Virtual Reality in Scripted Television: Why it will ultimately fail

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Submitted to the faculty of Cognitive Science Department in partial fulfillment of the requirements for the degree of Bachelor of Arts

Yale University
April 21, 2017

Abstract:

Virtual reality has prominently made its way into the world of scripted television. It seems to many that it will be the future of the industry, but this is not the case. There are many reasons why virtual reality will fail in the world of scripted television. These can be broken down into practicality issues, issues with the art of filmmaking, and issues with story telling. Practicality issues encompass the current physical, technical, and aesthetic issues plaguing virtual reality. However, these are all issues that will most likely be fixed as the medium becomes more popular. The lasting reasons virtual reality will ultimately fail for scripted television is because of the problems with filmmaking and story telling. Virtual reality restricts the many artistic resources that exist in filmmaking, impeding on the artistry that helps television entice and entrance viewers. Lastly, virtual reality fundamentally opposes the format and goal of storytelling. Instead, virtual reality is confined to be a world creator and not a story teller. This renders virtual reality as a format that will fail for scripted television, but may succeed in different areas.

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1. Introduction:

During my summer internship at Showtime, a premium channel network known for its racy shows like *The Affair* and *Shameless*, we interns got the unique opportunity to sit down with the CEO of the company, David Nevins, and ask him a few questions. One of the interns asked Mr. Nevins what his thoughts were on the role of virtual reality at Showtime and with scripted television shows in general. Despite Showtime's dabbling in virtual reality with backstage and bonus content for a few of their most recent shows, Mr. Nevins claimed with great authority that virtual reality had no place in scripted television shows. On top of being the president of a major television network, David Nevins has won Emmys, produced acclaimed shows like *Arrested Development* and *Friday Night Lights,* and is considered a huge authority in the television industry.

Mr. Nevins' bold claim contrasts the current enthusiasm around virtual reality. The technology has vastly improved since its founding in the early 1960s ("How did virtual reality begin?"). From a review of recent industry publications, it seems as though the television industry is eager to experiment with the growing medium (Giardina 2015). Many believe virtual reality will not only improve television content, but that it will change the scripted television industry and become a popular format for content providers (Giardina 2015).

Yet, virtual reality's place as an up-and-coming technology depends on it solving vexing user and technological issues such as high prices and sociability. While these are expected to lessen over time, there are two unrelated reasons why virtual reality will never work for the creators and viewers of scripted television shows. First, virtual reality lacks filmmaking

knowledge and is difficult to use as an art form, or to reproduce creative forms of expression from traditional television. Secondly, virtual reality interferes with the art form of storytelling. Virtual reality's strengths weaken the scripted craft that is fictional television. Ultimately, virtual reality will succeed as a world creator, but fail as a story teller, rendering it incapable of succeeding in the world of scripted television. In order to show this I must first explain where virtual reality comes from and how it has risen to its current status in television.

1.1 What is Virtual Reality:

Virtual reality has expanded to so many different areas that it is difficult to narrow it down to a single definition. In the simplest of terms, virtual reality means "near reality" or "reality emulation" ("What is Virtual Reality?"). In psychological terms it is a "version of reality that isn't really there, but from [the viewers'] perspective it would be perceived as real" ("What is Virtual Reality?"). In other words, it changes their sense of reality and tricks them into believing something artificial is real. In scientific terms "VR systems simulate real-world inputs to one or more of an organism's sensory neural circuits, then measures the subject's actions and applies the updates to sensory stimuli in response" (Minderer 2016). By giving the brain this made-up sensory information virtual reality changes the brain's response, thereby changing its perception. Virtual reality responds to the body's movements so that a viewer's field of vision changes as his head turns or his body moves to explore the new environment it is presented with. It goes beyond just visual input to include auditory cues through the use of headphones, and motor inputs by using things like treadmills or sensory gloves so that users feel as though they are interacting with the world around them ("What is Virtual Reality?"). Virtual reality should

always elicit the appropriate response for what the user is doing, just like in the real world. This includes tracking head movements, monitoring eye gaze to create depth of field, and following body motions and locations as users walk around (Charara 2016). In technological terms virtual reality is a "three-dimensional, computer-generated environment" ("What is Virtual Reality?" 2016) that requires a smartphone, console, or PC; a headset; and some sort of input tracking movements in order to immerse users fully (Charara 2016). The ultimate goal of virtual reality is to create presence. Presence is defined as "the sense of the body, the spirit, and the mind feeling it is somewhere that is it not. It is the feeling of actively participating rather than passively watching" (Damiani 2016). This is what virtual reality aims to do in all of its forms and definitions.

