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Gary’s Sneakers: A 3D Animated Short

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INTRODUCTION

In a dimly lit room, Gary sits alone. The shades are tightly drawn and he probably has not seen sunlight in quite some time. He is surrounded by unwashed dishes, old food, discarded magazines, and other accoutrements of a room that has not been cleaned lately. He is unaware of the mess, however, because he has eyes for only one thing: the television screen. His fingers press the controller buttons rapidly as he plays his video game.

Unused and bored, his left sneaker sits on the floor flipping through a magazine. For the most part he finds it uninteresting, but then, all of a sudden, the sneaker turns the page and sees an ad for running shoes. After seeing the image of the man running, and consequently using his shoes, the left sneaker is inspired: he must get Gary up and running! After a little persuasion, the right sneaker agrees to help out. They hatch a plan and set it into motion.

This is the premise of Gary’s Sneakers, a 3D animated short that I made with my collaborator, Meghan Grube, for the Honors Capstone creative project. In this animation, Gary and his shoes find themselves at odds as the sneakers want to run around, and Gary wants nothing more than continue playing his video games. They struggle throughout the course of the narrative, trying to outsmart one another. Who will emerge victorious in the end?
ARTISTIC VISION AND CHOICES

At its core, this animation explores a growing trend in today’s society: a sedentary lifestyle. More specifically, Gary’s Sneakers looks at inactivity in youth and an increasing tendency for children to spend their time indoors playing video games, watching TV, or using a computer. Gary fits a well known stereotype of the modern teenage boy: sloppy, dirty, and absolutely addicted to gaming. He rarely leaves his couch, does not interact with others often, and never exercises. The audience will see him and immediately know him, or think they know “his type.”

Of course, Gary is not a villain. He is not a bad person or bad intentioned. He has simply succumbed to the trends of the time and the pull of technology as so many of us have. My partner and I are very opinionated on the benefits of exercise and outdoor activity, seeing as we have also spent our fair share of days locked in a basement and glued to our computers. That being said, I feel the need to offer a caveat. While this animation is largely inspired by this trend of inactivity, it is not meant serve as a lecture on the benefits of leading a healthy lifestyle. It was simply built around and inspired by these ideas and trends we see happening around us. The main purpose of Gary’s Sneakers is first and foremost to entertain the viewer. Social commentary is what gives substance to the animation, adds significance and context, provides a
recognizable backdrop for the actions that occur within it, but social commentary is not the main focus. In more abstract terms, Gary’s *Sneakers* can be viewed as the juxtaposition of movement and stillness, action and inaction, dynamic and static, all set within the confines of the narrative we created.

Because such a large part of this animation is about the dissonance between motion and inactivity, we were careful in how we portrayed both Gary and his sneakers. The shots of Gary without his sneakers on contain very little motion. His head moves slightly, his fingers pound away at the buttons of his controller, and the TV light flickers as his game character moves across the screen, but other than that there is no action. Once the sneakers are on his feet, though, everything becomes more dynamic. Gary is forced off the couch, running and flailing and ultimately moving around the room.

I made specific lighting choices to help make our world seem even more real. I used recognizable light sources and tried to capture the look and feel of artificial, interior lighting. We wanted Gary’s room to be dimly lit, because we imagined him living in a cave-like room, with no access to sunlight. Each of the lights used have their own purpose. Some help illuminate the scene so that the audience can see what is happening, while others help set the mood. The blue of the TV light that permeates the animation helps to unify the animation and even signal several key events in the storyline.
I also selected colors with purpose. All of the colors and textures were selected in order to further enrich the environment I designed. Because a lot of the furniture is more realistic in form, but Gary is very cartoony and exaggerated, we relied on color and texture to help make Gary seem like he belonged in that room. The couch is a very non-traditional purple, and the wood grain on the furniture is big and cartoony as well. We hoped that these decisions would help unify the different elements of our animation.

We included humor wherever possible in the hopes that the audience would enjoy the short. We want viewers to walk away having enjoyed the experience and the animation, and we want them to feel satisfied with the work as whole. For this reason we wrote and rewrote the story as many times as were necessary for everything to be believable. We wanted character motivations and actions and consequences to make sense in the world we created. We did not want our story to be completely predictable however, so we added our own little twist to the ending, to give it more depth and a little more realism.
INSPIRATION AND CONTEXTUALIZATION

One of our major influences for this animation was Pixar studios. Pixar produces 3D animated shorts, which are usually shown before their feature length films. These shorts are often humorous, and meant to entertain. They feature characters that are exaggerated and cartoony, but still relatively realistic in design, and the colors are often bright and fun. We enjoy these animations and wanted ours to mimic the fun, humorous feel of the Pixar shorts in our Capstone animation. We spent a good amount of time watching the shorts, analyzing characters, story, lighting, and color, seeing what worked for them and if it would also work in our animation.

