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Disconnect: An Animated Short Narrative Critiquing Our Society's Digital Dependence

Daniel Hale
Clemson University, dan@ameliaanddan.com

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DISCONNECT: AN ANIMATED SHORT NARRATIVE CRITIQUING OUR SOCIETY’S DIGITAL DEPENDENCE

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Fine Arts
Digital Production Arts

by
Daniel Hale
May 2019

Accepted by:
David Donar, Committee Chair
Dr. Victor Zordan
Dr. Eric Patterson
Insun Kwon
Disconnect is an animated short narrative critiquing our society’s increasing focus on communication through digital devices at the expense of traditional human interaction. Production on the film took place over a ten month period of time.
Disconnect stands as both an assessment and a plea. Smart phones have changed human interaction in profound ways over the last decade and increased our focus on our virtual lives at the expense of the face to face interactions that have dominated human communication since the dawn of time. Reading facial expressions, body gestures and vocal tone are crucial to understanding, but are often lost through electronic mediums. These self-induced silos keep us in informational echo chambers, the end result of which is a lack of empathy, understanding, and genuine happiness. We ignore the people right in front of us in favor of 140 character half-thoughts from those miles away.

I figured all this out one morning over breakfast when, after being passively ignored for 20 minutes, my daughter suggested that we should ban phones from the table. She felt hurt, and I felt ashamed. The ban went into effect immediately. Shortly thereafter I came across the following quote by Sir Ian McKellen and was moved to make a film in the hopes of inspiring others to disconnect from their virtual world in order to reconnect with the human world.
“I feel sorry for people who go out and they're...typing on their phones, walking along the street. You know while you've just sent that message, which didn't matter....the love of your life walked past, and you missed it. I have met people in the street, and lived with them for five years.”

Disconnect is an animated short narrative critiquing our society’s ever increasing connectedness through digital mediums and the growing disconnect we have with our fellow humans around us. The film features stylized 3D animated characters composited with realistic 2D photographic environments to further accentuate the feeling of an augmented reality.

The missed opportunity that McKellen described above forms the backbone of Disconnect’s plot, along with a dream sequence showing the relationship that might have been. The cinematic look of the film is inspired by Stanley Kubrick whose centrist and symmetrical compositions have always inspired my view of the world. The dark and cynical tone of the film is in homage to British animator Steve Cutts. Despite his often derisive view of mankind, I have always felt motivated by Cutts’ critique of the human psyche to strive to be a better human being and hope that Disconnect achieves in a similar way with viewers.

Additional sources of inspiration include musician Aaron Lee Tasjan, whose song “Little Movies” sets both the mood and pacing for the dream sequence portion of the film, and comedian, Aziz Ansari, author of the book entitled “Modern Romance” about dating in the digital world.
ACKNOWLEDGEMENTS

