Breaking the Fourth Wall:

A Study of Gender Fluidity Using Immersive Storytelling as a Medium for Evoking Empathy

Thesis

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By

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Abstract

This paper explores the use of a large scale 3-panel round projection space to immerse viewers into the story, *Breaking the Fourth Wall*, and investigates if this technique can help an audience feel empathy for a character that falls outside of a gender binary category. Virtual reality has the capabilities to immerse a viewer into a space fully but loses its comradery of cinema when participants are secluded in a VR headset. The background research of this text explores the roots of feeling empathy, types of immersive storytelling, gender representation in animation and design as well as the significance labeling and language has on our identities and perception of relatability. I discuss character design in animations such as *Ryan* by Chris Landreth, 2005, Pixar’s *Day and Night*, 2010, and Disney’s *Frozen*, 2013. Additionally, this paper provides an overview of viewer responses to the immersive experience, and the authors own observations to determine design choices for the story content.
Dedication

To my Pop, who asked me to redesign pretty much everything.
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Table of Contents

Abstract .............................................................................................................. ii
Dedication ........................................................................................................ iii
Acknowledgments ............................................................................................... iv
Vita ....................................................................................................................... v
List of Figures ..................................................................................................... viii
Chapter 1. Introduction ....................................................................................... 1
  Design Problems to be Solved ...................................................................... 6
  What Each Chapter Contains ...................................................................... 8
Chapter 2. Background ..................................................................................... 10
  What is Empathy? ......................................................................................... 10
  Why Immersive Storytelling (and What Is It?) ......................................... 19
  Labeling and Language  Belonging labels isolation ................................ 22
  Gender in Design ......................................................................................... 24
  Gender Representation in Animation ......................................................... 25
  What is Gender Fluidity? ........................................................................... 28
Chapter 3. Concept Development ................................................................... 32
  Summary of the Concept and Design Choices Made Before Production .... 32
  Works Related to the Concept .................................................................... 35
  Project Concept in Relation to Existing Works by Other Authors .......... 40
Chapter 4. Process ............................................................................................ 42
  Changes from Preliminary Concepts to Final Design Choices .............. 42
  Specific Activities and Design Choices ....................................................... 47
  Elements of Production .............................................................................. 52
  Compare/Contrast of Process with Other Works .................................... 56
  Assistants and Collaborators ..................................................................... 59
Choices Based on Time and Labor ................................................................. 60
Chapter 5. Synopses ..................................................................................... 62
  5.1 - Short Synopsis .................................................................................... 62
  5.2 - Long Synopsis .................................................................................... 63
Chapter 6. Evaluation ................................................................................... 67
Bibliography .................................................................................................. 72
List of Figures

Figure 1 Top: Dimensions of “in the round” space at the MoLa. Bottom: Panels 1, 2, and 3 dimensions. ................................................................. 3

Figure 2 Cleaver, Dreama. “Dreama, Me, Joel.” (2012, 2015, 2013 JPG)....................... 7

Figure 3 “No matter how dismal the circumstances of his life were, no matter how hungry or cold he was, he never gave up, he never lost his self-respect” (Hooks, 43)............... 12

Figure 4 After talking his way out of a physical confrontation (Top), Joel is willing to shake hands with his attacker (Bottom) (Cleaver, Dreama. “Joel Voyeur, Esq. Part 19, 2010). .............................................................................................................. 14

Figure 5 Tony sits at his piano, smiling as he reminisces about his younger days (Tony, 1985). .................................................................................................................. 16

Figure 6 From Ryan, Chris stands at the mirror and explains the markings on his face and head (Landreth, 2005)...................................................................................................................... 18

Figure 7 Spikes protrude from Ryan’s head as an expression of anger (Landreth, 2005). 18

Figure 8 A bus driver instructs the seated person to leave the bus (The Rosa Parks Experience). .................................................................................................................. 20

Figure 9 The participant wears a VR headset to view the perspective of Rosa Parks’ historic demonstration (The Rosa Parks Experience)........................................................................ 20


Figure 11 Upper left to lower right: Jonathon Groff as Kristoff, Santino Fontana as Hans, Kristen Bell as Anna, and Idina Menzel as Elsa. The male actors look similar to the Frozen characters where the female actors are missing identifying features (Photo Credit: viii

Figure 12 Day and Night characters are the same shape with no distinguishing gender characteristics (Day and Night, 2010).

Figure 13 The Life and Times of the Shmoo (Capp, 1949).

Figure 14 Example of Facebook’s 58 gender options (Zuckerberg, 2018).

Figure 15 Frames top, middle, bottom. The milk accumulates but there is no explanation of why. (Cleaver, Dreama, director. (MILK? on Vimeo, Vimeo, 29 Feb. 2016, (https://vimeo.com/157198064).


Figure 17 “Dress You Up” offers men’s or women’s clothing options for users (Cleaver, Dreama. “Dress You Up Game Prototype.” Vimeo, 23 Apr. 2016, vimeo.com/163943502).

Figure 18 Mind map for Breaking the Fourth Wall

Figure 19 Driving narration test for Breaking the Fourth Wall

Figure 20 Even at max capacity the window restricts what the viewer sees through the car window in Pearl (Osborne, Patrick. “Pearl (2016).” IMDb, IMDb.com, 17 Apr. 2016, www.imdb.com/title/tt5599918/).

Figure 21 Viewers are immersed in blue “water” (Image courtesy of Maria Palazzi, ACCAD, 2016).

Figure 22 A character is represented by loose strokes in Ryan (Landreth, 2005).

Figure 23 Pride 2000 video still: 3 angles layered on top of each other to create Joel’s perspective on a float.

Figure 24 On left, human characters versus animated characters on right.

Figure 25 Joel’s gait has always been casual and relaxed, even as an animation (Cleaver, Dreama. “Joel Alone w Sound.” Vimeo, 21 Nov. 2017, vimeo.com/204050697).

Figure 26 Above Hallway scene: storyboards from Breaking the Fourth Wall.
Figure 27 Above Hallway scene: panorama from Breaking the Fourth Wall. ........................ 53

Figure 28 Three layers of video are resized and repositioned to edit in a panoramic view (Adobe, 2018). ........................................................................................................................................ 55

Figure 29 Two slides demonstrating transitions Cleaver, Dreama. “I Wear Hats.” Vimeo, 11 Feb. 2017, vimeo.com/202797219........................................................................................................................................ 57

Figure 30 Cleaver, Dreama, et al. “Prototype of a VR Experience of Dementia.” Vimeo, ACCAD, 28 June 2017, vimeo.com/223504690. ........................................................................................................ 59
Chapter 1. Introduction

It was John Howard Griffin’s book, *Black Like Me*, that turned my interest toward how an immersive experience can help us develop empathy for others. In 1959, he posed as a person of African descent in the deep south of the United States. This social experiment reveals how whites discriminated against black Americans but also gains insight into what it might feel like, emotionally, as a member of a minority group. Griffin says this story is, “the story of the persecuted, the defrauded, the feared and detested…I could have been a Jew in Germany, Mexican in some states, or a member of any ‘inferior’ group. Only the details would have differed. The story would be the same” (Griffin, 5).

When reviewing my work, I recognize how much Griffin’s study impacts the way I think about design. From making, to writing, to my favorite creation, *Joel Voyeur ©*, who is an outlet of expression for myself and defiance of assigned gender roles; I always keep the technique of immersive experience in the back of my mind when developing an idea. This leads me to look at a broader picture of empathy and how I can use immersive techniques to help an audience establish an understanding of others. This paper explores techniques of immersive storytelling that engage the audience as well as utilizes these techniques within the story to bring the viewer emotionally closer to a character in a way that traditional cinema does not offer.
The project begins by examining the research by Theodore M. Newcomb who studied “group influence on individual attitudes across time,” and the “Proximity Principle” which “demonstrates how people interact and live close to each other would be more likely to develop a relationship” (Newcomb, Personality and Social Change).

Newcomb’s study begins in 1935 with the all-female Bennington College freshmen who mostly came from families with conservative political attitudes. He measures their attitudes “toward nine social and economic issues” and then reassesses their attitudes each year until 1939, then 25 years later and then 50 years later. The study concludes that a combination of factors influenced whether or not the students’ attitudes changed, including that the students perceived the college’s social climate as liberal. The group whose positions changed from conservative to liberal, and remained for 50 years, were also seeking independence from their families and had developed close relationships within the college. For those whose views did not shift, there was a strong desire to maintain familial ties, and they were more socially isolated and insecure (Newcomb, Persistence and Change).

The design of the animation Breaking the Fourth Wall considers Newcomb’s Proximity Principle by utilizing the round projection space (“in the round” at the Advanced Computing Center for the Arts and Design’s Motion Capture Lab (MoLa) at The Ohio State University) to immerse the viewer into the telling of the story (e.g., see fig. 1). Each video projection contains a part of the animation, and together they sync with each other to guide the viewer from panel to panel. Placing them alongside the characters, creates an experience where the viewer has a choice to move with the action.
or be stationary. This technique proposes that viewers may feel closer, or empathize, with the characters because proximity creates a more intimate connection than viewing in traditional cinema where the audience remains stationary and watches the motion picture at a controlled distance. Also, the round projection space allows viewers the option to experience immersion with friends versus within the isolation of virtual reality (VR) headset that requires separation.

