Cyber addiction

Heebok Park

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Cyber Addiction

by

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September 9, 2004
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Pre-Production

The Concept

For my thesis movie, I first needed to develop a unique story that was suitable for making animation. However, this wasn't an easy process. After searching for what seemed like a long time, I had a lucky brainstorm. When I first came to RIT to study computer animation, I had a roommate who was addicted to the computer. He did nothing but sit in front of the computer. When he would leave his computer, he would feel uncomfortable and get nervous. I decided to make a movie about this story of cyber addiction, and also to demonstrate the damage that using the computer too much can cause, especially to a young person. First of all, for this movie I needed to research the side effects of excessive access to Internet or cyber space. I found the following facts during my research.

According to the rapidly increasing Internet communication network and number of users in recent years, people can take advantage of more information and any other benefits of the Internet like chatting, Internet games, and home shopping. However, several side effects also may take place with too much time spent at the computer.
Many people sit up at night using the computer, and their conversations within their immediate families are gradually decreasing.

"Nearly 6% of 17,251 respondents in an online survey met the criteria for compulsive Internet use and over 30% report using the net to escape from negative feelings. The vast majority admitted to feelings of time distortion, accelerated intimacy, and feeling uninhibited when on-line" ("What is Internet Addiction", http://www.netaddiction.com/whatis.htm). The above statistics show that people have emotional trouble owing to computer addiction.

There are three kinds of computer addiction. The first one is communication addiction which makes people unstable in terms of social, physical, and mental aspects. For instance, a symptom of excessive communication causes a loss of self-control, pursuing happiness through cyber communication, and disorders in relationships with other people. In fact, some Internet addicts tend to confuse their cyber life with real life, so they easily break off relationships with other people in their real lives.

The second kind of addiction is game addiction. There are a lot of computer games in the world, and game programmers constantly develop new games because
people like playing computer games and constantly demand new ones. In fact, some
people often sit up all night doing games when others normally are sleeping. Some
teenagers play MUD (multi-user dungeons) which deals with their cyber-weapons. They
commit violence and homicide more often due to the excitement and empowerment of
cyber-weapons. “The problems of excessive game addiction are it is easy to be exposed to
the violence of the game, and people could be confusing between virtual reality and real
seem to be at risk on many levels by playing computer games too much in their ordinary
lives.

Cyber sexual addiction, also, is another problem. These days, many parents are
not proficient at the computer, so they cannot control what their children are doing on the
computer. This is true of children who are curious about sex. According to “Caught in the
Net”, by Kimberly S. Young, as an associating reaction after watching lewd things, some
juveniles experience sexual impulses and distorted recognition about sex, and a few of
them have imitated sexual crimes. These days, even though the government in my native
country Korea prohibited juveniles’ access to adult sites, some of them have managed to
get access to these sites and have become social problems related to sex.
Unfortunately, it is true that not only are many people addicted to computers and the Internet, but also they are increasingly harmed by Internet addiction. So, I wanted to re-illuminate the side effects of excessive computer use or cyber addiction, and raise the awareness of the audience, especially teenagers, to the possible jeopardy of excessive computer use.

While developing my story, I gradually became interested in the many details of cyber addiction that might be included as I was building the scenes within the work. However, I couldn’t depict all of the side effects which are so numerous, so I had to create a focus. This work became the story of a boy who enjoys the cyber world but becomes confused, distressed and terrified as he tries to distinguish between real life and the virtual life.

The Story Idea and Staging

I knew this story was relevant and topical in the world. I first focused on the visual design which would be unique to and made possible only in animation. The work shows many window screens that come out of a monitor and pop out of the cyber world into the real space, which is the main character’s bedroom, and they spin all around him.
while the digits 0 and 1 flow out from the background. As they spin they create an extraordinary cyber world which surrounds the boy thus transforming real world space into a virtual “real” world. He even conducts their movements around him as if he is conducting an orchestra. He thoroughly enjoys being within a totally self-contained and exciting cyber world.

I also tried to show his psychological aspects. After the power in his house goes out, he feels disappointed as his cyber world has been shut down. As time goes by, he gradually experiences unpleasant feelings like anxiety, nervousness and impatience. Finally, he begins to go crazy and has hallucinations while staring at the full moon in the night sky outside his bedroom window. Generally, the full moon is known to make people mad or crazy or “lunatics” because there is a certain psychological power that the moon has on the thinking and behavior of individuals.