1.2 The Rise of Virtual Reality:

Despite its new state of popularity, virtual reality has existed for a very long time. It has taken decades, but it seems as if the time has finally arrived for the rise of virtual reality to mainstream use. The earliest cases of attempting to create the illusion of being present somewhere else happened in the early 19th Century with the first panoramic paintings. The idea grew in 1883 when Charles Wheatstone discovered that putting two stereoscopic, meaning identical but shown at slightly different angles, two-dimensional images next to each other created the illusion of depth ("History of Virtual Reality"). The earliest "device" that enabled this was the View-Master Stereoscope by David Brewster in 1939. During this time, the first flight simulator was invented, allowing for the application of other senses beyond visual to become "immersed" in the illusion of virtual reality. The first attempt to bring virtual reality to the

general public was The Sensorama: a 1950s arcade-style theatre designed by Morton Heilig. It had a seat that shook and stereo speakers that accompanied the stereoscopic display of short movies such as riding a motorcycle. In 1960 the very first virtual reality head mounted display was created, but the allure of the stereoscopic 3-D images and stereo sound were not enough. The invention of head tracking software and virtual reality that used a computer instead of a camera quickly followed in the late 60's ("History of Virtual Reality"). The big push came in 1969 with the invention of artificial reality which was defined as "computer-generated environments that responded to the people in it" ("History of Virtual Reality"). The name virtual reality was not given to the technology until 1987 when the first Dataglove and eye-tracking head mount display came out for a whopping price of $9,000 and $49,000 respectively. The price, along with the primitive graphics and uncomfortable, heavy gear, kept virtual reality from users despite the best efforts of video game companies. The first virtual reality arcade games came out in 1991, but SEGA was the first personal gaming company for home use to announce VR glasses at a reasonable price. Nintendo's Virtual Boy 3D gaming console followed just two years later, but neither companies' attempts were met with success. Both discontinued production within a year of the products' releases ("History of Virtual Reality").

The 21st Century has seen the rise of many forms of new technology. Smartphones with 3-D graphic capability and high-res displays can be found in almost anybody's pocket. These, along with the continued efforts of the video game industry to embrace the medium of virtual reality, have kept VR moving forward. Improvements in human interface displays on personal devices and enhanced motion detecting and depth sensing cameras have all allowed for the eventual rise of virtual reality to its current form ("History of Virtual Reality"). As virtual reality

has improved in clarity, efficiency of creation, and usability, many tech companies have taken notice, giving virtual reality the funding it needed to propel itself forward. Perhaps the biggest boost for virtual reality was the purchase of the virtual reality company Oculus Rift by Facebook in March 2014 for $2 billion (Welch 2014). The Oculus Rift is currently one of the best virtual reality head mounted displays on the market, selling at $599.99 per headset (Greenwald). Google took a different approach in June of 2014 by creating a simpler, cheaper version which they call Google Cardboard (Greenwald). The Cardboard was closely based on the very first View-Master Stereoscope ("History of Virtual Reality"). Although not as high of a clarity and ability level, the Cardboard sells at around $25, making it one of the only affordable headsets on the market (Natividad 2016). Other companies have rapidly followed suit with the creation of the Sony PlayStation VR, HTC Vive headset, and Samsung Gear VR (Natividad 2016). Importantly, the backing of these powerful tech giants have also lead to the increase of content creation.

