Nude Descending a Staircase:
An Interactive Narrative

"The artist, [Marcel] Duchamp said, is a 'mediumistic being' who does not really know what he is doing or why he is doing it. It is the spectator who, through a kind of 'inner osmosis,' deciphers and interprets the work's inner qualifications, relates them to the external world, and thus completes the creative cycle. The spectator's contribution is consequently equal in importance to the artist's and perhaps in the long run even greater…" (Tomkins, 1968)

By Cher L Stanley

Project submitted in partial fulfillment of the requirements for the Degree of Master of Science in Information Technology

Rochester Institute of Technology
B. Thomas Golisano College
of
Computing and Information Sciences
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Problem

Marcel Duchamp said: there are "two important factors …two poles of the creation of art: the artist on the one hand, and on the other the spectator." (Duchamp, 1957) The artist, or in this case the artist / programmer / developer /database designer has to keep the spectator (audience) in mind, because "the role of the spectator is to determine the weight of the work on the esthetic scale." (Duchamp, 1957)   It is the audience that will do the final critique. Anyone creating a painting, or a web site needs to consider this, and determine how best to get their message across to the audience.

Figure 1

The title of the piece is taken from a painting by Marcel Duchamp. In his *Nude Descending a Staircase* he captured continuous motion by use of overlapping figures. "Motion and nude alike occur only in the mind of the viewer." (Stafford, 2005)

For my *Nude Descending a Staircase*, the *nude* is a plain text legal paper, and "*descending the staircase*" is the process of evolving this nude into a format that can inform, educate and entertain even non-legal scholars. (see Fig. 2)
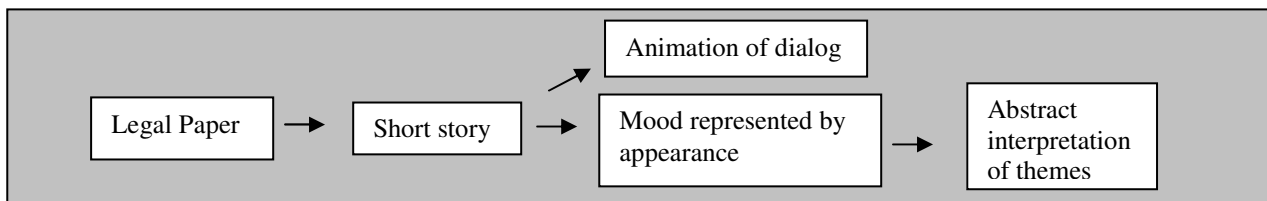
Legal Paper → Short story → Mood represented by appearance → Abstract interpretation of themes

Animation of dialog

Figure 2

A large portion of the original text and the information it provided will now occur only in the mind of my viewer. The time, place and emotional settings are created with the opening sentence of original paper.

> "I am currently a law school student who is now reflecting back on our educational system." [1]

However, by simply viewing an interactive narrative the settings are not always conveyed. The story is taking place in whatever place and time the viewer perceives. Many things will be left to
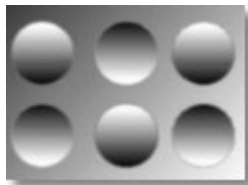
Figure 3

the viewer's interpretation and only exist in their mind. For example, if the word convex is read, a clear image of that concept is created in the reader's mind. In contrast two people interpreting an image such as the one to the left may not come to same conclusions. (see Fig 3) Which circles are convex versus concave? This is all in the mind of the viewer whenever only visual data is presented without text.

The goal is to provide more insight through the use of technology versus the use of legal arguments. Similar to Duchamp's overlapping figures to enhance the impact of motion on his audience; I'll use various multimedia technologies to enhance the learning and informative capabilities of a legal paper.

One well-known example of the use of moving images to enhance learning was created in the 1980s. Bob Gross, a biology professor from Dartmouth College, searched for a better way to teach. "It was taking him two class hours to teach about a complex series of interactions in biochemistry – '48 blackboards worth,' as he put it." (Ehrmann, 1990).   He tried using

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[1] Stanley, Cheryl L. Discrimination and Homophobia in Educational Institutions: A Personal Narrative. Paper for Issues of Gender and Sexuality in Law. San Francisco; University of San Francisco Law, Fall 1992.

animation and was able to relay those 48 blackboards in a 30-minute animation. "The students could also study the computer-based animation outside class, frame by frame if needed." (Ehrmann, 1990).

The interesting part of the result is not the time savings for Professor Gross, but the student's improvement on the exam. The class who had seen the animation did "better than any previous class" (Ehrmann, 1990). Although this anecdote is not a formal study, it reinforces the idea that learning may be enhanced by the use of moving images.

For this project, I am presenting a topic I first approached in law school during a course taught by Professor Mary Dunlap, a civil rights attorney. The class was assigned a paper on a topic of our choosing within the Gender and Sexuality context of the course. I believe my topic was chosen for me by an anonymous student, or two.

One day in February of 1992 at the University of San Francisco Law School, I walked to my mail folder. Inside I found a hand written letter. The letter began…

> "We all know you're gay. You walk around with a fucking bad attitude. Fact of
> life, just because your life and lifestyle may be shit, don't fucking take it out on
> the rest of the world. Why don't you go back to the leper colony you came
> from with your ugly face, frizzed out hair, big ass butt and a body that looks
> like a man."

I had fled conservative Rochester, NY to get away from just such people. Trying to avoid the disaster that occurred in high school of being Gay and being outed, I decided to take a different path. I would slowly come out to some trusted friends in the beginning. Once I had a support system set, later that year or by the second year I'd start fully coming out. Unfortunately I was

reminded before my first year ended that being the way I am, looking the way I look, that being out is never a decision I get to make.

> "I mean if you didn't have a girl's name, no one would know that you were female."
>
> "...and a body that looks like a man."
>
> "...like so many others I'll be nice to your face but then talk about you behind your back. People are always talking about you."

 As I read the letter, all the bad memories of home came back. While wandering in a mall, two adolescent boys ran up to me and my friend, yelled "DYKES," then ran away. The word SAFE spray painted on the bricks just in front of the student union signifying a new unofficial campus club, Students Against Fags Everywhere. In a local Gay bar, I've witnessed people standing by the open door get pelted with eggs.   While working at the District Attorney's office I found the owner of the same local bar wandering around the city courtrooms.   After offering help, I found out she was there to testify against two guys who beat up her bartenders.   I thought I had run away to the "leper colony" for queers by moving to San Francisco, but apparently I wasn't accepted there either.

When I first received the letter I wasn't sure what to make of it. I carried it with me to the classroom for my next class then decided I needed to go figure out what I was going to do. Should I toss it and forget it, or try to find the person myself?   Still staring at the letter as I sat down in class I placed it on the table in front of me. I sat there for only a moment before deciding to leave and clear my thoughts.   I leaned over and asked my friend to tell the professor I would be late. She gave me a questioning look; I

just motioned toward the letter saying, just tell the professor I'll explain after class then walked out.

Sitting outside, looking down Stanyan Street, I decided this was a bad joke, and I didn't care who wrote it. I had come out to almost everyone in the dorms including my friend now covering for my absence. The letter's first sentence and main threat read "We all know you're gay," as if it was some dirty secret I was hiding. If the threat was people knowing, I will start being even more open, more out, and the power of this letter dies. It's time and I am going to come out on my own terms.

The best response would be to let this all go away. I would toss out the letter, and act like it had no affect on me.

As I walked back into the room, the letter was in my professor's hands, while the class stared at me. At that moment I knew, this was not going away. They won again. The professor demanded to show the dean, and contact campus safety, in case the author was dangerous. Shortly afterwards official memos from the office the dean, student bar association and various student groups permeated my world. The editor of the school newspaper wanted to print it, with my response. All, of course, promised to protect my anonymity, but who were they kidding?

Friends Gay and straight all started acting differently just as they had in high school, except in a more politically correct manner. The women were all now very conscious of being alone with me. The men all wanted details of supposed sexual conquests. Students started a sheer feeding frenzy on rumors of me with this person or that.

Almost 6 months later, my letter was still being discussed, and Professor Dunlap asked that I write a paper using a personal narrative as a way to discuss and investigate legal issues. It was a bit of a departure from the traditional legal writing, but she felt that a personal storytelling would add a much needed emphasis. The paper was targeted to the California Board of Education, which at that time was debating teaching diversity to promote tolerance of diverse sexual orientations. The Board's debate was in response to studies that had reported Gay students as an "at-risk population: they run away, are thrown out by parents, and are at high risk for suicide." (Stover, 1992) My paper was to put a person with a history and story behind the numbers.

Unfortunately, finishing the paper was the last thing I did before leaving law school. Today, I still don't know what, if anything became of my paper. Did she send it in to the school board? I don't know.

It was not until years later that I saw the value of the story over the legal arguments. Occasionally, the topic would somehow come out and I would let people read the paper. The response I received from non-Gay and Gay friends was uniform. They all strongly felt the paper, or rather the message, should reach a wider audience, people needed to hear this. My Gay friends said it best. "It's not me. It's them."

Later, while working at Xerox a friend of mine was looking for submissions for Xerox's *Galaxe Gayzette*.[2] The Gayzette was a newsletter for Gay employees at Xerox she was trying to revamp. I offered a copy of my paper. She was excited and had it serialized in the newsletter. The paper was published under the title "An Open Letter to Educators."

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[2] a newsletter for Gay and Lesbian employees of Xerox

The serial received many positive responses. Shortly after the first installment was printed, I received a request for permission to present the paper at a teaching conference in Washington DC. When the woman returned from the teaching conference, she relayed to me the positive responses she received from presenting my paper.   It was then that I decided I needed to find a way to get the message of my legal paper to a larger audience.   This feeling was confirmed yet again when last year I received a positive response from a reader, even though it was published over 10 years ago.

The dry legal prose was transformed over the years into the short story, "A Girl Called Jim." The new, narrative style story revolves around a Gay teenager trying to navigate high school. The story's first public presentation was through a blog. The blog's original purpose was to help transform my legal paper into a readable narrative.   Friends were selected to read the blog posts and then provide comments, to assist in this transition. To my surprise, not only did my known pre-selected readers respond, but the blog was gaining readers from Ohio, California, Canada and reaching as far away as Australia. Gay women were responding to tell me how happy they were that their story was finally being told. The names and events were different for every reader, but the feelings of being judged and ostracized were universal. Women read it and felt the strength to come out. That needs to be repeated; women read it and felt the strength to come out.

While the atmosphere for Gay students has improved since the story's original setting, the 1980s, its content is still relevant today. GLSEN's 2003 National School Climate Survey reported that "violence, bias and harassment of [Gay] students continue to be the rule – not the exception – in America's schools." (GLSEN, 2003) However Gay "students who can identify supportive faculty or staff do better in school than those who cannot, with a grade point average more than 10% higher their peers. "(GLSEN, 2003)

Given this survey it is clear that supportive faculty and staff members are the keys to student success. I hope my project will aid educators in becoming supportive by allowing them a better understanding of being Gay, and the coming out process. This leads to another possible interpretation of the title, *Nude Descending a Staircase*, with the *nude* representing a vulnerable Gay person, and "*descending the staircase*" representing their coming out.