I would like to begin by thanking Professor David Donar for his guidance and insight in crafting a quality visual narrative, as well as Professor Insun Kwon and Dr. Eric Patterson for their direction on this project and in the productions of Phooled and The Boy Who Cried. My sincerest gratitude to Dr. Victor Zordan for his continued efforts to assist me in forging a new career path, and for his commitment to all of the students in the Charleston branch of Digital Production Arts. Special recognition is also in order for all of the DPA students I have had the honor to collaborate with throughout my time here. I stand in awe of their artistic talents and computing acumen. In particular, I would like to thank Kunta Lowe. Without his technical direction none of my productions would have been possible. Finally, I could never have made this journey without the encouragement and backing of all three sets of my parents and my entire extended family. But, more than anything, I want to thank my daughter Corinne and partner Amelia who have remained unwavering in their love and support, and are the best teammates and muses anyone could ever ask for.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE PAGE</td>
<td>i</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>ARTIST STATEMENT</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>1. BACKGROUND</td>
<td>1</td>
</tr>
<tr>
<td>2. INFLUENCES</td>
<td>3</td>
</tr>
<tr>
<td>3. METHODOLOGY</td>
<td>20</td>
</tr>
<tr>
<td>CONCLUSION</td>
<td>41</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>42</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Self portrait of Stanley Kubrick [18]</td>
<td>3</td>
</tr>
<tr>
<td>2.2</td>
<td>A Dog's Life in the Big City (Woman walking two dogs.) by Stanley Kubrick, and a render of <em>Disconnect</em> [15]</td>
<td>6</td>
</tr>
<tr>
<td>2.3</td>
<td>Photographs by Margaret Bourke-White [7], Sam Abell [8], and Elliot Erwitt [9]</td>
<td>7</td>
</tr>
<tr>
<td>2.4</td>
<td>Photographs by Stanley Kubrick for LOOK Magazine. [15]</td>
<td>8</td>
</tr>
<tr>
<td>2.5</td>
<td><em>Disconnect</em> early render</td>
<td>9</td>
</tr>
<tr>
<td>2.6</td>
<td>Scenes from <em>2001: A Space Odyssey</em> [1], <em>A Clockwork Orange</em> [4], and <em>Disconnect</em></td>
<td>10</td>
</tr>
<tr>
<td>2.7</td>
<td>Illustration by Steve Cutts. [11]</td>
<td>11</td>
</tr>
<tr>
<td>2.8</td>
<td>Illustrations by Steve Cutts. [11]</td>
<td>12</td>
</tr>
<tr>
<td>2.9</td>
<td>Scene from <em>Are You Lost In The World Like Me?</em> by Steve Cutts. [10]</td>
<td>13</td>
</tr>
<tr>
<td>2.10</td>
<td>Album cover for Aaron Lee Tasjan’s <em>Silver Tears</em>. [12]</td>
<td>15</td>
</tr>
<tr>
<td>2.11</td>
<td>Album cover for <em>Still Bill</em> by Bill Withers. [13]</td>
<td>17</td>
</tr>
<tr>
<td>2.12</td>
<td>Cover of Modern Romance by Aziz Ansari. [14]</td>
<td>18</td>
</tr>
<tr>
<td>3.1</td>
<td>Initial scene sketch for <em>Disconnect</em></td>
<td>21</td>
</tr>
<tr>
<td>3.2</td>
<td>Initial character design</td>
<td>23</td>
</tr>
<tr>
<td>3.3</td>
<td>Original storyboards for <em>Disconnect</em></td>
<td>27</td>
</tr>
<tr>
<td>3.4</td>
<td>Original storyboards for <em>Disconnect</em></td>
<td>28</td>
</tr>
</tbody>
</table>
List of Figures (Continued)

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td><em>Disconnect</em> 3D character assets</td>
<td>30</td>
</tr>
<tr>
<td>3.6</td>
<td>Reference image from <em>LaLa Land</em> [19] and Waterfront Park location</td>
<td>31</td>
</tr>
<tr>
<td>3.7</td>
<td>Final background plate for opening and closing shot</td>
<td>32</td>
</tr>
<tr>
<td>3.8</td>
<td>Background plates for the dream sequence</td>
<td>34</td>
</tr>
<tr>
<td>3.9</td>
<td>Main Lighting setup for <em>Disconnect</em></td>
<td>36</td>
</tr>
<tr>
<td>3.10</td>
<td>Horse and donkey walk cycles from “The Animator’s Survival Kit” [20]</td>
<td>38</td>
</tr>
</tbody>
</table>
CHAPTER 1

BACKGROUND

Telling stories just comes naturally to me. It’s something I find myself driven to do every minute of every day. Some of my stories are as honest and true as they can be like the ones I told as a newspaper photojournalist. Some stories, like the animated short Phooled, are a total fabrication taken from a corny dad joke I made up earlier in the day and roughly sketched out at 3 o’clock in the morning.

Being a visual learner, I have always felt drawn to not simply tell someone a story, but rather to show them. I began my journey as a filmmaker working with a 16mm Bolex camera and studying the art of the moving image at the University of North Carolina at Greensboro. There I told stories about street hustlers and evil kung fu bananas. Fun as it was, I decided that I wanted to delve into something more serious, so I enrolled at Randolph Community College to pursue a career in photojournalism.
From telling stories about C-130 crews during the Iraq War and an amazingly courageous young man named Justin playing his last football game, I honed my documentary storytelling skills at two of the top 50 circulation newspapers in the country. My partner Amelia and I decided to move back east to Charleston, SC. We started our wedding photography business in 2008, and for the last decade we have documented well over 300 unions together, and telling each couple's story of love and commitment fills us with joy.

My passion for photographic arts also motivated me to begin teaching others how to hone their visual acuity. Starting at the Charleston Center for Photography, I led photographic and multimedia workshops and even headed up the week-long teen summer camp. As an adjunct instructor at Trident Technical College I taught courses in Photoshop and digital photography, and have watched with pride as a number of my students have gone on to become amazing creative professionals that I now look to for inspiration.

