rainbow"		
Jenny	<p>... My final story boiled down to the idea that celebrities are modern-day versions of gladiators. They are created, built up, and, ultimately, torn down for our viewing pleasure. My final digital story follows this path through Anna Nicole Smith.</p> <p>(Moodle, Assignments, Final Report, December 6, 2010)</p>			

Figure 15. The introduction section of the digital story "Anna Nicole Smith."

The development section of the story consists of photos marking important periods in Anna Nicole Smith's lifetime. This series of images stands as a prominent visual and thematic theme. It shows Anna's drastic physical changes and her life progression in a fatal direction, and can be structurally divided into sub-themes: the ups and the downs of her life. The first depicts Anna's bodily attraction, how she used her body to obtain wealth, and how she got caught in the tumult of the high life while the second displays how she searched in vain for love and happiness, and how she physically destroyed herself with drugs and alcohol. Well-selected images mark the deep contrast in these two phases of Anna's short-lived life—the beginning with the smiling face of a sweet young girl and the end with the image of a desolate flower-strewn grave, the initial slides showing youthful Anna, and photos of Anna, drunk and worn-out later. The video clips also fall in line with the still images. They frame on Anna's close-ups and also mark critical stages of her life.


Images										
	Video clip					Video clip				
Narration	One such gladiator, Anna Nicole Smith, seemed an unlikely suspect ...	She comes from a disjointed family, struggled to make money, and, in the end...	<b>Anna telling about her hometown and her youth</b>	Anna was big, blonde and beautiful. She had a doll-face and a vulnerability few people possess.	For Anna, her beauty was the only ticket out of her small home-town.	From a fast food worker to a stripper to a model	Anna Nicole found love and money in a job she could easily do.	<b>Anna telling of her confusion of life and accounting for her use of drugs</b>	The love she found by taking her clothes off wasn't enough for her.	Soon enough love came in the form of drugs, alcohol, and countless men and women...
Music	Judy Garland singing			Judy Garland singing					Judy Garland singing	

Figure 16. Anna's "up" stage of life presented through her close-ups.


Images								
	Video clip							
Narration	As the people around her realized what they had, a larger-than-life woman with an appetite for fun and excess, they began to use her for those things.	They used her and she used them. Anna Nicole's relationships became mutually beneficial. She got her love and they got to be around someone famous.	Her followers leeches onto Anna and, as parasites often do, sucked the life out of her.	<b>Anna telling how she was used</b>	Unfortunately, all the "love" around Anna Nicole made things too cloudy. Before she knew it, she was on her way down.	Reality and family began to slip away. In a final dramatic act, Anna Nicole threw herself to the lions, like many other entertainers before her.	She left the stage as the world watched, both memorializing and laughing at her.	This brings us full-circle and back to the question. What is our role in this cycle? Are we accepting this behavior by allowing it to go on?
Music	Judy Garland singing				Judy Garland singing			

Figure 17. Anna's "down" stage of life presented through her photos.

Like that of "Superman," the closure of "A Modern Day Gladiator" bears all the features of a "coda." The juxtaposition of the repeated image of the gladiators at the Coliseum and the photo of a *Playboy* cover featuring Anna as "Playmate of the Year" (Figure 18) imply a comparison of their plights as entertainers. It should be noted that throughout the story, there is not an image telling about Anna's media career except for

the last one. One after another, the photos present Anna not as a celebrity but a woman struggling to advance in life, then ironically confused and destroyed by life. Only this final picture reminds the audience of Anna's connection with Hollywood, and suggests that there is at least one quality she could be remembered for—her beauty. The narration, again, echoes the question posed at the beginning of the story, urging reconsideration of criticisms toward Anna in the same serious tone.

“A Modern Day Gladiator” is a compact, concentrated and thought-provoking digital story. These effects are created primarily by the imagery and the narration. Each of these narrative lines is consistent in its structure; and when they come together, they form a complementary distribution of meaning across the visual and verbal modes. The narration proceeds as a concise and astute commentary on Anna Nicole Smith. Without recounting or explaining particulars of her life, the narration never spotlights on the images it accompanies but invites deeper thinking and further interpretations. For example, when the visual line shows Anna's party shot with Howard Stern, the voice-over does not mention who the man next to her is, but alludes to her being surrounded by a crowd seeking fame and money, “Her followers leached onto Anna ... ” Similarly, when the photo of Anna and her two children appears on the screen, the narration does not describe that moment of happiness but refers to the shattering grief at the death of her son, “Reality and family began to slip away” (Figure 17).



Images		<p>Text, Narration, and Direction: Johnie Flores</p> <p>Video: NBC, YouTube</p>	
	<div>Moving text</div>		
Narration	<p>This brings us full-circle and back to the question. What is our role in this cycle? How civilized is our civilization? Has our society really come that far?</p>		
Music	<p>Judy Garland singing "Over the Rainbow"</p>		

Figure 18. The closure section of the digital story "A Modern Day Gladiator."

Music contributes meaningfully to the succinctness of the story. One piece of music, the song "Over the Rainbow," is used from the beginning to the end of the story except where the video clips are inserted. Judy Garland's mature and tired voice, and the lyrics of the song, "*Somewhere, over the rainbow, way up high...*" are the very story of dreaming and broken dreams. The music and Anna's own voice in the interviews, disheartened or world-weary, mix to create the feeling of Anna telling her own story. In terms of Hull and Nelson (2005)'s model of analysis for multimodal texts, Jenny has managed to create the seamless blending or close "multimodal relationships" between the video clips and the music in her story.

### Negotiations and Challenges in Creating "A Modern Day Gladiator"

#### The negotiation for the dramatic question of "A Modern Day Gladiator."

Jenny quickly assembled all the materials for an engaging story. As she said in one of the interviews, she was fascinated by the theme and came up with very interesting ideas about Anna Nicole Smith and conception of media sex symbols like her. None of

the other participants could express so articulately and fluently their ideas at the beginning of their project. Here is what Jenny had to say:

*I was interested in the idea of these women who have this façade about themselves that they are not smart, and they use their bodies, their sex to sell their images... as they are a product... But [in these women] there are a lot underneath what we see –what we all see is the hair, the body, the bimbo, the tight clothes, but there is something else under those that I find to be very fascinating, so it interests me— what is going on in their brains to make them market themselves that way, to put that to the world. So that’s why I want to follow her life because she had such a dynamic and short-lived life, very wild in between, very interesting in between and again, cut short very fast. I find her [Anna Nicole Smith] a fascinating character but so as with the blonde, big, stereotypical women, they crashed really fast in Hollywood. So that’s what I want to look at, as I call, the life cycle of the female icon, and as a life cycle in Hollywood. You can look at Jessica Simpson, the same curve, you can look at Pamela Anderson, you can look at any of the women who fit that stereotype, and it’s the same thing, so I find the life cycle fascinating.*

(Personal interview, September 27, 2010)

Despite the great ideas and her passion for the theme, which are essential factors for a successful narrative, Jenny’s story at the beginning still lacked the lever that could generate the power it needs—a dramatic question, which helps establish “suspense and creates a story arc,” and raises a “question in the mind of the people who are listening to the story” (Moodle, Resources, The Elements of a Digital Story). This can be seen when comparing the first and final versions of her digital story (Figure 19). The requirement of

the first assignment was to create a digital story with only images and text with/without music. Jenny used the same images, and the same music, with text screens, but the story failed to reach the audience as it would in later versions. In the story circle, after she read her story, which at the time, was still a brief biography of Anna Nicole Smith viewed from her philosophy of “the Hollywood life cycle,” the instructor commented,

*I think it is an interesting way to go. My recommendation for you would be to try to figure out what is the dramatic question... You're going to have to narrow it down, obviously in which direction you think it is, but you haven't said what the key question is here ... So I think you have plenty to work with; I just think you need to decide what is it that's important to you, what do you want to say with this.*

(Field notes, recorded class discussion, October 4, 2010)

During the class discussion on Jenny's script, the ideas were offered about Anna Nicole Smith as a media character created and destroyed for the audience's enjoyment, and an indictment of society for taking pleasure in this like Romans watching lions eat gladiators (Field notes, October 4, 2010). Jenny absorbed these suggestions and incorporated them into her story. While this changed the narrative structure, it did not influence the storyline because Jenny did not negotiate the script; rather she sought a good reason to tell her story. Like Laura, she wrote more than one draft of her script, yet, the life of Anna Nicole Smith always remained the core of her narrative. She reflected, “I haven't taken much Anna out of it [the revised script] because she is still fascinating; she is still a big part of this idea, but I did take the comments” (Personal interview, October 17, 2010).




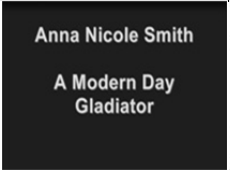


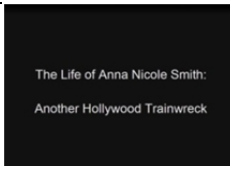



The introduction of the final version				
Images				
	<div>Video clip</div>			
Narration	The surprised death tonight of Anna Nicole Smith... (Narrator of the clip)		Do we, as a society, get enjoyment from seeing people fall?	That civilization enjoyed throwing gladiators to ferocious animals and watching them killed or maimed...
Music		Judy Garland singing "Over the Rainbow"		
The introduction of the first version				
Images				
Music	Judy Garland singing "Over the Rainbow"			

Figure 19. The introduction of the final and first versions of "A Modern Day Gladiator."

Jenny's negotiation of a dramatic question was to reconstruct the material she already had so that it conveyed a meaningful message. She reasoned for the changes she would make to her script,

*Someone said that it was sort of like the Romans who threw people to the lions for enjoyment. I want that theme, that idea, and I am transforming her life story into this idea of how civilized are we, how far have we come, because we still do it, except we do it in a different way.*

(Personal interview, October 17, 2010)

Once she captured the idea, Jenny started to engage in choosing the images that would represent the metaphor. She described this negotiation,

*Now that I've gone in a new direction with the story, I actually have to think how I will use the images. What images will I use? Am I going to use modern day gladiator images from television and a lot of movies about it or will I use the very opposite thing, which is an old renaissance painting of the Coliseum? So I have to decide do I want a completely opposite or do I want something modern day still.*

(Personal interview, October 17, 2010)

However, the metaphor was more coherent when verbally expressed than when represented with images. Jenny explained her difficulty to the instructor in this way, "It was driving me crazy because the more gladiator stuff I put in visually, it just... it didn't go right...I thought it may be cool to do some of those real cool graphics or gladiator-type video clips too. But it just seems so jarring, you know what I mean?" (Field notes, recorded conversation, November 1, 2010). She finally managed to incorporate the idea in the story by selecting the ancient gladiator image and adding the text graphic to highlight her dramatic question.

Theoretically, this represents a negotiation with the audience, which Jenny settled by taking the audience's suggestions and including the audience in the story. Now Anna is not the only character of life vicissitudes; the society watching her struggle with and die from alcohol and drugs also takes part in the drama. Jenny's questioning the civility of the modern society sets a connection between Anna's fate and our perception of life, which makes her perspective to Anna's tragedy a message worth sharing. After Jenny posted her revised script with the dramatic question, she received appreciative feedback. One classmate wrote the following,

*I like the changes you have made with your script. The gladiator image creates a framework and theme to build around that I believe is much stronger than your earlier script. I also like the verbal imagery you use that will help creating an auditory and visual background much easier.*

(Moodle, Forum, Class Seven, October 17, 2010)

Another added, “I like your script and you've made a lot of changes. Your topic is interesting so I imagine that the final product will be good. The questions at the end really bring your project together.” (Moodle, Forum, Class Seven, October 17, 2010)

### **The negotiation for truthful materials to use in the digital story.**

As she was telling about the life of a present-time celebrity, Jenny was highly aware of the accuracy of the materials she put in her story. Although she did not include a lot of particular information of Anna’s biography, Jenny was always careful to choose reliable resources. She said,

*Because I was not with her every step of the way, I had to actually go research her life. It takes a lot of time to research one person’s life that was recorded for us only through the media. So my difficulties lie in finding truthful information, and also in finding images that are not just... everywhere, but I was looking for images which were a little bit more specific...So it takes a lot of time to dig around through all the masses of information on the Internet.*

(Personal interview, September 27, 2010)

Jenny developed strategies for her fruitful search. She would look at tell-tale features of the web sites to evaluate their quality, as well as the seriousness and accuracy of the information. She also examined the information to see whether it matched her prior

knowledge of Anna Nicole Smith. While she was not conducting scholarly research, Jenny tried her best to obtain the most valuable materials on the theme from her view. She explained how she screened the information,

*I made my own criteria for choice, for example, one thing I think of is if there are a lot of errors in spelling, in punctuation, in grammar on the pages. If there are, then, maybe this person, I guess, could be a very educated person but just doesn't know how to write, but the more possible situation is that they may be uneducated about Anna Nicole Smith. I also made decision based on how much information they have to give me, what kind of information that is fresh that I haven't read before, was it her mother who said these things or was it the friend of the mother, how close can I get to a primary source.*

(Personal interview, September 27, 2010)

This strict selective strategy sent Jenny through a rigorous negotiation—the search through hundreds of Anna's photos and pictures on the Internet for only 13 close-ups that she included in her story. An illustration of how Jenny negotiated the images in her story is a mug shot of Anna (Figure 20), the quality of which was pointed out by the instructor as unsatisfactory when the first version of the story was shown in class (Field notes, September 30, 2010). Talking about this mug shot, which she considered very important, Jenny stated her firmly-set criterion for imagery—between the quality and the meaning of an image, she would choose the meaning. The mug shot appears very old, in black and white, and pixilated when shown on the screen, but Jenny was determined that she would not exclude it from her story due to its significance. As she emphasized it, the mug shot and two other images—Anna's party shot with Howard Stern and the graveside photo—

were indispensable in her story (Figure 21). In her final report, Jenny wrote that these pictures “played an important part in telling the story.” The mug shot revealed a fact about “one of her many backslides on her way up,” and the others were highly suggestive as the indications of her downfall and her destination (Moddle, Assignments, Final Report, December 6, 2010).