![Diagram of in the round space dimensions](image)

Figure 1 Top image: Dimensions of “in the round” space at the MoLa. Bottom image: Panels 1, 2, and 3 dimensions.
The story focuses on an individual who transforms in and out of the feminine and masculine gender perspectives, also known as *gender fluid*, as they try to cope with the pressures of a gender binary society. *Gender binary* is an expectation that there are two sexes, either female or male, and by default roles and behaviors align to them. The main character of the story finds resolve in identity exploration through a self-made character, *Joel Voyeur ©*, who is the visual representation of the masculine side of the main character. It is important to note that this animation intentionally uses stereotypical gender representations of the masculine male and feminine female to create one character that is a combined visual understanding of the profoundly complex concept of gender fluidity. The stereotypical gender representations are pulled from the *Bem Sex-Role Inventory* (Bem, 1974) and *Personal Attributes Questionnaire* (Spence et al., 1974), which are the first and second most used measures of gender-stereotyped personality traits respectively. These tests measure “traits considered more socially desirable/typical for men (the BSRI-M and PAQ-M), and traits considered more socially desirable/typical for women (the BSRI-F and PAQ-F). The M [masculine] scales consist of instrumental traits such as “assertive” and “independent;” the F [feminine]-scale contains expressive traits such as “understanding of others” and “gentle” (Twenge, 1997).

This project materialized out of my research and experience with gender roles, gender fluidity, and labeling. Outside the fictional world of this animation, gender characteristics can be invisible to others. Therefore, the paper defines gender as a socially constructed concept not to intertwine or be confused with the biological being or reproductive abilities of the sexes male and female. More explicit explanations of gender
terminology will be addressed later in the paper to build a background for the design behind *Breaking the Fourth Wall* as well as offer alternative language choices for gender labeling.

The animation juxtaposes the masculine version of the character, which is signified by a short hairstyle, moustache, a suit designed for a male body, and tie against a hand-drawn feminine version of the character which is signified by a traditional long hairstyle. The animation uses motion capture to create a smoother movement for the masculine version of the character who represents self-confidence versus limited animation to develop a choppy movement for the feminine side of the character who represents awkwardness as a result of silencing by stereotypical gender standards in society. Both versions combine and then switch throughout the animation to show the dynamic of one character who possesses both sets of gender traits. Visual graphics and sounds cue the viewer to indicate the moments the gender versions combine and then switch.

This study also addresses how the use of animation can serve as an immersive experience. Using light and dark contrasts and specific colors that reflect on the space and viewers within the round provides an opportunity for the audience to become part of the story. The use of directional sound helps guide the viewers through the area as the story unfolds around them. By intentionally adjusting scale and positioning of the characters, I question if the story becomes more engaging or relatable to the audience because the characters are interacting as if they are part of the same space and plane of the viewer? I also question how the story might become non-linear when viewed in a
loop and how a viewer might understand the story if they enter during the middle versus the beginning? I take into consideration how a viewer may identify with the character based on their own experiences with gender and gender roles.

Design Problems to be Solved

In 1997, I began using photography and costuming to experiment with identities to share on a website I created that showcases local talent with a flavor of fictional writing and documentary-style reporting. For some of the personalities, I intended to behave in a traditionally masculine way and document the moments to challenge the gender standards that I was observing in mainstream media. However, from the moment I introduced my male character to the public, there was a friendly draw to him that I could not explain at the time. His presence sparked curiosity from my audience and motivated them to interact and be part of his story. It was a combination of these elements that pushed me to develop further who is now, Joel Voyeur.

In Joel’s design, I intentionally leave room for the audience to interpret, in any way that they feel comfortable, his appearance, words, and other details, to allow for questions and engagement that will result in their creative exploration and reflection. Because these engagements can be personal for the audience, I have no intention of collecting data on this result. Because my primary purpose is to reduce the uneasiness of stepping over the boundaries of gender roles I strive to create a character that all will feel safe approaching. Splitting ‘me’ into two genders also enables me to see gender roles in the most opposite ways (e.g., see fig. 2) and allows me to approach gender representation
from an outside point of view and take into account social pressures from male and female perspectives. In doing this, I can reflect on how others define gender.

Figure 2 Cleaver, Dreama. “Dreama, Me, Joel.” (2012, 2015, 2013 JPG).

My experience with website design and Joel Voyeur led me to see the value in combining my artistic skills, such as photography, painting, storytelling, and videography, with the context of the new digital age. While pursuing my Bachelors of Fine Arts degree with a focus on Art and Technology, and then graduating in 2010 from The Ohio State University, I created two animations that feature Joel Voyeur. Working on these projects helped me understand the ability animation has to demonstrate storylines, such as memory, hallucinations, and physical characteristics, that would otherwise be difficult to show using real-world resources.

When I began The Ohio State University’s Digital Animation and Interactive Media (DAIM) graduate program, I continued my interest in gender definitions by looking at gender representation in animation. Educator and editor of Reading the Rabbit Explorations in Warner Bros. Animation, Kevin S. Sandler argues, “Animation directors
can easily alter a character’s identity and actions with a touch of an eraser or a dab of paint. The boundaries and constraints of the body of the human actor limit its bodily transgressions. Animators have one luxury the directors of live-action films do not have: they can manipulate gender performance of their characters” (Sandler, 161). Within this context, a designer must contend with questions such as why, with this kind of control, are animated characters still drawn with little gender diversity?

This project presented opportunities to learn the power of motion capture, a stronger grasp on empathy and what factors of immersive storytelling capture a viewer’s interest? Because feelings are a subjective point of view, one challenge I faced with this project was the difficulty explaining an emotion, or feelings, of a character to an audience. Once the audience brings their own experiences and personal challenges into the viewing space, the intention behind my animation is lost and becomes open to the viewer's interpretations. As culture changes in the years to come, I am willing to observe how my content choices will go into the world to create conversations that, hopefully, will contribute to change and inclusivity.

What Each Chapter Contains

Chapter 2 introduces the Background research of this project with a brief look at definitions of gender fluidity, gender binary, empathy, and immersion. This section also discusses the power of immersive storytelling, labeling, and use of language regarding gender, gender in design and gender representation in animation.
In Chapter 3, I review the Concept Development, which includes a summary and preliminary concept ideas related to *Breaking the Fourth Wall*, design choices for the animation and comparisons of the concept about existing works by other authors.

The subject of Chapter 4 is the process I went through when making design choices for my animation, choosing the relevant information to include in the story and why. Including specifically related projects and a brief discussion of lighting, editing, and sound choices. This chapter also contains information on the assistants and collaborators I relied on for the project making and concept.

Chapter 5 is a Short and Long Synopses of *Breaking the Fourth Wall*.

Chapter 6 evaluates the research acquired during the making of this project and the results of my inquiry.
Chapter 2. Background

What is Empathy?

When I started building Joel Voyeur into the world 20 years ago, I thought people were intrigued because he was a novelty to them; something new in their lives. But then the interest grew to strangers who had questions about his story and then to others who wanted to contribute and be involved in the making of his story. Intrigue with and connection to is a prevalent phenomenon among fictional characters from movies, to animation, to fiction novels, even real-life stories can impact a person’s life as if the subjects were close friends or companions. I began to question what was driving these connections between fictional characters and people who love them as if they are real?

My earliest love for a fictional character is Bugs Bunny (Avery, 1948) whose cartoons that aired in the mid-1970’s portrays an intelligent and rebellious spirit who refuses to live by societies rules. Bugs Bunny taught me even though society allows the hunter to hunt does not mean the hunted must allow the hunter to succeed. Learning this at an early age set a precedent for the rest of my life and because of this learning I can recognize that teaching through a connection with a character is more effective than merely instructing the audience what you want them to learn. Ed Hooks, educator, and actor, explains that “an audience must be touched emotionally if a play is to succeed, so a lot of the rehearsal process is devoted to finding those emotional triggers, or…points of empathy” (Hooks, 35). The point of empathy that connects me to the stories of Bugs Bunny is his ability to distract Elmer Fudd and win the conflict. As a child navigating
through a world of do’s and don’ts these stories became a guidebook on dealing with
hunters, the influential and dominating people whose goals are only in the interest of
building their strengths.

When the line between reality and fiction muddles is the moment the audience
experiences a compelling point of empathy. Hooks evaluates Charlie Chaplin and what
makes his character, the Little Tramp, so successful. Chaplin can create understanding
with the audience by finding ways to show that the Little Tramp character has genuine
feelings. When something happens to him, he feels emotion, and the audience can relate
themselves to what is going on (Hooks, 41). This relation is also known as “kinesthetic
empathy,” defined in Kinesthetic Empathy in Creative and Cultural Practices, by Dee
Reynolds, as “the ability to experience empathy merely by observing the movements of
another human being” (Reynolds, 2012). Signifiers such as movements and expressions
that viewers experience themselves are what indicate the Little Tramp is experiencing
genuine feelings. The audience relates what they know to be emotions to be the same
thing as what the Little Tramp knows and the result is a connection with that character.