When the boy stares at the full moon through the window, he hallucinates that the real window begins to squash and stretch. After a while the window becomes replaced by a computer screen which detaches and moves away from the real window. The computer screen then fixes on the boy’s glasses to show that the visual point of view shifts from
objective to that of a cyborg’s. With the boy’s new vision, he recognizes all things by data and enjoys his view as if he exists within the cyber world. For this scene, I created more than 50 files of cyber world moving imagery and had to move them each individually. And then, I made a quick-time movie for overlapping the illusion scene. I composed the data vision and Sexy Girl scene together and made them synchronized (See Appendix C for Cyber Addiction Treatment.)

It was extremely important to reveal the inner psychological and emotional states of the boy during his hallucination episode. When seeing his mom with his special ‘vision’, he mistakes her for the Sexy Girl. For this process, I put together real scenes and special visions and showed them in order. To show this effectively on the embracing scene with Mom, I showed the real scene first and had a camera spin and white out to put his feeling scene in middle of real scene.

**Storyboarding**

While I was working on my animation, I learned a precious lesson: the more details put into a storyboard, the easier it will be to execute the work. In the past I liked to work more loosely when creating animated works, but in this animation there was so
much detail and so many levels of activity that need choreographing. I realized that I had to draw more details of the story because I sometimes felt stuck during the animation process and needed to change little bits of my story. As a result, I was able to add several scenes for more depiction, and the entire timeline was extended.

Before drawing the storyboard, I imagined the situation which had to be developed and took brief notes on the order of plot sequences. Then I drew out each scene of the storyboard. For the beginning of the animation I focused on close up details like the boy’s foot, hands and eyes because I wanted to show what he was doing for hours and hours at his computer staring at the monitor, his eyes gleaming with excitement. His mouth slowly develops a smile of euphoric satisfaction. I added symbols to the storyboard to indicate camera movements and cartoon style lines for representing the emotions of the character, such as surprise, sadness and craziness.

I had previously studied painting for several years, so I believed I had enough skill to design the storyboard. Actually, I knew the basic elements for painting such as good composition, how to arrange colors, and so on. However, I partly did not understand well the variable camera movements and motion of objects within the frame composition.
because movies are not still images like a painting work. For reference, I looked closely at several movies and studied them in terms of the balance of tempo, camera cuts, and so on. I found out that there is the right variation of tempo and camera movement to convey the proper tension at any given movement in a film. I felt a need to develop filmic concepts in this work that would become important lessons for future works.
Production

Character Design

I designed models that would be good for animating. I kept this in mind as I sketched the characters: Mom, Boy and Sexy Girl. Boy is a teenager, who wears black, thick-framed glasses, a T-shirt and short pants. I tried to make him a teenager with a lot of computer savvy. He needed to be detailed on his face, including eyeballs, ears, hair for making close-up shots. I spent much labor in building him, especially the structure of his bones and muscles of his face. The basic structure was important for creating a realistic characterization and for the animation.

In building Sexy Girl I collected sexy girl pictures for reference and modeling. It was very intricate to build her face because changing very tiny small parts affected a lot for her expression. To stress her beauty and sexuality, I elaborated her body line with translucent underwear. And then I made up her face with red cheeks, shadow line around her eyes, violet lipstick, and so on. At this moment, I just imagined myself becoming a real woman and doing make up. I researched a series of porn sites to understand “sexy girl” attributes, and I made Sexy Girl have alluring breasts and other seductive physical
features. Sexy Girl’s success results mainly from her voluptuous facial expressions and gestures rather than outward appearance of the character.

Contrasting Sexy Girl, I exaggerated Mom’s shape to be more rounded and mature, in her late 30s, having a permanent hair style. To model Mom in Maya, I copied the model of the Sexy Girl and dragged out almost all the vertices to make her plump. I repeated modifying her shape and then created her pajamas which had to be translucent. Later I made her pajamas opaque to reducing data related to her, so I could cut out the hidden torso and underwear. Later, I realized my decision was wise because it was really hard to recognize her wearing transparent pajamas when it is dark in Boy’s room. Although it took so much time to model all the characters, I was able to understand the most effective ways to build some objects, what was good modeling, and I learned a lot about character setup that was really important and affected the later animation. Through all my mistakes during modeling, I learned valuable skills and knowledge.

**Environments Design**

For building my environments, I made a conscious decision not to spend too much time designing and creating them. On one of my previous works where I built an
outdoorscene I had to design too many things--a broad ground, bunches of grasses, trees, sky, animals and insects, and all in a cartoony style. For Cyber Addiction I really wanted to concentrate on the animation and characters’ psychological changes. For these reasons, I made a room which was main stage for my movie and any other stuff like a computer, monitor, desk, chair, bookcase and closet. It was fun to model them as if I were furnishing and arranging an actual room. The room needed plenty of books in order to look like a student’s room. For this, I scanned many of my own books and mapped the surfaces of Polygon and Nurbs objects. I also took pictures with a digital camera and mapped them for a picture frame. Everything in the room looked real.