Pixar is not the only studio to produce such animations, and we are not the only ones to take inspiration from them. When we were trying to decide on a narrative we watched a multitude of animated shorts online, some by major studios, some by other artists, and even some by other students. We found ourselves particularly attracted to the ones that had some sort of unexpected twist at the end, and wanted to do the same with our animation.

One of the non-Pixar shorts we looked at for inspiration was Bunny, a 3D animated short from Blue Sky studios. We enjoyed the darker, nighttime lighting in this piece and kept it in mind when setting up the lights in Gary’s room. Bunny used fluorescent lighting in a manner that
was very effective in conveying mood and atmosphere, something I hoped
to do with our lighting setup.

We also looked at *Oktapodi* which is an animated short by
GOBELINS, that features three main characters, two octopi and a man. It
is similar to our narrative in that the two smaller protagonists team up in an
effort to outsmart the third, much larger human character. It also has a
twist ending where the octopi think they have succeeded but are then
thwarted by an unforeseen event, similar to how Gary’s sneakers are
denied complete victory at the end of our animation. In addition to
analyzing the story of *Oktapodi*, Meg also looked at the animation of the
tentacles, hoping to use a similar style of movement for the shoelaces.

*Snow Day* by Kim Hazel was another animated short that we kept
in mind while working on our animation. Narrative-wise this was similar in
feel to what we wanted. We liked the comedy of it, as well as the simple
environment and character. This animation was also made by a student
for a final project, and was a good comparison for us as far as technical
limitations were concerned.

3D animated shorts were not our only sources of inspiration. Gary
is largely inspired by Meg’s younger brother, and she used him as
reference throughout the animation. He was even willing to act out certain
movements so that she could try to mimic them with Gary’s body. We
knew that Gary would be a somewhat less-than-lovable character
because he is a sloppy, lazy, teenage bum, and we hoped that by
incorporating some of the “dopey younger brother” traits into his character we could make it easier for the audience to relate to him.

Gary also has certain characteristics in common with several Loony Toons characters. As far as character and narrative are concerned the Loony Tunes cartoons were very successful, and although they were 2D, hand-drawn animations we are still able to draw connections between them and our animation. Porky Pig was often at odds with inanimate objects and often found himself being pushed around by them, very much like how Gary is tricked by and at odds with his sneakers.

We hope that by using existing and recognizable archetypes, visual styles, narrative storylines, and other artistic conventions, we were able to make our animation and characters enjoyable for the audience. Because it is only a short, we relied on these preexisting archetypes so that we could convey ideas to the audience quickly. As stated above, Gary is recognizable as a character type within the genre. This helped us to make sure that the viewer was able to understand him as a full developed character, even though he or she is only exposed to him for a limited amount of screen time. We were careful though, not to completely follow any existing animations. We wanted the audience to be able to relate to Gary and his sneakers, but we still wanted to keep our animation fresh and entertaining.
TIMELINE, PROCESS, AND TROUBLE SPOTS

We began this project in the spring of 2009. At this point we had already determined that we wanted to do a collaborative work in the form of a 3D animated short. We knew that it would be approximately two to three minutes in length, and would be similar in feel to certain examples we had already seen, namely those produced by Pixar. Other than that, we were undecided. We worked together, brainstorming and throwing around ideas for the narrative. We tried to keep them light, but without the expected happy ending. We liked the idea of a main character losing in the end, or of the outcome going against what the audience would expect. It was our way of keeping the story refreshing and surprising, as well as sticking to a more gritty, realistic portrayal of life.

After discussing several ideas and dismissing most of them, we finally settled on a rough narrative outline and Gary and his sneakers were born. From there we began to split up the responsibilities. Meg had a very clear idea in her head of what she wanted the style of the animation to look like. She began drawing concept sketches and when she was finished, she handed them off to me. I then built the 3D models of the characters and set, and set up textures and colors as well. Meg prepared the models for animation, rigging and weight mapping them so they would deform and move correctly, and then began the long process of animating. I designed the lighting setups that would be used and also made the final
renders when Meg finished with any given scene. After the final render was assembled, we added sound and other finishing post-production elements.

We worked iteratively, creating two complete rough drafts and a multitude of test renders, both animations and stills, before producing the final animation. After each draft or render we made adjustments and changes as necessary based on our own thoughts, as well as feedback from our peers, instructors, and advisors. The ending of our animation saw the most change over the course of the past year than any other element of the entire process.