In an example from Chapter 7 of the same book, Kinesthetic Empathy in Charlie
Chaplin’s Silent Films, Guillemette Bolens discusses Chaplin’s acting expertise and his
use of kinesthetic empathy in his many films. Referencing the last scene of City Lights,
(1931) Bolens explains, “the story is that of a blind woman deprived, for most of the film,
of access to visual inputs and yet so kinesthetically intelligent that, months later, she
recognizes [sic] the Tramp by touching his hand.” Bolens continues to explain why the
scene “is striking because it situates personal identity on a level that escapes from
common social categorisations [sic] such as class, wealth, age, ethnicity, physical conformity, etc.” (Bolens, 152). I found the technique of Chaplin’s storytelling so powerful that I recalled the scene as a “talkie” film but to my surprise it is silent (e.g., see fig. 3).

Figure 3 “No matter how dismal the circumstances of his life were, no matter how hungry or cold he was, he never gave up, he never lost his self-respect” (Hooks, 43).

In a study of empathy and “affective interaction between learners and synthetic characters” titled Learning by Feeling: Evoking Empathy with Synthetic Characters authors Ana Paiva, Joao Dias, Daniel Sobral, Ruth Aylett, Sarah Woods, Lynne Hall, and Carsten Zoll argue that “the expression of emotions is understood as fundamental to achieve some degree of believability [sic]” (Paiva et al., 237). And Hooks explains that “If an audience merely feels sorry for the character, the scene will fall flat. When a viewer empathizes with the character on screen, he is seeing in himself the potential to behave like that character is behaving” (Hooks, 42). There is a difference between “being
a victim and being victimized.” To be a victim implies to give up, to succumb to whatever tragic circumstances a person has or is enduring. To be a survivor implies one has not given up, the person has either overcome or continues to fight against the forces working against them. Hooks states, “The Little Tramp was no victim. He was a survivor who was frequently victimized” (Hooks, 43).

I apply these same concepts to Joel’s personality because I want to show his audience that hardships may slow him down but they will not stop him. Despite the situations he finds himself in when out in the world, he always continues to move forward, with humor and enthusiasm. It is hard to discourage him, and if he does become discouraged, it is not for long (e.g., see fig. 4). Like Bug Bunny, he is determined to outsmart his adversaries to win the conflict.
Figure 4 After talking his way out of a physical confrontation (Top), Joel is willing to shake hands with his attacker (Bottom) (Cleaver, Dreama. “Joel Voyeur, Esq. Part 19, 2010).

But that is human Joel. How would an audience react to a hand-drawn animation of Joel? Or a 3D model? The authors of *Learning by Feeling* integrate works from Thomas M. Newcomb, Mark Barnett, and Brenda K. Bryant stating:
…for such affective relations to happen, characters should be created and designed taking into account what we call the proximity factor. This is based on the fact that children are found to respond more empathically to those that are perceived as similar to the self than those who are perceived as dissimilar. (Paiva et al., 235)

The similarity refers to a shared characteristic “such as sex, race, or a shared personal experience.” After designing the system Fear Not! for children ages 8-12 the study finds the children respond more empathetically to the characters [in Fear Not!] than the adults (Paiva, Barnett [2], Bryant [6], 235, 238). Because human Joel Voyeur is designed for an adult audience and put in situations that adults are more likely to relate to I deduce there is a good chance the audience will feel empathy, whether drawn or 3D modeled, as long as animated Joel’s characteristics continue to connect to the adult audience.

The animation, Tony de Peltrie, (Tony, 1985) showcases the first computer-animated character to show emotion. He “was acting, thinking, fleshy, not mechanical. He expressed real emotions” (Sito, 68). The characteristics of Tony used to engage the audience support Hooks’ statement. Tony is a survivor, retired, yet content in his accomplishments. Most adults can relate to this character who, as he sits at a piano, reminisces about his younger days. The mood of the piece and a soothing voice brings the audience into a vivid place of fondness. Though the expressions are slight, they are convincing due to his oversized, clunky head already built into the position for smiling.
This approach implies to the audience that he has real thoughts and feelings (e.g., see fig. 5).

33 years ago, a team of animators modeled the character *Tony de Peltrie* and, still today, it is difficult to get past the uncanny valley when building a realistic character. For example, critics denounce Warner Brothers’ *The Polar Express* (Zemeckis, 2004) for having characteristics that make its audience uncomfortable. Film critic Roger Ebert describes, “The characters in “The Polar Express” don't look real, but they don't look unreal, either; they have a kind of simplified and underlined reality that makes them visually magnetic” (Ebert). And Peter Travers of The Rolling Stone critiques, “The eyes of the characters, from the boy to Santa himself (also Hanks), have a glazed look that is almost spooky in an *Invasion of the Body Snatchers* [Siegel, 1956] kind of way” (Travers).
Since then, animators have been more cautious when it comes to the uncanny valley. Chris Landreth, for example, has found a way to bypass it by using what he calls, “psychorealism” to convey emotion or otherwise unseen information of his characters. At the beginning of the animation, Ryan (Landreth, 2005) the narrator, a CGI character, explains that the markings on his face are a connection to a period in his life (e.g., see fig. 6). This type of setup gives insight to the audience as to why the other characters also have scars and disfigurements. Anytime a character expresses emotion, the physical changes of the character are more explicit than the facial expressions, which not only draws the viewer’s eye away from the lack of expression on the character’s face but creates anticipation of what actions will express that emotion (e.g., see fig. 7). Landreth explains “what I am most interested in is not achieving photorealism in CGI, but co-opting elements of photorealism to serve a different purpose – to expose the realism of the incredibly complex, messy, chaotic, sometimes mundane, and always conflicted quality we call human nature” (Roberson, 2004).
Figure 6 From Ryan, Chris stands at the mirror and explains the markings on his face and head (Landreth, 2005).

Figure 7 Spikes protrude from Ryan’s head as an expression of anger (Landreth, 2005).
Why Immersive Storytelling (and What Is It?)

When I first read *Black Like Me*, I realized the power immersive role play has on a person’s ability to understand a situation. Though, being white, the author will never be able to relate to the historical traumas that African Americans experience, by immersing himself into a role of a black man he acquires some tools to become aware of specific situations African Americans faced in 1959 (Griffin, 1961). Moving forward into the 21st century, we may question the appropriateness of this type of immersion, but with technologies, such as virtual reality, more immersive experiences are made possible for everyone. For example, The National Underground Railroad Freedom Center in Cincinnati, Ohio offers *The Rosa Parks Experience* “commemorating Civil Rights icon Rosa Parks’ historic demonstration” (The Rosa Parks Experience). The authors of Learning by Feeling state, “One of the big advantages of IVEs (Intelligent Virtual Environments) is that they offer a safe place where learners can explore and understand through experimentation without the dangers or problems of the real situations” (Paiva et al., 236) (e.g., see figs. 8, 9).
I began asking myself what does immersive storytelling mean? And in what ways would John Howard Griffin’s experience compare to the experience of a participant in
The Rosa Parks Experience? And, ultimately, would either be successful in the empathy they were trying to accomplish?

Oliver Grau’s immersion research identifies immersion as “mentally absorbing and a process, a change, a passage from one mental state to another. It is characterized by diminishing critical distance to what is shown and increasing emotional involvement in what is happening” (Grau, 13). Grau continues, “The most ambitious project intends to appeal not only to the eyes but to all other senses so that the impression arises of being completely in an artificial world” (Grau, 14). This definition helps explain why simply reading a book is not enough to gain lasting empathy. By appealing to as many senses as possible, immersive experience overloads the participant with sensation and smears the unreal into their conscious reality. American journalist and award-winning filmmaker Nonny de la Peña describes her virtual reality documentary, Hunger in Los Angeles, (De la Peña) as a “whole body sensation” making it feel like the participant is there. She reports participants as having a strong emotional response to the situation and “this kind of reaction ended up being the kind of reaction we saw over and over and over. People down on the ground trying to comfort the seizure victim, trying to whisper something into his ear.” She says she is aware that the participant knows the world they are in still exists but calls what feels like you are in two places at once a “duality of presence” (De la Peña). In my experience, I compare the impact of immersive storytelling to a dream state. We may be conscious that we are in a dream, but it feels and looks so real that for a moment we believe it is happening and still wake up with an emotional reaction. Like with immersive storytelling, this reaction can be so powerful that we continue to replay it
over and over in our heads, trying to recall every detail of every moment while searching for deeper meaning and connections. We do this until we remember it for the rest of our lives.