For this project I will transform "A Girl Called Jim" that has currently been viewed in only a text format into an interactive multimedia format.   I will not present the entire narrative, but instead will create (from the whole), smaller scenes that best reinforce my goal of giving the audience a deeper understanding of coming out and being Gay.

The problem: Will an interactive narrative give the target audience a deeper understanding of a topic versus simple printed prose?

Why is it important to change format?

I think the studio director from Second Story said it best as to why some stories should be transformed.

> "We begin each project by immersing ourselves in the content and identifying the most effective and compelling way to stage the story. Then we select the technology and media that best feature the content, heighten usability, and enrich the user experience. Only later in the process is the overall visual treatment established. This approach results in an experience where viewers build an emotional and intellectual connection to the content through their intuitive interaction with the story."   —**Julie Beeler**, Studio Director at Second Story

The very last sentence of her description says it all, to "build an emotional and intellectual connection to the content." Everyone reads, and sometimes a good story may affect us. But if you use what Second Story calls media-rich storytelling, the project can immerse the visitor into the experience. This immersion will hopefully provide the deeper understanding I'm looking to create.

Existing Interactive Narratives

Anne Frank the Writer: An Unfinished Story
- created by Second Story this site acts as a peak into Anne Franks other writings. The site uses animations, photographs and a voice sound track. [3]

[http://www.ushmm.org/annefrank]

Cisco's Journal – created by LēTo Entertainment Cisco's Journal is an interactive addition to a television series that first aired on PBS in 2002. The site represents the journal of one of the minor characters from the series, giving episodes a second viewpoint.[4]

[www.pbs.org/americanfamily]
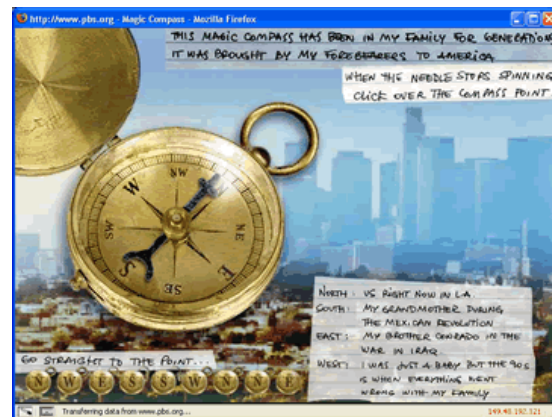
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[3] United States Holocaust Memorial Museum. (2003). Anne Frank the Writer | An Unfinished Story. Retrieved December, 2005, from http://www.ushmm.org/annefrank

[4] PBS (2004) American Family About the Series In   American Family – A Journey of Dreams Retrieved July 20, 2005 from – http://www.pbs.org/americanfamily/series.html

Theban Mapping Project - Theban Mapping Project (TMP, now based at the American University in Cairo) is a mostly Flash site that allows visitors access to maps and that offers "a detailed map and database of every archaeological, geological, and ethnographic feature in Thebes."[5]

[http://www.thebanmappingproject.com/]

These three websites are each using slightly different methods to present their topics. The Anne Frank piece is very voice and text driven, while Cisco's Journal is more like a point and click game. Lastly, the Theban Mapping Project uses tabbed browsing to lead the user to embedded videos. I borrowed ideas from all three in the creation of my project.

One of the first sites I came across was the Theban Mapping Project (Theban). My first hurdle in creating my project was determining a navigation solution. Theban illustrated tabbed browsing. The site was very straightforward, easy to navigate and the tabs kept the user informed of where they were in relation to the rest of the site.

It broke the linear quality of a narrative by allowing visitors to view any section of the map at any time, but the site was more a combination of related facts, than presenting a linear narrative. Each section had a video but each stood on its own. Theban provided a navigation solution that would be abandoned later. However, the idea for embedding videos within sections, or scenes of the narrative was kept. Initially the video pieces were separate, and not part of a scene.

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[5] Theban Mapping Project (2005) The Theban Mapping Project. American University in Cairo Retrieved August 12, 2005. from American University in Cairo from http://www.thebanmappingproject.com/about/

Cisco's Journal (Cisco) was developed as an enhancement to a PBS television series. Like Theban, there was not any underlying narrative the site had to bring forth. The narrative was provided via the television series

After viewing Cisco, Theban's tabbed browsing looked too corporate. Cisco used a collage of pictures and images for a point and click experience to find out more about one character in the story. Cisco has a number of sections with different treasures to find. Exploring made the site more fun and exciting. The visual mixture of media created a richer experience as compared to Theban's more structured presentation of information.

The hunt and peck navigation removed the business, corporate feel created by tabbed browsing since tabs are used on almost every retail website. My project wasn't supposed to sell anything, and the tabbed navigation was replaced with a collage idea. I toyed earlier with collage after looking at various print advertisements, but only as a background. Cisco presented the collage as an interactive feature, not just a layout style.

Anne Frank the Writer: An Unfinished Story (Unfinished Story) was visited much later in the development of the project. I was looking for a way to incorporate all my text into the interactive site. I had a number of media assets, but the story was not getting through. Most of the sites I looked at before were accompanied by another media outlet such as a museum exhibit, or television show. Therefore, they alone did not have to carry a story. The narrative existed outside the piece, using the website as only an enhancement.

However, the Unfinished Story has text as its base. Text was presented in the website via snippets of interactive journals with an audio track overlay. A voice of the writer is heard while

the text is shown as if being written in real time. Interactive journals incorporated into my project would reemphasize the text, the story.

Originally the blog was supposed to supply the link from rich media to the text, but there was one big issue. The scenes did not directly relate to any particular section of text.

All the sites I looked at had elements of an interactive narrative, but at the expense of the narrative. Many point and clicks, like Cisco, required too much hunting for the navigation. The story, if there was one, was suffocated by the game aspects. Unfinished Story was just the opposite with too much story and not really any exploring. Also it was very linear. Below the journals was a status bar that noted the current section and helped move a user chronologically through Anne's writings.

Others, like Theban, were concentrated on presenting a mass on information. The site was very structured which allowed a user to easily find interrelated information presented by rich media but at the loss of the story.

How Jim would differ?
- Retain the story.
- Allow for exploring to keep it fun.
- Avoid turning the project into a game.

Purpose of Study
- Target audience: Educators.
- Topic: Being Gay and the coming out process.
- Purpose: Give the audience a better understanding of the topic.

Questions to be answered as a result of this study:
- Does the addition of interactive, multimedia elements aid in the understanding and absorption of information from a narrative?
- Does the utilization of this technology help the audience better see the world from the perspective of a gay youth than with plain-text?

Possible uses for the final project include submission to various organizations such as the Southern Poverty Law Center for possible use in their Teaching Tolerance program,[6] or Gay, Lesbian and Straight Education Network[7] for use in the Safe Space or Educators Network. Other groups include National Gay Straight Alliance Network,[8] and The Harvard Gay and Lesbian School Issues Project.[9] Lastly, it may be qualified for submission to the ACM SIGGRAPH Education Committee,[10] and various conferences on multimedia, or mediated experience.

Required Skills

3D skills: Basic principles of animation within the context of a three-dimensional environment, modeling with NURBS and/or polygons, surface and curve modification, UV mapping, applying shaders and textures, use of Graph Editor and Dope Sheet, techniques of digital cinematography including; key light, fill light, back light, set light, single source lighting, contrast, camera setup, color usage, and composition of 3D environments.

Interactive multimedia skills: Basic theory of imaging and compression technology, creation of multimedia assets, create navigation plans, catalog data, import and export of data, event-driven and time-driven interaction, able to control and synchronize multiple media assets, ability to work with various media types, principles of animation, and basic programming concepts including; control structures, variables, classes and methods.

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[6] The Southern Poverty Law Center "combats hatred and intolerance in the U.S. through education, investigation and litigation. Its Teaching Tolerance program provides educators with free materials that promote tolerance in the classroom and beyond." (Southern Poverty Law Center, 2005)

[7] The Gay, Lesbian Straight Education Network "strives to assure that each member of every school community is valued and respected regardless of sexual orientation or gender identity/expression." (GLSEN, 2004)

[8] Gay-Straight Alliance Network is a "youth-led organization that connects school-based Gay-Straight Alliances (GSAs) to each other and community resources." (GSA Network, 2005)

[9] Harvard Gay and Lesbian School Issues Project- materials for teachers, counselors and administrators. It also produces gay and lesbian curriculum for schools, K-12.

[10] **ACM SIGGRAPH** "is the Special Interest Group on Computer Graphics. ACM SIGGRAPH is extremely interested in supporting both Computer Graphics education and the use of Computer Graphics in education." (ACM SIGGRAPH, 2004)

Database skills: Analysis and design of data representations and data object implementation, logical/physical database design, data query and manipulation, database performance, and query performance.

Other skills: Graphic design, layout, analysis and usability.

Plan for Solution

My plan is to integrate all of my disciplines database, web applications, and animation into a final product using my short story and legal paper as the inspiration.

I will present a story that goes beyond plain text. The text will be enhanced by digital cinematography techniques with static and moving images. These techniques will give the narrative mood, and allow the audience to experience specific and intentional emotions and events. Instead of a narrator saying, "She is impatient," the audience views a tapping foot. Many techniques using angles and lighting and establishing shots can replace text on a page. This project will explore many of these to give the audience the feeling and tone without words.

To give the narrative the desired interactivity, I will separate the story from the discourse. The story is the plot, characters, and setting. Normally this is kept moving by the discourse. The discourse is how the events are presented in the actual text, or the elements responsible for telling the story. (Chatman, 1978). Traditionally, the author decides what elements to include or omit, and decides the order in which they occur. In this format, the audience will be able to change the direction, and organization of the discourse. To further this idea, parts of the story may be removed from the prose, and or interpreted via animation, and images. The user interface will allow non-linear navigation of the text. The details of adding animations and images will require exploration and research.

Actual Development

Development would take place on my own server. Fortunately, I own a web hosting and design business, which allowed me to use as much space as needed.   The development would take place at steeltoed.net/nude. In addition, I created a blog to document my progress on the capstone project at dropoff.blogspot.com/.   The narrative resides in a blog at steeltoed.net/jim.