It is that very same inspiration that led me to return to school in 2016 to pursue a Master of Fine Arts degree in Digital Production Arts through Clemson University’s program located here in Charleston. After working on a pair of 3D animated film projects, I was inspired to launch out on my first solo effort, which brings us to Disconnect.
CHAPTER 2

INFLUENCES

Figure 2.1: Self portrait of Stanley Kubrick [18]

I will never forget the first time I saw a Stanley Kubrick film. I was in 5th grade at First Ward Elementary School in Charlotte, North Carolina. It was field day, or at least it was supposed to be, but a freak thunderstorm popped up out of nowhere. With no lessons planned and all of the field day
equipment left outside, the teachers scrambled for something to occupy a
gym full of children when one of them remembered that they hadn't yet
returned their copy of *2001: A Space Odyssey* [1] to the video store yet. I
was only 10 at the time, but I can still remember hearing that famous score
and watching the rotating set shot of an astronaut running around the screen
horizontally. The theme of the film, that technology has the potential for
human destruction, may have affected me the most. This is evident from the
apes bludgeoning their adversaries at the beginning to HAL's refusal of Dave.
Kubrick draws a direct connection to the two visually when the shot of the
bone flying through the air dissolves into the image of the spaceship, making
it clear that both have the potential for lethality. Technology is again the
enemy in Stanley Kubrick's *Dr. Strangelove* [2]. The film centers around a
plot by a rogue U.S. General to initiate a nuclear war with the Soviet Union.
Clearly, the nuclear bomb is the most deadly piece of technology ever
devised by humans, but the Russians in the film have also crafted a
"Doomsday Machine". This device will detonate explosives filled with gas,
forming a toxic shroud and rendering the Earth uninhabitable for 93 years.
The device cannot be dismantled or disengaged, driving home man's suicidal
tendencies when it comes to technological advances. I chose to pursue a
less destructive outcome in *Disconnect*, however, the point is clear that
human advances are often double-sided.
Another theme that is prevalent in a number of Kubrick's films is that of the negative impact that isolation can have on the human psyche. In The Shining [3], Jack Nicholson's character Jack and his family are acting as winter caretakers at a mountain resort. Despite having access to television, radio, and telephones, the lack of actual face-to-face interaction with other people contributes in large part to Jack going insane and attempting to murder his family. Although there isn’t a murderous rampage at the end of Disconnect, I do believe that digital interaction cannot replace what we gain from in person conversation, and that this growing trend will lead to an increase in levels of depression among those who limit themselves to only digital connections.

When doing an interview promoting the Museum of the City of New York’s exhibition opening that featured still images made by Kubrick, Alec Baldwin said he "is so, you know, incontrovertibly influenced in the way he shot films as a still photographer. Images that he held for these excruciating lengths of time to have you take it in like you were sitting on a bench at the Met looking at some beautiful painting, you know?" [5]

Before he became a renowned director of films, Stanley Kubrick was an accomplished still photographer. At age 17, Kubrick began his career photographing assignments in New York for LOOK magazine [6]. As he started to shape his vision, and the way he composed the world in front of him, a number of themes began to emerge. First, Kubrick liked to utilize strong diagonal lines in his imagery, guiding the viewer's eye through the
photograph to specific points in the frame. The image below shows Kubrick's use of this technique, and just so happens to be a story he photographed about dog owners in New York City. Beyond the thematic parallels, I chose to utilize a similar compositional approach when framing the second and third shots of the first sequence of Disconnect. The low perspective of both shots accentuates the strong diagonal while at the same time giving the dogs greater emphasis and power. By dropping to their level in Disconnect, the strong attraction on the dogs' faces is seen first, and juxtaposed against the clouded recognition on the human's faces.

![Figure 2.2: (l to r) A Dog's Life in the Big City (Woman walking two dogs.)](image)

[15] by Stanley Kubrick, and a render of Disconnect

Another aspect of Kubrick's work that shows off his mastery of composition is his use of layering. He is always aware of what is happening in the foreground, midground, and background of each scene. Composing
with multiple layers is the hallmark of elite photojournalists such as (below) Margaret Bourke-White, Sam Abell, and Elliot Erwitt, and shows a true mastery of the art form. By utilizing this technique, Kubrick and others remind the viewer that every situation has depth and nuance, rarely should any scene be taken just at surface level.