<b>Image</b>	
<b>Jenny</b>	<p>[This] is a very specific image. The mug shot tells the story about where she was at that time in her life... With images, I would look for pictures which are not pixilated or better, clean and sharp, but sometimes that's difficult, too. So you have to make a decision – Are you going to put in an image which is not sharp but worth it for the story, like the mug shot? It's not a good picture, but I have to. I have to have it for the story because it really told part of my story. Without that picture you wouldn't understand what I was saying... Something that's going to give. For me, it's never going to be the story. It's the picture.</p> <p>(Personal interview, September 27, 2010)</p>

Figure 20. A significant image in the digital story “A Modern Day Gladiator.”

Anna Nicole Smith is both a cultural and real character. This required more research effort as Jenny wanted to collect materials that were factual, true to her life, and at the same time served Jenny’s purpose of featuring Anna in the light of a modern gladiator. Thus, to Jenny, the hunt for the video clips showing Anna’s real persona and emotions through different times was also a two-fold negotiation for the convergence of the truth and her idea. Each of the four videos in the story, like the images, was deliberately selected so that when inserted in the story, it seamlessly fit in, and brought the sense of reality. Jenny joyfully wrote when uploading the third version of her story on Moodle, “They [the clips] really breathe life into the project. I chose clips that were very

poignant during certain periods of her life.” (Assignments, Hands-on Assignment for Class 11, Notes, December 1, 2010)

Except for the first clip of the news of Anna’s death, the other three clips are representative of the different important stages of Anna’s life: when she first went to Hollywood as a sober go-getter, when she became a drug addict, and when she was a completely devastated loser in life. Jenny explained how she chose one of the video clips,

*I found an early interview of Anna Nicole while she was sober. (There aren't many sober audio files of her.) I found her interview on YouTube. I selected this particular piece because I wanted to provide Anna's own perspective on what's happened in her life. I also wanted to give the viewer some idea of who/what she was before fame and drugs took over.*

(Moodle, Forum, September 19, 2010)

The final clip, which lasts about three and a half seconds, is one of the critical events in Jenny’s story because it reveals Anna’s emotion a short time before she died—her disillusion of the crowd and those in relationships around her. As the counterpart of the gladiator image, the clip personalizes the gladiator theme in Anna’s image before it is reverberated in the coda of the story. Jenny remarked, “Even though it’s a depressing clip, I was so excited to find that information coming from her mouth because it summed up my idea of how people treated her and how the world treated her” (Personal interview, December 6, 2010).

Image	
Jenny	Nothing I felt really strongly about as the picture when she was with Howard Stern, the man, and they were sort of like at a Mardi Gras or something and she looked really strung out... It shows me, and it shows the viewer where she was heading towards that end. (Personal interview, December 6, 2010)
Image	
Jenny	I was not ever going to take that picture [the picture above] out of my story because that was important too. Even in that you can see, she was a celebrity; normally celebrities should have this grand grave site. It wasn't that great, I mean it was a grave site with some flowers but it wasn't over the top, it wasn't celebrated, I mean it was sort of depressing, too. Even the grave site didn't look like it had been visited a lot to me. So I felt it important to keep in. (Personal interview, December 6, 2010)

Figure 21. Examples of Jenny's negotiation for images

### The negotiations for the music and other effects in the digital story.

The lyrics of the music that Jenny used as the background of her digital story runs another narrative line along the narration and the imagery. This was a particularly important negotiation she made during the creating process. Jenny explained her feeling for the song and the reason why she selected it for the story as follows.

*I saw the story and the song together. That was also one thing I will never leave, the song. The song for me was very important because, first it was sung by a woman who... I don't know if you are familiar with Judy Garland, but in the beginning of her life, she was full of hope and new to the Hollywood also, she sang it as a very happy and hopeful song, but then the version that I have in the digital story is a song that she sang toward the end of her life after she had gone through all her own personal struggles, up and down, taking different pills, going*

*through different men, and when she sang it this time, it has another meaning to it for me... I've always been very committed to that song for the story because there are so many parallels between Judy Garland and Anna Nicole Smith in the same way.*

(Personal interview, December 6, 2010)

Jenny later returned to this matter in her final report when she mentioned the music as one of the essential elements in her digital story, “I also found it appropriate because the version I chose was sung later in her life, after Garland’s own personal battles with addictions and was just prior to her overdosing” (Moodle, Assignments, Final Report, December 6, 2010). The idea of the parallel between the song and Anna’s life is underlined in the third version of the story when Jenny completely removed her voice-over. This was Jenny’s experiment as she was trying to figure out how to transform the narration of the story to accommodate the video clips. It turns out the song can play the role of the narration with an emotional tone (“Anna Nicole Smith—A Modern Day Gladiator,” Hands-on Assignment for Class Eleven, December 1, 2010).

As she pronounced in one of the initial interviews, Jenny’s work showed mindfulness in highlighting the importance of idea even in very minor features of the story. An example is the way she manipulated the transition. Most movie-making software offers the function of slide motion, which makes images fade into one another or move in certain fashions according to the digital story creator’s choice. After experimenting with the movement, Jenny decided not to use any of these motion effects, and let her images appear and disappear from the screen without animation. She accounted for this choice in the following conversation she had with me:



Jenny: *I didn't do any transition as far as fade in, fade out. I kept them all, the slides, up and then down, up and then down. There were no fade to black or fade to white because when I was trying to do that I actually didn't like the way the story looked.*

Anh: *Oh, so there is a reason you did that?*

Jenny: *I preferred actually to have the pictures up and then down, up and then down, because, for me it made more of a statement. When they were fading back and forth into each other, the pictures, it didn't look right for me because the story I'm telling is very gritty, unfortunately gritty, and sober, very sober, and I felt like all the movement in between, the fading, is not sober enough.*

Anh: *But why did you choose that attitude? Why did you choose to be sober because this could be emotional?*

Jenny: *Because I wanted people to really think about what they're watching, to consider themselves, to retrospect while they're watching it, to think about are they civilized.*

Anh: *Mm...*

Jenny: *So I'm just trying to strip the extra unnecessary stuff away so people can really focus on the idea within themselves while they're watching it.*

(Personal interview, December 6, 2010)

### **Challenges in creating the digital story "A Modern Day Gladiator"**

The largest challenge Jenny encountered in her project involved technical issues. She always considered herself to be not very technologically-savvy. Jenny admitted this weakness to her classmates, "First off, I'm a technology idiot! Just about everything I've

learned outside of emailing and copying and pasting images is new to me” (Moodle, Forum, October 14, 2010). Although she had created digital stories before, she recognized that the experience she was having in this course was quite different. Jenny expressed her feeling this way,

*I came into this class, completely unaware of this program that we are using... I've never have made a digital story like this. I told you in the beginning that I have seen digital stories and I thought I had made ones but this is completely different. This is like a video to me... And I feel what we are doing is so much more powerful.*

(Personal interview, Oct. 17, 2010)

When dealing with technical impediments, there may not be a clear divide between making a choice and coping with a challenge. In Jenny’s experience, most often negotiation did not mean merely making a choice among possibilities but solving or compromising problems to maintain the choice. Anna’s grave site (Figure 21) was a meaningful image in her story but Jenny could not find a sharper photo, and when enlarged on the screen, the image was pixilated. Getting the feedback from the instructor, Jenny dealt with this snag by keeping it panned out and not completely zoomed in (Personal interview, October 17, 2010).

The hardest part for Jenny was the audio. Jenny discussed this difficulty from a retrospective view, attributing it to her obsession with the auditory quality of her work (Moodle, Forum, October 14, 2010). In fact, her challenge might originate from her choice. The video clips she selected were from different sources and had different qualities. When she inserted them into the story, the level of the audio was not consistent,

especially at the transition between the song in the background and Anna's voice in the clips. As Jenny had four clips in all, the fading in and out of the audio became more complicated. She described this challenge with the following words,

*I have a song in the background, and then the interview comes in, and then it fades out, and then the song comes back, and then it fades out, and then Anna Nicole comes back in, and then the song comes back in. So with that, one of the [instructor's] feedback was one interview section was lower than the other interview sections.*

(Personal interview, October 17, 2010)

She also shared with the instructor her issues in searching for video clips with the satisfactory audio quality and editing their volume. Jenny confided,

*... Also the middle interview, where she talked about taking pills, I looked and looked and looked for an interview that was of better quality and higher volume, couldn't find it. I tried tinkering with both Movie Maker and Audacity to raise the volume and that was about as large as I could get it...*

(Field notes, recorded conversation, December 6, 2010)

The technology challenges took so much of Jenny's time and effort, and exerted a considerable pressure on her. However, as she was so dedicated to her decisions, most of the times, Jenny managed to find solutions to the problems and stayed with her choices. Like Laura, Jenny often said that one needed to work through the project with "technology patience" (Personal interview, October 17, 2010). Although she admitted losing patience and getting frustrated when working with the audio sometimes, Jenny demonstrated perseverance in coping with the technical challenges. She asserted,

*It has been a fight with me every time I worked with the project. But I have learned by sitting down several hours at a time and going through the materials and going back to Moodle pages, looking for instructions, trial and error, trial and error, trial and error until finally I got it right. That's how I've learned.*

(Personal interview, December 6, 2010)

### **Jenny's Living Her Experience**

#### **Jenny's enthusiasm for her project.**

The process of creating the digital story to Jenny was an extremely rich and valuable experience. She did not take the project as course assignments but was engaged in it with the enthusiasm of an artist devoted to her creative work. While other students might have found the linking the two courses of technology and popular culture a strong constraint to their choice of topic for their stories, Jenny appreciated this as an opportunity to explore a cultural theme of her own interest and develop an educational multimedia artifact about it. Jenny's enthusiasm for Anna could have originated from the fact that Anna used to live in Houston as she said, but it may also result from more profound psychological relation. Jenny, as a woman, explained the reasons why she felt so attached to her character:

*She [Anna Nicole Smith] was everything that's not me. So I'm fascinated by the big hair, the big boobs, and just the silliness of hers, and the sense of humor she had about herself. She came across a dim wit but at some level, she probably got some brain. She was a fun-loving and out-for-fun girl, which is the opposite of me, so that's why I'm drawn to that. It's an escape for me. She is my alter-ego; she is my escape.*

(Personal interview, September 27, 2010)

In featuring Anna's life as she did in her digital story, Jenny aimed to present other dimensions of Anna as a human being that have often been overlooked or distorted by the media. Jenny explained her intent in the forthcoming passage:

*Anna Nicole gets a lot of my sympathy because... when I was little I read about Marilyn Monroe; Anna is like Marilyn Monroe, we loved her but we laughed at her back. As humans, we all want to be loved. She wanted to be loved but she could not get what she wanted. So I felt for her, and I want to show the complexity of her life, not just a dumb blonde and an idiot. I want to show her as a full person, not just a Hollywood image to be treated like dirt.*

(Personal interview, October 17, 2010)

Indeed, after watching her digital story, one of her classmates responded, *[Jenny], Every time I watch your story, I feel more and more guilty about what happened to Anna Nicole. I'm not one to follow all the latest celebrity activities, but I always viewed her as just being "wrong." I never stopped to think that part of the problem wasn't Ann Nicole herself rather her trying to survive in a world that she didn't really have control over. Thanks for telling her story in a different way.*

(Moodle, Forum, November 7, 2010)

Another peer commented,

*I've never had much interest in Anna Nicole. Her story is a sad one, but to me she was so self-destructive that I have a more difficult time finding sympathy for her. Your story brings me a new awareness of her life.*

(Moodle, Forum, November 7, 2010)

Thus, Jenny managed to change people's minds about her favorite media celebrity. This might not have been realized without passion on her part. Jenny lived the time when she worked through the project with true deep feelings for her character and her story. She referred to Anna Nicole Smith personally in an interview, "She and I, we have been through the project together... I have worked with her now, I guess, for five or six weeks, so I've been seeing her a lot. She's like a little friend" (Personal interview, October 17, 2010).

As the project progressed, Jenny became more and more attached to it. The largest obstacle to her was the lack of time; the project definitely could occupy only one slot in the hectic schedule of a teacher, student, and mother, but Jenny saved a special position for it in her mind and soul. Jenny described her feelings this way:

*I have fallen in love with this. I have really devoted myself to this story and throughout the process I have fallen in love with the project. It's not necessarily the thing with the highest quality that I have pulled, coming through the process, but I have looked at it for a long time, I can't see I can look at it from an outsider's perspective anymore. So I'm sort of entranced in the project itself.*

(Personal interview, September 27, 2010)

This attachment gradually developed into a peculiar dual relationship. Jenny loved developing the digital story but hated the technical problems. She explained, "It is love-hate for me. I love the process. If I could do this for a living, I'd probably would. That's how much I love it. But on the other hand, I hate it because it's so technical." In spite of the issues, the general impression Jenny conveyed about creating her digital story was the enjoyment an artist may have when discovering a new means for her art. Jenny

considered the creation of the digital story the creative production of the output of what she had absorbed from life with regard to her theme—her reading, thinking about it, her research for it, and her knowledge of it from the media. She confirmed that, “I like to tell my story that way, to create. That’s what I love about it. It allows me to create. There’s no better feeling than that” (Personal interview, October 17, 2010).