Labeling and Language

When Ed Hooks writes about the difference between a victim versus a survivor, within the context of my research, the main take away is how language and labeling are fundamental in relating to a person’s situation. In De la Peña’s piece, I argue the participants feel empathy because the virtual experience puts them in the same position as someone standing in line at the food bank. The participant can hear harsh words in the background and they understand the length of wait time. And where we all can relate to being hungry, it may be difficult for some to comprehend extreme hunger. When the person with diabetes begins to have a seizure, the participant can then understand that food is a need for survival and the people in line are asking for help to survive poverty. However, if De la Peña chose to portray the people in the queue as frustrated with the people trying to help them, implying that they feel the food bank is victimizing them, the participant may label them as unappreciative and not feel empathy.

In my gender research, language and labeling prove to be an essential part of a person’s claim to their identity. Over the past five years, new terms to describe gender have surfaced to reveal that people are not comfortable settling on the accepted gender binary. Society is moving toward defining gender based on personal experience and
one’s interpretation. In 2013 transwellness.org published a terminology document to help guide our language to more inclusive understanding. Some examples of the terms are:

*Agender* is defined as not identifying with any gender or the feeling of having no gender where *bigender* is described as both genders and/or to have a tendency to move between masculine and feminine gender-typed behavior depending on context, expressing a distinctly male persona and a distinctly female persona, or two separate genders in one body. *Cisgender* is a person whose gender identity is aligned to what they were designated at birth, based on their physical sex and *pangender* is a person whose gender identity is comprised of many gender identities and/or expressions. (Stringer)

In 2014, Facebook revealed almost 58 options for their users to identify their gender and in February 2016, Facebook added a “custom” option where users could add their identifier if it did not fall within the preset categories of Facebook (Goldman). Giving agency to how users represent themselves is one step closer to helping each other understand concepts that may otherwise be unfamiliar to them.

Over 20 years ago, educator and psychologist, Jean M. Twenge reviewed scores on the Bem Sex Role Inventory (BSRI) and Personal Attributes Questionnaire (PAQ), in the study *Changes in Masculine and Feminine Traits Over Time: A Meta-Analysis* (Twenge, 1997). The language used in this study changes the association of sex with gender by using the descriptors “instrumental” for traits stereotypically associated with
the word “masculine,” and “expressive” for the traits stereotypically associated with the word “feminine.” Examples such as “assertive” and “independent” become instrumental and “understanding of others” and “gentle,” are seen as expressive (Twenge, 306).

Twenge explains “if young people no longer perceive the items on the scales as sex-typed, then men will feel more comfortable endorsing feminine items and women will feel more comfortable endorsing masculine items” (Twenge, 316). In other words, if we drop the labels of masculine and feminine when describing each other or ourselves, it becomes apparent that all sexes possess the ability to be instrumental and expressive in a more fluid way. Twenge’s explanation poses a question for designers, what is stopping us from moving forward past the archaic practice of sex-typing and embracing that either sex can possess any of these traits at any time? By asking this question, I can challenge myself to approach design and animation in a progressive new way.

Gender in Design

Carrie Paechter and Sheryl Clark conducted a study in 2007 that began with “the idea that children learn and construct gendered identities within local communities of masculinity and femininity practice, including peer communities” (Clark, Paechter, 317). The study observes specific groups of children at play on the grounds in two different London, UK schools and discovers the layout of playgrounds influence behaviors which enforce binary gender roles. For example, the playground reserves the majority of the space for physical play, which traditionally males are more encouraged to do. Paechter and Clark observes:
Girls were systematically and consistently excluded from the game, and therefore from much of the playground and field space (. . . ) given the relatively small size of the playground area as a whole, there was little else that girls could play if they wanted to be physically active. (Clark, Paechter, 323)

The observation demonstrates how design can influence personality traits. Are males on the playground acquiring instrumental traits such as ‘self-confidence,’ ‘strength,’ and ‘assertiveness’ due to the privilege of a physical play space? Are females on the playground developing expressive traits such as ‘emotional,’ ‘timid,’ and ‘talkative’ due to being forcibly confined to specific areas? I cannot answer these questions within the scope of my thesis. However, I do want to call attention to the power, and responsibilities, designers have within our communities.

Gender Representation in Animation

Animation has a long history of stereotypically representing gender. Depending on where the characters live, either full-length films, video games, or television, artists often portray leading males and females in the traditional masculine and feminine form. From a marketing perspective, it is clear there is an attraction to representing characters in this way. Forbes.com lists the top grossing animated film as Disney’s Frozen, (Disney, 2014), which portrays both leading female characters with long hair, a small waist, big eyes, and a little nose where the leading males are brawny with prominent chins (e.g., see fig. 10) (Forbes.com, 2018).

When compared to the real faces of the voice actors in the film, it is noticeable that the faces of the male characters are more accurate to their real-life characteristics than the females who lose their jawline, the bridge of their nose, and the size of their eyes nearly triple (e.g., see fig. 11).
Figure 11 Upper left to lower right: Jonathon Groff as Kristoff, Santino Fontana as Hans, Kristen Bell as Anna, and Idina Menzel as Elsa. The male actors look similar to the Frozen characters where the female actors are missing identifying features (Photo Credit: Lee, Jennifer, and Hans Christian Anderson. "Frozen." IMDb. IMDb.com/amazon, Disney, 27 Nov. 2013. Web. 25 Apr. 2016.).

The chapter, “Gendered Evasion: Bugs Bunny in Drag,” from Reading the Rabbit (Sandler, 1998) addresses many approaches to gender representation in film and animation including the argument that:

A film’s popularity and financial success thus depend on these patterns of gender differences being recognized and interpreted by a large number of spectators. If the popular cinematic representation of gender did not mirror our “real life” gender representations, that would most likely not produce meanings relevant to our daily lives. (Sandler, 155)

However, the theory of “gender performativity,” by Judith Butler, proposes that gendered behaviors, such as masculine and feminine, are a learned performance imposed
upon people by the normative heterosexuality privilege (Felluga). In other words, popular cinema is designing for the popular audience, films such as *Disney’s Frozen* are not trying to appeal to the 58 other gender options that Facebook is attempting to reach. By only drawing leading characters as feminine or masculine, dominant gender binary representation is contributing to the marginalization of everyone else.

My animation, *Breaking the Fourth Wall*, seeks to challenge this type of design by deliberately using gender stereotypes to play against what the audience may already assume about gender expression. Because the main character expresses a cue for both masculine and feminine traits, I am asking the audience to dismiss the gender binary belief that gender aligns to sex and accept that one person can be both genders. My choice is a provocation for the audience to recognize how they define gender and ways in which we accept the gender binary as the baseline in most circumstances. My purpose is a call for the audience to question and challenge my choices while asking themselves in what ways do our assumptions encourage these stereotypes?

What is Gender Fluidity?

The term *gender fluidity* has only surfaced in recent years according to *nonbinary/wiki* having its earliest entry in *Urban Dictionary* in 2007 (“Genderfluid”). However, the concept of “a person [who] may feel they are more female on some days and more male on others, or possibly feel that neither term describes them accurately” (Terminology - Gender) has been verbally expressed by various terms over the past several decades. But this term, or only “fluid,” is unique in a way that describes the
internal aspects of gender, such as a feeling of, and not only the external application of what signifies gender difference. In the past, terms such as, androgynous, gender bender, and gender fuck, have been used to describe the outward appearance of those who mix feminine and masculine gender cues as an expression. Gender non-conforming, gender queer, and gender variant are broader terms used to label persons who do not fit or follow the expected gender stereotypes. The closest word in meaning used before gender fluid is bigender. However, this term also speaks of two distinct personas of male or female at different times, unlike gender fluid which flows over a gender spectrum which can continuously be moving in and out or stay during long stretches of time. Gender fluid people can internally move in and out of genders so frequently that expressing it with outward signifiers such as fashion, or hairstyles would not be logically possible to keep up. Like any label, these terms can overlap, change in meaning over time, or be challenged.

One could argue that when stereotypes have been used for so long, finding ways to represent all types of genders poses a challenge for animators and designers. Or that the problematic nature of the medium and pressing deadlines, force directors to be as transparent as possible to relay the story quickly. Therefore, a gender identification such as gender fluidity, where “people do not feel confined by restrictive boundaries of stereotypical expectations of women and men” (Terminology - Gender), would be most problematic to portray due to its imprecise nature. However, because the very nature of animation is its ability to represent creative visualizations and fantastical interpretations
of real life, discovering new stories to share using animation could be beneficial to audience engagement.

Based on my research for this project, I argue against using stereotypes for the sole purpose of appealing to a popular audience. The past has produced many heteronormative stories that will last throughout the ages, and it is time to move forward. No explicit representation of gender was in the animated short film, *Day and Night* (Day and Night, 2010) and it still went on to be nominated and win awards (e.g., see fig. 12).

![Day and Night characters](image)

**Figure 12** Day and Night characters are the same shape with no distinguishing gender characteristics (Day and Night, 2010).