Figure 2.3: (l to r) Photographs by Margaret Bourke-White [7], Sam Abell [8], and Elliot Erwitt [9]
Although a number of the backgrounds in my film tend to be flatter and more two dimensional, there are a couple that offer the opportunity to build in layers, such as the still image from the park in the dream sequence. There I chose to compose the dogs in the foreground to break up the monotony of the couple's scaling. It also added a little playfulness to the sequence, and reminds the audience that the dogs really do possess a clarity beyond the humans in the film (much like the monkey in the image above). The intimacy of Erwitt’s image of the dalmations (Figure 2.3) encouraged me to fill the frame and position the camera close to the canine’s faces.
Symmetry is also crucial to most of Kubrick’s classic compositions. All of the images below (Figure 2.6), the top two from *2001: A Space Odyssey* and the bottom left from *A Clockwork Orange*, have a number of aspects in common. All the images are composed utilizing a wide angle lens, and framed using a low horizon line and a strong vertical break in the center that bisects the frame. Being balanced and predictable, a symmetrical composition can make the viewer feel more comfortable. This is an effect that Kubrick uses to his advantage, often turning to this layout to depict an unsettling scene with even greater impact. I chose this composition for the opening and closing sequence in *Disconnect* (below right) to emphasize the
characters being lulled back into their digital existence after such a near miss with a truly life changing experience.

Figure 2.6: Scenes from (top row) *2001: A Space Odyssey* [1], (bottom left) *A Clockwork Orange* [4], (bottom right) and *Disconnect*

**Odyssey** [1], (bottom left) *A Clockwork Orange* [4], (bottom right) and *Disconnect*

Thematically, *Disconnect* aligns most with the animated work of Steve Cutts. Widely known for his seemingly bleak view of humanity, Cutts' animated shorts have earned him international recognition and appeared on Cartoon Network's Adult Swim [11]. He has also created illustrations for organizations like UNESCO, The Gaia Foundation, Isobar, LFM, and Analogfolk. His reflections on our society's rampant consumerism are blunt,
yet crafted in a palette of bright, saturated pastels that bely their brutality. This color choice at first seems counter-intuitive, as often we associate dark and desaturated colors with something negative, but Cutts flips the script and opts to use the corporate advertising world’s tricks against them to draw in the viewer.

![Figure 2.7: Illustration by Steve Cutts. [11]](image)

Another of Cutts' favorite targets is our collective dependence on smartphones. This is a topic he attacks numerous times in his illustrative work, often depicting us as slaves to technology.
Cutts’ collaboration with musical artist Moby for the song "Are You Lost in the World Like Me?" [10] was inspired by the style of Max Fleischer's "Betty Boop" and Dick Huemer's "Scrappy" characters from the Golden Age of animation. The main character is young boy surrounded by a screen addicted populous. Everywhere he turns he is ignored by people in favor of their digital device. It's clear he sees the devastating effect that ignoring the reality in front of you can have, but he is alone in his understanding and left feeling isolated despite being surrounded by people.
That feeling of isolation is the same sentiment that I wanted to bring out in *Disconnect*, albeit in a more subtle way. Two individuals trying to make their way through life in the city with their four-legged friends but lonely and in search of a community connection. Even with the possibility right in front of them they are unable to overcome the pull of the screen.

Aaron Lee Tasjan has served as not only an artistic influence on this film, but as an unknowing participant as well. I've been enamoured with Tasjan's music (and wardrobe) for years, after seeing him play a solo acoustic set in early 2016 at Charleston Music Hall as part of Todd Snider's
traveling singer/songwriter extravaganza. He blew me away with his poignant lyrics and scorching guitar. When his full-length EP *Silver Tears* was released later that year, I couldn't wait for it to arrive in the mail. It surpassed my high expectations, and so made its way into my top 10 albums of all-time list. He is observant of the world around him on both a macro and micro level, and he never judges anyone more than he judges himself. I attempt to follow his lead, and over the course of this film I have personally made concerted efforts to forsake the digital universe and be ever present in the real world, to try to bring my best self to the table on a daily basis. Like Aaron says in his song "Success", "success ain't about being better than everyone else, it's about being better than yourself." [16]

The second song on the *Silver Tears* record, "Little Movies," has a piano and percussion lead that just reaches through the speakers and grabs you, and I was certain upon first listen that it had the power to drive a film. I had no expectations when I reached out to John Allen, the president of New West Records in Nashville, TN to ask about procuring the rights for use in *Disconnect* however, and was fairly sure that even if he was willing to quote me a price it would far exceed my modest budget. After three attempts, I was finally able to get him on the phone and to my surprise, seemed open to working with me. After sending over a working version of the animatic, he replied "This is great!" and offered me two years of festival rights for free. And so that is how I came to work "with" a musical genius like Aaron Lee Tasjan.
Beyond the literal connection between the song title, “Little Movies,” and this being a short film, the lyrics of the chorus are:

"But you don't know I have seen the ending
Still I cannot look away
Don't you know all of this pretending
Is just a little movie that we play
Sunday sun please take me down
I want to hear that lonesome sound" [12]
I interpret "lonesome sound" as the sound effect that plays when one receives a text message. "Still I cannot look away" also carries meaning when considering the almost addictive properties that these devices seem to possess.