My development process began with a design document. (see Appendix A) I sketched out basic navigation, scene descriptions and did a competitive review. Like most initial gathering of requirements and designs, the final project has changed a fair amount since conception. I ran into a number of problems, some technical, some design, and others simply my lack of skill in an area.
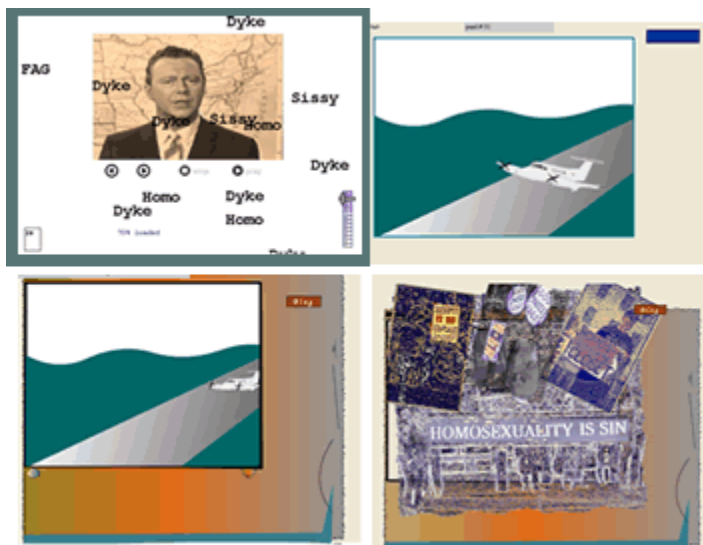
Figure 4

Problem one: Look and Feel

I met with my committee members repeatedly trying to determine a look and feel for the project. After a number of failed attempts, and a couple of just plain hideous interfaces, I realized my first hurdle. (see Fig. 4)   I've lost my design skills.
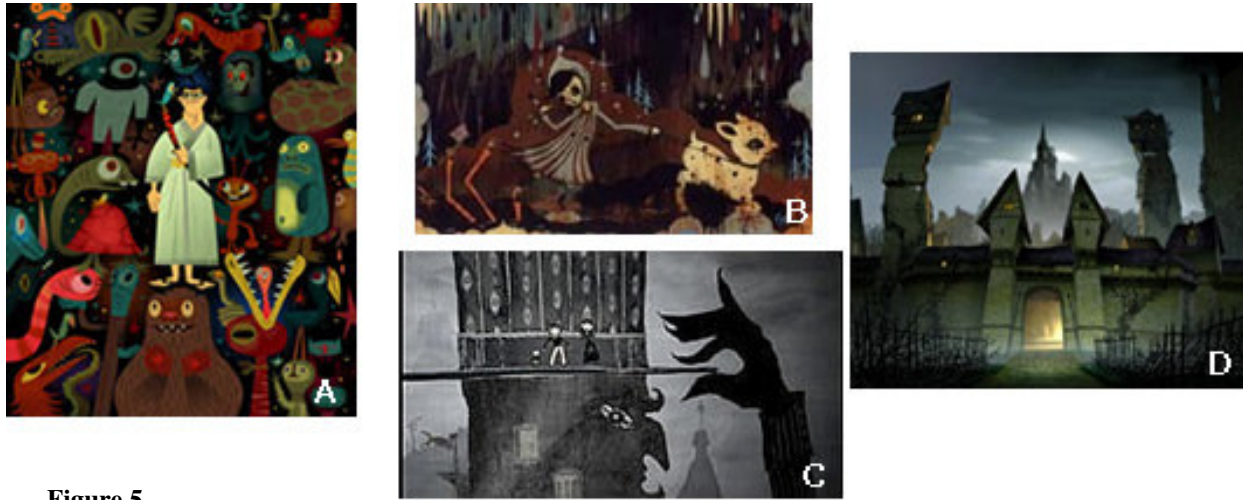
Figure 5

I had done a lot of research and had an idea. My look and feel would be Barry E. Jackson

meets Camille Rose Garcia, and Tim Biskup. (see Fig 5[11]) The scenes will strive to be a mix of

Barry E. Jackson's lighting and feeling of space meeting Lynne Naylor's minimalism, with Miles

Thompson's abstraction cast against Camille Rose Garcia's darkened view of the world with just

a touch of Tim Biskup's zaniness.   The people were not going to be realistic, but instead similar

to the credit crawl for "Lemony Snicket's A Series of Unfortunate Events," simple line drawings

with a dark feel to it. I joked to myself that my goal is for my concept sketches to resemble

something this crew might have cooked up over some strong coffee and Canadian cigarettes at

some no-name

cafe that plays the Pixies' Doolittle album non-stop. (for more images

see Appendix A)

Figure 6   Of course, my first few sketches only taught me I needed to practice

my sketching. While I worked on that skill, one committee member said to just keep building.

Don't ever let a day go by without creating something, even if you're not sure if you'll use it. With

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[11] **A**: Tim Biskup [Samurai Jack Monster Stack]; **B**: Camille Rose Garcia [Blue Forest]; **C**: Todd Hemker
    [Lemony Snicket's credit crawl]; **D**: Barry E. Jackson [from Shrek - Gate]

that in mind, I worked on creating media assets, and way to present them. As you can see I wasn't restricting myself to any design ideas. Actually all that research I did seemed to have gotten lost between the mouse clicks.

The first failed attempt was a lack of continuity between 3-4 very different parts. The video player that looked like it belonged in a Flash game. Not surprising since I lifted the code from my Flash game from a previous project for another course. (see Fig 6)
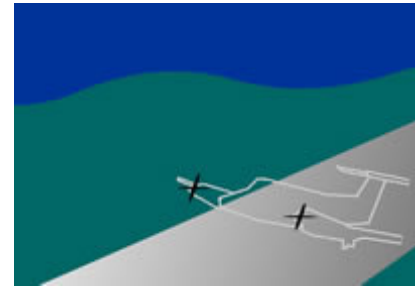
Figure 7

Scavenging from the same project I pulled out the code that created random targets for a point and shoot game. After a few edits and adding some music, I now had an animation of derogatory words. (see top left image in Fig. 4) Certain words changed color in time with the beat of the background music. Nice little animation, but what was it for? I needed to trust my own skills and stop building and start creating.

Next, I worked on two short animations of a plane taking off. These would be the animations for the opening scenes of the narrative. The cartoons were minimalist, and had a look similar to UPA's Gerald McBoing Boing. Similar to the other pieces, these also did not create the dark feeling I was striving for. (see Fig. 7)

I had three animations and a video player all in different styles, none of which looked right. Also, I was having a real hard time coming up with an image of my main character. When I left my fine arts degree for engineering, I tossed out my 4B pencils and kneaded erasers along with

my portfolios and decided to never draw again. Now years later, no surprise, these skills were in deep hiding.

The solution was two-part. First, I had to learn to drawn again. I contacted my MFA candidate friends for help, and was loaned a copy of Drawing on the Right Side of Brain by Betty Edwards. My sketching ability improved quickly with daily practice, and although I hadn't found a character yet, at least I felt confident it was in my ability again.
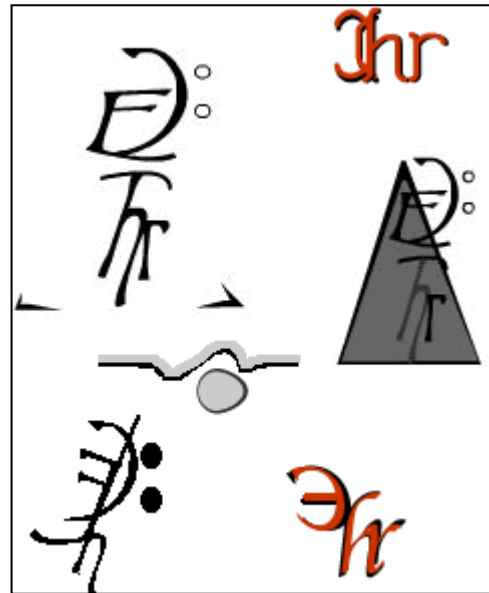
Figure 8

Second, I desperately needed a refresher on design. Every design I tried look like something I had built before in another class. They were very static and blocky which is fine for a corporate site and has great usability. However, structured designs do not relate any feeling. I was missing that emotional connection Julie Beeler of Second Story emphasized was needed to "enrich the user experience." Fortunately, the course Graphical Elements of the User Experience (GUE) was offered the same quarter I needed help. During the course I found a character, and my look and feel.

Creating a Character

The process started with trying to come up with a personal logo. This was the first assignment for my GUE course. (see Fig. 8) Not that I needed a logo, but the process of coming up with a single image to convey my ideas was a step towards finding a look and feel.   If I could find a logo that is the embodiment of everything I want to convey with my project: confusion, fear, anger, estrangement or in short, what it feels to be Gay in a homophobic environment, then I could build off that.

Creating a personal logo was frustrating, and again I consulted committee members.   The result of the discussions hit me while walking down the hall from one of their offices. What do you want to say? What is the message? I was thinking too big; the Jim character is me, but not me. I want to represent a fictional past-tense version of me. That is why creating a logo for me was never going to quite fit the project.   I needed to create a logo for Jim.

While trying to establish Jim's logo the need for a character to draw from grew. I needed an illustration of the character Jim. Then from Jim's look, a logo could be drawn, and a design style developed. Fortunately, sketching had become a daily ritual and each week I improved. (see Fig. 9) Once I could draw human figures, character design became possible.

Figure 9

In the beginning, trying to create a character was just as unattainable as my logo. There were too many options: silhouetted cut-outs like Todd Hemker (see Fig. 5:C), stylized cartoons like Tim Biskup (see Fig 5: A), or something totally abstract. Many artists flourish with more freedom. I tend to drown with too much freedom. I've learned that I work best when I know all the rules, and all the parameters surrounding the rules. Only once I fully understand the rules can I find artistic freedom in breaking those rules.

For example, I could not create my main character until I could draw the human figure correctly.

Armed with a book on anatomy for artists, I tackled figure drawing. Improving from disproportionate childlike sketches to human-like figures, I learned the rules of "human design." After continued practice to gain some mastery of the human structure, I added in books on basic drawing skills, and drawing for animation to help with aesthetics, and graphic expression. I was never very successful at

Figure 10

drawing female forms, and emphasized objects, not people. My women all looked too

masculine. Creating a tomboyish girl without looking completely male, for me, was going to be a challenge. I tried to concentrate on just a few feminine attributes, and body proportions.

Figure 11
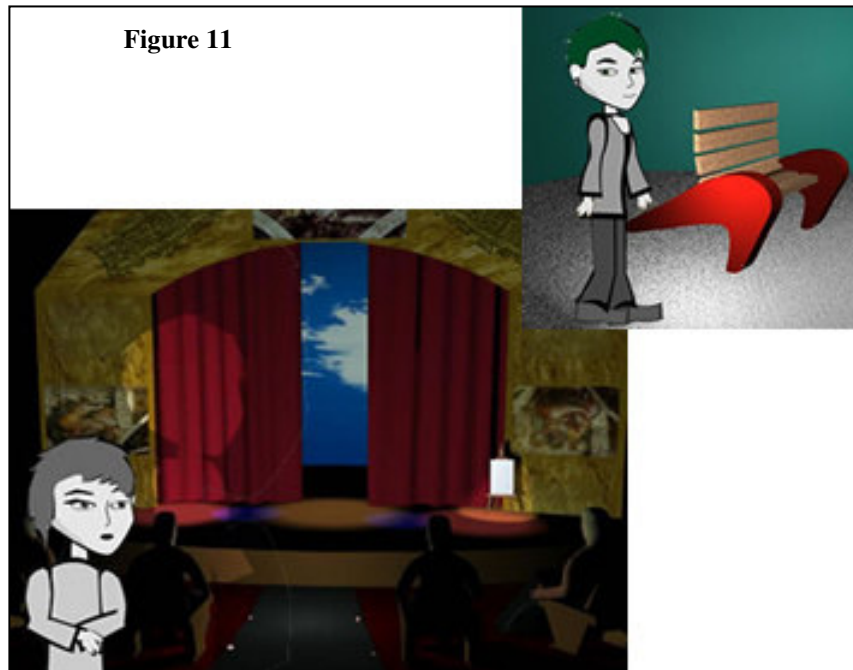
Once basic drawing ability was re-acquired, I could

distort the human form into characters. I referenced everything from animated cartoons to comic books, making many iterations of Jim. After much trial and error, Jim's visual appearance was defined. (see Fig. 10) Jim would continue to evolve, but at least I had an anchor for the project design.