### **Jenny’s learning and teaching experience.**

As it was evident through her coping with the technical challenges, this was a great learning experience for Jenny. Jenny started with few technology skills, but by the end of the semester, she had gained quite advanced expertise to work with audio and video clips. She wrote in her final report, “I came in with basic knowledge but am leaving with some real tools to work with.” Beyond the skills, Jenny considered the creation of the digital story her process of “educating” herself “how to use a particular form of art” (Personal interview, November 1, 2010), and looked at Digital Storytelling holistically as an alternative format for people “to learn, express, and create” (Moodle, Assignments, December 6, 2010).

This view was manifested in Jenny’s immediate application of what she learned in the course to her own classroom. She taught her fifth graders the skills she learned in a graduate course without hesitation. She recounted this in the forthcoming excerpt:

*Over the last couple months, I have been giving them tutorials on how to create their own digital stories, how to put music in, so we, actually as an entire class now, know how to create digital stories through Photo Story. We don’t know how to use Audacity yet, but that’s different, that’s a whole different ball game. Some*

*of them have created a story on Anne Frank and some of them have created a story on Diego Rivera. So that's my project in my classroom.*

(Personal interview, November 15, 2010)

In her final report, Jenny also mentioned this teaching of Digital Storytelling to her kids as part of her fruitful gain from the course. In Jenny's estimation,

*All of the technology skills that I have acquired through this process have already been transferred into my classroom and will continue to be used as a learning tool. I look forward to witnessing what types of products my students will be able to create using the content they learn in class.*

(Moodle, Assignments, December 6, 2010).

As stated from Dewey's view earlier in this dissertation, whether a student continues to create digital stories and make use of them in their learning and teaching practice after the course is over depends on the experience she has during the course. Jenny's integrating Digital Storytelling in her class is the reflection and an extension of her experience in the course. Jenny was passing on not only the expertise she learned but the enthusiasm she felt about Digital Storytelling to her students. She lived as an artist, student, and teacher at the same time she was engaged in the project.



## **Chapter VII: Technology in Medicine: The Story of The Hippocratic Oath**

### **The Portrait of the Creator of the Digital Story “Technology in Medicine: Controversies or Cure?”**

Theresa stood out among the participants of this study not only because of her occupation but due her personality. She was a student in the program for the Master of Education Degree with an emphasis in the Health Sciences. She was currently working at a hospital in the Texas Medical Center, Houston as a pediatric emergency medicine fellow in the last year of her fellowship. Theresa presented the portrait of a young professional—She worked fast, talked fast, typed fast, and was very time-efficient. As she was extremely busy, most of her interviews for this study were conducted via telephone and email. However, when she had time for face-to-face talks, she appeared to be warm and friendly.

Theresa had a strong desire to aid in the continued education of young doctors, medical students and patients. One of her future projects would be online learning which could supplement lectures and bedside teaching. She thought that Digital Storytelling would help her accomplish that feat (Personal communication, October 15, 2010). Although Theresa did not have previous experience with Digital Storytelling, she was quite technologically savvy and it emerged in her process of working through her course assignments.

It is important to know that Theresa felt a bit disconnected in the context of the linked courses. She was one of only two healthcare professionals in a classroom full of social studies teachers, history teachers, English teachers, and those who were involved in the field of education. She described her feeling, “It is really hard to figure out where I

fit in the whole class” (Personal interview, October 25, 2010). As the instructor of the Popular Culture course remarked, some of the students enrolled in the linked courses did not aim to study popular culture as themes to integrate in their teaching with technology (White, personal interview, December 8, 2010). Theresa was probably one among them. She was more inclined to learn the technology component rather than the content part of the courses because her audience and teaching setting would be completely different from those of her classmates. Theresa acknowledged in her presentation in class that,

*I was caught off guard when I signed in for this course before the class and when we really met in class, I recognized that people are social studies teachers or veering toward that area, no one in my realm, and my classroom is actually in the hospital where I teach my students or general medical residents and my junior fellows. My classroom is the patient bedside or the simulation lab, and rarely, rarely the classroom...*

(Field text, Recorded presentation, November 1, 2010)

This disengagement from the general setting, together with some distractions—a professional conference and out-of-state job interviews—apparently exerted some influence on her creating digital stories for her project.

### **The Digital Story “Technology in Medicine: Controversies or Cure?” as a Multimodal Text**

The digital story Theresa developed for her final project was also a commentary on the advances of technology in medicine. It did not have a central character like “Superman” or “A Modern Day Gladiator” but it focused on events and inventions in health sciences. On the one hand, it appeared rather dry and technical; on the other hand,

it was appealing because the topic is closely related to real life. While Theresa did not bring any personal element into her story, the theme and the content reflected so well her profession, and professional philosophy. “Technology in Medicine” strikes another chord among the digital stories considered so far.

Theresa’s digital story is 6 minutes and 56 seconds in duration, with 32 images and three video clips. The first impression of the story is that it offers an overview of the progress of medicine from ancient to modern time. The tweak of this otherwise straightforward facts-and-figures narrative is the dramatic question, which spotlights the duality of advanced technology in health sciences. Theresa considers ethical issues associated with technological leaps and bounds. The springboard she sets for this argument is the Hippocratic Oath—the pledge to practice medicine ethically—that each medical doctor takes at their graduation ceremony. As Theresa posits it in the title of her story, technology and its inevitable controversy—cure or harm—has been a sensitive question throughout the story, especially when it is raised from the stance of a physician.

Like the other two stories, with a neat script, “Technology in Medicine” can be divided into three analyzable units: the introduction of the dramatic question whether humans can play God, and doctors can always keep their promise; the development with a bird’s-eye view of the cure-or-harm effects of medical milestone inventions; and the conclusion reminding us of the Hippocratic Oath as the first professional principle of the medical community. While the structure is clear-cut ideologically, proportions of these three parts are not very well-balanced. The conclusion occupies a very short space of time in comparison with the previous parts and is represented by only two slides. Additionally, there is no clear transition among the main sections of the story.

The introduction of the story is composed of a series of images of medical history and a video clip of a graduation ceremony of medical students. It starts the narrative with an interesting global view and insightful information of ancient Egyptian and Chinese medical literature, and the founder of Western medicine, Hippocrates. This “begin from the beginning” strategy provides a powerful foundation for the story. The mentioning of Hippocrates is a clever transition in idea to the center piece of the introduction—the dramatic question, which is visually represented with a photo and the video clip featuring graduated medical students taking the Hippocratic Oath in their own languages. These images convey far better than any verbal description the significance of the foremost and universal ethical principle of any medical doctor.

However, the impression is that the imagery is not always as coherent as the voice-over because the images repeat one another, and overly literally represent the narration. The transcription of the introduction of the story in Figure 16 illustrates this point. The image of a box is used in the first slide of the visual narrative line to match the phrase “proverbial box” in the narration, and the photo of students taking the Oath and the video clip right after that represent the same thing. Similarly, the sign with the word “harm” and the crossed fingers are associated in significance. This use of redundant expletive images reduces the intriguing effect of a digital story, which is based partly on the economy of both visual and verbal narration.






Images	<div><div>Technology in Medicine Controversy or Cure? Thuy Ngo, DO</div><div></div><div>Six images</div><div></div></div>						
	<div>Video clip</div>						
Narration	The advancement of medicine has always been in the hands of those with foresight and looked at the world with a different set of eyes	and who are willing to step outside of the proverbial box and at times, risk persecution for not aligning themselves with popular convention.	Because of their perseverance... marking the birth of western medicine.	This oath continues to be recited at medical school graduations every year.	Graduated students reciting the oath in their languages	But have we got away from this oath? Are we doing harm to our patients with the research and technological advances that we have dreamt up?	Are we not keeping our promises?

Figure 22. The introduction of the digital story “Technology in Medicine.”

The topic of the digital story is developed with a many details about technological progress in medicine, from the inventions of the stethoscope, X-ray, vaccines, antibiotics, neurosurgery, and contraceptive pills to the potential uses of stem cells. Well-selected images illustrate the concepts and form a conspicuous visual line along the narration. With controversial inventions, the pros and cons of the matters are presented, for examples, the advantages of vaccines coupled with the risk of autism in children having the vaccines, or the courage of pioneer surgeons in dissecting human brains conjoining the now-prohibited dreadful lobotomy to treat mental diseases. One drawback is the imagery sometimes highlights only the benevolent side of an invention with controversies such as that of the contraceptive pills; and the viewer is left to wonder what the harmful effects are like, or why the images and the narration do not keep going along at this point (Figure 24). What is more, despite the transparency of the imagery, the straightforward numeration of the events at times conveys the feeling of a “walk-through” in an essay where the writer lists ideas instead of intertwining them into strong arguments (Figure 23).


<b>Images</b>				
<b>Narration</b>	We have developed instruments critical for patient evaluation such as the stethoscope	and X-ray imaging	and CT scan imaging.	We have discovered Penicillin, and today have over 160 different antibiotics that cure an innumerable number of diseases.

Figure 23. An example of the numeration of events in medical technology in the digital story.

The two video clips inserted in the development section lend different effects to the narrative. The clip about the risk of autism features the announcement of Wakefield's study about the relationship between vaccination and autism, and the protest after that. It reproduces the sense of a widespread panic about the unforeseen danger of technology. The cartoon about the disabled man who became miraculously transformed with stem cell applications adds a "nice comedic break," as Theresa intends, to her serious story (Moodle, Forum, October 31, 2010). Unlike the clips in "Superman," and "A Modern Day Gladiator," which are consistent in type and content or from one source, the clips used in this digital story are of various kinds—real footage, news and cartoon. This animates the otherwise monotonous tone of the story.

The consideration of both sides of stem cell research, an issue with typical ethical controversies in medicine, is a great argument with which to end the discussion and conveniently lead to the conclusion. Theresa successfully emphasizes the significance of the matter by adding details about political celebrities' concerns with regard to the issue. The conclusion is strongly stated with praises to the advances in medical technology,

determination to take medicine in human hands to serve humans' lives, and the confirmation that the Oath should be strictly observed. However, Theresa could have expressed more definitely her own viewpoint with regard to the controversies. The ethical issues of the technological achievements have been touched only on the surface, and at the most general level, while the story fails to convey a personal dimension that is expected of a digital story as opposed to a photo essay.


<b>Images</b>						
<b>Narration</b>	Some advances in medicine have even led the progression of our economic prowess. In 1960 the first combined oral contraceptive pills were...	approved by the FDA. The pill has brought controversies for a life time, especially with the inception of RU486 or the morning after pill	Even so, many economists argue that the pill was the key player in forming modern women's economic role and that the prolonged age at	that women first marry allowing them to invest in education, another form of human capital, as well as generally becoming more career-oriented.	The ability to control fertility without sacrificing sexual relationship allows women to make long-term education and career plans.	It is currently being used by more than 100 million women worldwide and over 12 million in the United States.

Figure 24. The imagery emphasizes the benevolent side of contraceptive pills

The consideration of both sides of stem cell research, an issue with typical ethical controversies in medicine, is a great argument with which to end the discussion and conveniently lead to the conclusion. Theresa successfully emphasizes the significance of the matter by adding details about political celebrities' concerns with regard to the issue. The conclusion is strongly stated with praises to the advances in medical technology, determination to take medicine in human hands to serve humans' lives, and the confirmation that the Oath should be strictly observed. However, Theresa could have expressed more definitely her own viewpoint with regard to the controversies. The ethical issues of the technological achievements have been touched only on the surface, and at

the most general level, while the story fails to convey a personal dimension that is expected of a digital story as opposed to a photo essay.

Visuals are normally much richer and more suggestive than words in meaning. Implicit images can be highly engaging with multiple semantic layers, and well-used metaphors are more effective than explicit images. However, in narrating with multiple modes, the issue is the viewer may get lost if images reveal no clues of connection to the narration. The last part of the digital story conveys this feeling (Figure 25). The imagery appears not to adequately represent the strong premises the narration tries to bring forth, and the impression after the last slide fades is that the narration in this part of the digital story overwhelms the images.

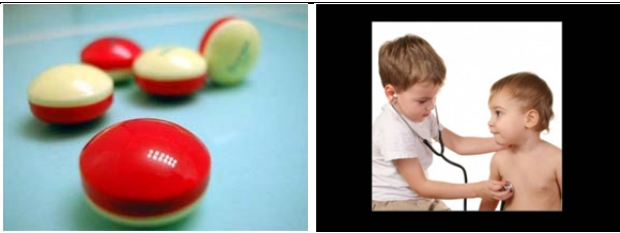
<b>Images</b>	
<b>Narration</b>	<p>Medicine has come a long way since the theories developed in ancient Egypt and China. We have found treatment for illnesses that were incurable a myriad decades ago. In order to do so, we have to take medicine into our own hands,</p> <p>and according to some, play God. With all the advances we made in medicine, we the medical community, need to remember the Oath we took at medical school—first, do no harm.</p>

Figure 25. The conclusion section of the digital story “Technology in Medicine.”