The song "Till the Town Goes Dark" on the same album features the following lyrics that put the digital revolution in a more modest perspective:

"One day, they said the future,
Was flying cars and a ride on a rocket.
Time passed, and all I got,
Was America today and a TV in my pocket." [17]

Despite the very recent uptick in quality programming, television has been widely panned since its inception as a place devoid of intellect requiring little to nothing of its audience. I think it's safe to say that this is the “TV” Aaron Lee is referring to and that he is, no doubt, unimpressed. The song also points to this overriding notion that collectively we believe technology can and will solve all of our problems for us, where as in reality, technology is simply a vehicle. We are the metaphorical drivers, and more often than not we just assume the car knows where it's going without being steered.
When thinking about songs pertaining to loneliness, Bill Withers may have said it best in "Lonely Town, Lonely Street" on his album *Still Bill* [13]:

"You can live your life in a crowded city
You can walk along a crowded street
But the city really ain't no bigger
that the friendly people that you meet."
I think that this sentiment goes straight to the meaning behind my film, that you must engage with your fellow citizens in order to have a successful society. And like Bill says, you’ll meet plenty of friendly people.

For his book detailing the trials and tribulations of modern romance in the age of the smartphone (appropriately titled "Modern Romance"), comedian Aziz Ansari teamed up with New York University sociologist Eric Klinenberg to embark on a large scale research project which included hundreds of interviews and focus groups from around the globe. It is a fantastic read, and delves deep into not only the pitfalls, but the benefits of technology when it comes to dating, and it is hilarious to boot.

Figure 2.12: Cover of Modern Romance by Aziz Ansari. [14]
A benefit of looking for love in this day and age are the almost unlimited number of ways to look for a partner that don't bind you to your location or even your network of friends and family. Unfortunately, this comes with its problems as well and the focus groups showed that people had a tendency to do a lot of looking, but struggled to commit to a potential suitor because there may be someone better they just hadn't come across yet. Similar to Netflix, you spend all this time looking at your options and by the time you finally select something it's too late and you need to go to bed. Well, that's how I feel anyway, and that's just a two hour commitment. Imagine the added weight of knowing it could be for life! Regardless, the energy spent on that potentially fruitless search could have been invested in talking to your neighbor, your co-worker, or the person behind you in line at the supermarket (assuming they aren't on their phone).

Ultimately, Ansari concludes that "no matter how many options we seem to have on our screens, we should be careful not to lose track of the human beings behind them. We're better off spending quality time getting to know actual people than spending hours with our devices, seeing who else is out there." [14]
As previously stated, the original concept for *Disconnect* came from a combination of self realization and desire for betterment, and profound statements from a respected artist. In fairness, I think I should note that I found the quote while flipping through Instagram on my phone. Once I had the thought I wanted to convey, I set about crafting a narrative that would allow me to impart the message. I started thinking about those “young people” that McKellen spoke of, and wondering how I could reach them in a way that would spark an interest. An animated short seemed to fit the bill, and the targeted attention span.
My first round of sketches were generated at four o’clock in the morning when I couldn’t get the story out of my mind and go back to sleep. These basic gesture drawings served to flush out some early composition and environment layouts. Two humans, phones in hand, and two dogs walking down a city street. As they pass by each other, we flash forward to see the potential for connection. Ultimately, they are drawn back into their phones and their digital lives, and the dream is never fulfilled. Hollywood endings be damned.

I was wrapping up as my muse and life partner Amelia came down the stairs. Despite the early morning hour and my overexhuberance, she agreed to take a look at what I had assembled. “I like it, but the dogs don’t really do much.” she said. I chalked this up to a lack of coffee and confidently
explained that they were there as motivation for the characters to be walking down the street. Then she suggested “They don’t have phones, so they should interact and be disappointed when they are led off.” Genius! So many folks in their early twenties get a dog, and it serves a bridge to learning how to live with and care for another person. They provide us with companionship and no one questions a dog’s loyalty. If they are the ones in the story that are really driving home the message, people will be far more likely to take notice.