The shape of *Day and Night’s* characters is reminiscent of the 1948 figure, “Shmoo,” who first appeared in Al Capp’s comic strip *Li’l Abner* and later resurfaced in the cartoon *The New Shmoo* in 1979 (Capp, 1979) (e.g. see fig. 13).
In the comic book, *The Life and Times of the Shmoo*, the sex or gender of the Shmoo are not clearly defined. The narrator explains, “When two Shmoos meet, they immediately fall in love with each other—If these Shmoos met other Shmoos, they would have fallen just as madly in love with them” (Capp, 1949). The story continues to mask the sex of the Shmoo by describing an asexual reproductive ability, “that one opposing Shmoo has multiplied into thousands – and the football has become a great-grandfather.” The story continues to imply the Shmoo has no distinguishing gender traits when Daisy Mae and Li’l Abner argue over the sexes of two Shmoos.

“A He-Shmoo, an’ a She-Shmoo!! - OH, they’ll make a Lovin’ couple – as whut two Shmoos don’t?” Daisy Mae said.

“Cuss me!! – Ah thought thy was both boys!” said Li’l Abner (Capp, 1949).

Figure 13 *The Life and Times of the Shmoo* (Capp, 1949).
Chapter 3. Concept Development

Summary of the Concept and Design Choices Made Before Production

After exploring many directions of my overall research (e.g., see Bibliography) I concluded that my best offering to animation would be sharing the story about how Joel Voyeur came into my life as a manifestation of gender nonconformity. At times, the way I perceive my gender conflicts with my external appearance causing my interactions with others to be opposite of what I expect. For example, if one sees me as feminine but I perceive myself as masculine the reactions I receive will not be supportive. By using many visual styles, such as photos, videos, hand-drawn, and 3D animation I wanted to create a unique visual style to visualize my predicament. My gender research enabled me to think about what past events were the most relevant to include and my empathy research helped me pinpoint what situations may be relatable to others. I wanted to offer a different perspective and an alternate representation of gender versus the gender binary familiar to audiences. Because animation and design still lack diversity in some areas, it is also essential to tell this story in an immersive way to build an empathic bridge into the 21st-century versions of gender (e.g., see fig. 14).
In theatre, the term “breaking the fourth wall” references the imaginary fourth wall of the stage that the audience watches through. When a character breaks this wall, it means they engage with the audience as if the imaginary barrier does not exist. For example, the character may look into the eyes of an audience member, speak to them, or ask them questions to acknowledge that they are aware that the audience is watching them.

One of Joel’s most distinctive characteristics is breaking the fourth wall. This term also plays into the concept of Joel’s last name, Voyeur, which loosely means to gain pleasure from watching. At first, Joel was only seen in photographs on the Internet so to engage with his audience or break the fourth wall; he looked directly at the camera when photographed. The question became who is watching who? Is Joel watching his audience as a voyeur, or were the audience members the voyeurs who were watching Joel? As his stories moved into video format, he continued to address the camera but also appeared in...
the real world and attended actual events. He physically broke the fourth wall by coming out of the website and into the world of his audience. For these reasons, I chose for Joel to narrate the animation piece and address the audience in the same manner. Because part of his concept is giving his audience the freedom to fantasize about how interaction with him may take place, I also include real footage from Joel’s past that ties a non-human Joel back into the human world.

Because gender fluidity is more of an internal thought process than an external expression, the logical approach was to use the extensive capabilities of animation to visually represent the dynamic of one character who possesses two different attributes. By using motion-capture with 3D modeled Joel to mimic instrumental traits, such as “self-confidence,” “strength,” and “assertiveness,” I intended to call more attention to his role, causing him to dominate the story in the same way these traits dominate within binary genders. Also, by using limited animation techniques with a hand-drawn feminine version to juxtapose expressive traits such as “timid,” “emotional,” and “gentle,” I intended to represent the invisibility that some may experience next to those with instrumental traits.

When I chose to use two stereotypical characters to represent the feeling of gender fluidity, I understood that because gender binary representation already dominates animation, the audience may have trouble understanding that they were watching a story about the same person. For this reason, I created moments where the two versions blended to indicate they are one. The flat chalk pencil line next to the filled in modeled character would read as almost ghostly, but when placed over the render of Joel it would
fit as an outline. Whether or not the audience was willing to accept this was a journey of one person and not two was not crucial to my research. I wanted the audience to leave the animation asking themselves why they read the animation in the way that they did and in what ways did their interpretation reflect their understanding of gender roles.

Works Related to the Concept

Before I began writing and storyboarding for *Breaking the Fourth Wall*, I focused on smaller projects to study the results of my investigations.

*MILK?* is an animation using a real-time audio recording of a caregiver who is trying to make sense of a conversation with a person living with dementia. With this project, I wanted to explore how real footage could increase the audience’s connection to a character. I chose to experiment with ways animation could convey memory loss and other symptoms to a viewer trying to understand the disease. The repetitive collection of milk cartons is used to represent memory loss, and the gap in the visual story is meant to serve as lost time. However, there is not enough information about the characters given to the audience for them to understand why it is happening (e.g., see fig. 15). While confusing the audience could be useful in the explanation of the symptoms of dementia, without having prior knowledge of the characters, or an explanation of dementia, the audience would not be able to make a connection. I concluded instead of documentary footage using a script based on real events and visual cues to express what was happening would have helped the audience to follow the key points of the story. Taking the results of
this research into account, it is clear that character development is an essential factor for an audience’s understanding of a story.

Figure 15 Frames top, middle, bottom. The milk accumulates but there is no explanation of why. (Cleaver, Dreama, director. (MILK? on Vimeo, Vimeo, 29 Feb. 2016, (https://vimeo.com/157198064).
Becoming Joel is an exercise in the reflective study of the evolution of Joel Voyeur as a character and the appeal he has to an audience, and myself, over the past 20 years. Though designing him into the world was intentional, he often was invited to real world events by those with a desire to suggest scenarios or contribute their creativity to the overall concept. For the latter part of these years, I entertained the idea of redesigning him to a 3D modeled character for future development. However, I was not sure if he would have the same draw to viewers that he had as a human. I was interested in what personality traits were most useful for his audience’s engagement and if he could work as a 3D modeled character? In this piece I share his development through a timeline of media types (e.g., see fig. 16) and realize his viewers develop empathy with his storyline. Even in doing this study new interest in Joel emerged, therefore, based on past interest, I concluded Joel Voyeur’s personality as a whole was enough to engage the audience.
Joel’s Space is a proposed 360 web space concept, hosted by Joel Voyeur, to promote gender discussion among friends and offer a safe space for gender exploration, play, and education. Had Joel’s Space been developed it would have provided a series of activities that enable the participant to explore their gender by applying virtual makeup.
clothing, and bodies to their image (e.g., see fig. 17). The menu also includes creative activities such as poetry, collage, and historical facts. This piece was inspired by the *MakeupGenius App*, by L’Oreal Paris (How to use, 2018) and my website, *The Voyeur of Fashion, Art & Politics* (Cleaver, 2018).

Figure 17 “Dress You Up” offers men’s or women’s clothing options for users (Cleaver, Dreama. “Dress You Up Game Prototype.” Vimeo, 23 Apr. 2016, vimeo.com/163943502).

In the past, I gave the audience the freedom to form their own opinions about Joel’s personality, sexuality, and history through stories that he told in my magazine. As the design process progressed for *Joel’s Space*, it became apparent that I already knew Joel’s background of gender non-conformity, but the audience did not. A new audience would need to be told or dive into 20 years of history to understand. And because of my previous research on empathy, I knew for Joel to engage an audience they would need to learn more about him. For this reason, I chose to step back and focus solely on sharing a story about how and why I created Joel Voyeur.
Project Concept in Relation to Existing Works by Other Authors

Before I began writing the details of my story, I wanted to find out what kind of animations already existed about gender fluidity? *Bi-Gender: A Lesson in Gender Identity* by J. S. Davidson (Davidson, 2014) is an instructional animation that explains different types of genders such as *androgynous* and *bi-gender*. Though visually defining genders is very important for understanding, I did not want my story to be instructional. Being able to walk along with Joel figuratively is a crucial element in my exploration of empathy.

The animation *Day and Night* (Day and Night, 2016) tells a story about two characters who have no apparent gender and no evident identification as a human or animal. Not identifying a character as a human is a clear way to avoid specific gender role expectations, however, for my animation, I must confront gender challenges because my characters are human. However, the problems the characters in *Day and Night* face with learning how to tolerate and have compassion toward someone with different thoughts than themselves, is very similar to the topic of my animation.

Another animation I investigated was the Disney-Pixar film, *Inside Out* which is about a young girl who moves to a new town and struggles with adjusting to her new situation. The main story takes place in her head, through a range of animated characters who represent each emotion (Inside Out, 2017). What I find significant about this story is the adult’s emotions are all male styled if the character is male and the emotions are all female styled if the character is female, however for the little girl Sadness, Disgust, and Joy are female styled, and Fear and Anger are male styled. I read this as a cue that the child is still forming her identity and therefore her emotions do not correlate with the
gender that society has assigned. Though this story is very different from mine, I sense
the writers were acutely aware of their choices relating to gender.
Changes from Preliminary Concepts to Final Design Choices

One of the most significant challenges I faced in developing my story was trying to decide what anecdotes were relevant to my concept but also tell a story that kept the viewer’s immersive experience in mind. I asked myself how do I control what my viewer sees while still giving them control within an immersive space? Before I planned out the storyboards, I drew out a mind map of situations that went with my story then pulled out ideas that fit together or was relevant to a story about gender (e.g., see fig. 18). I thought of ways I might tell the story in a nonlinear way.