## Negotiations and Challenges in Creating the Digital Story “Technology in Medicine”

### Theresa’s advantage with technology.

Theresa was rather advanced at technology and quick at learning new skills. Although this may not necessarily be an advantage over her classmates because all the skills needed for the course assignments were instructed in class, and their tutorials were



posted on Moodle, Theresa's acumen brought her a great deal of self-confidence to cope with more complicated issues when the requirements became sophisticated. While another participant admitted, "I feel that the technology limits me and my script in some ways." (Moodle, Forum, October 24, 2010), Theresa claimed,

*I think I'm pretty technologically savvy. There are plenty of things I do not know but I feel I'm a pretty quick learner and catch on quickly. I have thoroughly enjoyed learning the nuances of both Photo Story and Audacity thus far. I think splicing songs with different pieces of audio is not only entertaining (remember the class where I was giggling non-stop and brought B. down to my level of ridiculousness?) but can also enhance an educational experience.*

(Moodle, Forum, October 13, 2010)

Theresa often experimented with tools and facilities, and when she discovered something new, she shared it with her classmates. Once, it was the tip of processing images with PowerPoint to make the pictures sharper and more consistent in format for the slides (Field text, September 20, 2010). Another time, it was a tutorial link (Moodle, Forum, November 14, 2010), and still another time, it was her experience while surfing YouTube and fumbling with different video-making software. Below are her observations concerning these programs:

*One of the very best things about YouTube is you can type in any string of words and more often than not, you will get a video to match what you're looking for. What a savior! Once I found the video I wanted, I used RealPlayer to download the video. There was an option to trim the videos prior to converting the videos which was pretty easy to use. One thing I found though was there was also extra*

*video footage (a millisecond's worth) at the beginning and end of the video after I trimmed and converted (to WMV) the videos. No worries. I was able to trim the videos to my liking in Movie Maker. Preliminarily, I felt that splicing and mixing my digital story and videos was not that difficult in Movie Maker.*

(Moodle, Forum, October 31, 2010)

“Straightforward” seems to be Theresa’s favorite word to describe the technology procedures she successfully accomplished, “Adding music in the background was pretty *straightforward* since we went over this in class” (Moodle, Forum, October 1, 2010), “I made a data DVD and basically opened up the DVD and dragged and dropped the files into the DVD... It was pretty *straight-forward*” (Moodle, Forum, December 5, 2010). Theresa made an impression that the skills were easy to learn for her and she could use them as effectively as expected.

### **Negotiation for a topic for the digital story that serves both courses.**

In comparison to the other two participants, Theresa had fewer issues to negotiate with, and more technology skills to fall back on. However, when she needed to negotiate, her issues were really challenging. For Theresa, negotiations and challenges occurred simultaneously most of the time. As she recognized it right from the beginning of the semester, it was hard for her to come up with a topic that would work for her and be suitable to the purposes of both courses. Medicine, in Theresa’s terms, was a “cut and dry” field that was too technical to connect with pop culture, unless when she addressed issues that propose controversial points for debates (Personal interview, October 25, 2010). Eventually, Theresa chose to tell about technology in medicine—a combination of the subtheme of technology in popular culture with her professional field. She said,

*The biggest challenge for me was actually picking a theme that would fit both classes. So in the first class, we have pop culture and fit something with the pop culture class and then do a digital story, which I'm actually interested in. The field that I'm in is medicine has almost nothing to do with pop culture, which I didn't realize until we were in the class, because I feel we have a lot of undergraduates in the course, and the Master's students are either teaching social studies or history or English at high school or less grade levels, so... finding a digital story to mesh with both classes was really difficult. So that's why I'm doing technology in medicine. Even with that, that turned out to be a difficult issue as well.*

(Personal interview, October 25, 2010)

This solution met the demands of the courses, but Theresa was not satisfied with it. Even after she had managed to recast her story with the ethical issues, Theresa still complained, "It's still really frustrating trying to mesh this class with our Pop Culture class" (Moodle, Forum, October 25, 2010).

Despite this difficulty, once Theresa had decided upon the theme, she had concrete ideas for the details in her story. The first version of her script was not dramatically different from the narration in the final version of her digital story. However, it did go through considerable transformation as the result of negotiation between Theresa and her first audience—her classmates. This is Theresa's first script posted on Moodle.

<p>The advancement of medicine has always been in the hands of those with foresight and looked at the world with a different set of eyes and who are willing to step outside of the proverbial box and at times, risk persecution for not aligning themselves with popular convention. Because of their perseverance, we are able to take advantage of those technological advances today.</p>
--

In 2600 BC, Imhotep wrote texts describing diagnosis and treatment of over 200 diseases during the 3<sup>rd</sup> dynasty in ancient Egypt.

In 2596 BC, the Huangdi Neiijing, also known as the Yellow Emperor's Classic of Internal Medicine, is published. This text laid the framework for traditional Chinese medicine.

Circa 838–870 – Ali ibn SahlRabban al-Tabari, a pioneer of pediatrics and the field of child development, writes the first encyclopedia of medicine.

In 1736, Claude Aymand performs the first successful appendectomy. Appendectomies have become a very common surgery and is now performed laparoscopically rather than through an open incision as was done during Aymand's time.

In 420 BC, Hippocrates of Cos wrote that diseases have natural causes and puts forth the "Hippocratic Oath," marking the birth of western medicine. This oath continues to be recited at medical school graduations every year.

Smallpox is an infectious disease unique to humans and is believed to have emerged in 10,000 BC. In 1796, Edward Jenner develops the smallpox vaccine, which was later revised and perfected. Even so, smallpox is responsible for 300-500 million deaths in the 20<sup>th</sup> century. But after successful vaccination campaigns, smallpox is the only human infectious disease to have been eradicated.

In 1816, Rene Laennec invents the stethoscope, a device used to listen to the internal sounds of the body. It has evolved from this wooden tube to the metal and rubber device we recognize today. Some are so sophisticated that they can reduce external noise, amplify internal body sounds, or even record the sounds heard.

In 1895, Wilhelm Conrad Rontgen discovers medical use of x-rays in medical imaging. The first x-ray he took was of his wife's hand. He is considered the father of diagnostic imaging.

In 1928, Alexander Fleming discovers penicillin and from this began the modern era of antibiotic discovery.

In 1936, Egas Moniz uses prefrontal lobotomy for treating severe mental diseases for which he won the Nobel Prize in medicine in 1949. He was shot by a disaffected patient in 1939 and was confined to a wheelchair for the remainder of his life. This procedure has been discredited and is prohibited in some countries.

In 1960, the first combined oral contraceptive pill is approved by the FDA. Currently being used by more than 100 million women worldwide and over 12 million in the United States.

Further into the 1960's, stem cell research emerges. The idea that cells can self-renew is born. From this...

In 1971, Sir Godfrey Hounsfield invents the first commercial CT scanner.

There are many controversies in medicine related to its technological advances. Most prominent in the news is stem cell research and vaccinations. There are a vast number of potential uses for stem cells most notably, for traumatic brain injury, Parkinson's, and bone marrow transplants for a variety of blood cancers. The controversy arises in the production of stem cells and the opinion that life is being created but not carried out to birth. Oftentimes, the embryos used for research are the ones that were not implanted via IVF for one reason or another. The donors to the embryos sign the products over to the laboratories for use or destruction.

(Moodle, Forum, October 13, 2010)

Figure 26. Theresa's first script (without the dramatic question).

After that, she received an influx of feedback on her script that was quite influential in her fixing it into a more engaging and suitable narration for a digital story. Laura remarked:

*This script is thorough and yet concise. I'm sure there is so much more information that would certainly overwhelm a less scientific audience. You also make your point well about how medical advancements were made by thinkers who were very nearly shunned by society for being so different. I remember reading this book called Descartes Bones, and it was pretty much the same idea. Love it! I wonder if you could incorporate a question though...I guess I noticed that there wasn't one because I'm having so much time trying to formulate my own.*

(Moodle, Forum, October 15, 2010)

Jenny wrote:

*I like it. Your script is straight and to-the-point. The only question I have is about the first paragraph. It seemed like a lot of words all put together. I know it's impossible to tell how your expression will come out as you read through it, but I would caution you to read through this part slowly, or take small breaths, so people like me (slightly slow) can process all the information. Overall, very fascinating stuff.*

Another classmate suggested:

*As a medical person, I find this fascinating and I can picture the great images that you had used in one of the other projects. I think since your main point was about stem cell research (right?), I might try getting rid of the CT scanner sentence, and*

*go right from the stem cell research one into the discussion about stem cells. You could also include (I guess in pictures probably, with a bit of text) some of the protesters or even some video of people/politicians giving speeches for and against the use of stem cells. Great job!*

(Moodle, Forum, October 16, 2010)

Still another commented:

*This traces the medical aspects very clearly. However, it does seem like a simple listing of facts. In my scientific ignorance, it wasn't until I read Bethany's comment that I truly understood that you were heading toward stem cell research and its implications. One suggestion might be to bring in more of a human element, either by explaining how these advances caused controversy at the time, but eventually became accepted for medical use, or how the discoverer was persecuted, or something along that line. Some of this is implied, but you may want to state it more directly.*

Theresa responded:

*Thank you for the comments, Everyone! I think I might interject how each subject was controversial or innovative and then end with stem cell research as B. suggested! I think that will help tie things together better and make the story more relevant.*

(Moodle, Forum, October 17, 2010)

As shown in their content, the comments were helpful in different ways.

Sometimes, the confusion of the viewer while reading her script could give Theresa food for thought on how to improve it. She talked about this subtle tactic in taking advice, “I

think if people are reading my script and get confused, that really helps because clearly I'm not getting what I want to get across. So I have to step back and kind of re-read my script to make sure I'm saying what I want to say" (Personal interview, October 25, 2010). Theresa also discussed with the classmate who was her colleague about her original intention for the script and the comments. This gave her a chance to see how different types of audience—lay people and medical professionals like her—understand her topic, and to take a retrospective look on her process of conceiving, developing, and refining the ideas for the script.

Acting on the comments, Theresa removed and added details, intertwined loose pieces of information into coherent wholes, and most importantly, integrated the ethical controversies of technologies to attain an engaging dramatic question for her story. Theresa identified the main reason causing her to make changes to her story in this conversation:

*Anh: I see that you added a lot of images into your new version. I compared your first digital story and your second one, so that means you added a lot of details...*

*Theresa: Well, that is just thoughts that I'm going through but basically, what I have done is... If you look at the first digital story that I submitted and this one, I have taken out most of the history stuff and actually put in more of the social media issues that are around certain topic.*

*Anh: Why did you make the changes? Is it because you take comments from everyone or is it because you thought you needed to do it?*

Theresa: *Well, primarily it's because in my first script I didn't really have... a dramatic question... So in the last one, there is more of a dramatic question. That's why I tailored the rest of the script to it.*

(Personal interview, October 25, 2010)

Theresa also referred to this structural modification of her narration as “compressing down the technology medicine part so that the story is more a story than a list of facts” (Moodle, Forum, October 25, 2010). She wrote in her report at the end of the semester, “So with this change of plans, I had to alter my script, find more images, and of course, find videos that would go with my digital story. *For me, this was probably the most challenging part of the project*” (Moodle, Assignments, Final report, December 6, 2010). Thus, this effort to achieve a script useable for her final project was not solely the undertaking to overcome the challenge of finding a theme appropriate for both courses. It was the engagement in a multifaceted negotiation for the idea and the form of her narrative with her specific setting of the linked courses and her audience.

### **Negotiations for other features in the digital story.**

Once she overcame the impediment of choosing the topic, there were not many more issues or challenges with which Theresa had to deal. Theresa described her collecting materials for the story as a quick and simple process, “I just go on Google and if I see an image that I like and it gives me an idea, then I'll use it... The majority of the project, I would sit at home the night before and maybe whip it out in one or two hours” (Personal interview, October 25, 2010). However, this does not mean there was completely no negotiation for other elements of her digital story beside the topic. Theresa definitely made choices though they did not take much of her time and effort. About the



search for imagery, she wrote in her final report, “I used Google images and video search to find the media I wanted to use. The major hurdle with this was finding non-pixelated images and videos of high quality which, if you search enough on the internet, is pretty easy to find.” There was still a “hurdle” to jump over, which is the issue of pixelation. Thus, while these negotiations were not as vigorous as those made by Laura and Jenny, they fitted in the pattern of searching for media materials of quality.

Theresa also made change to the soundtrack. The first version of her story has the instrumental background music that invokes an ancient atmosphere when the history of medicine is unfurled through the initial slides (Moodle, Resources, Digital Story Project 2, Digital story “Technology in Medicine”) This is how she explained her decision concerning that piece of music,

*... I had an idea about dreams and how we strive to reach our goals as my theme, there is an Engine of Ingenuity episode called Medical Dreams or something along that line, I just clicked on that and thought, “Oh I’m going to splice that music into my project.”*

(Personal interview, Oct. 25, 2010)

Later, as she restructured the details in the story and removed a large part of the historical materials, she changed the music too. Theresa informed me, “I initially used ‘A Dream is a Wish Your Heart Makes’ from *Snow White* but that song got annoying to me after hearing it a zillion times so I switched the ‘Hallelujah’ which I think works better with the story” (Moodle, Assignments, Final report, December 6, 2010).