One of the first evolutions involved making Jim black and white. Originally she was in color, but color created a cartoony feel not unlike my plane animations. The final version was black and white with a single highlight color.

Creating a Texture

My 2.5D grayscale character eliminated the use of 3D scenes for backgrounds, because the character looked out of place. (see Fig. 11)

I knew I wanted to use 3D to have access to Maya's cameras and lighting effects. Maya's scenes were too deep, making 2D Jim appear on top of the scene, rather than in it. Plus the lighting effects for the background would mean creating a number of versions of my character to keep the shadows consistent. Adding the character to an image plane within Maya and rendering with the scene did not change the obvious depth perception inconsistencies. The 3D scene backgrounds were changed into skewed perspective 2D environments. The background like the character would be mostly grayscale with a single highlight color.

Introduction and Navigation

I revisited the collage idea for the introductory frame. Although I have a few photographs from high school when I tossed them on the ground they didn't give the right feel. Most of them were in vibrant 1980's colors. Later, I found an old contact sheet from a black and white photography class.   While attending Monroe Community College (MCC) I enrolled in Photography I. In these pictures is captured the very day I first met a Gay person my age. More importantly she was out.

This was an important day in my coming out, because until that day I had never met anyone that was out.   Everyone else I knew had either decided they were not Gay or they were much

closeted. All the Gay adults I had met while growing up were in the closet and therefore unable

or unwilling to provide any help. Adults in the closet filled with self hate and self guilt only

reinforced the idea that being Gay is something to hide, something to be ashamed of because it

is wrong, and not acceptable. Adults in the closet say to all Gay non-adults, "you better hide".

Although not directly related to the story's time frame, it is an important moment in my coming

out. One of those rare moments that happened when I was carrying a camera with a number of

frames left.

I walked outside the student lounge of MCC looking for something, anything to shoot in the 40

Figure 12

minutes I had left before my photo lab started. There sat this girl

smoking a cigarette. She was the only one out there, and even I could

tell there was a good chance she was Gay. I wandered over and asked

if I could take her picture and explained my situation. Forty minutes left,

and over 10 frames of unshot film, she agreed to help. (see Fig. 12).

Once I realized I still had this image and the others taken that day I knew I had to use these for

the project. I scanned the contact sheet then edited out various shots and created a collage

effect. One problem, the people in the images didn't relate to the characters in the story. At the

time I had a few versions of Jim, but only hand drawn sketches of the other characters.   Placing

my sketch books on the scanner I made images of the drawings. The collage now consisted of

drawings and black and white photos; the introduction frame and the project's general look and

feel was taking shape.

Originally, the main page was going to have access to media files, but later in the process I

decided to leave the media files associated only with the scenes. The introductory or main

frame would act as a main menu for navigation. If this were an HTML site it would be the top-level index page.

Problem two: To Object Orient or not to Object Orient

I decided early on instead of making one big Flash file, the project would have a single interface that used and manipulated the various media assets. At the time the project was driven by an ImageViewer class. The class would then be instantiated in the main SWF to display everything from JPGs to other SWF files.

I thought the Image Viewer would help control the display size of the embedded media, but it wasn't effective with animations that had rasterized images. This meant I was creating swf files the correct size instead of using any of the methods in the Image Viewer class.

The Image Viewer class also had issues when trying to run multiple animations at once, and timing one to run after another hits a certain frame. It wasn't long before I realized the Image Viewer class was adding another step that could easily be filled by empty movie clips.

Each separate media file shared little with the others. Using the Image Viewer was artificially forcing a class relationship between objects. Further, all the methods I needed already existed in the MovieClip class.   .

My project was to utilize object oriented programming (OOP). OOP, as in using Action Script 2.0 (AS2.0) classes, was created to enhance efficiency, and simplify programming, but was not a good solution for this project. An AS2.0 class structure was only increasing complexity, so this approach was abandoned.

Problem three: Where is the text?

At first I created blog hoping to add links from Flash to various posts, but the interactive

narrative is an interpretation of the text, and did not always directly corresponding to specific

posts.

For example, the story bounces back and forth between at least three periods. It opens in the

present with the narrator meeting the main character as adult on a plane to Boston.   The narrator then becomes the main character telling her own story from childhood through high school as memories. The

Figure 13

memories are popping up

while the main character, now in college, is having breakfast with friends and reflecting back on

her years growing up.

While these jumps in time made for a dynamic story, they presented a nightmare to storyboard.

(see Fig. 13) A conversation may start in one time period and setting, veer off to another time,

then come back to finish after moving through 2-3 other time periods and settings.   Having

three lines of story intermingle in a linear text was difficult to keep coherent but I couldn't change

the setting easily in between animations without loading a new background. This then required

transition scenes within a scene.   The first storyboard included settings of: Brighton

Doughnuts, Perkins, plane interior and exterior, junior high and high school hallways, loading

dock at the high school, high school lunch room, inside a car, and a corn field.

I had to pick 3-4 settings, and use those as the basis of a static scene. (see Fig. 14)   Instead of

flipping back and forth in time within a scene, each scene would hold as much information for

that time period as possible, regardless of the narrative's discourse. The written version's

discourse, or the order the events as presented in the text, would be broken up into simpler

scenes. By combining a number of events into one setting, or a single scene, I could reduce the number of required scenes. The scenes needed to have links to the correct posts from the blog. If one scene is now related to multiple posts, how is this done? Any events with a group of characters all interacting was going to be too involved to animate the whole. Creating multiple characters speaking to each other would require

Figure 14

lip syncs cueing off each other. The event in school where Jim and Tony talk to Raine that precedes the conversation with Ann was truncated to just Ann's statements. How much of the conversations

before and after her statements should be included in this link back to the blog?

More events did not lend well to direct animation, or direct linkage to the blog. Events where

most of the action is really in a character's mind would not translate. I could animate an

adolescent Jim sitting in a chair in the therapist's office, but it's the unsaid dialog that makes the

scene, not the action. Some events were taken as a whole and interpreted by using videos to

show the atmosphere that existed at the time. An interpretation of atmosphere could not be linked to any one section of text.

Figure 15

All these interpretations and integrations of multiple events and characters made links to the blog useless. Instead the blog became an extension of the project. The blog was not feasible as a direct link to scenes, leaving the project lacking any text at all. Some text would be needed to explain the scenes. As I said previously it is really hard to create the setting with just images. It was important for the plane scene's time period to be understood correctly as it relates to the other two scenes. I wanted to be sure the viewer understood this is the stepping off point in the future, and everything else was flashbacks. The only way to confirm the user understood this was to add the text from the story to the scene, and let the viewer read it directly.

After researching and reviewing interactive narratives, I stumbled across Second Story's "An Unfinished Story," mentioned above.   Similar to their project, mine had text appearing with a corresponding narration, but theirs also had an interactive journal.

Instead of recreating the wheel, I used the "dynamic booklet," created by PiXELWiT.COM created in FlashMX. I needed to tweak it for my project, but it worked. (see Fig. 15)

I could use the journal to not only bring in just enough text to keep the story going, but also add in some interactivity via roll over events on images. The journals created a connection to the text. They also allowed me the freedom to paraphrase the original text to control how much information would be shared through the journal's pages. Any direct link to the blog would give

the user access to the whole story, but journals gave only glimpses of the story. The rest was

hidden from the user.

Problem four: Where am I, and how did I get here?

After the first round of user testing one big issue reared its head, indecipherable navigation.

Users greatly disliked finding an active area that upon clicking produced an unexpected result.

Most click events worked as toggles to turn on and off various media assets; sound files and

embedded Flash video players. Other click events were navigation.   Finding an active area

where a click event resulted in taking the user to another scene without warning, and before

they were ready to leave, was severely criticized by everyone in my testing group. The second

complaint was the lack of any signs denoting where they were, where they were navigating to,

or how to get back. As one very smart tester said, "this is stupid." I agreed. I needed some form of bread crumbing. [12]
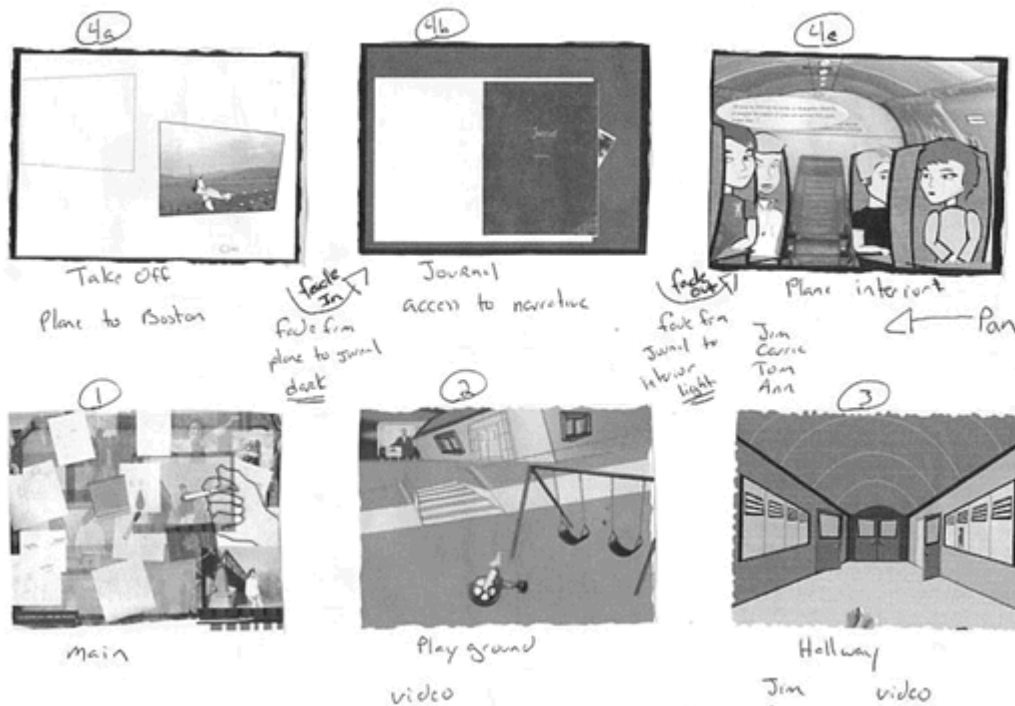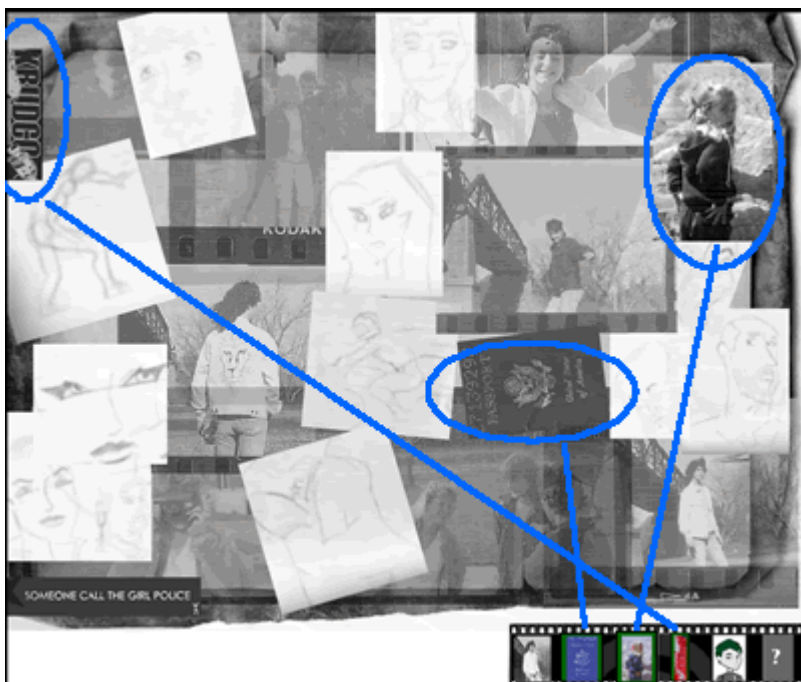

Figure 16

---

[12] **Breadcrumbs** or **breadcrumb trails** is a navigation technique used in user interfaces. Its purpose is to give users a way to keep track of their location within programs or documents.