In designing the environments, the most difficult thing was constructing the pop-up windows. I frequently noticed distinct kinds of glowing screens in some contemporary science fiction movies, so I thought maybe there were tutorials available to create these screen effects at 3D Maya and Studio sites. Unfortunately, I didn’t find any, so I tried to figure out on my own how to generate these effects. I experimented over and over again and finally was able to create them using 8 layers of sphere. Each layer had a different size and had to be “glowed” and spun separately. I mapped them with still images and movie files. Initially, the result was not satisfying because the moving images, especially, showed
some noise. I then replaced the movie files with still images. I surfed Internet sources such as ebay, movie, porn, game and chat sites, and printed the screens for the popup windows.

The next challenge was lighting. If there is no light source in the world, we cannot see anything. No matter how beautifully we model an object, if the lighting is bad the object will look bad. In my movie, I used many lighting sources like directional, spot, point and area. For example, when I lit for a character, first I would create one or two spot lights that were main lighting sources and then arrange more than four spot lights for indirect lighting with different colors.

Another lighting condition had to be created when the moonlight is projected on the main character. After the power outage, it was necessary that a moon light came through the window, so I applied a spot light with fog. It was possible to make a beam which seemed to come from the edge of the window.

The Animation

Up to my second movie project, I had learned so many things - how to build good models, character setup, rendering, etc. I felt that doing an animation movie was very
tedious. It’s really time-consuming. However, right after animating my characters and others, I realized that it surely was worth the intensive labor. I gave a life and personality to each character that seemed to be “dead” in their modeled forms. There were flaws in the movie. The major flaw was that the whole movie had slow tempo, so I varied the motion speed. But, it was difficult to find the right variations of motion. At that time, Professor Stephanie Maxwell gave me tremendous advice such as varying the motion on the timeline, creating tensions within scenes, and proper transitions. That really worked.

I myself acted out the motions of the characters in front of a large mirror, using a stopwatch to understand the timing. While watching myself in the mirror, I often felt that my acting was really funny. On working out the facial expressions for each character, I felt very happy to be able to feel their emotions. When I utilized blend shapes and several deformers in Maya, at first I ran into technical problems, but after spending a long time trying to solve them I finally was able to control the blend shapes for facial expressions.

For moving cameras and lighting sources, and especially the spinning scene, I experimented a lot to find the easiest way to create the smooth movement around the characters.
Post-Production

Sound Design

*Cyber Addiction* had many aspects which were related to the computer in terms of the computer interface, and I felt it would be appropriate to also have a special kind of computer generated musical score, so I sought out a composer who could compose it. Most of my friends from Eastman School of Music could compose traditional scores or play their instruments very well, but the only problem was they didn’t know how to use some sound edit programs. Luckily, I made the acquaintance of composer, Christopher D. Brakel, who has a talent for computer generated sound, and he gladly accepted my request. I was very pleased to meet him because I had already heard some of his previous music and I was so impressed. After showing my storyboard to Chris, explaining the details of the story, and having him listen to a sample of music for my storyboard which I downloaded from the Internet and thought created the right ambience, Chris understood what I wanted.

A week later I dropped by Chris’ workplace to listen to and pick up the soundtrack. Although having a horror sound which I had not originally intended, it was
perfect because it worked on an emotional level to create an experience of the negative aspects of cyber addiction.

**Editing and Compositing**

I spent an incredibly long time rendering and re-rendering in Maya. I used two computers and had to sleep beside the computer with an alarm clock at night. From the second computer, I conveyed rendered files to my computer in order to edit and composite. I sometimes re-touched still images for the backgrounds by using Photoshop, and I compiled a bunch of footage to make movie sequences in After Effects. I also added some effects in After Effects and made a preview movie which was compressed with Sorenson codec, which made the image a little bit dark. After studying the movie, I found the flaws and modified them so many times, including varying the speeds for some clips, the order of shots, and cleaning up any clumsy areas. I spent a lot of time on finalizing and perfecting the movie. Then, I applied a non-compressed codec and imported it into Premiere for compositing with the music and sound effects. I printed to video and then recorded to mini DV tape.
Reflection

The Screening

_Cyber Addiction_ was premiered on May 18, 2004, in the Carlson Auditorium at RIT. The auditorium was crowded and my movie gripped the audience. I was pleased with the reaction and appreciation I received. There were many comments, like “The colors are so beautiful,” “You achieved a lot progress in _Cyber Addiction_ compared to your previous movies,” and “It’s so scary, but very good.” The presentation was successful.