### **The technological challenges with creating the voice-over.**

Although Theresa felt comfortable with the technology requirements in the course, she had a technological snag to overcome. It was the recording of her own voice-over. While other participants were concerned with the quality of the video or audio they chose to insert in their projects, Theresa was bothered by the results of her recorded narration. She expressed her frustration to her classmates,

*I can't even tell you guys how many times I tried re-recording my voice. Heart-wrenching! When I held the microphone right in front of me, my "p" and "t" sounds were VERY emphatic and I didn't like it. When I held it further away—raspiness. There's a trick I heard about which is putting a tissue over the microphone and recording. I think that's the next trick I might try.*

(Moodle, Forum, November 8, 2010)

After she managed to create a satisfactory recording, Theresa looked back at this challenge as a chance for her to learn one of the skills during the course, “I also had to find the optimal distance from the microphone in which to speak (about 9 inches) to maximize the volume of speech but minimize the emphasis on the “p” and “t” sounds” (Moodle, Assignments, Final Report, December 6, 2010). Theresa also used the facility of the Whisper Room and other software to create and edit her audio file. Although she did not declare it challenging, she described it as a complicated process and concluded that, “Lots of tinkering took place to make sure everything was *just* right” (Moodle, Assignments, Final report, December 6, 2010).

## Theresa's Living Her Experience

### Theresa's tensions.

All the three participants considered lack of time the largest hindrance to their project, but perhaps Theresa was the one who felt the pinch most. As an emergency room pediatrician, her schedule was different from normal working hours. She shared her time crunch with the class in this way, "It's difficult working the odd hours that I do work, interviewing out-of-state for jobs, and then crawl out of bed after getting off a shift or off a plane to work on our projects" (Moodle, Forum, October 13, 2010). While other students could spend hours at a sitting to work on their projects, Theresa normally had to work very fast on her digital story. She said, "I had no time to sit at my computer longer than an hour or two hours at a time" (personal interview, October 25, 2010).

Beside the time constraints, Theresa had other tensions with the course and its structure. She found that the linked courses were not really linked. She had attended other linked courses in which most critical parts were connected, especially the themes, assignments and projects. For the courses in which she currently was enrolled, she maintained that they were "not linked at all" and "just happened to be the Digital Storytelling course and the Pop Culture course." While other students may have found the scaffolding structure of the course favorable, Theresa appeared to be frustrated that the projects proceeded in the way they did. She stated her opinion in the following passage:

*Let's say if [the instructors] said to me that "I want you to create a digital story on\_\_\_\_, and this is your dramatic question." Fine! I'll be able to whip it out in no time, but if you actually kind of formulate it from step one in terms of idea and*

*then carry it out, that's the problem. That's where I have the problem with it, not the technological side of it.*

(Personal interview, October 25, 2010)

Theresa explained that her difficulty stemmed from the fact that she lacked concentration where the project was concerned. In her final report, she expressed her state of mind as follows, “There wasn’t anything I was particularly passionate about with this topic around which I could center my whole digital story” (Moodle, Assignments, Final report, December 6, 2010). This lack of interest and concentration resulted from other concerns, finding a new job, for example, which was understandably a higher priority than her digital story project. She said, “Probably because I have five thousand other things going on right now, I don’t have the energy to really focus on it [the digital story]” (Personal interview, October 25, 2010). This statement accounts for the fact that Theresa was not deeply involved in more strenuous negotiations concerning the choices in her story.

### **Theresa’s learning experience.**

Although her time and mind were not completely dedicated to the project, Theresa enjoyed working on some aspects of her digital story. She said the technology part was “enjoyable” and Digital Storytelling was a great skill to learn and to have. She could see how she may apply what she learned with splicing music and editing audio and video files to create video clips for her teaching (Personal interview, October 25, 2010). Theresa also thought that her digital story may be interesting to her colleagues “since there is some medical history intertwined with current technological advances,” and she

would use it as a starting point to discuss ethics with medical students (Moodle, Assignments, Final report, December 6, 2010).

The technical skills were obviously the most useful knowledge she gained from the course, and Theresa seemed to be proud that she was rather skillful with quite a few programs for editing audio and video, and creating movies she used in her project. However, she emphasized that among the most valuable lessons she learned during the time were not technological but aptitudes toward learning: persistence and perseverance. In fact, Theresa proved that she always had these characteristics in dealing with challenges during the process of creating her story. This is how she explained how managed to solve a technical problem,

*One of the most difficult problems was finding the male-to-male stereo cables. I ordered the cable on Amazon.com when I got home from class last week. Then I realized they would not be able to ship it to me until middle October. Since I need it sooner than that, I went to Best Buy and looked in the computer section and the guy who helped me said they have female-to-female options or male-to-USB options. Neither of which would work. After going to Radio Shack and Office Depot, I (on a whim) went to the stereo section of another Best Buy and the guy there said, "Oh, you mean the auxiliary cables?" What? I said sure, and lo and behold, there was the cable I needed. Hallelujah!*

(Moodle, Forum, September 19, 2010)

Learning this, the instructor responded with appreciation, "Wow! Amazon, Best Buy, Radio Shack, Office Depot and Best Buy again. Now, that's dedication!" (Moodle, Forum, September 20, 2010).

Another important thing Theresa learned, as she wrote in her final report, was distancing herself from her digital story for a while and then coming back to it with “a fresh set of eyes and ears.” (Moodle, Assignments, Final Report, December 6, 2010). This proved to be a strategy to deal with difficult negotiations. After she received the feedback on her script and recognized that she needed to have a dramatic question, Theresa actually used separation to gain a new perspective toward her project (Personal interview, October 25, 2010). She was not the only participant applying this tactic in dealing with matters demanding time and creativity. Jenny, who was highly dedicated to her project, also recounted that she actually stepped back and left her story untouched for several days before resuming her work on it. This suggests that Theresa did have a commitment to her project. She could have performed better had she been more dedicated to negotiating and solving problems, as the instructor remarked (Robin, personal interview, December 6, 2010). However, Theresa was under so much pressure and distracted by other priorities having greater claims to her time and attention.

## **Chapter VIII: Discussion of the Experience of Creating a Digital Story**

### **How Did The Participants Negotiate the Choices Presented in the Digital Story?**

#### **The patterns of negotiation.**

As shown through the digital story creation of my research participants, Laura, Theresa, and Jenny, the process of creating a digital story is highly idiosyncratic and contextualized. The negotiations each of them was involved in concerning the choices finally presented in her story took various forms. They could be related to foremost elements of the story such as the theme and dramatic question, or they could pertain to features of lesser importance in the imagery or narration. Negotiations appeared at different levels depending on the complexity of the story or the dedication of the digital story creator. Some needed hours to search for a photo or download a video clip; and others might easily choose dozens of images on Google or splice a piece of music from another source in no time at all. However, distinguishing patterns emerged in the types of negotiations Laura, Theresa, and Jenny experienced.

#### ***Negotiations for the script–Negotiations within the mode of verbal language.***

The creation of a succinct meaningful script is the first and most crucial negotiation of a digital story creator. Although the specific component of the script they negotiated for were different (Laura for the script in general, Jenny for the dramatic question, and Theresa for both topic and dramatic question), the participants faced the common issue of writing a narration which turned out to be an expository essay. Their scripts exceeded the recommended length, and bore all the distinctive characteristics of written language. This was not necessarily a drawback because the required duration of a digital story in this course was five minutes, and the written language did not prevent the

conveyance of essential ideas, but it should be noted that it diverged from the digital story form recommended by Center for Digital Storytelling (see Lambert, 2010). The latter form stresses the importance of economy and the spoken formality of the language of the narration.

Their writing style may be connected to the next issue Laura, Theresa, and Jenny encountered, the lack of the dramatic question. While they all were good writers, Laura, Theresa, and Jenny had some difficulties in coming up with an engaging dramatic question for their digital stories. Theresa and Jenny mistook very similar paths—they created the first version of their scripts as a commentary without providing a sound reason why their story should be heard. A dramatic question helps establish the connection between the audience’s interests and the story, and one of the most useful ways to set one is bring in the story creator’s personal experience related to the topic. Laura, Theresa and Jenny originally failed to integrate their personal experiences in the story. As a result, their first scripts were fluent pieces of writing but not good stories due to the lack of personal connection.

As observed by the instructor of the Pop Culture course, most students had difficulties in “personalizing” their digital stories (White, personal interview, December 16, 2010). This happened to Laura, Theresa, and Jenny as well. Since they never introduced a personal element in their first scripts, their original stories lacked the emotional content and a compelling point of view. Only after their story circle experiences, when the dramatic question had been added, did their scripts begin to be personalized, but not all of them conveyed this effect. Theresa’s narration of her digital story “Technology in Medicine” is an illustration of this point (Moodle, Assignments,



December 6, 2010). It is noteworthy that in studies with children as digital story creators, “personalizing” the story did not present any problems, though the creators encountered technical challenges in writing. One of the possible explanations is that the digital story creators were encouraged to choose themes close to their daily lives such as their favorite person, their pet, moments of happiness, or even fantasies about themselves (see Hull et al., 2006; Pleasant, 2008). In the case of Laura, Theresa, and Jenny, it is probable that the academic writing style with the convention of depersonalization, and the topics they chose for the linked courses prevented them from naturally approaching their stories from a personal point of view.

From Kress (2003)’s perspective, a script is a complete text itself, and in creating it, the substance of the digital story creator’s communication needs to be shaped. For the participants, their substance was the topics they were building stories to tell about. In writing their scripts, they shaped their substance in the discourses with which they were familiar. Laura was an English teacher, so she introduced the concept of comics as a type of text that could be educationally exploited in the classroom, and she constructed her first script with a shade of teachers’ guidelines on how to use comics as teaching materials (Moodle, Forum, October 10, 2010). Theresa was a doctor, so she drew on her knowledge of technological advances in medicine to develop a topic that “worked” for her and for “the two courses” (Personal interview, October 25, 2010) and delivered it in a matter-of-fact form. What the participants did not initially recognize was that Digital Storytelling is a genre with its own discourse. This discourse requires the digital story creator to bring in her personal experience and adopt a more personal approach to her communication—where tone, point of view, language, and so forth—are concerned. From

this angle, the negotiation of the participants in writing their script can be considered as the adjustment of their discourses to better suit that of the Digital Storytelling genre.

In form and content, the negotiation for the script proved to be the hardest and most time-consuming for the participants. Laura lamented, “My script is my albatross. It hangs around my neck, holding me down, and not letting me progress” (Personal interview, October 25, 2010). Jenny likewise admitted that it took her time and effort to produce a workable script. After overcoming her obstacle of the dramatic question, she divulged that, “At this point, I can't stand to read some of what I've written. I know some of it's pretty bad so I definitely need some feedback. I'm not a good writer when I'm on a time limit. When I look back on earlier versions of my story, it's embarrassing” (Moodle, Forum, October 24, 2010). Theresa additionally recognized that it was difficult to produce an engaging script for her topic and she became impatient getting beyond this impasse. She confessed in her final report, “At one point midway through the semester I thought I was going to completely toss my idea and revamp my whole story from start to finish. I was so frustrated with this concept of a dramatic question!” (Moodle, Assignments, Final Reports, December 6, 2010). Fortunately, she finally decided to maintain her choice and developed her digital story from that script.

While the script is theoretically considered the first component of a digital story to be constructed, it is actually the final product of the initial stage in the process of creating a digital story. Before a script comes into being, the digital story creator has to identify her theme and narrow her topic. The search for a suitable and inspiring topic turned out to be more challenging than anticipated for the participants. Laura struggled to narrow her theme from comics in general down to Superman. Theresa tried to shift the

focus on advances in medicine to ethical issues of advances in medicine. Technically, not all the creators sat down and wrote their script first. Laura, for instance, collected images, video clips and music on the large theme of comics before she had concrete ideas for her script (Personal interview, October 18, 2010).

The prominent attribute of a script created in an educational context is that it invariably undergoes multiple transformations as the result of feedback from the story circle, or less formally, comments of peers and instructors via Moodle. The essential step in the participants' transforming their script, also the negotiation between them and their audience, was the recognition of the defects in the scripts that made the stories less appealing. A case in point was Theresa, who recognized that her first draft was more "a list of facts" than a story (Moodle, Forum, October 25, 2010). Laura also explored ideas in her mind even after she had posted her first script for comment and found that it was "too simplistic and contrived" (Moodle, Forum, October 15, 2010). Such was the situation with Jenny as well. She perceived that her script was "heavy on life story and light on a dramatic question" (Moodle, Forum, October 24, 2010). From this knowledge of their scripts' weaknesses, Laura, Theresa, and Jenny worked to improve them as needed.

Laura, Theresa, and Jenny were aware that changes made to the script were tremendously influential to the rest of the story. Once the script—the backbone of the story—was modified, the structure of the story and the materials to flesh it out accordingly changed. Laura, for instance, replaced all the materials on comics with those of Superman. As for Theresa, she added more images and searched for video clips with the content related to ethics in medicine. Jenny also had to remove images that do not support

her conception of Anna Nicole Smith as a modern-day gladiator, and inserted new images to emphasize that idea. The script was the largest obstacle to surmount, and all the participants experienced frustration, feelings of being stuck, and having to step back to ponder what to do next. The fact that it took Laura, Theresa, and Jenny weeks to develop a script from inception to completion suggests how complicated the negotiations of the script are.

*Negotiation for other components of the digital story—Negotiations across modes.*

As Digital Storytelling is narrating visually, imagery also plays the essential role in representing the story. The negotiation of significant images in the story is, therefore, inevitable to most digital story creators. The first move is to find the right images in content. The Internet is unquestionably the most comprehensive resource to which any digital story creator would turn. However, the participants encountered controversial issues in searching for their images and video clips on the Internet. They had myriads of pictures on certain topics but find only a few on others. Jenny had hundreds of close-up pictures of Anna Nicole Smith to choose from but did not have a sufficient quantity of Smith's grave site photos to obtain one of higher resolution. Similarly, she found it hard to find a video clip with acceptable audio quality with Anna expounding about her addiction to prescribed pills (Field text, Recorded conversation, December 6, 2010). As for Laura, she had an enormous collection of pictures of Superman but still struggled to attain a photo of Christopher Reeve in the role of Superman that matched her vision. Both the abundance of visual materials and the scarcity of usable images conspired together to render the searches very time-consuming.