With that in mind, I began to flush out some art direction and character design. I was initially a little daunted by both the length of the film and the size and scope of the environments I had dreamed up. I was pretty determined to make this a solo project, but the sheer amount of modelling appeared unattainable. I also knew that I wanted to use animated 3D characters, and I really wanted them to have a stylized look. Then it occurred to me that rather than modelling the environment, I would just composit the stylized characters into photographs or video plates of realistic environment. This not only solved my asset creation problem, but actually served as a narrative device to accentuate the idea that these are digital people living in an analog world. Back to the drawing board I went to create a look for the characters and develop their backstory.
Story Breakdown for *Disconnect*:

Pitch: Mia and Sean are both young adults living in the city. Both try to stay connected with friends and family through their smartphones, but despite being able to reach anyone they know at any time through their device, they still feel lonely most of the time. While out walking their respective dogs one night, fate brings them together.

Starting location: City Park under a streetlamp
Character Name : Mia - Age : 27 -Background : Mia is a strong young woman who seems to keep herself together better than most. She is confident, but not brash, organized, but not OCD. She moved to the city for work, and despite having success at her job she feels like she should be happier than she is. Her best friend is her dog, Queenie.

Character Name : Sean - Age : 29 -Background : Sean is a laid back guy who believe honestly that life is a journey, not a destination. What he lacks in work ethic, he tries to make up for with his sense of humor. He moved to the city on a whim in search of adventure, but hasn’t truly found what he was looking for yet. His best friend is his dog, Mr. Scratch-n-sniff.

Character Name : Queenie - Age : 5 (35 in dog years) -Background : Queenie is a regal dog, who walks with her head held high and chest out. She is protective of her owner, Mia, but not unfriendly.

Character Name : Mr. Scratch-n-sniff - Age : 9 (64 in dog years) -Background : Mr. Scratch-n-sniff (aka Mr. S, aka Sir Stanks-a-lot, aka The Pee Machine, aka Ace Boogie, aka Dammit Dog) is truly carefree. He does his own thing on his own schedule. Unless someone has cheese, then he does whatever they ask. His favorite activity is to lick his rectum then your face. He loves his owner Sean, but he loves him more when he sets his pizza on the coffee table and then leaves the room for any amount of time.
Storyline:

Open on streetlamp at dusk/blue hour. Mia and Queenie enter from frame right. Queenie is walking tall and proud, Mia is hunched over staring at her phone. Sean and Mr. S enter frame left. Mr. S is sniffing back and forth along the sidewalk, Sean is hunched over looking at his phone. The dogs both notice each other, and their faces show growing excitement about the looming interaction. As they get closer, but humans start to look up towards each other. Just as their eyes meet...

FLASH

Cut to: still image of the couple on their first date at the dog park.
Cut to: still image of Sean proposing at a romantic candlelight dinner.
Cut to: still image of wedding day, couple kissing.
Cut to: still image of couple aged and at beach at sunset.

*sound of two text messages arriving*

FLASH

Cut back to original scene in park

Mia and Sean hold their gaze on each other briefly, then return to their phones. as the camera pulls back, they slowly pass each other and walk away. Queenie and Mr.S are gently pulled apart. They turn to look at their owners, then back at each other, realizing the opportunity lost. All Eventually, both return to their owner's sides as characters exit opposite sides of the frame.
The fall of 2018 semester fit nicely into my thesis pre-production schedule as it featured a concept art class with Cyril Jedor. Cyril’s guidance with my second round of storyboards was a great help, and drawing again daily gave me more confidence. With the second boards complete, I generated a rough animatic and it felt like *Disconnect* was rounding into a real film.
Figure 3.3: Original storyboards from *Disconnect*
Figure 3.4: Original storyboards for Disconnect
David’s suggestion to limit the dream sequence to just the courtship was an excellent one. In hindsight, I think that the original concept may have come across to the target audience as “look up, you could grow old and die with that person!” Probably not the most effective message. Instead, by limiting the dream sequence to just the courtship, I think it becomes much easier for millennials to relate to. They don’t want to grow old, they want to experience the joy of love. We’ll just let them find out later how that fiery passion subsides after a while, but it is replaced by companionship which is longer lasting and far more stable.