The biggest change was to add a storyboard and a menu system. The user now gets a glimpse of the storyboard whenever changing between scenes to see where they are headed, and how it relates to the other scenes. (see Fig. 16)

The icon menu serves as bread crumbing to help keep the user oriented during their exploration of the various scenes. The menu uses the same images to denote different scenes as used in the buttons on the main page to access a scene. As a user hits a new scene they collect the icon for that scene (see Fig. 17)

Plane – passport,   Hallway – Krudco sticker,   Playground – girl

Figure 17

My first iteration of a navigation hint system included using one image as a navigation button to move to a scene from the main collage. For example, hit the passport to move to the plane scene. Once in the plane, the same passport image would return the user back to main. However, none of my users wanted to return to the main frame.

For example, from main a user hits the passport and is navigated to the plane scene. Once in the plane they find another passport. The first time they clicked on a passport in main, the scene changed. Now they expect hitting the passport to again change the scene. Returning to the beginning, main, was not only unexpected, but frustrating.

Users eventually learned the connection of using the same icon to navigate to and from the main page, but not until they had been frustrated by unexpected results more than once. My navigation plan was stupid.

Even after adding in the storyboard and the icon menu on further testing users were still getting lost. I still had an inconsistent use of images for navigation. For example, while in the plane scene the user clicks on an image of earphones, which takes to them to the hallway scene. Now where is the correlation between the hallway and the earphones, especially when the

SCENE: Hallway

Figure 18

hallway button on the main page is a Krudco sticker? Many users were greatly frustrated that they left the plane scene for the hallway before they wanted to, and further, there was no obvious way to return to the plane

After consulting with my committee, our solution was two pronged. First we implemented a cunning use of flags. [13] This time using the same image for: the navigation button to a scene from the main page, the navigation button to a scene from any other scene, as an icon in the icon menu, and lastly a large version of the image would fall into the scene from the right-hand side, to "flag"

---

[13] 'No flag, no country! Those are the rules that... I just made up!' Eddie Izzard

that scene.   For example, all Krudco stickers whether in a scene or on the icon menu will take them to the hallway.

One user still missed the scene flag, which prompted the addition of scene titles that were typed into the top right hand corner. At this point if any users still missed the flags, we can be pretty safe in determining the error is between the keyboard and the chair. (see Fig. 18)

Usability: Adding Help

Although my project is not a game, many users found it to be similar to point and click games where the goal is to collect artifacts. I reviewed some Flash games, and noted many point and click games include a help or hints section. One of the simplest features in function, but probably most the complex in design, is my help feature.

For prototype purposes I kept it simple with each scene having 3 hints, stored in a single table. The text for each hint is stored in a mySQL database, and then retrieved via PHP scripting. The same PHP page fetches the data from mySQL then echoes the results into extensible markup language (XML). (see Appendix A)

Flash only sees the echo statements on the PHP page which is used as a source of readable XML. Flash can then parse it using an XML Class. Add some programming logic to display only the hints for the current frame of the root SWF file, and voila, dynamic hints! (see Fig.18)

The help feature incorporates hints for various issues brought to light during user testing. Currently, help gives hints on active areas often missed, and how to page through the journals.

Walk Through

The final project is functional but still in prototype form. As with any project of this type, one could keep building and adding and tweaking. The project consists of 4 main sections, the introduction, the playground scene, the hallway scene, and the plane scene. Each section resides in a separate Flash file that is then loaded into its own frame in the index Flash file. The index is the interface that holds the icon menu, and all the functions needed to navigate between scenes.

Index

My first version had the backgrounds for each scene as part of the index file, leaving only the media files as separate Flash files. The scenes became too big since many of the background items, doors, windows and lockers had to become interactive pieces not just static images. After I created the first scene it became obvious. If I encapsulated each scene as one file then the index file only needed to load that file into the corresponding frame. This would keep the index file size lower since the scenes would be loaded and unloaded only as needed. This design also made development easier by allowing me to concentrate on one scene. Once the scene was working independently, it could then be loaded into an empty movie clip on the correct frame in the index file. Any changes to one scene did not involve working with a massive file.

Currently the introduction frame, or main, is coded into the index file and not a separate file like the scenes. It could be removed, but my first vision of this project consisted of users returning to the introduction frame regularly. The file would run more smoothly if built into the frame instead of loading and unloading it frequently. The index file includes main, and the icon menu. Everything else is either loaded as part of the scene, or loaded as a SWF.

PreLoader

The preloader is actually faked using my full walk cycle Flash file. (see Fig. 19) Creating the

walk cycle took three tries and a number of revisions to correct. However, the walk cycle is featured once and at only 30% scale in the project. I wasn't about to let all that work go to waste. I added some scrolling text then loaded the file into the index's first frame. An interval counts down before changing to the next frame creating

Figure 19 the appearance of a preloader. The index file loads in less than 3

seconds, which wasn't long enough to require a preloader.

Main

After the preloader the index changes to the next frame is the introduction with the collage of

photographs and sketches. (see Fig. 20) On the first loading of this frame an introductory text scrolls by with attending audio. As mentioned before here the user is presented with the icon menu. In the beginning only the help and main icons are available. The user will need to navigate to other pages to collect the icons for the scenes and one that lead to the blog.


Figure 20

While the introduction is playing, all buttons except the navigation buttons are disabled. The passport will bring the user to the plane scene, the photo of a child to the playground, and the Krudco bumper sticker to the school hallway.

There is a global volume control. Adding in separate volume controls for all the sounds seemed like overkill. All the background sounds are lowered and raised so as not to conflict with other audio media.

Storyboard

No matter which scene the user navigates to next they will get a quick view of the storyboard. The storyboard is a movieclip loaded in-between frames with active sections incase the user wants to make a quick change in navigation.
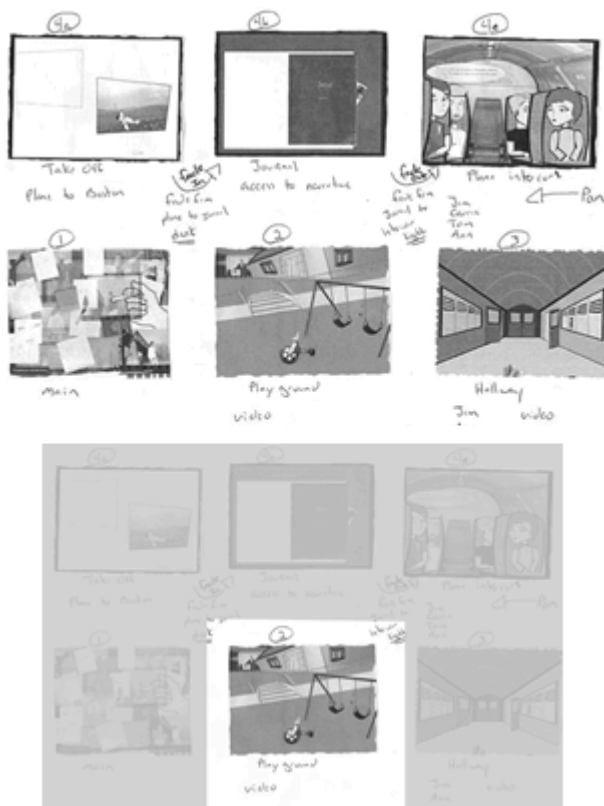
The storyboard has six cells, one for each scene plus the transitions of the plane scene. Depending on which scene the user is navigating to the movie clip will grey out the other cells in the storyboard. (see Fig. 21)

All the scenes should have transitions, but due to time constraints I only added them to the plane scene.   It has a simple pan that does not affect vector and raster formats. Having more scenes completed was a higher priority than adding transitions.

Figure 21

Plane

On frame five is the plane scene. The passport button is the most central and captured users' attention. Every test user clicked the passport and navigated to the plane scene first.

This scene introduces the main characters. The narrator and Jim meet each other on the plane.

This is interpreted pretty literally with a truncated dialog between the two characters.

The scene opens with a short animation of plane taking off, followed by an animation of the plane flying. The original plane animations are used, except the plane and the background images were swapped out. I found a
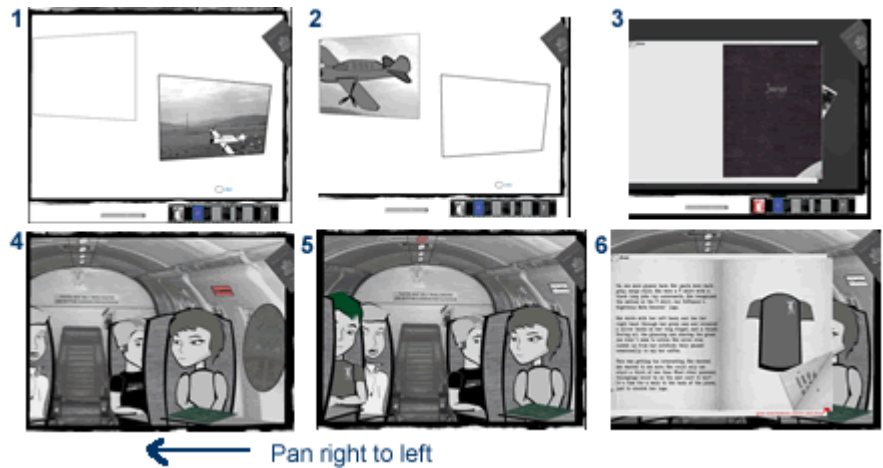

Pan right to left

Figure 22

large panoramic photographic and spliced it between the two plane animations.   A sound file

plays for the take off, and when that movie clips hit a certain frame it calls a function to load the

second plane clip. That clips start a close up of the window that then takes over the whole

scene, darkening the entire frame. Once the tint of the fader movie clip that creates the

darkness hits a certain level the first journal is loaded to set the scene. (see Fig. 22: 1-3)