There are three basic types of virtual reality content. The first is a virtual reality world. This takes 3-D renderings to create an environment. VR worlds are most frequently used for gaming. Cinematic virtual reality is the newest form of content. Although growing in popularity and interest, cinematic virtual reality lacks the ability to grasp the concept of story telling. Finally there are 360 degree videos. These are best described as "flat videos morphed into a sphere for playback" (Natividad 2016). They can be viewed with or without a virtual reality headset which is what has made them so popular for video companies like YouTube and even the *New York Times* website (Natividad 2016). Currently all three types of content exist best on a mobile platform, although many headsets can also be attached to a PC or a gaming console. For

mobile experiences, viewers attach their phones to the front of the headset and select a virtual reality setting that is compatible with the headset (Natividad 2016).

The issue is that most of the current virtual reality content has been experience-focused, instead of story-based. The lack of pre-scripted, user-directed content has caused a push for fictional television shows within the industry. The main problem with this is that virtual reality's skills are based in immersion and interactivity, which, as will be described later, take away from the experience of scripted television. The strengths of virtual reality will be its ultimate downfall for scripted television series. Despite this, the experience focus of virtual reality creations has allowed it to become highly successful in a large variety of other areas.

1.3 Current Uses of Virtual Reality:

Where virtual reality has found its current success is in being able to create realistic environments that individuals can "experience" through these headsets and interactive technology. The area in which virtual reality has started to see the most success in is video games ("Applications of Virtual Reality"). Video games combine the best parts of virtual reality which are its ability to create a new and realistic environment and its ability to have a player interact with that environment. However, there are numerous areas beyond video games that take full advantage of these strengths too.

Schools and colleges have used virtual reality as a form of interactive and immersive teaching. While learning astronomy, students can use the headsets to have a first person, 3-D visualization of the solar system's movements and interactions. Sporting fans have foregone

tickets to a game and replaced it with a virtual reality simulation of one. They can walk through and explore the layout of a stadium or field without so much as leaving their room. Other forms of entertainment such as virtual reality concerts, museums, and even fashion shows have all created a buzz with their realistic, and often interactive, manner ("Applications of Virtual Reality").

The military has become an avid sponsor of virtual reality. It gives soldiers a way to "re-enact a particular scenario, for example engagement with an enemy in an environment in which they experience this, but without the real world risks" ("Applications of Virtual Reality"). This more interactive form requires the use of CAVE, which stands for CAVE Automatic Virtual Environment, in order to create the illusion of total immersion. This allows for the use of visual and auditory inputs along with haptic interactions in the form of force feedback. Often occurring as a vibration or movement, the haptic feedback is a response to a user's body movement within an environment. Joysticks, data gloves, or even fake weapons can create this type of force feedback and extend their role into virtual reality. This tool has been immeasurably useful for practicing dangerous activities like submarine dives, flight simulation, coming under fire, nighttime flying of helicopter rescues, and many more military purposes. Virtual reality has become "a simulation of a war zone [that] enables inexperienced soldiers to learn and handle high stress situations" ("Applications of Virtual Reality"). The military has also used virtual reality as a tool for soldiers suffering from post-traumatic stress disorder. Virtual reality is a place where "soldiers suffering from battlefield trauma and other psychological conditions can learn how to deal with their symptoms in a 'safe' environment" ("Applications of Virtual Reality").

Beyond the military, virtual reality has been used for training surgeons, fine-tuning sports skills by measuring bio-mechanics, and creating a 3-D blueprint of a construction site. ("Applications of Virtual Reality"). L'Oreal has even used it to expand their Matrix Academy, an online teaching tool for becoming a hair stylist (Farr 2016). Virtual reality has become a safe and often a much more economic way of providing these trainings and experiences because of its ability to create an environment in which people feel present.

Most of virtual reality's popularity has come from these environment simulations. The "presence" that is often associated with virtual reality it what makes it so powerful for situations such as those listed above. In these examples there is no story being told. Rather, virtual reality is replacing the need to actually be in the real location to experience an event or environment. While this has contributed to the growing interest in virtual reality, for many it seems that virtual reality content has reached a plateau. Doug Liman, director and creator of a new upcoming virtual reality scripted series, states the "If we don't try scripted, virtual reality is going to be really boring" (Zeitchic 2016). And many agree. The rush towards making virtual reality the next big thing in television is in full swing. Liman goes on to say, "Everyone understands that what's really going to drive VR into the mainstream is content, and what mainstream content is rooted in is propulsive stories and characters" (Zeitchic 2016).