Figure 18 Mind map for Breaking the Fourth Wall

Though I was still investigating immersive techniques, I leaned toward a virtual reality experience. However, because of the historical timeline of Joel Voyeur, I felt this story first needed an accessible guide for the viewer. I mulled over ways to accomplish
this; my first idea was to have Joel in a car and let the story unfold around him. Using a
documentary style, he would act as the driver and narrator while guiding the viewer
through the story as moving images showed through the windows. The participant would
have control over which story to follow by selecting an option with the controller. I tried
this out by recording myself as the storyteller with intent to later composite in Joel (e.g.,
see fig. 19).

![Driving narration test for Breaking the Fourth Wall](image)

Figure 19 Driving narration test for Breaking the Fourth Wall

A problem I discovered is the restrictive visual effect that happens when showing
the inside of a car. While viewing *Pearl*, a 360 animation by Patrick Osbourne (Osborne,
2016), I quickly grew frustrated because part of the story happens outside of the car and I,
the viewer, am forced to look through the window to see the action (e.g., see fig. 20). For
this reason, I decided against using the inside of a car to tell my story because the largest
image would be that of the narrator who would distract from the smaller sub-stories.
When I proposed my story as an interactive space within VR, I prepared to model a prototype consisting of a circular projection onto panels surrounding the viewer’s head to simulate a VR experience. It was then I learned that a 48’x14’ round space already existed at the MoLa and was available for experimentation. Because multiple users could fit within the area, this added a social element to the experience versus the seclusion of a VR headset. After trying out a short scene from my animation as a 3-panel experience, I saw potential in development as a fully immersive story using this space. Some viewers said they preferred sharing the intimate space with friends and felt more comfortable than they would in a VR headset. Thomas M. Newcomb’s Proximity Principle of how people develop relationships “with those nearby” is evidence that an immersive experience based on group interaction could be successful (Newcomb, *The Acquaintance Process*).
Also, by removing the use of the VR headset brings Newcomb’s study into practice by enabling social interaction versus isolation.

Another element that tests Newcomb’s theory is the height of the scrims allow the image of water to rise above the audience and lower as if they are submerged along with the character (e.g., see fig. 21). Some viewers said they felt relief when the water “drained” from the area. The 3-panel feedback guided me to go forward as a full body style of immersion.

![Viewer](Image courtesy of Maria Palazzi, ACCAD, 2016).

As I began to “blowout” my original linear storyboard into a 3-panel animation, I had to rethink the workload for production. The one-panel story suddenly increased to three panels that would need to play off of each other to guide the viewer through the immersion. Going from full control over what my viewer saw to presumed control
presented the possibility of introducing too much information and send them into confusion.

One of my initial ideas was to indicate time passing based on Joel’s evolution over 20 years. For example, in the early years of Joel he was just a photograph, and through the years his media changed as technology changed. I was inspired by the animation *Legend of the Forest*, by Osama Tezuka (Tezuka, 1987) which pays tribute to Disney by beginning the film with early animation styles and then moves forward through the story to current methods. However, with the 3-panel method, the multiple styles did not coincide with how I was organizing the story. After I reviewed Chris Landreth's *Ryan* again, which included real footage of the cast and utilized different animation techniques to convey the feelings of the people (Landreth, 2004) (e.g., see fig. 22), I chose to follow more closely to the way he incorporated animation into the media.

Figure 22 A character is represented by loose strokes in *Ryan* (Landreth, 2005).
Drawing directly over some of the footage made more sense for my overall concept because while I kept some of the original images, it also linked them into the new animated world. When working through production, I reduced the amount of previously recorded footage than initially intended because it created more layers to the plot which needed additional explanation. For example, documented footage from the Pride 2000 parade in Joel’s perspective would have surrounded the viewers in an immersive way and replicated the feeling of being overwhelmed. But, it would also switch the view from spectator of Joel to Joel’s perspective causing confusion with the storyline (e.g., see fig. 23).

Figure 23 Pride 2000 video still: 3 angles layered on top of each other to create Joel’s perspective on a float.

Specific Activities and Design Choices

The way I chose to draw the two genders in my animation had a lot of influence on the content of the story. Through investigative practice, I discovered how preconceived gender roles influence design. One of my first investigations was fashion design and the differences between men’s and women’s styles. I also spent time
reflecting over past reactions from others regarding my choice to wear men’s clothing. For example, wearing men’s jeans or sweaters go by unnoticed but wearing a tie or suit jacket instigates a verbal reaction, whether positive or negative it is interpreted as a costume. Therefore, I designed Joel to wear a men’s suit because it is still automatically associated with a masculine male.

Body shape is also an essential factor in the design choices for my animation. There are at least five different body shapes that are documented for men and women when addressing clothing sizes as well as varying breast sizes. However, animators often use only one type of silhouette when creating characters. *Reading the Rabbit* supports this observation in a quote by Chris Straayer who writes, “because certain costume and makeup styles have historically coded a woman’s surface as sexual, immediately announcing her sex at moments of gender attribution. Clothing emphasizing the female body, especially the breasts, immediately signifies “feminine” as well as “female” (Sandler, 159). Because there is less control of my body shape in the creation of human Joel, accentuating the breasts of those playing opposite him plays a significant role in convincing the audience of his existence. As pointed out by Straayer, it is the lack of female cues read as male to viewers. However, in my animation, I chose to leave the female body shape more ambiguous to create a similarity which dictates how the two characters would interact throughout the story and blend as one (e.g., see figure 24).
Before I committed to motion capture for Joel’s character, I conducted a recording test to become familiar with moving in the mocap suit and observe how the 3D model would behave once animated. This test ended in being a significant study of gender roles and expectations.

Past reactions to human Joel show that his “maleness” is more convincing when he wears a men’s suit with short hair. While viewing my performance in the mocap suit some feedback I received was that I “run like a girl” and taking lessons could teach me how to “walk like a man.” However, the feedback I received once 3D modeled Joel was animated was his gait was “intriguing” and his mannerisms were masculine at times (e.g., see fig. 25).
This feedback confirms my previous observation as well as informs me that we automatically assign gender expectations to what we see in each other. Where I designed human Joel to be of the male sex, I did not develop him to adopt an entirely instrumental, or masculine, persona in video performance. Aside from expressing emotional gestures such as excitement or calmness, his gestures will take on either role. Giving Joel the freedom to tell his story without gender constraints is a decision I made several years ago. The insight gained from the motion capture test allowed me to move forward with a scripted session for *Breaking the Fourth Wall*. The final clips chosen were more neutral actions like standing, walking in a straight line, and running as a heavy-footed character.

When I began the script, I worked between writing and drawing to visualize what I wanted to share in my story. I also took notes on why I was making specific choices for visual content. Because I worked quickly, my drawings became gestural, only indicating
what was needed for a viewer to understand. After viewing the images in the first 3-panel test (e.g., refer to Figure 21 Image of immersive water scene, I learned simplicity was necessary for the scale of the project, first for production deadlines but also for the audience to comprehend what was happening in the large panels in front of them. Too much detail would clutter and confuse the scenes to guide the viewer's eyes successfully. I also saw value in the interpretation of the feminine version of the character. The changes in the body and face shape directly relates to my research question of why female characters are drawn with little gender diversity. This nuance would influence the audience’s interpretation of the story. Intentionally creating awkward drawings, is a closer representation of the fluidity of genders, body shape, and emotion. It also establishes a juxtaposition to 3D modeled Joel whose representation remains the same throughout the story.

Another choice I made while writing the script for Breaking the Fourth Wall is Joel’s behavior. Joel Voyeur is known for slapstick and having a crude personality. Because the content of my story is on a serious level there was no room for his regular antics. To remedy this, I chose to add a glimpse into his past by including a clip of him dancing with a pink bunny woman for the opening scene. Using this clip aids in representing the instrumental trait of “sexual.” As he begins to twirl he sees the audience, having been “caught” he stops. The bunny woman fades and he changes his personality to what is expected of masculine; to be serious.
Elements of Production

Some of the unique challenges of this project deal directly with translating a one-panel story into a guided three-panel story. First, I needed to address how one storyboard could expand into three panels, or if I could use three different storyboards all at once for that section of the animation. In some cases, I was able to use the panel I already built for one scene and use animation to transition to the next. For example, in my first iteration Joel narrates from the bathroom, and then the scene cuts to the hallway when the bell rings. There is another cut to Joel, and he exits the room. Instead of trying to expand the bathroom scene to three panels, I use the following cuts to create the full hallway and immerse the viewer into the scene (e.g., see figures 26, 27).
Figure 26 Above Hallway scene: storyboards from Breaking the Fourth Wall.