If the user flips through the full journal and hits the highlighted text at the end the fader movie

clips then fades back out to reveal the interior of the plane where the tow main character have a

dialog as the user clicks various buttons. The order of the buttons need to be followed the first

time, and is denoted by flashing red color.   (see Fig. 22: 4, 5)

I did spend some time creating nice sound effects for anyone who has stereo speakers spaced

far enough apart to notice. As the plane enters the right side and takes off toward the left, the

take off noise pans from right to left. When the close up starts the background rumble of the

plane is set to -60, or panned to the left. And the volume is set to 80. As the second plane

animation plays and transitions into a close up of the window the rumble starts to pan. The

audio pan corresponds to the physical pan of the window, bringing the rumble to an even setting

between both speakers. This is done by a function that controls both pans with an interval. (see

Fig. 23)

```
//create new sound obj attach to fader
var rumble_snd:Sound = new Sound(fader_mc);

//does darkening until alpha >=98 then moves main timeline to frame 2
//Also pans rumble from start poistion left to center
function fadeDark() {

    nPan +=10; //increment panning to center

    //check alpha setting of fader
    if ( fader_mc._alpha < 98) {

        //darken fader mClip
        fader_mc._alpha +=(100-fader_mc._alpha)/2;

        //pan rumble sound from left toward center
        rumble_snd.setPan(nPan)

    }else {

        clearInterval(nFade); //stop darkening
        gotoAndStop(2); //move to frame 2

    }
}
```
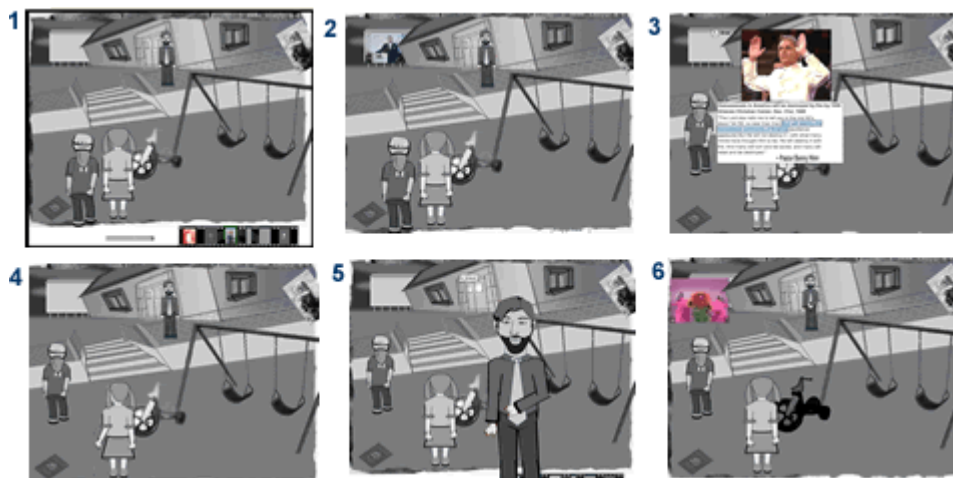
Figure 23

Lastly, when the journal is closed the rumble's volume is set down to 30%. To enable all this

sound changing but still allow the voice audio to not be affected, I attached the rumble sound

object to the fader movie clip.

My first two lip syncs were in this scene, but have since been upgraded. I did attempt to wing my first lip sync using a mirror and tweening an ellipse for a mouth. Although my first attempt was convincing it was not the proper way to animate dialog.

I used a tutorial from Chris Georgenes before to create my character, and again consulted one of his tutorials for the lip syncs. Briefly, to create a lip sync involves creating a series of mouth shapes, and then timing them to the audio track of the dialog. I will go into more detail later.

The plane scene also has a second journal which is the only place the user can gain the icon for the blog. (see Fig. 22: 6) The blog is also the only link from the interactive narrative to the original prose. If they read the second green journal, the last words will activate the blog icon in the icon menu.

Playground

There are a number of ways to reach the playground scene. From the plane scene above, there is a picture just above the character second from right that will navigate

Figure 24

to the playground. Also in the hallway scene, if the use clicks the doors to go outside. Again all navigation buttons are noted by a tool tip that appears when the mouse rollovers the active area.

Once in the playground, unlike the plane scene, nothing needs to be done in order. This was actually the last scene to be fully populated with media assets.

The big wheel controls the billboard that plays a video. The video is a short paraphrasing from the film Perversion for Profit[14] from the 1960s. (see Fig 24:2) If clicked on three times an Easter egg is revealed. (see Fig. 24:6) A different video plays that is relevant to the time period of the scene.

The building has 3 active areas. The doors will navigate into the hallway. The left window of the building starts and stops an audio file of the Sesame Street song "One of things doesn't belong," sung by the Cookie Monster. [15] And the right window will start a movie clip that has the sound an audio track of Benny Hinn's 1989 speech where he declares that God will destroy the homosexual community in 1995 by fire. [16] (see Fig. 24:3)

The last addition to the scene was two children. One of the children was an obvious tomboy with a very bad 4 step walk cycle. I ran out of time to create a proper walk from a behind view perspective. If you click on the girl she'll ask "Are you a girl or a boy?" Something I still hear at least once a week in some format.   This prompts the tomboy to walk away. (see Fig24:4)

The man standing outside the playground is a combination of both counselors from the story. Activating him brings him to the front where he asks, "Why do you feel you don't belong?" the character has one of the most challenging lip syncs. I had to not only be sure the mouth moved at the proper time, but the facial hair is moving too. I was hoping the beard would help hide the

---

[14] Anti-pornography film produced by financier Charles Keating, linking pornography to the Communist conspiracy and the decline of Western civilization. Obtained from archive.org
[15] One of These Things (Is Not Like The Others) Words and Music by Joe Raposo and Jon Stone
[16] Pastor Benny Hinn, Orlando Christian Center, December 31, 1989.

lack of jaw movement, but it still needed the moustache to move in conjunction with certain

mouth shapes like O, and W and R. (see fig 25)

A, I   Eh   Oh   oh   TH, L   Cons   M. B, P   F, V   W, R

Figure 25

Hallway

The Hallway scene was the last created but populated with media assets in the beginning. This

Figure 26

scene has the most diverse media assets - everything from simple tweened animation, the walk cycle, two lip syncs, a jpg, and a Flash video file in a media player.
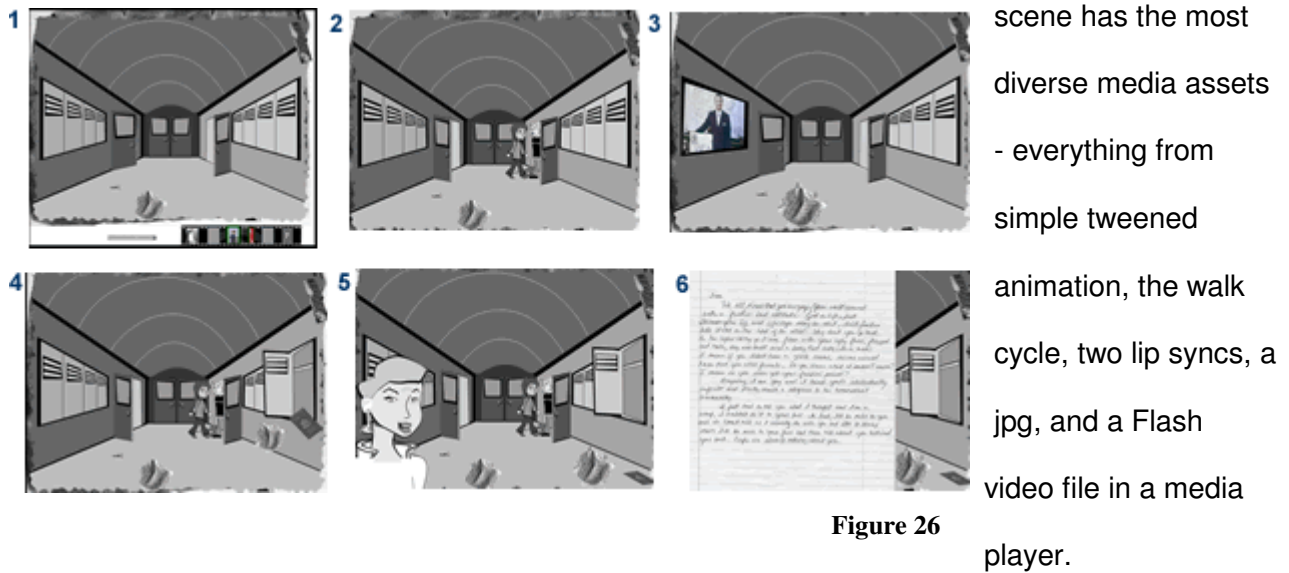
The scene opens to an empty hallway with an earring and crumpled piece of paper on the floor.

(see Fig. 26:1) The background noise is muffled talking as if the hallway is cluttered with people

just behind where the user is standing.

The earring will activate the Ann character, which moves into a down stage right position and

begins talking. The crumpled paper will activate the second Flash video. The second video is

also an edit of the Perversion for Profit film.

All the doors are active, except the left door in the double door set at the back. Each will open and close when clicked and cause another event to occur. The right side back door at the end of the hallway will navigate to the "outside" playground. The door on the left side of the hallway that is ajar will load the walking Jim character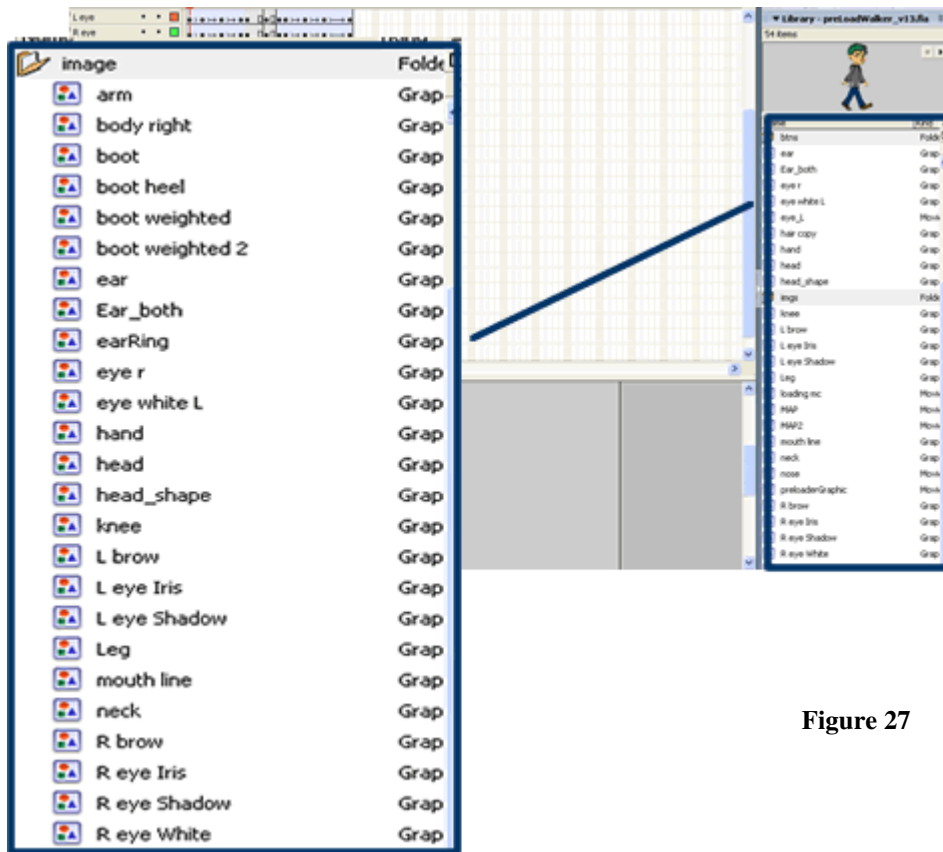's Flash file. (see Fig. 26:4)   As the character walks across the hall the door on the other side will open if it's been closed. Tom will step through the door and begin talking. Although not extremely obvious, Tom is a movie clip with lip sync.