1.4 Virtual Reality's current place in the television industry:

Before jumping into scripted television, virtual reality made its first footsteps in the industry through behind the scene and bonus content for numerous big shows. This allowed huge companies like ABC, owned by Disney, to try out the medium before using it for scripted

content. One of ABC's hit shows, *Quantico*, has adopted the medium in conjunction with the car brand Toyota to create *The Takedown VR Experience.* In this bonus clip, participants are able to ride along with two of the FBI agents in the show and listen in on their conversations (Natividad 2016). NBC followed suit by doing a virtual walkthrough of what it might be like to be a contestant on the hit singing competition show, *The Voice.* The walkthrough includes seeing the stage as if the coaches and fans were there and scripted "coaching sessions" (Natividad 2016). Similarly, Viacom's hit series *Nashville* embraced the historic and important setting of the show by giving users a chance to experience the famous Blue Bird Cafe. The show's creators made this piece of virtual reality content called *Nashville: On the Record,* which is a taped concert that takes place with singers and actors from the show allowing users a 360 degree view of the venue (Gonzales 2016).

The second push for virtual reality in television came from the idea that virtual reality is an "empathy machine". News stations and documentary film makers have been some of the most eager to adopt virtual reality. The idea behind it is the belief that virtual reality "is a strong elicitor of emotions due to its ability to make viewers feel present in an environment" (Riva). Discovery Channel was one of the first to create their own virtual reality television content sharing the rich environments they explore all around the world. Sky News has created a first-person virtual reality experience regarding the European migrant crisis. MSNBC created *Lockup 360* which showed users a maximum security prison through virtual reality (Natividad 2016). Others have taken the empathy aspect to create fictional documentaries in hopes of eliciting the same effect. Jamie Wont, a virtual reality documentary film maker, created *Project Empathy,* a mini VR documentary series with some fictional and some non-fictional pieces that aim to create

a realistic idea of the lives of those she deems the “hardest to create empathy for” (Rivero). “Left Behind” is a fictional documentary from the series that follows a nine year old girl who grew up with incarcerated parents. The documentary takes the viewer through the fictional foster home of the child, prison visits, and seeing her parents arrested. The goal of the unscripted film was to use virtual reality environments to elicit emotions (Rivero 2016).

With mainstream introductions to television like these, it is not difficult to understand why the push for scripted, fictional virtual reality television content is heightened. Steven Spielberg, a prominent director who recently joined the board of advisors of a virtual reality company, exclaimed “Nearly everyone producing VR entertainment content says they’re working on scripted or episodic projects” (Giardina 2015). Disney was one of the earliest companies to get involved by investing $65 million in the virtual reality company Juant. Lionsgate and 20th Century Fox followed by striking deals with other virtual reality production companies. “By 2025, Hollywood content for Oculus and more could total $5.4 billion” (Giardina 2015).

Despite this welcome, the first scripted virtual reality television shows are set to debut soon. Netflix, Hulu, Twitch, and Vimeo have all begun to offer virtual reality scripted content for streaming on their respective apps (Giardina 2015). Other channels including Discovery Channel, ABC, and SyFy have all announced scripted television shows launching within the next year. Film festivals, such as Sundance, have already seen a wide variety of scripted virtual reality content at this year’s festivals (Giardina 2015). The question is no long whether or not virtual reality will make the move to scripted television. It has clearly been accepted by some of the

most powerful names in the industry. However, even with this excitement, there are still many companies and important figures in television, such as David Nevins, who are critics of VR as a fad. In spite of which side of the divide Hollywood's top players fall on, inevitably the medium is likely to have limited success. There are too many practical and creative issues with virtual reality that will prevent it from becoming successful in the area of scripted television.

2. Issues With Virtual Reality in Scripted Television

2.1 Practicality Issues:

The first sets of issues facing virtual reality in scripted television are the technological and practical issues that face the rollout of many emerging technologies. While it is very likely these issues may be resolved as the technology improves, it is important to understand where virtual reality is right now. If these usability problems persist long enough, it will not only deter users from buying the headsets, but it will contribute to the ultimate erosion in popularity of scripted television virtual reality content creation.