Figure 27 Above Hallway scene: panorama from Breaking the Fourth Wall.
I also translated a single storyboard into a 3-panel scene. For example, I saw an opportunity with the building of the wall scene to switch perspectives of the audience. In the original single panel, the audience watches the wall go up and then be broken down, but in the 3-panel scene, the audience gets bricked in along with the character. When the wall comes down, the audience is also released. This technique leads to the end water scene to immerse the viewer in the same water the character is drowning in. The original one-panel scene shows the main character in the center of the frame and all the action happens around her, however for the 3-pans version, she remains in the center but the broken wall expands to the surrounding panels submerging the viewer.

Because this is an immersive piece, I also made story choices that intentionally stimulate the senses. For example, a thunder storm is tacit knowledge that when paired with Joel’s throwing of the sledgehammer may evoke memories of anxiety, anger, or emotional turmoil. Using sound, white panels, and images the transition between breaking the brick wall and the water scene was added specifically to enhance the immersive experience. The white panels flash to cause a strobe like effect of lightning and a thunder crash is timed to coincide with a jagged swipe that splits Joel down the middle. When all of these details play together it is my intention that the audience senses what is happening without have to speak words.

The most challenging of all production tasks was finding new and efficient ways to sync up all three panels while editing. My solution was to line up three windows in the editing program, Adobe Premiere Pro CC 2018 (Adobe, 2018), and stack each panel’s footage and then view the actions at the same time (e.g., see fig. 28).
Once my clips were complete, I saw where images were not lining up. However, I did not foresee the problems I would face when joining the scenes together. For example, the yellow car that zooms past Joel appears to line up in the effects program, *Adobe After Effects CC 2018* (Adobe, 2018). However, after the three layers are stacked in the 3-panel viewer in *Adobe Premiere Pro* (Adobe, 2018), the animation does not sync up. At the same time, when something lines up in the 3-panel viewer, it may not line up on the 48’ x 14’ 3-panel projection in the MoLa. Challenges such as this assist in refining my production process for future projects in the 3-panel projection format.

The 5.1 sound was also a challenge for this project. Usually, sound is considered a standard studio practice however because the viewer is visually guided through this immersive experience, directional sound plays a vital role in capturing their attention and cuing them to look in a particular direction. For example, in the first scene, Joel is pushed by a “heavy” black curtain across the panels while the sound of a projector moves across
the room. While watching the animation on the computer screen, my intention appeared to be effective. However, after watching the scene a few times in the immersive space in MoLa, I heard the click of the projector turning on behind me and I turned my head every time as if someone was entering the room. Observations such as this inform me that the 5.1 sound set up is a good choice but close attention is required to assure the effect I am trying to achieve is successful.

Compare/Contrast of Process with Other Works

*I Wear Hats* (Cleaver, 2017) is a short study of hand-drawn animation I produced in my second year of the DAIM program. The story is a quick look at the roles one takes on in their everyday life. My goal was to get a sense of how long the animation process takes and how scene to scene image transitions work. With hand-drawn animation, at the time, figuring out how to go from one image to another was a big challenge for me. I started by writing a short poem and then chose images for each subject. I looked at the characteristics of each picture and how each one could lead to the next (e.g., see fig. 29). By doing this short study, I was able to make quick transition decisions for future projects and had an understanding of how hand-drawn animation could be incorporated into *Breaking the Fourth Wall.*

*The Dementia Experience in VR* is an immersive empathy training tool for students, families, and caregivers to improve the care of those living with dementia. Having no prior experience with VR this project was only possible with the support of Vita Berezina-Blackburn and Alex Oliszewski within their class, *Narrative and*
Performance in Virtual Reality ACCAD 5194.01, with group collaborators Jonathan Welch, Kien Hoang, and Peter Hollander. This project began as an experiment in understanding how a linear story will become non-linear within an immersive environment. The assignment required the plan to incorporate a live actor.

Through a series of activities which focus on the impact of memory loss in the life of a person living with dementia, the volunteer participant is free to move within the play space. The actor, played by Alex Oliszewski, is a motion capture avatar who interacts with the volunteer participant and guides them through the timeline of the story (e.g., see fig. 30). The similarity with Breaking the Fourth Wall is the surrounding space that the participant’s experience takes place. Because a VR storyboard layout is a circle with a center point that acts as an anchor for the action happening around them, through the building process, I was able to learn the benefits of guiding a participant through an immersive environment.
Assistants and Collaborators

In the early planning of *Breaking the Fourth Wall*, Maria Palazzi helped raise questions and assisted in possible directions of the storyline. It was her suggestion to try viewing the animation in the MoLa round before building my first idea of a small circular projection screen to surround the head. Had she not made this suggestion I most likely would not have followed the path of physical immersion versus virtual reality immersion.

Oded Huberman has been instrumental in assisting me with the technologies of the MoLa as well as giving helpful feedback during my test runs. He has supported me in setting up the 5.1 sound and lighting the space for a more intimate feel. His final contribution was teaching me to run the project in the MoLa without assistance.

In the first year of the DAIM program, I began asking Vita Berezina-Blackburn questions about the process of Motion Capture. She continued to assist me with
recording, cleaning data, and animating Joel through the final animation. She also offered
directional assistance during the MoCap session to ensure my motions would translate
into the MoCap 3D model as well as placement within the scene. Without the motion-
capture expertise of Vita, 3D Joel would not live.

My first drafts of *Breaking the Fourth Wall* included many more spoken lines. As
time went on, I understood how animation could replace words with visual images.
However, for the phone conversation, I felt I needed a distinct voice to dominate the
scene and capture the uncomfortable feeling I was trying to convey. Jonathan Welch was
determined to create a memorable performance.

**Choices Based on Time and Labor**

During my first semester in the program, I learned how limited animation is used
to speed production and experimented with this technique using 3D models to resemble
stop motion. I recognized how limited animation could help me produce frames more
quickly in my final version of *Breaking the Fourth Wall*. After studying earlier hand-
drawn animations, I understood how I could achieve the technique and incorporate these
ideas into my production plan. Once I began producing the frames, I figured out more
ways to limit animation by repeating the same few actions over and over to create more
movement but less work.

Another choice I made based on time was rotoscoping videos. In some cases, I
wanted a more distinct action, but due to my inexperience with drawing action frames, I
knew it would slow me down. Once I started testing this idea, I saw it gave unique
expression to human Joel, so I continued in a freer style than previously imagined. This technique gave new life to old videos and helped tie them in with the newly created frames.

Reducing content of more elaborate scenes began as a time saver strategy after I started production, however, the more I viewed my animation in the large-scale space I noticed adding more detail could potentially overwhelm the viewer. When comparing to a virtual reality space, the participant has more time to look around and interact with the stationary objects. In this case, because the panels surround the viewer and the action does not stop they are likely to miss some information. Therefore, adding more details may confuse the viewer causing them to lose track of the story altogether.
5.1 - Short Synopsis

*Breaking the Fourth Wall* is about breaking out of gender binary thinking, breaking down barriers of repression, and breaking into the mind that rejects the differences among us. In performance, ‘breaking the fourth wall,’ means the performer, or character, is aware of the audience that watches them. My research seeks to form a connection between the audience and a character who breaks down these walls and opens up a door to understanding. The story focuses on a main character who moves in and out of gender perspectives as they try to cope with the pressures of a gender binary society. They find resolve in identity exploration through a self-made character, Joel Voyeur, who helps to show versus tell the feeling the experience of gender fluidity evokes. By revealing himself in distinct situations which correlate with the stereotypical traits of masculine gender, such as sexual, assertive, defensive, competitive, independent, aggressive, destructive, and protective the main character learns how to embrace their masculine traits, instead of repressing them. In turn, they reveal they were always one in the same.
5.2 - Long Synopsis

*Breaking the Fourth Wall* begins at a drive-in theater where a pink rabbit lady and a thin man with a mustache dance to music. The man reaches for the woman when she is not looking and pulls his hands away each time she turns around. The man swings around then abruptly stops when he realizes he is being watched by more than just the cars at the theater. The pink lady fades away. He introduces himself as Joel Voyeur and tells the voyeurs watching him he has been “coming here since 1997.” Suddenly a heavy black curtain sweeps across the screen and pushes him into a corner near the ground. All is black around him. A white face appears with long red hair that flips about like snakes and says “You’re so ugly!”

Joel stands across from the face and combs his hair in the mirror. He ignores the face at first, but then as they go on, he starts to react. When he can bear it no longer, he steps forward and exclaims, “I would never say that!” The face fades away, and Joel climbs out of the mirror as he explains how he was made only to see people as beautiful. When he is entirely out of the mirror, it is clear he has changed from a sketch to a more detailed person. He is standing in a pink room with sinks and when a school bell rings a hallway with lockers, and a women’s restroom door appears. Dark shadows run by as laughing and shouting can be heard. Joel turns his head and walks out the door.