Both Tom and Jim's walk cycles are from the same parent file. I edited the original walk cycle by swapping out various body parts. The original walk cycle graphics are in color. Fortunately since the walk cycle was created making every moving part a separate movie clip or graphic symbol, the change was only a matter of altering the symbols. (see Fig. 27)

To change the present tense Jim to match a past tense Jim the symbols were altered to reflect a gray scale color palette. This saved me from having to create a whole new character. I did recreate the longer hair, which needed some tweening to appear to move with the head. Short hair is easier to manage in real-life and in animation.

Next was the walk cycle, but again each moving symbol was also given it's own layer so if one symbols movement had be changed it did not affect the movement of any other symbols. (see Fig 28)

Figure 27

For example I cut and pasted the frames for the legs from the Jim file to the Tom file. Now, Tom was walking too. To complete the character, Tom's leg symbols were lengthened which moved the registration point. The registration point is the point by which a symbol is rotated or moved. Once moved the walk cycle was off by the same amount the registration point was moved.
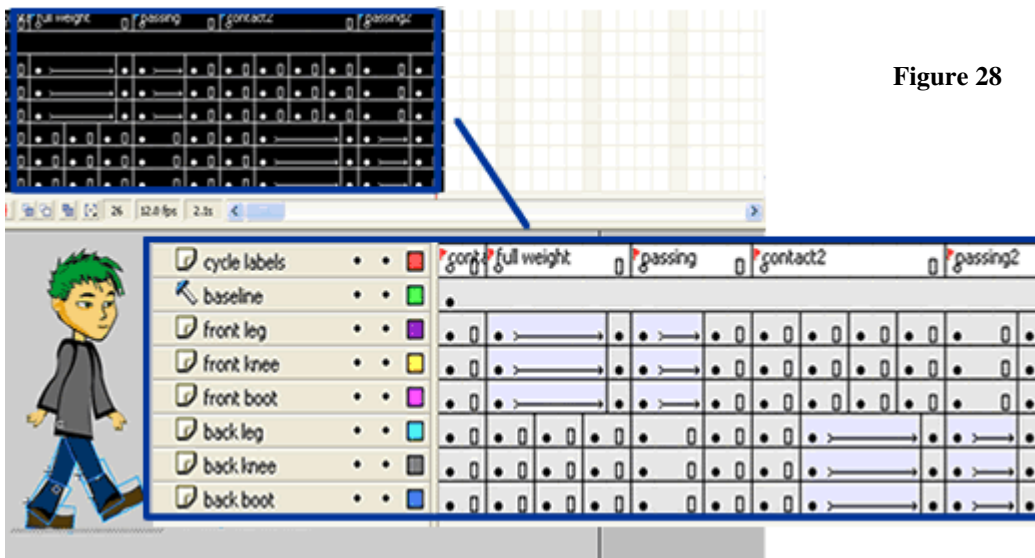

Figure 28

A simple fix, put the point back to where it belonged in relation to the body

symbol's new size. Then add a few minor adjustments to the movement. Every character that

walks from a side few is using not only the same legs, but also almost the exact same key

frames for walking. Since Tom only needed to step just past the door, and whole walk cycle is

encapsulated in one movie clip, this adjustment only required starting and stopping on whatever

frames looked appropriate. Done.

When activating the locker on the right hand side, it opens to allow a new crumpled paper and a

passport to fall to the floor. The passport acts as a navigational button back to the plane scene.

The crumpled paper when activated shows a larger version of a hand written letter. (see Fig.

26:6). The letter is an image scan of the actual hate letter I received while in Law School. My

receipt of the letter was the triggering event that has resulted in this project, so I was happy to

find a place for it.

That is all the scenes and all the media assets I have included up to this point. I have a café

scene, and another counselor character that weren't used. Each scene tries to hold a point in

time and obviously there could and probably should be at least two more scenes to cover other

dialogs that take place in the story. The videos and animations are just a start of what could be

added.

Last Media Asset

One last media asset remains. Upon returning to the main menu another bumper sticker

becomes enabled. The "Someone Call the Girl Police" will now start a mini Flash movie. This

movie was originally a joke between me and another student. If some part of the project

became too frustrating, I would take a break and add a few more frames to this movie clip. It

was fun and simple and completely key framed. Whenever I was completely stuck on some

programming error, whether it was a stupid syntax error I was missing or a targeting issue, this

was my break. I never intended to finish it, and limited myself to adding only 20-30 frames per break. Good or bad I'm not sure, but I ran into blocks enough times to complete all 1820 frames.   Once I got passed the drum solo around frame 1200 I knew it would be completed. (see Fig. 29) The figure shows just six frames from the 2:33minute "movie."
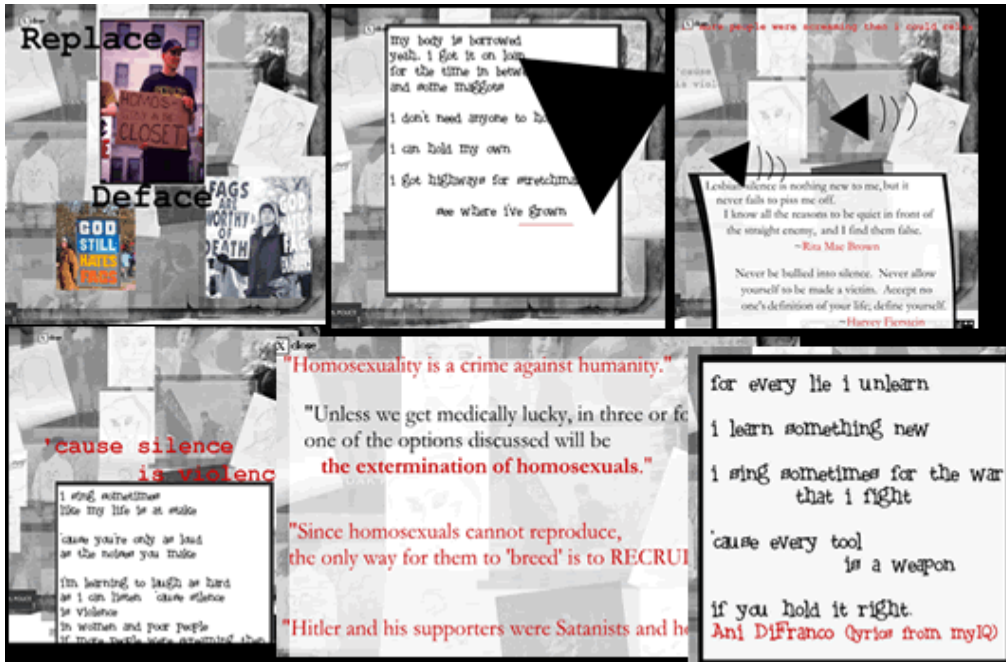
My stress relief movie now exists as an Easter egg. The movie clip includes scrolling lyrics to Ani DiFranco's song MyIQ.   I added photographs of

Figure 29

the many protests organized by Reverend Phelps including Mathew Sheppard's funeral.

Character Sketches

Since there are only five characters in the interactive project versus the dozen in the writing I thought I'd touch on why. Many of the characters in the story are actually a combination of a number of characters. Due to limited space, and no real way to tell a back story of each character I morphed them again into fewer characters.

Ann represents most females I ran into while growing up. Whether I was in grade school, or college it was always straight women who had issues with my sexuality, or my gender. This is

going to sound conceited but it's the only one possible explanation I've been able to derive. Women and girls find themselves reacting to me as male. Since most women do not have friendships with males, especially at these young ages any feelings of friendship they misinterpret to possible liking me, which then offends and conflicts their self definition.

As with all humans, we tend to either hate or fear what we do not understand. Females do not understand their own reactions, and of course blame the target. The Ann animation I tried to give more expressions than any of the other characters. I really wanted to show how strong the feelings of female friends could be. In childhood I usually got comments basically chastising me for not acting proper. But as I got older young women felt the need to separate themselves from me.

Tom represents my male friends. Growing up a tomboy I bonded with the boys of the neighborhood. Boys seem to just accept me as another person along to ride bikes, skateboard too fast down hills, or participate in pickup kickball games. As long as you weren't the worst player at any activity, any girl was immediately accepted.

As I got older occasionally I'd run into a boy that was taught girls are meant to be picked on. However, after a challenge to a physical agility test or contest all was resolved. I remember many challenges at Indian wrestling. Of course I don't remember ever losing but I'm guessing as long as I didn't loose really badly, too quickly, as in, like a girl, I passed.

The last character was the all-in-one counselor. I was sent to see counselors from junior high onward. I'm not sure if my parents requested it, or something I did initiated a call to the school asking for their permission but from 7th grade on, I was talking to someone at least once week.

I had a real hard time trying to pick one sentence to represent all my counselors. One had a PhD, two were psychologists, and the last I think was a tutor who took a psychology course. I remember many stupid statements, but it was the questions that lingered. My counselors seemed more interested in learning about me then giving me any advice. None ever came across as knowing what to say or do. The session felt more like I was a research subject than there for help.

My counselor in the playground scene says, "Why do you feel you don't belong? You have friends don't you?" The question shows the typical bad counseling that was persistent throughout my education. The first question is the obvious parroting back to the patient what they have expressed that I've heard most therapists believe creates a rapport. The question is not really being asked, since he goes right into another question. If a child has told you they feel they don't belong, shouldn't you concentrate why individuality is positive trait, instead of reinforcing the child's difference? Why would you bring up the potential issue of them not being popular? They just said they don't feel they belong, meaning even if they have friends, the child feels outside of the circle of friends.

Active Media Assets

Flash Videos	Sound files
- Perversion for Profit edit 1 - Perversion for Profit edit 2 - Easter Egg (mahnahmahnah)	- One of these Thing not like Other - Playground noise - Plane take off - Plane hum/rumble - Willing to Fight (sound loop) - Stop the Hate (sound loop)
Flash files	Images
- Journal 1 - Journal 2 - Anne talking - Benny Hinn	- Hate Letter - James Dean Post Card - Green Haired Boy Post Card

▪ Walking Jim (b/w long hair) ▪ Walking Jim color ▪ Easter Egg My IQ ▪ Narrator talking ▪ Jim talking ▪ Introduction -Sebastian playing with matches	

Lessons Learned: What has the capstone experience taught me?

Small Picture

Directly relating to the creation of interactive narratives a number of lessons can be taken away.