One issue currently facing virtual reality is price. Tech giants such as Google and Facebook are some of the only companies with enough resources to create these virtual reality headsets. However, creating them requires advanced technology and expensive materials that makes selling virtual reality headsets to a mass market difficult to do at a reasonable price. The price point of the Oculus Rift is $599 (Mulligan 2016), roughly the same as most of the high-resolution headsets on the market. That's assuming users already have a smart phone, PC, or console and does not include any gear to make it interactive. While this price may compare to a

standard high definition television screen, that brings up the second issue with virtual reality: sociability. Unlike TV, virtual reality is meant for a single person. Virtual reality as a social experience is a more like reading a book and discussing it at bookclub then watching a television show. It is something to do independently of others, but can be discussed afterwards. The headset is isolating and the price makes having multiple headsets unrealistic. Sharing reactions and experiences like classic television viewing parties enable users to do are all things that virtual reality lacks and would ultimately take away from the scripted television experience (Hines 2016). Sociability can often be one of the best parts of a scripted television experience. One user describes the moments of "sharing in the reactions of others watching the same screen: to look at their faces as they laugh, squeeze their hands when you're scared, or make a move for a kill when the time is right" (Hines 2016). For many this is what watching a television show is all about. When you put on that headset "you enter a black box alone, and you emerge alone" (Hines 2016). Virtual reality takes away the social aspect of television that so many users enjoy, but even individual users have discovered other issues with virtual reality's usability.

The third practicality issue of virtual reality is motion-sickness. Motion sickness has been a widely reported issue while using virtual reality headsets. It is caused when the visual and vestibular system are receiving contradictory information ("What is Virtual Reality?"). An example of this could be reading in cars; the eyes and ears are taking in different cues on what speed the body is at. The technology for virtual reality is so new that latency issues have increased as content has become more complex. This means that what viewers are seeing could be a few milliseconds behind what they are hearing or each stereoscopic image could be slightly off because the amount of data being processed is far greater than that of a television screen

(“What is Virtual Reality?”). The reality is that “the slightest of deviations in frame rate to image smearing during motion can all cause nausea and discomfort” (Leetaru 2016), and virtual reality has yet control for this.

One argument against these practicality issues is that eventually the technology will get to a place to make cheaper, better, social headsets and render these issues unimportant. But virtual reality is not the first piece of new technology to face these issues. In 2010, “3-D TV was the future” (Leetaru 2016). Numerous news outlets included the New York Times, CNN, and Wired all claimed that the future of home entertainment was 3-D (Grant 2016). Multiple channels, such as ESPN and DirectTV, ended up making their own 3-D network channels and television distributors like Toshiba, Sony, and Samsung invested billions in making their own 3-D capable televisions (Grant 2016). An article from Forbes claimed that “headlines and technology forecasters proclaimed that within a few years the holographic-like home viewing of science fiction would be commonplace” (Leetaru 2016). So what changed? Within two years ESPN3D was off the air and 3-D television sales plummeted. Some of the biggest complaints included nausea, high prices, cumbersome eye glasses, and a lack of captivating content (Leetaru 2016). Issues similar to those of virtual reality headsets. Overall, the issue seemed to be that 3-D television was too complicated. Viewers “wanted to relax. They didn’t want to worry about battery-powered glasses or a headache when it was over” (Yeldarb 2016). Essentially, viewers are lazy (Yeldarb 2016). They want to enjoy their experience and sensible film fans “recognized that film was designed and intended for 2D” (Walker 2015).

There are many who have compared the decline of 3-D television to the future of virtual reality with statements like virtual reality "appears to be more akin to the push the television industry made for 3-D TVs just three or four years ago" (Crecente 2014). Others have taken it even further, stating that "unlike the jump to 3-D—which conceptually was a no-brainer—it's harder to fathom the point of an immersive experience in a static narrative format such as TV" (Grant 2016). Part of the issue is that virtual reality headsets have existed since the 1960's. They would not be the first technology to fail in the entertainment world and it would not be the first time virtual reality itself failed to make it to the general public. Despite these issues, the truth is that many of these practicality problems may fade with time. However, the greater issue of filmmaking with virtual reality is something that will not.