Now I needed tangible assets. I began to grow concerned that generating four characters for the film may not be an achievable goal. With help from Insun, I found and purchased three models by the same artist through TurboSquid and was very pleased with the results. They had a look that matched each other, and my concept art. In addition, they were rigged with HumanIK and had facial controls. That just left one dog, Queenie. I was pretty set on finding a Doberman model for Queenie because I wanted to pay homage to my old dog Annie. She was my companion from 2000 - 2007, and there is no doubt that she was the queen. There was a perfect match on TurboSquid, but it was a 3DS Max file and I was uncertain that the rig would transfer over to Maya. Eventually I pulled the trigger. After a series of conversion efforts, was able to transfer over the geometry and skeleton. I used this to create an FK option as well as an IK version I rigged myself in the making of the film. The leashes needed to be modeled and connected to
both the dog and human, for this I used a simple IK handle and parented one end to the dog collar and the other to the human hand.

Figure 3.5: *Disconnect* 3D character assets

Then it was on to scouting, as I searched for the locations that would form the environment backdrop of this story. I originally considered sourcing
images online to composite together to create a generic city environment, but I elected to utilize my skills as a photographer instead and make all of the images myself. The added benefit was that it gives *Disconnect* a truly Charleston look and feel, and I’m pleased that it reflects the place that I call home. My quest took me to a number of the locations I know well from the countless shoots I’ve done over the last decade as a wedding photographer, but I ended up settling on a spot at waterfront park where the lamp post matched the one in the animatic perfectly. It also looks a lot like a scene from *La La Land* I used as reference art, but no narrative connection is intended.

![Reference image from LaLa Land](image1)

Knowing that the lights were on photocells, I went back before dawn to photograph them illuminated. The early morning hour coupled with the below freezing temperatures helped to ensure there was little to no

Figure 3.6: Reference image from *LaLa Land* [19] and Waterfront Park location
pedestrian traffic to interfere. While the lights look great, I wasn’t as pleased with the sky. It was cloudless and warmer in tone than I would have liked, so a few days later with storms on the horizon, I retraced my steps and made a second set of photographs. These shots each bracketed seven stops and merged into a single HDR image with the illuminated lights from the first session composited in later. The final results have texture in the sky, and a slightly desaturated and cool look creating a modestly melancholy feel.

Figure 3.7: Final background plate for opening and closing shot

Once I had the opening and closing location environment, I went in search of backdrops for the various locations in the dream sequence. Conceptually, I wanted to have a gradual warming of the overall palette as
the sequence progresses to depict the “warming” of the characters’ relationship. A simple wall and cafe table with cool shadow temperatures on Center Street in Folly Beach fit for the first frame. A shot made from standing on the pier down to the sand below being raked by warm sunlight allowed for the overhead view needed for the fifth shot in the sequence. The second shot was made in the Zucker building theater, and the cool projector light and purple walls fit thematically. The blue-green wall in the third shot continued the transition, as did the greens found in the park shot made in White Point Gardens. The image from the fair brings in more warmth in yellows, oranges, and reds, and the sunset image is extremely warm with hues in just the red and orange range.
Figure 3.8: Background plates for the dream sequence
I chose the wedding shot to break from the trend and went with a white theme in order to alert the viewer to the next level achieved in the relationship. Making all of the background images myself, as opposed to sourcing them online, allowed me to shoot light probes when needed and also maintain EXIF information from each image to make lighting and compositing easier when the time came.

With all of the backgrounds completed, it was time to start setting up each shot. I used the EXIF data from my camera to create a matching render camera for each shot in Maya 2018. Then the characters for each were imported and roughly positioned. I duplicated the render camera to create a projection camera, and added a ground plane and background plane onto which I projected the background image for each shot. While looking through the render camera, I went about fine tuning the position and pose for each shot.
The lighting for each of the background plates varied greatly from shot to shot, and matching each one proved to be one of the biggest challenges on this project. The lighting for sequences one and three is roughly the same from shot to shot. Mia and Queenie, required a second duplicate set of lights set at half power in each of these in order to bring their values up to match the male characters, Sean and Mr. S. The first shot in the dream sequence at the café offered up a challenge as the sunlight was initially raking in low from the right side. Because of the speed of the transition between the shots, I really wanted to keep the characters in roughly the same position in the frame for continuity, but this would mean that Mia would just have a rim light and Sean’s face would be lit. As mentioned before, because of the difference in value of their skin tones it would be ideal to have more light on Mia, so I
chose to flip the background horizontally and light her instead. An area light was used for the sun, a skydome provided the fill, and I chose to select a specific hue rather than color temperature to drive the color of the light since the background images were all so saturated. This shot also required me to build some proxy geometry for the chairs and the table in order to catch the shadows as well. The movie theater lighting was relatively straightforward, bright, hard light from behind creating a rim for the subjects and a larger, softer light from in front and above. This scene also required proxy geometry for the purpose of catching shadows. I followed this same method throughout the rest of the shots to achieve a look that would realistically place my characters into the space, while also allowing for some creative flexibility.