Due to the nature of their topics, Laura, Theresa, and Jenny could not create images on their own. They had to depend on the Internet as their main source of materials. This led to the choice between the quality and the meaning of the images or video clips. Jenny privileged meaning when she could not have the images of satisfactory quality. She declared, “I’d rather have the viewer understand my story than like my pictures” (Personal interview, October 17, 2010). Sometimes, the specific features set as criteria for images caused difficulties to the search. Laura, for example, had to spend a lot of time searching because she was more interested in images featuring Christopher Reeve as Superman “not acting.” Beside the content, the negotiation for imagery is represented in the position of the images in the story. Laura could create the symmetry in her imagery in the conclusion of her story thanks to the meticulous positioning of the images of Superman, the S-logo and the transition screens. Thus, the negotiation for images in creating a digital story as shown through the participants’ projects was a complicated and multifaceted process. Good use of images in digital stories represents both visual and thematic patterns. This manipulation of imagery to corroborate the narration could only be attained through thoughtful undertaking.

However, Laura, Theresa, and Jenny were not always successful in this negotiation. Digital Storytelling is communication with multiple modes, and the negotiation for the collaboration between the narration and the imagery is the effort to bridge gaps between the two different modes used in one single text. As they built their scripts first, Laura, Theresa, and Jenny constructed the imagery of their stories on the basis of their scripts, or the images were chosen to fit the narration. Since the voice-over and the imagery had complementary functions, each should have been appropriately used

for the optimal effect. This did not always occur in reality. In Laura's digital story, there are sections overloaded with verbal information, and at the end of Theresa's story, the images seem not to adequately represent the narration. These mismatches allowed the narration to overwhelm the images. They raised the issue that communication with single modes, for instance, writing or speech, is thoroughly guided by grammar and conventions while communication with multiple modes is not. The negotiation for the cooperation of visuals and verbal language is still uncharted territory.

As an indispensable component of a digital story, the soundtrack also received considerable attention. Although the negotiations for the music in Laura, Theresa, and Jenny's stories took place in different manners, they were mindful in choosing the music that could bring about their intended effects. This was also a kind of negotiation across different modes. Laura had a clear vision of Superman signaled by the background music of the 1978 Superman movie, and Jenny perceived that Judy Garland's veteran version of the song "Over the Rainbow" perfectly set the tone for her narrative of the life of Anna Nicole Smith. Although with less effort searching and choosing, Theresa also replaced her first choice of background music with another selection that she thought would better suit her story (Moodle, Assignments, Final Report, December 6, 2010). The negotiations of soundtrack were not as explicit as those for imagery but all the participants considered specific features of the music of their choice—the theme, the tone, the visual effects associated with it—before they decided to add it as another line of narrative in their stories.

Laura, Theresa, and Jenny's negotiations for choices in their projects confirmed my supposition about the negotiating aspect in creating a digital story. In fact, they

presented vivid pictures of negotiations with rigor that surpassed my expectation. This reflected the commitment of the individual digital story creators and the influence of the setting in which they worked. Negotiating its major and minor components and features is the central activity in the process of creating a digital story. Whether they are simple or complicated, easy or rigorous, negotiations are always performed at all the stages of the creation to ascertain best choices in the creator's view for a coherent meaningful digital story. In a broader sense, the negotiations in the creation of a digital story are efforts of creators such as Laura, Theresa, and Jenny to make sense of their worlds, and to convey messages about that conception in a multimodal communication. Technically, the digital story creator has to negotiate within the framework of the conventions of each of the modes and also across the modes she uses to tell her story.

### **What Kinds of Challenges Did The Participants Encounter? How Did They Cope with Them?**

#### **The pattern of challenges.**

For some digital story creators, the negotiations and challenges are inseparable. Theresa considered her negotiation of the script of her story the most challenging part of her project (Moodle, Assignments, Final Report, December 6, 2010). For others, negotiations and challenges are distinctively separated, though associated. Jenny said, "Since I decided to insert video clips in my story, I will have to face technological challenges in doing so" (Personal interview, October 17, 2010). Each of the participants had specific problems to deal with in working with technology. Laura spent hours downloading and editing the video clip of her choice. Jenny worked over and over again

with the audio of her clips. Theresa struggled with recording her voice-over. In their own ways, they all encountered challenges related to technology.

The literature of Digital Storytelling often features technological challenges in a different light. One of the most frequently discussed themes having to do with technology is the concern about the focus on technological skills rather than the writing skills in the classroom (Ohler, 2008; Lambert, 2010). This concern is expressed as “bad storytelling using digital media will simply lead to bad digital storytelling” (Robin, 2008, p.713). However, the challenges Laura, Theresa, and Jenny faced did not stem from the fact that they were over-taught the technical skills or under-taught how to write a script. It was not that they failed to accomplish the skills they learned in the classroom. The problem was one of quality.

At some point during the development of their projects, all the participants were dissatisfied with the quality of what they managed to create in terms of technology. Laura thought the quality of the video she downloaded was “pathetic” because the imagery was not stable (Personal interview, November 15, 2010). Jenny was frustrated with the volume of the audio of one of her clips because it was lower than that of the others. Theresa complained about the recording of her voice-over because some of her consonants sounded too pronounced. Thus, the common challenge they struggled with was how to improve the quality of their video, audio and recording. This represents a special type of technological challenge related to the setting of their course: the quality standards of the projects were alleviated by having an expert instructor and favorable facilities. The overall challenge was not to manage to perform a certain skill but to perform it well.



### **How did the participants cope with their challenges?**

Since Laura, Theresa, and Jenny were striving for quality, their work with technology was not simply clicking buttons in program windows but crafting desired effects. This was not the self-imposed requirements of the participants as over-achieving students but the cultivation of an attitude to deal with technological challenges set by the instructor. In one of the sessions in the computer lab, the instructor was teaching how to perform sound editing and mixing. He introduced RealPlayer and Audacity as software that could be used for the functions. As shown in his demonstration of mixing music and positioning the file to the right place where it should start and end, this was a meticulous and time-consuming undertaking (Field notes, September 20, 2010). In the following classes, when more programs were introduced and more skills were taught, the same scenario happened. The implication here was that patience, flexibility, and even creativity are required for work with technology.

Indeed, Laura, Theresa, and Jenny claimed that one of the greatest things they learned in association with the technology lessons was the life skill of patience. When they worked on their projects, it was how they coped with their challenges. Laura redid the downloading and converting of her video clip many times; Jenny edited her audio files over and over again; and Theresa kept recording her voice-over until she got a satisfactory copy of it. Yet, these were only illustrations of the major technological challenges they encountered. The commitment, perseverance and patience they had for resolving technical issues throughout their projects can be summarized in Jenny's statement, "... trial and error, trial and error, trial and error until finally I got it right. That's how I learned" (Personal interview, December 6, 2010).

When the problems were too hard to solve by themselves, the participants resorted to help from external sources. As Jenny recounted, she researched the tutorials on Moodle and the Internet (Personal interview, October 17, 2010). Laura even used a fee-paying web site to assist with converting large video files when the software she was using failed to produce the quality she wanted (Personal interview, November 15, 2010). Other times, the instructor was the ultimate trouble-shooter. Once, Laura brought to class the problem that in one of her slides, the sound faded in too soon, however long she set the time for the frame. Another time, Theresa could not fix an issue of her slide motion. In both cases, the instructor diagnosed their problems, found the solutions for them, and turned the incidents into technical lessons for the whole class (Field notes, September 27, 2010; October 18, 2010).

### **The Learning Experience of the Participants**

Laura, Theresa, and Jenny unanimously admitted that they had learned much in the Digital Storytelling course. Technically, they could be proud of their competence in the programs they used to develop their projects. Jenny stated that she had a “steep learning curve” and made this detailed account of the skills she had gained and applied to work only with the audio of her story, “I’ve done voice-over. I’ve recorded music off of [sic] YouTube. I’ve used the microphone to test my own voice. I’ve mixed audio. I have turned volume down and turned it up. I have faded it in, faded it out. I have done everything” (Personal interview, October 17, 2010). Theresa also named the software with which she had become familiar. She wrote, “There were a lot of things I learned from this semester. The obvious answers would be the technical knowledge from using Photo Story, Audacity, Real Player, GoldWave, and Movie Maker” (Moodle,

Assignments, Final Report, December 6, 2010). For Laura, she even developed strategies to work with technology and had the bravery to try new software beside the programs introduced in the course. (Moodle, Assignments, Final Report, November 29, 2010).

However, as Theresa put it, the technology part seems to be “too easy an answer” (Moodle, Assignments, Final Report, December 6, 2010) to the question of what they gained from the course. There are many things that are less obvious but had eventually become more significant to the participants such as the concept of the personal element in the script, the attitude toward working with technology, the habit of reflecting on one’s own work and listening to feedback, and most importantly, the sense of their own progress. Examining the development of their projects, the participants discerned their growth over the time. Laura said, “I looked back at my first digital story, and I saw how simple [it was]. There’s definitely been some growth, but it is very simple” (Personal interview, November 29, 2010). Jenny also conveyed the same feeling in the following conversation she had with me.

Anh: *Are you satisfied with your choices?*

Jenny: *I looked back at my first version, and I think it’s really simple and basic, but you know, it’s a part of a process. But right now, yeah, I’m satisfied with my choices, definitely.*

Anh: *But you said you are going to change, so is it like an ongoing process?*

Jenny: *Yeah, it’s growing. It’s just growing. I looked back at my first version and I thought, “Aw! So baby!” but then I wonder from where I’m now, how much better it is going to be, in another three or four weeks...*

(Personal interview, October 17, 2010)

The learning experience of Laura, Theresa, and Jenny could be examined from different perspectives. From the view of constructivism, their engagement in the negotiations and encounter with the technology challenges offered chances for them to improve several kinds of New Literacies, those representing learning in the 21<sup>st</sup> century (Robin, 2005, 2006, 2008), among which the visual literacy and technology literacy were most emphasized through their work over the course. In this specific context, visual literacy reached beyond “the ability to understand, produce and communicate through visual images” (Robin, 2006, p.712) to the level of composing a text with multiple modes as has been analyzed in the previous chapters. Laura, Theresa, and Jenny, as well as other students in the course, proved to be able to span the distance between writing and imagery when these two modes of communication were used to narrate the same story. The use of visual metaphors, explicit and implicit images to reinforce language was a highly sophisticated skill, one that was well developed as demonstrated in their stories. The technology literacy gained in this course was also of an advanced level. Jenny, for example, admitted that she had prior experience with Digital Storytelling but what she learned in the course was totally different in that they were more complicated skills and more powerful tools for their functions (Personal interview, October 17, 2010). The important thing is that the participants finished the semester with newly gained interests in the technology-related media (YouTube, Web 2.0 tools), self-confidence, and considerable skills to work independently on their own projects and teach them if they wish. Indeed, Jenny’s experience with Digital Storytelling in this course formed a full circle through the stages of learning–practicing–teaching. Unused knowledge and skills will become rusty with time. In transferring her newly gained skills to her fifth-grade

students (Moodle, Assignments, Final Reports, December 6, 2010), Jenny invigorated her experience with a new energy.

Laura, Theresa, and Jenny's experience in the setting of the linked courses was multifaceted because they not only learned from the instructor in face-to-face contact but they also learned as much from their classmates via Moodle. From the perspective of narrative inquiry, this learning management system provided them with a convenient means to form their own knowledge communities. Originally proposed by Craig (1995), the concept of a knowledge community refers to a circle of pre-service or in-service teachers sharing face-to-face their practical knowledge or narrative knowledge through stories (Craig, 1995; Craig & Olson, 2002; Olson & Craig, 2001; Seaman, 2008). In my dissertation study, the participants were not sharing their teaching experience but their experience of a common project involvement—their digital story creators' practical knowledge—as “a way of reflecting, a way of knowing, and a way of bringing meaning” to their own and others' experience (Seaman, 2008, p.272).

The difference was they did this online and in the written form most of the time. Nevertheless, the notion of underlying knowledge communities (instructor–students, students– students) was essential to the decisions Laura, Theresa, and Jenny made while they created their digital stories. The awareness of the influence of knowledge communities was represented through their need to raise questions, share experiences and feelings, as well as get comments and feedback. When Laura was struggling with the idea of using comics as a topic for her story, she admitted that she needed a direction on Moodle (Forum, October 15, 2010). Jenny also expressed her attitude to feedback through this exchange she had with me.

Jenny: *A lot of artists when they create paintings or photography, or whatever, they don't necessarily accept the feedback from... the audience. I don't agree with this. So those feedback [from the class] changed my choices, but for the better.*

Anh: *So you appreciate it?*

Jenny: *I do, and I need it. More than appreciate, I need it. I want it. I crave it.*

Anh: *That's wonderful!*

Jenny: *It's interactive for me. I like to know how it affects people, and I like to adjust from there.*

(Personal interview, October 17, 2010)

Most of the time in the computer lab, the students were engaged in a teacher-centered mode of learning and their interaction was generally directed to the instructor rather than their peers. On the forum in Moodle, they expressed in multidirectional interactions their experience-constructed knowledge of the skills, the software, and their practice of these. Jenny shared her knowledge of how she came up with the solution of her background music problem,

*I tried to record my (not too good) script into Audacity. It worked but my issue was that I could still hear my background music while recording. It was disconcerting and I couldn't figure out how to get it quiet while I recorded. I had it completely turned down on the track in Audacity. I also tinkered with the exterior volume control, which didn't work. Finally, I turned down the master volume control in Audacity, not the track volume, and it worked.*

(Moodle, Forum, October 3, 2010)

Theresa compared the features with audio files of the two video-making programs she used,

*One thing I did notice [with Movie Maker] that was a bit of a nuisance was have to play with my audio track after breaking my digital story into sections. In Photo Story, when you delete the first parts of your slides, the audio goes with it. So what I had to do was take the audio track into Audacity and break it up into sections so that it would correlate with the various sections of my digital story. I found that it was better to do this with the Audacity file because then I could play with the background music so it would be "cleaner."*

(Moodle, Forum, October 31, 2010).