Endings are tricky because they are the summation of the entire work and they hold the power to make it stronger or fall flat, leaving the audience disappointed. If it is done right, the ending is what the viewer walks away remembering, and what enhances the work and delivers a bit of a punch at the same time. They also have to be believable within the confines of the narrative and established personalities of the characters, which is one of the areas in which we struggled. We wanted an ending to our animation that felt satisfying, did not necessarily give the viewer what he or she wanted or expected, but still felt appropriate and believable in our animation. We went through several rewrites thanks to helpful critique from some of our test audiences, and eventually found an ending we could work with within both the confines of the story and the constraints of time.
The entire process took just over a year and a half from conception to completion, and was not always a smooth ride. One of the biggest obstacles we encountered had to do with the technical side of our project. We found that the facilities provided to us were often not equipped with the right software, and when they were, we sometimes encountered problems with the software itself: unexpected crashes, missing or corrupted files, inability to render realistic fur or hair. We were also limited by time and the fact that there were only the two of us. Studios like Pixar have huge teams of people and top of the line equipment when producing their shorts; we did not. Therefore, we were forced to keep our narrative relatively simple in structure and design. We limited ourselves to three characters, which actually turned out to be rather ambitious given the time we had, and did our best to avoid expensive 3D elements that would increase our file sizes, render times, and hardware needs.

One element of the work that was particularly affected by our need to keep our processing requirements minimal was the lighting. Although I expected lighting Gary’s room to be a relatively easy process, it turned out to be one of the tough spots in our animation. We struggled between wanting to portray a dimly lit basement room, and having enough light to illuminate the scene well enough for the viewer to be able to tell what was happening. The first several light setups I designed proved to be too expensive, making our render times much too high to be feasible. Additionally, Lightwave’s limited light options caused issues making it
difficult for us to find a compromise that we were happy with. Ultimately we had to settle for something close to what we wanted, but not exact, due to our technical limitations.

Meg ran into a series of complications while animating as well. Lightwave is notorious in our department for unexpectedly crashing, but it also managed to lose a few versions and files along the way as well. We had trouble opening some scenes on different computers because they did not recognize the models we had used in them, or for other unknown reasons. This was problematic when it came time to render because we needed to use the lab computers, which have much higher processing capabilities than our own, but several scenes could not be opened on them without crashing Lightwave.

The last issues we encountered on this project came as a surprise at the very end. Because this is our Capstone we wanted it to be the highest possible quality. For this reason we rendered in HD. It seemed fine at first, but about halfway through we realized that our file sizes were too big for even the lab computers to handle. Thanks to some help from our professor, Andy Fedak, we were able to change our workflow slightly and, using the computers in the video labs, render out our final animation at a reasonable file size without losing the HD quality.
ACKNOWLEDGEMENTS

I could not have, and did not, complete this project on my own. There were many people who helped me along the way, and without them this project would not have been a success.

First and foremost, I could not have completed this project without the help of my partner and collaborator, Meghan Grube. Her technical abilities were invaluable to this project and I would not have been able to achieve such technical proficiency in all aspects of this work without her. Her work ethic and commitment to this project were extremely motivating, and the quality of her work was superb.

I would also like to thank our Capstone advisor, Heath Hanlin, for his unqualified desire to assist us in any way necessary on this project. His sharp eye and attention to detail were irreplaceable. He set aside time to meet with us bi-weekly, and the feedback he provided during these sessions was extremely helpful to the progression of our work. Additionally, the technical assistance and critique he provided were essential to the completion of this project.

Our honors reader, Gail Hoffman, was also a large contributor to our work. She viewed our animation as it progressed, giving feedback and critique at every level. Her encouragement and enthusiasm for the work were extremely motivating and helped us get through some of the more frustrating moments that have occurred while working on this project.
Additionally, I would like to thank the Computer Art faculty, Andy Fedak and Annina Ruest, for their support. Both instructors provided feedback on the project at varying levels of completion and worked with us to set goals and deadlines to help keep the project on track.

I would also like to acknowledge the support and critique provided by our peers. My roommate, classmates, and fellow members of ECARO (the Extra-Curricular Computer Art Organization at Syracuse University) were all exceedingly supportive during the long process it took to create this work. Whether they were providing feedback, or simply acting as a sounding board when the stress of the deadlines started to add up, they were invaluable to me while working on this project. A special thank you should be made to our fellow students, Justin Gurevitch and Ryan Johnson, who assisted us in the creation of sound to accompany the visual component.