Now it was on to animating, which turned out to be far more challenging than I had anticipated using the HumanIK rigs. When crafting my initial storyboards, I purposely drew the characters with a defined curve in their back and neck to really accentuate them being drawn into their electronic devices. While this created a quickly readable silhouette for posing, it proved to be too much when combined with an animated walk cycle. Richard Williams’ book “The Animator’s Survival Kit” [20] proved to be an invaluable resource. Rather than animating the dogs as more realistic canines, I opted to make their gate more stylized. I modeled Queenie’s walk after a horse because Doberman have a tendency to walk head high and chest out in a way that mirrors a proud show horse. I matched Mr. S to the
fat donkey on page 332 because his body type with the round belly and stubby legs matched it well in both shape and style.

Figure 3.10: Horse and donkey walk cycles from “The Animator’s Survival Kit” [20]

Once a basic walk had been established for each character, I turned to positioning and pacing. One of the biggest challenges of this film was generating the animation for the slow motion sequences. Errors become far more obvious and the audience has time to scrutinize each minor imperfection. I made the mistake of trying to manually scale all of the keyframes at once in Maya, but soon realized that wasn’t going to be
feasible. I set about crafting new, slower walk cycles with more precision, and was pleased with the final outcome. My technical director, Kunta Lowe then showed me the time warp feature in the graph editor which I used to speed up the more precise walks for use in all of the other shots that took place at normal speed.

The final stage of character animation was to generate facial emotion. This was relatively straightforward with Mia, Sean, and Mr. S, but because I had not built a facial rig for Queenie I had to model blend shapes to control her mouth and brow. I also added individual joints to control the rotation of her eyeballs. The emotion for the humans peaks in shot one of the third sequence, while for the dogs it’s shots two and three as they’re being led away.

The dream sequence that takes place in the middle of the film is comprised of eight individual still frames. Snapshots in future time was how I perceived them. I wanted to display them to the audience in a way that would involve movement through the frame and convey the passage of time, but in a way that wasn’t overly distracting. The final solution was to model some simple rectangles with the images as a texture and apply Maya’s nCloth along with gravity and a slight turbulence field. The result creates the look of falling photographic prints.

I chose Arnold as my renderer because most of the material shaders that came with the models were for Vray and the conversion to Arnold was more straightforward than the one to Renderman. The camera sampling was
set to 5, and I utilized separate render layers for the beauty and shadow passes. Unfortunately the material override function didn’t work on the Arnold hair shader, so I ended up have to manually switch over to the character’s polygon proxy hair and manually render the shadow pass separately for the shots that needed cast shadows on the ground plane. Not the end of the world, but a little time consuming.

I also rendered a motion vector AOV included in the beauty pass to add in later during compositing. Using Nuke I combined the background plates, the shadow files, and the beauty pass and added in a motion blur node. The resulting .exr files were then brought into Adobe Premiere where the final editing took place. The crucial part of this process was timing the dream sequence to “Little Movies.” Each cut happens after 39 frames, and I took this same pacing into the next sequence when transitioning between the medium shot of Sean and Mia and their individual closeups. The line “I want to hear that lonesome sound” [12] from the song seemed to fit the overall mood of the film perfectly, so I wanted to bring it back in as the credits begin and pair it with the text message sound to drive home my message to the audience.
CONCLUSION

I view the final film version of Disconnect as an overwhelming personal success. It was my ultimate goal to produce a festival quality animated film through my own individual efforts, and I feel that has been accomplished. But beyond simply crafting an aesthetically compelling and complete final product, I feel as though Disconnect effectively communicates to the audience the missed opportunities they may suffer when failing to engage with those around them face-to-face. By utilizing my skills as a photographer and my understanding of lighting, I was able to circumvent creating 3D environmental assets for this film. This was crucial in allowing me to effectively expedite the production process and complete what would traditionally have required additional time or labor. It also created a unique visual style to the film and drove the underlying theme of digital connection in the real world. Although I believe the current iteration of the film has the ability to stand on its own merits, further refinement of the animation would help to cement the audience’s connection to the characters and ultimately improve the overall quality of the film. This will be my goal over the coming weeks as I prepare Disconnect for festival submission.
REFERENCES