Sometimes, the participants discussed what they failed to do, and this, too, involved sharing knowledge. One of the weekly assignments was to embed their digital story as a video (WMV file) in a PowerPoint file. Jenny followed the tutorial but she could not manage to do it. She created a PowerPoint file and embedded another digital story instead with the note, "It didn't work for me with the Anna Nicole Smith video but it worked for me with a different digital story." The error message Jenny received was, "There isn't enough memory to read package," but her digital story was the smallest size (21.5 MB) in comparison with the stories of other students in the class, and they could still embed their stories in the same method (Moodle, Assignments, Hands-On Assignments for Class Eleven, November 29, 2010).

The role of these knowledge communities was important in that it offered another forum with another perspective to the expertise formally taught in class. Exchanges that Laura, Theresa, and Jenny made with their peers and instructor on Moodle created

another narrative alongside the narrative constituted by tutorials, guidelines and articles for reading assignments. This extra narrative gave realistic insights into the participants' negotiations and encounters with technological challenges, and implies that the learning experience of the students may be practically different from the theory they were taught.

From Dewey's view, the experience Laura, Theresa, and Jenny gained in the course was highly educative. It was also inspiring and generative. The value of the experience was appreciated in different ways, but unanimously, the participants considered that the course created lasting impact on their conception toward Digital Storytelling as a form of communication, a tool for learning and teaching, and the technology skills related to it. They all looked forward to transferring the expertise they gained to their students when possible, though this enthusiasm was of different levels in different participants. Laura admitted that the process would definitely be useful to develop communicative skills "because you have to link the visuals that help tell the story you are writing, and that's a different skill. That's something we don't really teach all that well in English class" (Personal interview, October 25, 2010). Theresa also saw that she could apply the skills she learned to create her multimedia teaching materials in the future if she would teach ethical issues or integrate video as an important component to her teaching in the medical profession (Personal interview, November 29, 2010). Jenny was the fastest among the participants; she managed to teach her fifth-grade students how to create digital stories with Photo Story 3 as soon as she learned the skills in the course.

### **Implications for the Use of Digital Storytelling in Educational Contexts**

#### **The time issue.**



While they all recognized the value of integrating Digital Storytelling in the curriculum, not all the participants were thoroughly convinced. Laura said,

*It just takes a lot of time out of class, and if you only have 45 minutes with them a day, you have to think what's more important, is it teaching them the technology, which they could totally figure out on their own without any kind of instruction from me, which is how advanced they are, but there are so many other things that I have to make sure that they get, that sometimes it just takes away from technology... like grammar. So it's a battle between what do we use, what do we don't, and so Digital Storytelling, I think it's a little bit time-intensive, even though they can figure it out. I need something that's fast, like Glogster.*

(Personal interview, October 25, 2010)

Laura's opinion that creating digital stories is time-consuming and standardized curricula leave little time for this activity is corroborated by both teachers who brought Digital Storytelling into their classrooms and those who did not (see Dogan & Robin, 2008; Hofer & Swan, 2006; Kajder, 2004; Kajder, Bull & Albaugh, 2005). However, what happened with Jenny and her students presented another scenario. Jenny recounted how she managed to make the time for Digital Storytelling in her class, "I took their ancillary time, which is time they're supposed to go to PE or to the science lab. I asked for five [students] at a time because I have five computers" (Personal interview, November 15, 2010). In this way, Jenny negotiated the problem of time to the advantage of her students.

However, time is indeed a controversial issue. Digital story creators can spend days, weeks or months on their projects (Banazewski, 2002; Iannotti, 2007; Lowenthal, 2009). The participants of this study devoted the better part of a semester to their digital

stories. What is more, while Jenny could use the ancillary time of her fifth-graders, Laura might not be able to squeeze time from other classes taken by her high school freshmen. She could have arranged with other teachers for blocks of time for Digital Storytelling, but this would demand operable collaboration among teachers and rescheduling of subjects to be combined (Personal interview, November 29, 2010). The bottom line is bringing Digital Storytelling into the classroom needs preparations on the side of the teacher in terms of time and commitment. In addition, the requirements of the digital story projects, as well as the level of technology skills introduced are also dependent on time. Jenny, for example, taught her students Photo Story 3 but not Audacity and other advanced programs due to time constraints.

**The experience of creating a digital story is highly contextualized.**

While the creation of a digital story has universal characteristics across various contexts, the experience of creating a digital story in a graduate curriculum is different from that in a high school classroom or an extracurricular program. The experience of Laura, Theresa, and Jenny in this study stands out as it presents the unique features of the negotiations and challenges they had in the setting of the linked courses. The linked courses exerted special influences on the creation of digital stories as analyzed in the last four chapters because they could provide conditions for important individual and social interaction through the facilities of equipment, face-to-face classes, and the learning management system Moodle. These three elements formed an environment with its own enabling and constraining conditions for the creation of digital stories of the students. These conditions contributed to the quality of their work and their experience as well.

This reality confirms that the experience of creating a digital story for an educational purpose is highly dependent on its setting—the hardware and software available for the teaching and learning activities, the expertise of the instructor or teacher, the structure of the course, the size of the class, the time issue, and the nature of the learners as well. Among these factors, the technological facility plays a major role because without it, the learning experience cannot occur. In a study on teachers' application of their Digital Storytelling expertise one semester after they attended a training workshop, the researchers found that 55 percent of the teachers did not use Digital Storytelling in their practice, and 90 percent of them claimed that the lack of access to technology (hardware and software) was the barrier to teaching Digital Storytelling in their classrooms (Dogan & Robin, 2008). This emphasizes that the physical conditions of the setting is a determinant of the use of Digital Storytelling in education.

The quality of technological equipment and the specific software used are also influential because each of these seemingly insignificant differences of the physical conditions can create significant differences in the experience of the digital story creator. Jenny, for instance, described how she developed her project with her old laptop. She explained,

*I found recording this piece a little difficult because my laptop's sound system was hard to tinker with. It took a lot of adjustments on my end to get the speakers and all internal volumes at just the right spot. I still ended up with muffled voices. I used Audacity to record the interview and I like what it can do except that, again,*

*my "last-leg" laptop kept shutting the program down. I had to purchase the audio cable in order to capture sound.*

(Moodle, Forum, September 19, 2010)

Another student in the linked course used Adobe Flash instead of the recommended programs Photo Story 3 and Movie Maker. He had his own technical issues to cope with, one of which was when he submitted one of his assignments the instructor could not open his file (Field notes, November 1, 2010). When they worked with their audio component, the participants and some other students used the Whisper Room, a sound-proof booth, to record their voice-over. They reported a very positive experience with this resource. Theresa stated that the quality of her recording was much better, and with the use of Audacity, she could edit the audio file to exclude the noises of her fumbling with the pages and the sound of somebody dropping a book from outside the booth (Moodle, Assignments, Final Report, December 6, 2010).

### **The role of technology in Digital Storytelling.**

Comparing versions of the same stories created by my participants brought it to my notice that each version had different effects. The later versions tend to be more complicated with more technological features. For the final project, Laura, Theresa, and Jenny added video clips to their stories. In fact, they had to modify details of their scripts and imagery to accommodate the video clips. The result was they rendered their stories with an ambience of the media, richer meanings of the topic or more information. At the same time, they changed the effects their stories may present. For example, in the second version of her digital story on Anna Nicole Smith, Jenny removed her voice-over, leaving only Judy Garland's song as the narration. This rendered an emotional tone to Jenny's

sober story. Her final version, which included Anna's interviews, created the effect of personal contact with Anna but reduced the poetical resonance present in the previous version. Thus, the inclusion of the clips partly determined the features of the story. This is an illustration of how technology is not merely the means but the mold shaping the message it is supposed to convey.

The shaping influence of technology on creating digital stories brings another matter to the table—its role in Digital Storytelling. Unquestionably, technology is indispensable, so its role should be fully recognized. Lambert (2010) suggested non-technological methods of getting over “the blank page syndrome” with 4 x 6 index card or building a storyboard with Post-it notes and a poster board, but he eventually introduced the use of Adobe Photoshop Elements (pp. 25–44). A large theme in the Digital Storytelling literature emphasizes the importance of what to tell as the core of communication (Iannotti, 2006; Kajder, 2004; Lambert, 2010; Ohler, 2008). The story is the essential part, and technology should be the vehicle to tell the story. Therefore, integrating Digital Storytelling in the curriculum is supposedly to teach how to build the story, and try to prevent students from being driven away by technology rather than hone their technology skills. I shared this concept at the beginning of the study. However, the experience of the participants changed my view toward this over the time. The story still plays the major part in the Digital Storytelling process, but the role of technology turns out to be much more important than originally perceived.

Quality is also a case in point. Laura, Theresa, and Jenny did not try to create fancy effects, but worked for quality to ensure a satisfactory delivery of their messages. A digital story, however well built, cannot be fully appreciated if its audio is unclear or its

video jumpy. That is why Jenny, who did not have confidence in her technology skills, felt that technology limited her and her script in some way (Moodle, Forum, October 24, 2010). Based on this finding, I would like to assert that since technology is integral in Digital Storytelling, it is as essential as the story, and the teaching of Digital Storytelling in the classroom should treat it as so.

### **Creating a digital story is composing with multiple modes.**

The emphasis on building the story has always been a key concept of using Digital Storytelling in the classroom. In this study, Laura, Theresa, and Jenny spent a lot of time finding their topics and writing their scripts. They also went through the ordeals of searching for the dramatic question and approaching the story from a personal point of view. Their negotiation of the script and development of the digital story on the basis of the script confirm the practice of using the narration or writing as the primary mode in creating digital stories as multimodal texts.

Although this is a well-established practice unanimously supported by theorists and practitioners, the analysis of the digital stories created in this study suggests its reconsideration. In parts of Laura's story, for example, the narration contains too much information about Superman's history and comic books, which creates the effect of a documentary, and one of her inserted video clips disrupts the unity of her story (Field text, Digital story "The Superness of Superman"). In Theresa's story, the use of the images is redundant at the beginning and in the middle, and cannot support the narration at the end (Field text, Digital story "Technology in Medicine"). These defects suggest there are other determining factors beside the story.

The design of a digital story can be a complicated process. This may sound controversial as one of the experts in Digital Storytelling in education maintains that creating a digital story is not necessarily complicated (Robin, personal communication, April 2010). Indeed, the key steps of how to create a digital story with a simple program like Photo Story 3 can be taught in half an hour. Young learners who are digital natives will capture the concept in even a shorter time (see Skinner & Hagood, 2006). Still, the creation of a digital story as a meaningful artifact has its own set of issues, which can make the process more complex (Meadows, 2003, Lowenthal, 2009). Part of the difficulty lies in the fact that creating a digital story is composing with multiple modes.

Each line of narrative (voice-over, imagery, and music) has its own internal structure, and the lines need to be well connected to achieve the desired effects of the whole story. Thus, composing with multiple modes relies on the orchestration of all the present modes. This orchestration is the artful use of the modes so that they complement one another in a well-balanced way. Good writing can only ensure a good story; it is orchestration that produces a good digital story. In this light, the focus on the writing/narration may render a lack of orchestration of the modes. This premise confirms the importance of negotiation across modes, which was emphasized as a key proposition of this dissertation in Chapter II.

### **Evaluation of digital stories in educational contexts.**

When Laura showed her digital story in her presentation on the topic of using comic books in the classroom in the Pop Culture class, she made a great impression. The instructor was the first to exclaim “Wow!” as the last slide faded. The students, especially the undergraduates, also highly appreciated it. To the compliments, Laura only smiled

and briefly said, “It took a lot of time” (Field notes, November 1, 2010). Except for Laura’s classmates in the Digital Storytelling course, few among the audience could have imagined how much time and effort she had devoted to the creation of that story.

Watching a five-minute long story, the viewer will normally miss the effort required to build it and the experience to live the process in days, weeks or even months.

This brings forth the issues related to evaluating digital stories created in educational contexts. Frameworks for constructing evaluation rubrics for digital stories are usually Center for Digital Storytelling’s Seven Elements (Robin, 2007) or Educational Uses of Digital Storytelling’s Ten Elements (Eisner, 2007). Other authors proposed criteria on the basis of the characteristics of the narration, imagery, effects on the audience (Ohler, 2008), craftsmanship of communication (Porter, 2004), and technical qualities of the story (Dogan & Robin, 2009). As a digital story is complicated, a rubric can be very lengthy while still not exhaustive. However detailed it may be, a rubric often reflects an outsider’s view from a summative assessment standpoint.

Beside the digital story as the outcome of the composing process, the experience of crafting it involves the negotiations and challenges the creator has undergone to accomplish the project. It is a powerful story of learning that demands to be heard and considered when the story is evaluated. Like Disney products, which are often accompanied by bonus materials featuring how the movies have been made, each digital story created in an educational context (which is far from being a professional multimedia artifact) needs to have its own story crediting all the efforts its creator has gone through to build it. Only when this insight into the experience of the learner is gained, can solid grounds be set for meaningful educational evaluation of the story. This



highlights the importance of the experience in evaluation when Digital Storytelling is integrated in the curriculum.