There is a loud buzzing like tuning an AM radio. Colors and confetti-like particles burst from behind the door then a small girl with long red hair emerges. As she walks across the hallway, a young boy can be seen heading toward her from the opposite end.
He sees her and shouts, “What are you looking at? Ugly!” He pushes her and she slams into a locker.

Stunned she blinks. She feels angry, but there is nothing she can do about it. Suddenly colors burst from her, and a glimpse of a young man shows in her face. He is confident and physically healthy. A door opens, and a brightly dressed teacher steps out. He points into his art room, and the scene fades.

The sound of pencils scratching away at paper echoes through the room. The girl throws crumpled paper across the room, and a motorcycle appears. She is drawing her dreams. She throws another crumpled paper across the room, and a jacket and tie appear. Looming behind her is Granny Wolf laughing loudly at her silliness. Girls can’t wear boy’s clothes or do boy things. She shows Granny her drawing and with a poof Granny turns her into a princess. Suspended in the pink air is the girl in a fluffy pink dress. As the dress takes control of her body, she turns red with anger and explodes. Clothes fall all around. The scene goes black.

Music fades in. A boy on the phone fades into the scene, and a girl is applying makeup in front of a mirror. As the boy talks to her, she doesn’t pay much attention. Occasionally she will answer but is more interested in what she is doing. He asks her questions, and the girl half-heartedly replies. Images of different people, males, females, a mixture of both, appear above. As his conversation gets more intrusive, stacks of bricks cover up the images. She has tied her hair back, applied a mustache and before the entire scene becomes a brick wall, the person in the mirror turns to face the viewer, it is Joel Voyeur.
Darkness rises over the brick wall as wolves’ howl in the distance. Joel walks along, shaking his head at the graffiti beside him. “You look better when you smile,” it says. “Smile, smile, smile!” He shakes his head. A car zooms by and shouts at him. He raises his arms to yell.

The interruption pulls her out of her thoughts, and she is aware of her body now. She is just a chalk drawing. Invisible except her hair which is very noticeable. They always notice that. As she walks along, she tries to tune out what’s around her. Sometimes Joel appears, sometimes she is invisible again. Dogs follow her; people talk about her. Her anger makes her stronger until she cannot hold it in anymore. She and Joel grow together, enormous, green with envy of what’s comfortable for others who do what they are told. The Hulk-like creature growls and runs off.

When the creature comes back, a mix of all three, they take a sledgehammer to the wall. Symbolically breaking the words that have held them back over the years. The wall explodes and bricks crash down. Storm clouds quickly move in and crash together sending a lighting flash down the middle of the creature and shrinks him back down into the invisible girl.

Standing in a pile of rubble, she’s exhausted. And there is no one but her to clean up the mess. As the water begins to pour out of her eyes, she is confused at what is happening. More and more water pours out until it is rising around her. Panicked, she yells to whoever is listening that she can’t swim. Waving her arms and legs she moves around in the water, trying to find help. She screams again that she can’t swim, but help does not come. She continues to swim to the other side of the screen.
“Hey!” A familiar voice cries out. “Over here!”

It’s Joel. He has always been there.

As she moves toward him, he throws her his tie and pulls her to safety.

“You saved me!” She says.

“You saved yourself,” he says. As he steps toward her, he loses his shape until he is invisible. There is a rush of wind. She stands alone but is no longer invisible.
Chapter 6. Evaluation

*Breaking the Fourth Wall* began with researching gender representation in animation and questioning why females and males are portrayed in this media as stereotypical when animation’s power is the ability to create any form? I also investigated in what ways can animation offer a more diverse perspective in gender representation than the gender binary currently familiar to audiences? My final challenge was in what way can immersive storytelling be used successfully to increase feelings of empathy for a character?

During the process of developing this animation, I looked carefully at how I saw gender as a storyteller. When offered feedback, my first reaction was to follow the suggestions given because I respect the opinions of my peers, however, because their research may not be in gender representation I had to be objective when deciding my next direction. My previous experience in splitting gender perspectives enables me to make good choices when choosing which aspect, either masculine or feminine, is ideal to lead each scene. After completing the story, I questioned myself if it was about Joel or Dreama?

I built this story with the intention that the audience could view it either way. In one way, it is about a young girl who finds a way to cope with the pressures of a gender binary society by creating an alter ego. Or, on the contrary, it is the story of a boy who tries to protect his best friend from harm but eventually learns she has always been able to defend herself. In attempting to balance the two gender representations, I will offer the
audience a choice in which character to see as the hero, or will they allow themselves to see the figures as one?

When I began viewing the immersive animation in the 48’ x 14’ round space, the format did not convince me that it has the same effect as virtual reality. Because circular cinema is still, primarily, unusual to audiences, there is a possibility the viewer would find more interest in the size than the story. I had this concern up until it was viewed at the ACCAD Annual Open House 2018 (ACCAD) and the unsolicited feedback I received was encouraging. For example, an audience member stopped to tell me they had never seen animation this size before and it drew them into the story. Another audience member stopped to tell me the size helped them feel for the character. When some told me they cried, I was surprised at the emotional response because it was not what I had anticipated.

The blending of the two characters to transition into one worked well in the story because changing identity is a familiar concept in superhero animations. By establishing the characters as either male or female to represent masculine or feminine and then showing the switch as an event cue the audience that something is about to occur. Once the change takes place, the audience learns that when the sound and visual happens again, the character will change identity. Some of the subtler cues did not work as well as expected. For example, when the young girl is throwing the paper wads to each panel, the intention is that the audience will follow the paper wad to each panel to see the picture revealed. However, because the paper wad is small and fast, it is almost invisible to the viewer.
If I had the opportunity to do this animation differently, I would focus more on the building and combination of the characters. The hand-drawn versus 3D modeled style worked well. However the audience may have understood the invisibility of the feminine version of the character better had the drawn style also been 3D modeled. For example, instead of a flat paper-like overlay, the drawn character would surround the 3D modeled character and appear as the same character from all sides without the shaded texture.

Overall, the animation raised the questions, discussion, and reception I am trying to encourage with my animation. After watching a screening, one unknown viewer explained in detail how they interpreted the story as a challenge to beauty standards and saw the main character as gender non-conforming. Another peer said they felt the large-scale immersive space was appropriate for this animation because it brought the viewer closer to the characters in a more personal way. Another audience member noted that often, virtual reality is used for the sake of “the wow factor” and can hurt the story rather than help it. In this case, they felt more engaged with a personal story presented in this way and that it read more like a gallery piece in which they found relatable to them.

The results of my research show that my immersive techniques engage the audience enough for them to feel connected to characters and also shows that more complicated concepts in animation, such as gender fluidity, are as comprehensible as the stereotypical gender binary.

Going forward I will continue my research in the three areas of immersive storytelling, gender representation, and the power of animation, and focus on making improvements to my craft.
My studies in the 3-panel round space produced enough results confirming engagement for me to feel confident to progress my investigation with this immersive storytelling technique. I will study further the correlation between Thomas M. Newcomb’s Proximity Principle and my question, in what ways can a character who interacts as if they are part of the same space and plane of an audience engage in what ways to make the story more relatable to them? I am interested in telling a different story using this technique and adding more constraints to the way I guide the audience. This investigation can be accomplished using video or animation.

Also, during my screenings, more than one user showed interest in the texture of the scrims, and one asked if they could touch them. Because touch is another sense that could add to the full body immersive experience, this leads me to new questions and ideas for the future of my research. In what ways could I incorporate touch to engage the viewers and make the experience more interactive? In what ways can interactivity enhance an immersive experience and in turn make it more memorable?

Gender representation and the tendency to automatically categorize others into the gender binary stereotype has been an ongoing research area for me for many years. I will continue to dive deeper into this inclination with the knowledge I have gained from my study and Newcomb’s Bennington College study that concludes “those whose views did not shift, [had a] strong desire to maintain familial ties, and they were more socially isolated and insecure (Newcomb, Persistence and Change).” I view Newcomb’s results as an opportunity to examine the relationship humans have with labeling. Why do we have such a sincere desire to belong to a group that it causes us to categorize others to
make connections? In ways does this drive us with fictional characters? In what ways can I use this information to help form an empathetic bridge between those who are gender nonconforming and those who are more comfortable in the gender binary?

Lastly, because animation is still very new to my research and practice, I feel my exploration can go in any direction. During this project, I was introduced to a technique that uses motion graphics to detect action frames for animating. I will begin to experiment with this technique and other means in limited animation to incorporate into my work. However, using motion capture with 3D models is another direction I want to continue. I will continue to in raise my skill level toward realistic 3D modeling while supporting Chris Landreth’s psychorealism approach and how it can improve the dilemma of the uncanny valley. I will further examine Landreth’s techniques and contributions to animation while posing the question, in what ways can I use the theories behind kinesthetic empathy, which is “the ability to experience empathy merely by observing the movements of another human being” (Reynolds, 2012), to develop better use of motion capture to build empathy with fiction characters?
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77