Lastly, I would like to thank the Renée Crown University Honors Program for their support as well. The Capstone project provided me with an opportunity to really spend time creating an animation that I would not have been able to do otherwise. The honors department was extremely helpful throughout the process, and the funding they provided made it possible for me to purchase the necessary equipment for the completion of this project.
Sources Cited and Consulted


CONCEPT SKETCHES AND ART

Original Gary sketch by Meg.

Gary sketch by me used for color tests.
MODELS

Completed model of the right sneaker.

Completed model of Gary.
Completed model of Gary's room.
SUMMARY OF CAPSTONE PROJECT

This project is a collaboration I did with a fellow student, Meghan Grube. We worked together to create a 3D animated short, similar in look and feel to those made by Pixar Studios or other 3D film studios. The short is approximately two minutes in length and was made predominantly using Lightwave 3D, although other software packages such as Photoshop, Logic Pro, and Final Cut were also used. We followed the traditional animation pipeline, beginning with brainstorming, storyboarding, and concept sketching, followed by modeling, texturing, rigging, animating, and lighting, and finally rendering, sound, post production editing, and titles/credits.

We looked at a variety of other 3D animated shorts before and during the process of creating our piece. We analyzed elements that we liked and strove to incorporate them into our work. We wanted our animation to be able to stand alone, but still be recognizable within the genre of 3D animated shorts. It is for this reason we used existing narrative ideas, archetypes, and visual styles as inspiration and a jumping-off point when designing and creating this project.

Our animation explores the growing trend among youth of a sedentary lifestyle, where children often spend hours in front of a TV or computer screen, instead of playing outdoors and getting exercise. In this respect it is similar in some ways to the CDC’s Verb campaign, which
encourages children and young adults to engage in physical activity. Our animation differs, however, because although it acknowledges and uses the trend of inactivity in youth, it does not strive to actually inspire youth into action, but rather to comment on it in a somewhat cynical, although humorous, manner.

The main focus is not on Gary, the teen boy portrayed in our animation who spends his days glued to his TV and video games, but rather on his unused, bored sneakers. This switch in viewpoint adds interest and dimensionality to the animation, because the viewer gets to experience the narrative from a less traditional perspective. While Gary has been sitting in his dimly lit room, unaware of anything around him other than what is happening in his video game, his sneakers have been growing restless. Inspired by an ad for running shoes that they see in a discarded magazine, the sneakers decide that it is time to get Gary off the couch and moving around.

As a viewer, one hopes that the sneakers will be victorious, getting Gary moving and inspiring him to leave his dark room and become more active. Unfortunately, things do not always go according to plan and the sneakers are in for a surprise of their own at the end of the animation.

We strove to maintain a humorous feel throughout the animation, in order to engage and entertain the viewer, and also to keep the story from becoming too heavy. Because our animation addresses the increasing problem of inactivity in youth, we were careful to avoid anything that would
make it feel like a Public Service Announcement. We want the audience to walk away smiling, having enjoyed the experience of viewing, rather than feeling like they just left a lecture. We feel strongly that children should spend time playing outdoors with friends and siblings as opposed to sitting alone in the dark killing imaginary foes on the TV screen, but we also wanted the main function of our animated short to be entertainment. We hope that through narrative and visuals we have been able to capture the right balance between content and meaning, and viewing pleasure.

Working with Meg to complete this project has been wonderful and I could not have done it without her. We have opposite interests and abilities so we were able to split the work up very easily. She was responsible for story, rigging, and animating. This included drawing the storyboards that roughed out the shots and actions that would take place in the animation. Using Lightwave 3D software, she also created rigs and weight maps, which are similar to bones and muscles, and are used to move the model and make sure that it deforms and bends correctly. After the rigs were built, she was able to begin the tedious process of animating, bringing the characters to life on the screen.

I was in charge of modeling, texturing, lighting, and rendering. Therefore, I was responsible for building the models of the main characters and the set that would be used. I used 3D software to create Gary, his sneakers, the furniture, and anything else present in the animation. I also chose and applied all of the colors and textures used on
those objects. In addition to textures, I also set up the lights, a process that often goes hand-in-hand with texturing because the lights will affect how the textures looks in the final renders. When Meg finished animating a scene, I would set up the lights, make sure the correct models and textures were being used, and then render the scene as a series of still images.

The other steps of the process were collaborative, with the two of us working jointly to complete them. We compiled the hundreds of rendered image files into QuickTime movies to make them more manageable, and then compiled those into the final animation. We were also aided by two of our peers, Justin Gurevitch and Ryan Johnson, who helped us with the sound that accompanies the animation. The final product is our finished animation, *Gary’s Sneakers*, on DVD.