Jenny's experience of learning and then teaching how to create a digital story extended beyond the scope of a technology course. Indeed, the creation of a digital story in educational contexts is a continuous experience. It starts even before the creator settles down to compose the story, with watching the sample stories or the instructor demonstrate the use of software to create it. Then it continues throughout the creator's process of negotiating for choices and coping with challenges, sharing the experience, showing the story to a circle of audience members, and teaching the newly-gained skills to others. Yet, its significance in evaluation receives little attention in the literature. Only Ohler (2008) remotely referred to this consideration when he suggests that teachers should "assess all the artifacts students create to develop the story, especially the written work" (p. 65).

What I have learned from Laura, Theresa, and Jenny's experience sets the backdrop for a proposition that advances Ohler's suggestion. I propose that a digital story needs to be evaluated in relation to the experience undergone by the creator. As I have discussed elsewhere (Nguyen, 2011), the components of the experience of creating a digital story which may be helpful to the evaluation of the story are: *types of negotiation*, *levels of negotiation*, *challenges encountered* and *solutions to challenges*. They provide a wider frame of reference for evaluating digital stories than rubrics. This may raise the question of how to translate experience into criteria for evaluation. The answer is that experience is not necessarily translated into checkpoints on the rubric (though it can be configured into characteristics of meaningful learning such as active, authentic,

intentional, constructive and cooperative (see Howland, Jonassen & Marra, 2012). The matter should be approached in the other way around: whether the rubric covers criteria that correspond to critical aspects of the experience.

The rubric with its set of rating scales is normally designed to assess the elements of the paradigmatic knowledge formally taught while the experience reflects the narrative version of knowledge. Having insights into the narrative knowledge of digital story creators like my research participants Laura, Theresa, and Jenny will provide the teacher or instructor with firmer rationale to evaluate the digital stories, and to understand how the creators learn through conducting the project. A pixelated photo in a digital story, for instance, may merely register as a defect in the imagery quality by the rubric, but the perception of the teacher about that lack of quality would certainly change if the teacher knows that this is not caused by carelessness in the choice but due to another reason, a negotiation, such as one stated by Jenny about that old mug shot of Anna, “It’s not a good picture, but I have to [keep it]. I have to have it for the story because it really told part of my story. Without that picture you wouldn’t understand what I was saying. Something that’s going to give. For me, it’s never going to be the story. It’s the picture” (Personal interview, September 27, 2010).

The premise that experience needs to be considered in evaluation does not argue for its replacement of the rubric, but contends that the rubric by itself is not the right tool to help understand the learning process in creating a digital story. The use of the rubric can be combined with measures to examine the creator’s experience such as a reflection on the experience of negotiating for choices and coping with challenges while developing the story. The instructor of the Digital Storytelling course practiced this when he asked

his students to submit their stories together with a final report on the project (Field notes, December 6, 2010). Alternatively, reference to the digital story creator's project log or journal in evaluation may be helpful as these documents normally detail the learning experience on a regular basis. The reference to the creative experience in evaluation of digital stories will certainly enable a comprehensive view not only of the learning outcome but the learning process. To help teachers and practitioners gain a more concrete idea of how to incorporate the learning experience of the digital story creator in evaluation, I have juxtaposed the popular rubric criteria and components of the experience of creating a digital story in Appendix B.

### **The Researcher's Closing Reflection**

So far, I have reconstructed my participants' experience of creating a digital story and the setting in which they worked in an attempt to provide a fine-grained analysis of this kind of educational experience, which is both common and special. It is common because creating a digital story is a popular activity in most educational contexts, and special because the experience under study occurred in the specific conditions of a pair of linked courses and bore the idiosyncratic traits of each of the digital story creators Laura, Theresa, and Jenny, who were participants in this study. I have deliberately let the narratives be heard mostly through the voices of Laura, Theresa, and Jenny, since the creation of a digital story is, in many respects, an independent composing process. Laura, Theresa, and Jenny interacted with their peers and instructors, and worked under the influence of this interaction during the time they developed their projects. However, they always played the active role as the negotiators and the final decision-makers in how they would change or improve their projects to accommodate the feedback they received.

Recounting the experience with the digital story creators' own words reflects the lived realities of Laura, Theresa, and Jenny.

My participants may not be the typical digital story creators found in other educational contexts. They were highly intellectual; they worked full-time and went to school at the same time; they had young children, they created their stories as course assignments; and they were admirably committed to this task. Some of their negotiations and challenges came from the setting of the linked courses, but it could be said that most of them stemmed from this dedication. Without this resolution to learn and the willingness to work hard to learn, they might not have had the valuable experience they did. It is the nature of the digital story creator that determined the characteristics of the negotiations and challenges she experienced. Jenny, for example, told me in one of her interviews that she considered Digital Storytelling a form of art, and in creating a digital story, she brought in as an important factor her life experience up to that moment when she sat down to develop her story (Personal interview, October 17, 2010). This understanding was a threshold one in her creative process.

However, there are universal things about creating digital stories that Laura, Theresa, and Jenny's experience represents. It not only confirms that they had to make negotiations and cope with challenges in order to create their digital stories, but that the hallmark of the creation of a digital story is to make negotiations and deal with challenges related to the negotiations during the process. Composing a digital story is also an act of communication. Negotiations are needed to achieve the meaningfulness and deliverance of the message in the culturally accepted form—in this case, on the computer screen, off line or online. Laura, Theresa, and Jenny worked hard to ensure that their

messages would be well accepted, ideologically and technologically, in the contexts in which they were created.

Looking back on my participation in their knowledge communities, I recognize that we all have benefitted from this involvement. For Laura, Theresa, and Jenny, their telling me the experience of negotiating and coping with challenges for their digital stories offered them a chance to mentally revisit and coherently present their issues, negotiations and solutions during the creating process. This kind of oral reflection or re-storying of their experiences to an audience (though it consisted of only one listener) added another dimension to their solitary work of creating a digital story. It highlights the kind of social interaction that needs to occur for a fuller educational experience. For me, this has been an enriching research experience with far-reaching influence. In Dewey (1938)'s philosophy, the value of the educational experience lies in its continuity as a "moving force" leading to other experiences in the future (p. 38). The continual aspect of the experience I had with my participants determined how I analyzed and interpreted the field texts to answer my research questions.

From reviewing the literature, I have grounds to believe that my inquiry is one of very few studies examining the experience of creating digital stories of adult learners for the purposes of learning the communication and technology skills rather than for professional development (see Nelson & Hull, 2008; Rossiter & Garcia, 2010). My narrative inquiry reveals significant findings about this learning process in adults such as negotiations in writing the script or strategies used to cope with technological challenges. Although its setting is specific, it certainly resonates the use of Digital Storytelling in various educational contexts, which is related to the matters previously explored such as

composition with multiple modes or influences of the setting on the creating process. My dissertation study raises awareness to the meaning of the digital story creator's experience not in self-representation or identity formation but in the mechanisms and processes of the creation of a digital story as a multimodal artifact. It suggests implications for the use of Digital Storytelling in the classroom which diverge to some extent from the established practices, but are consistent with the nature of narrative knowledge as a form of personal, practical knowing carved in context.

The limitation of this modest-sized inquiry is that it had only one type of digital story creator: graduate students. At the same time, this limitation suggests the direction for further research. Composing in multiple modes with technology presents a rich, profound and multifaceted experience. Additionally, the negotiations and challenges of a doctoral student are certainly different from those of an undergraduate or high school student. Thus, the experiences of different types of creators are definitely varied. What I have learned from Laura, Theresa, and Jenny's experiences in the linked courses is just a part of a fascinating jigsaw puzzle that I have wondered and pondered about. A corner of the picture has appeared but the rest of it is still waiting to be explored. I hope I will have opportunities to conduct further studies about the experience of creating digital stories with other digital story creators. Findings of characteristics of their skills and literacies would bring to light even more implications for the meaningful use of Digital Storytelling in education with each individual learner providing some insights and illuminations transferrable to others—perhaps all.

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## APPENDIX A

### A SUMMARY OF OTHER CONSIDERATIONS FOR CREATING A DIGITAL STORY IN AN EDUCATIONAL SETTING

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1. **Technology is more important than perceived.** Technology is not only the means but the mold of the content it conveys. While teachers need to keep students from being driven away by technology, emphasis should be placed on the skills to ensure the technical quality and successful delivery of the story. This proposes that teachers need adequate training in multimedia technology in order to effectively guide students through the technological requirements of Digital Storytelling.
2. **Writing is essential in building the story but orchestration of the multiple modes is no less important in creating the digital story.** The focus on writing and writing technicalities may cause a lack of balance in orchestration of multiple modes used to tell a digital story. Orchestration of multiple modes can start with building storyboard, maintaining economy of verbal and visual narration, and applying appropriate pacing of the slides. However, orchestration is a broad concept that can accommodate any artful manipulation of the modes for effective communication such as the use of suitable music and ambient sounds, addition of transition screen in the right place, or maintenance of the unity of the voice-over. Teachers should formally call students' attention to this concept and its practice.
3. **The process of creation is highly contextualized.** So the quality, and therefore, the value of the experience are completely dependent on the specific setting in which the creating process occurs. Teachers need preparations to provide students with facilities of technology, technical help, and other physical conditions conducive to learning through the creating process.
4. **The knowledge community plays an essential role in the learning process.** There should be favorable conditions for the forming of knowledge of community such as story circles or online forums. Teachers need to encourage students to interact during the time they develop their projects via a learning management system such as Moodle, Web CT or other collaborative web 2.0 tools such as Google Wave, Ning, or VoiceThread.
5. **Evaluation of digital story projects should take into consideration the experience of negotiating for choices and coping with challenges during the creative process.** This suggests that teachers should use a rubric together with student' report, project journal or reflection on the process and experience of developing the project. In constructing rubric, it should be considered whether the criteria of the rubric have addressed the experience components such as type of negotiation, level of negotiation, challenges encountered and strategies to overcome challenges. Another approach to connect the experience of creating a digital story to evaluation is configuring it into learning characteristics that the experience reflects such as constructive, authentic and collaborative learning.

APPENDIX B

SUGGESTIONS FOR HOW TO INPORPORATE THE EXPERIENCE OF  
CREATING A DIGITAL STORY INTO THE RUBRIC

## SUGGESTIONS FOR HOW TO INPORPORATE THE EXPERIENCE OF CREATING A DIGITAL STORY INTO THE RUBRIC

These are suggestions for the shift of focus in evaluation from the digital story as the outcome of the learning activity to the digital story creator as the active agent in the learning process, and the meaning of this experience. The table below is the juxtaposition of areas to be considered in a rubric and the corresponding aspects of the learner's experience as another important parameter for meaningful evaluation. Rubrics to evaluate digital story projects (Dogan & Robin, 2009; Eisner, 2007; Porter, 2004; Robin, 2007) have been considered for the conceptualization of the areas to be evaluated.

<b>CRITERIA OF RUBRIC</b> (Representation of paradigmatic knowledge) <b>Focus: digital story</b> <b>Objects of evaluation: quality</b>	<b>COMPONENTS OF EXPERIENCE</b> (Representation of narrative knowledge) <b>Focus: experience of creator</b> <b>Objects of examination: process, mechanism</b>
<b>Content</b> -Appropriateness of theme / topic -Purposefulness of the story -Value of information included -Accuracy of information included -Title -Details -Format -Structure of story	<b>Negotiations for the content</b> -Interaction with the real world -Knowledge and personal experience included -Internal conflicts (if any) revealed and solved in the choice of theme/ topic -Types and extent of negotiations for choices of titles, details, format and structure of the story (selectiveness, extensiveness, rigorousness of search and choices)
<b>Awareness of audience</b> -Point of view -Dramatic question	<b>Negotiations for personal elements in the story</b> - Types and extent of negotiations for choices of point of view, dramatic question (selectiveness, extensiveness, rigorousness of search and choices) - Process of personalizing the story
<b>Craftsmanship of communication</b> -Text (amount, fluency, grammar) -Voice (relevancy, volume, diction, quality) -Imagery (content, visual metaphor) -Design -Music and ambient sounds -Economy -Transition and pacing	<b>Negotiations for craftsmanship of communication</b> - Process of writing the script -Process of recording the narration - Process of choosing, editing, and arranging images -Process of creating and adding other features -Process of choosing, editing and mixing soundtrack -Process of working on transition and slide motion -Orchestrating multiple modes

<p><b>Technical quality</b></p> <ul style="list-style-type: none"> <li>-Quality of imagery (pixilation, size, sharpness)</li> <li>-Quality audio (clarity, consistency in volume)</li> <li>-Quality of other features (video clip, graphic text)</li> </ul>	<p><b>Challenges related to technology or Learning of technology skills</b></p> <ul style="list-style-type: none"> <li>-Skills learned during the creative process</li> <li>-Technological issues / challenges overcome</li> <li>-Strategies to overcome these challenges/issues</li> <li>-Time devoted to the project</li> <li>- Commitment in dealing with challenges</li> </ul>
	<p><b>Social interaction and collaboration</b></p> <ul style="list-style-type: none"> <li>-Participation in story circle</li> <li>-Interaction with peers and instructor over the course</li> <li>-Responses to feedback</li> <li>-Reflection on the project and related experience</li> <li>-Interest in the project</li> </ul>