I ran into issues from the start right through the finish from how to approach the transformation,

to design, to navigation, and finally to usability.

The first lesson would be not to get too tied to your original idea. I was stuck for months with a

great design document and concepts, but no ability to create my vision. Right from the start I

ran into vision versus reality problems. A 3D world does not support 2d characters, especially if

the focus of the 3D world is to show off lighting and camera techniques. The original design

included many mini animations with characters interacting with each other. It was hard enough

to get one character to talk, trying to time to characters in a conversation would be

unnecessarily time consuming.

Transforming an existing and unfinished narrative into something non-linear requires

storyboarding.   I took a storyboarding course at Writers and Books and learned how to

storyboard my narrative. The story didn't have an ending, but by taking principle moments and

making them into index cards the transition becomes clear. A new problem arose from the

sheer amount of cards accumulating from all the many potential principle moments in the story.

Similar to my integrating many characters into one representative character, the same would

have to be done with the story.

Instead of creating a chronological series of setting that fit the story, I decided to pull settings that captured the three areas that had their own thread; present, college at breakfast, memories. Present was easy, all I needed was a plane interior and some conversation to bring the two characters, Jim and the narrator together. The first flashback the breakfast scene involved too many characters. I removed the scene from inside to outside. The memories occurred mostly in and around school, so I built an indoor and outdoor school scene. To help incorporate more time lines, I decided to make the outdoor scene reflect childhood, and then use the indoor for anything beyond grade school. Any one to one mapping of text to the project's storyboard was impossible. To keep on target I had to be prepared to constantly cut or combine principle moments.

Essentially the lessons can be summed up as be flexible.

Big Picture

I truly believe more than anything else it has taught me that a degree in information technology is not the end. The degree doesn't make you an expert, but it does provide the building blocks to enhance existing skills or attain new skills.

I took some very basic courses in 3D animation using Maya, and 2D using Flash. My Maya coursework involved only the interface to build simple skeletons and riggs. The Flash projects went more in-depth but we still didn't touch on walk cycles or lip syncs. The skills learned from creating 3D riggs, key framing, and how to control nested movie clips were all required to create a movable character with a 16 step walk cycle, and 8 stage lip sync in the project. Again these are skills I didn't have walking into my project, but with the foundations from my course work these tasks were possible instead of overwhelming.

I've learned programs I never used before, like Movie Maker to edit videos and Cool Edit Pro to edit audio files. The background enabled me to dive into very complex interfaces without prior knowledge and be productive within a day, if not an hour.

Another great example is my dynamic help feature. I never learned XML, but knew enough about data structures, and programming that I was able to quickly build the solution.

Beyond the technology side, I learned design is a very important part of the process. Not only does the user today require ease of use, but they expect good design. If it's ugly no one will use it, or at least not enjoy using it. I had a lot of functionality done months ago, but everyone I showed the project to couldn't get beyond criticizing the look and feel to review the content.

Spending the past 10 years working on purely corporate projects I got used to bad design. Often designers weren't brought in until too late or worse, non-designer project managers would second guess a designer's decision. Fonts replaced, and colors and sizes altered without consulting the "artsy fartsy people." I call it the "ooh factor." Every project should have at least some "ooh factor" and not just be a rehash of the same visuals already existing. If you think quickly of the most popular gadgets, and applications, they all have an "ooh factor," or cool design. Is the iPod really the best MP3 player or just the coolest looking one?

Conclusion

Looking back on the past year it's really hard to sum it all up in a paragraph or two. I started out with dreams of creating a reel via this project and applying to animation apprenticeships. I'm

ending it in hopes of just getting any information technology (IT) job. Most likely I'll find some position as a competent web developer, not anything even vaguely like I had hoped.

Conclusion, no matter what your age at the end of school, reality sets in. No one gets to be a rock star by sheer desire. My only hope is this story won't die again like it did for 10 years after I dropped out of law school, while, I again, get folded into the life sucking world of corporate IT. The main thing I learned is how little I know and how much I have yet to learn. If I'm ever going to have anything to do with animation I've only taken step one.

Future Work

To take this work beyond the requirements for the capstone there are many avenues available. The most obvious would be to expand the project to cover more scenes. I actually have one other scene I didn't add due to time constraints. Many more scenes and media assets could be added.

Another possibility would be to transforming the whole narrative into a number of different interactive projects and test each one against various target audiences to determine which has the most impact.

I would personally like to see not only the whole narrative added to the project, but make the whole project more dynamic. There are a number of variables hard coded or in flat files. All this could be transferred to the mySQL database.

Once more variables are loaded via the database, an administrator's panel would be feasible. The admin could turn on and off different assets depending on the target audience. If showing

the project to junior high school students versus college professors, various videos and audio files could be swapped for a more targeted presentation.

Most of the files are already separate from the main interface making it possible to not only change the media (music and videos), but also swap out characters, dialog, and backgrounds. The narrative has lots of dialog sequences. It would be great to animate different versions, and then be able to use an admin panel to select which dialog version to use. This would allow R-rated versus PG-Rated versions to be interchanged.

As one professor said when I presented my first proposal, this could be a life's work. It could be updated and changed to be completely dynamic. It could be made bigger to incorporate more of the narrative. A whole website could be built around the piece with features such as: a member login with forums and chat capability, access to resources for Gay teens, and an area for users to post their own stories and receive comments. It could be made into ComingOut.org that in turn would show the world that being Gay a teen isn't quite so rare, or better yet, it is not quite so wrong.

Resources

ACM SIGGRAPH (2004, December 6). ACM SIGGRAPH Education Committee. Retrieved
June, 2005, from http://www.siggraph.org/education/

Ammar, Osama. (2002). *Outing the Narrative: The positioning of coming-out as cultural practice
by narrative cinema through narrative disclosure, representation of the closet and attitudes
towards homophobia.* Retrieved March 20, 2005, from The Media and Communication
Studies Site. University of Wales, Aberystwyth database: http://www.aber.ac.uk/media/

Breadcrumb (navigation). (2006, April 29). In *Wikipedia, The Free Encyclopedia.* Retrieved
16:54, May 30, 2006, from
http://en.wikipedia.org/w/index.php?title=Breadcrumb_%28navigation%29&oldid=50799499
.

Chatman, Seymour. (1978) *Story and Discourse: Narrative Structure in Fiction and Film.* Ithaca,
NY: Cornell University Press.

Duchamp, M. (1957, April). *The Creative Act.* Speech presented at Convention of the American
Federation of Arts, Houston, Texas. Retrieved March 21, 2005, from
http://members.aol.com/mindwebart3/marcel.htm

Ehrmann, Stephen C. (1999, March/April) Memo to Faculty - Asking the Right Questions: What
Does Research Tell Us About Technology and Higher Learning? In *Faculty Teaching
Excellence Program.* University of Colorado at Boulder. Online pdf posting. p5. Retrieved
April 29, 2005, from http://www.colorado.edu/ftep/memos/protected_memos/58.pdf

GLSEN (2004). Gay, Lesbian and Straight Education Network: About. In Gay*, Lesbian, Straight
Education Network.* Retrieved June, 2005, from
http://www.glsen.org/cgi-bin/iowa/all/about/index.html

GLSEN. The 2003 National School Climate Survey. In Gay*, Lesbian, Straight Education
Network.* Retrieved June 25, 2005, from
http://www.glsen.org/binary-data/GLSEN_ATTACHMENTS/file/274-3.PDF

GSA Network (2005). About the Newtork. In *Gay-Straight Alliance Network.* Retrieved July 17,
2005, from http://www.gsanetwork.org/about/index.html

National Education Association (2005, April). Safe Schools, Teaching Tolerance. In *NEA Today.*
Retrieved May, 2005, from http://www.nea.org/neatoday/0504/teachtolerance.html

PBS (2004) American Family About the Series In *American Family – A Journey of Dreams*
Retrieved July 20, 2005 from – http://www.pbs.org/americanfamily/series.html

Southern Poverty Law Center (2005). Teaching Tolerance: Mix It Up. In *Tolerance.org*.
Retrieved May, 2005, from http://www.tolerance.org/teach/mix_it_up/index.jsp

Stafford, A. (2005). *Making Sense of Marcel Duchamp*. Retrieved March 21, 2005, from
http://www.understandingduchamp.com/

Stanley, Cheryl L. *Discrimination and Homophobia in Educational Institutions: A Personal
Narrative.* Paper for Issues of Gender and Sexuality in Law. San Francisco; University of
San Francisco Law, Fall 1992.

Stover, Del (1992, March) The At-Risk Kids Schools Ignore. Executive Educator.
Vol.14,No.3,pp. 28-31.

Theban Mapping Project (2005) *The Theban Mapping Project*. American University in Cairo
Retrieved August 12, 2005. from American University in Cairo from
http://www.thebanmappingproject.com/about/

Tomkins, Calvin (1968) *Bride and the Bachelors, The: Five Masters of the Avant-Garde*. New
York, New York: Penguin Books.

United States Holocaust Memorial Museum. (2003). *Anne Frank the Writer | An Unfinished
Story*. Retrieved December, 2005, from
http://www.ushmm.org/museum/exhibit/online/af/htmlsite/

Young, R. Michael and Riedl, Mark (2003) Steps Towards a Computational Theory of Interactive
Narrative in Virtual Worlds. Raleigh, NC. Liquid Narrative Technical Report Series.
Retrieved April 21, 2005, from http://liquidnarrative.csc.ncsu.edu/pubs/vr.pdf

Appendix A

Website: www.steeltoed.net/nude/
Development Progress Blog: dropoff.blogspot.com
A Girl Called Jim (blog): www.steeltoed.net/jim/

Competitive Analysis

Site Features	Unfinished Story	Cisco's Journal	Theban Mapping
Story-based?	Y	Y	N
Point and click	Y	Y	N
Game aspects	N	Y	N
Rich media	Y	Y	Y
Educational	Y	Y	Y
Technology	Flash	Flash	Flash
Non-linear navigation	N	Y	Y

Design Document: navigational chart

Research Look and Feel images

Village by Barry Jackson (lighting)

An Eternal Reunion by Miles Thompson

© 2004 Lynne Naylor
"Crumbs"
*Appears in the book "Beatsville" from Outre Gallery Press
Crumbs by Lynne Naylor

mySQL Database 1

←T→	id	frame	title	hint_1	hint_2	hint_3
☐ ✏ ✗	1	2	Main Page	There are 3 navigation buttons, noted by changing ...	The photo in the bottom right hand can re-start th...	Each of the 3 Scenes will add a new icon to the bo...
☐ ✏ ✗	3	4	School Hallway	Most buttons will act as toggles. Hit once to star...	The door at the end of the hallway, and passport a...	Check the lockers.
☐ ✏ ✗	2	3	Playground	Most buttons will act as toggles. Hit once to star...	The school doors, and passport act as navigation.	There are 3 toggles.
☐ ✏ ✗	4	5	Plane	Follow the flashing red light.	Grab the very bottom corner of the book's page or...	There are two books activated by the RBR logo on t...
⬑ Check All / Uncheck All *With selected:* ✏ ✗ 🗐						

Appendix B: A Girl Called Jim

Appendix C: Discrimination and Homophobia in Educational Institutions: A Personal Narrative