Conclusion

After finishing _Cyber Addiction_, I was very proud. I had never expected to make this kind of 3D animation. There were so many new challenges and set backs. I made many repeated mistakes, and the tedious processes seemed to be never-ending. Nevertheless, I couldn’t stop working on the movie. It was a really good opportunity to push myself in pursuit of something so challenging and meaningful. Now, I am so glad to have pursued computer animation at RIT, and to know the SOFA faculty. Especially Stephanie Maxwell, Malcolm Spaull and Duane Palyka. They have been dedicated teachers, advisors, mentors and friends.
Appendix A - Thesis Proposal
THESIS PROPOSAL

Cyber Addiction

Written, Directed and Animated
by Heebok Park

Committee chair: Stephanie Maxwell 5/9/2003

Committee: Malcolm Spaull
Committee: Duane Palyka
Story

Excessive attachment to a computer blurs the line between reality and virtual reality.

Synopsis

A teenage male sits alone in front of his computer. As he stares at the screen through thick framed glasses it becomes apparent he is intently concentrating on an internet game. After a while, he surfs other sites and several screens appear dimly around his monitor. A series of windows pop in and out of the foreground on the monitor screen- a chat window, a home shopping window, an explicit cyber sex window, and so on. These windows emerge from the monitor slowly and surround him, becoming part of his own world. The windows begin to slowly spin and the man is sucked into each individual screen, enjoying each window in turn. He enjoys each experience immensely, marveling at the ability to experience the seemingly impossible.

Suddenly, all the screens disappear around him and there’s only darkness. He is
back in his room, realizing there has been a power outage. As time goes by the man becomes increasingly distraught with the realization he can no longer enjoy the cyberworlds he has been experiencing. When the full moon is appearing from behind the cloud, he slowly starts to lose his mind and his vision begins to distort with panic. Symptoms of optical illusion ensue and when he stares at a window on a wall with dizziness, the window turns to translucent green showing an odd screen that is similar to a cyborg’s view (similar to the robot’s vision in the Terminator films). Whatever he sees, he can recognize it by data with his special vision. The phone rings, and as his attention shifts to the phone, his eye screen begins to analyze it digitally, displaying items such as the loudness of ringing, distance between the phone and him, caller identification, etc.

Amazed at his newfound ability, he scans the room with curiosity. His mom knocks hard the door. She opens the door and points to her watch which indicates 2:25 a.m. However, as the boy watches her, her image is replaced by that of a sexy girl tempting him. The voluptuous girl calls him with smile, and the man approaches her. As he moves to embrace the girl, her face metamorphoses into a frightening monster. The man is so surprised he screams and tries to escape from her. His screaming shocks his mother who, simultaneous to the image of monster, grabs him and pulls him close to her. His attempts
to struggle are futile as the girl holds him firmly at the waist.

While he struggles to get out of grasp of the monster, the electricity flickers on and all the window screens reappear around his room. Each window begins to retract into his monitor. He resists being drawn, but his body is disassembled into particles and he is sucked into the monitor. The boy begins to pass out his mother’s arms. When the monitor blinks irregularly as the power continues to flicker, his face illuminates the screen, showing him screaming. The power goes out again completely and he’s gone. There’s only moonlight in the room, and the boy’s mother places her tired son onto his bed and covers him with a blanket as he drifts into sleep.

**Approach**

This work will be created in 3D computer animation and 2D computer animation. For editing and compositing, Adobe After Effects and Premiere will be used. Other possible programs include Photoshop and Painter. The music will be an original composition by a composer, Christopher D. Brakel (Eastman).
Appendix B - Storyboard
Appendix C - Cyber Addiction Images
1. Main character at keyboard.

2. Windows emerge from the monitor slowly and surround him.
3. Main character conducts each site.

4. He enjoys a cyber world.
5. The electricity has gone out, and main character feels disappointed.

6. As the boy watches his mom, her image is replaced by that of a sexy girl tempting him.
7. With his special vision, he misunderstands mom to sexy girl.

8. When the boy hugs his mom, he just feels like hugging the sexy girl.
9. The sexy girl’s face metamorphoses into a frightening monster.

10. The boy feels like sucking into the monitor.
11. Screaming from the monitor.

12. Main character faints, and his mom holds him.