2.2 Issues with the Art of Film:

While virtual reality has entered the scripted television industry for the time being, one of the most problematic parts has been its inability to adopt the art of filmmaking. The inexperience of virtual reality in film has caused limitations in numerous areas including genre, length, technology immersion, editing and control. It remains to be seen if these are areas in which virtual reality can be improved, but it seems as though many of them highlight some of the biggest underlying issues with virtual reality's fundamental goals.

Genre is one of the largest limitations of virtual reality. Currently, most of the scripted virtual reality shows set to air this year fall into the science fiction, mystery, or futurist genre for television. Although these are very popular genres, they do not give virtual reality the broad appeal it needs to break through the industry and grow in popularity. These genres do highlight

virtual reality's technological and interactive qualities, but other genres that are popular on television, such as comedies and romance, may not take as well on virtual reality. These genres require more emphasis on the narrative storyline then those more suitable for virtual reality. The murder mystery or detective cases highlight a user's ability to be interactive within a show and give them something to solve. The science fiction genres rely more on action sequences, where a viewer can follow the movement around the virtual environment and seem to do a better job of keeping viewers attention on the actual characters. Futuristic genres seem to better bridge the gap between virtual reality technology and television by creating environments in which virtual reality already exists. For example, one show currently being filmed for virtual reality is entirely about virtual reality (Hooton 2016).

What these genre limitations do is highlight two main issues with virtual reality. The first is that when it comes to the art of simple story telling, without action scenes or interaction, virtual reality has yet to be proven to work. The second is that the technology aspect of virtual reality can be very distracting for viewers. The novelty of virtual reality mimics the "train effect" that happened when the first movie came out in theaters. "In the early days of cinema, a train on the screen approached the audience, and — alarmed by how realistic the imagery appeared — moviegoers panicked and ran out of the theatre" (Zeitchik 2016). Virtual reality could feel just like that. When viewers put on the headset and immerse themselves in a virtual environment, it is so unfamiliar that it is difficult to forget about the high level of technology being used. There is a certain "suspension of disbelief" (Cohn 2015) that is associated with the familiarity of watching television or movies. When viewers turn on their screen they are in a default state of disbelief, where the longer they remain immersed the more likely they are to believe (Cohn 2015). Virtual

reality seems to have the opposite effect. Jim Cameron, director of famous films such as *Titanic* and *Terminator 2*, remarked that the "audience goes in knowing they're in an artificial environment, so they don't credit the work" ("Virtual Reality/Hyper-Reality" 2007). According to Cameron, while it is the job of a film to make viewers believe on some level that it is real it seems as though "the moment you start playing with virtual reality, the audience knows that what they're seeing isn't real, so you've sort of violated one of the most powerful things about film — the ability to create an alternate reality" ("Virtual Reality/Hyper-Reality" 2007). Some viewers have even remarked that because the story scene feels less real it made the actors' performances appear "less real than on TV" (Paterson 2017). Cameron goes on to say that while the graphics of virtual realty may have "10% of the audience fascinated…the other 90% has shut down" (Parisi 1996). It is clear the the technology aspect that makes virtual reality so strong in other mediums significantly decreases its appeal in scripted television.

Another issue that is currently inhibiting virtual reality is the lack of knowledge and limitation when it comes to filming for virtual reality. The physical differences between filming for television versus filming for virtual reality create this hurdle. Directors and producers must create a 360 degree experience for users in virtual reality. Director of the Nashville VR Experience for the Blue Bird Cafe remarks that "when done for virtual reality this scene must be filmed more like a play than a television series, since the team needs a clear field of vision in several directions" (Gonzales 2016). Instead of needing one to two cameras to shoot a scene, virtual reality could require 24 or more higher-priced cameras (Robinson 2016) set up in the middle of a 360 degree stage. This leaves the question of where to place microphone booms, multiple cameras, and even the director. Some shows have gone as far as dressing up the director

like a silent actor in the scene in order to keep him or her on set for optimal viewing (Ruprah 2015). The special cameras needed to film these 360 degree environments require “three times that graphical horsepower as a standard screen for the same image” (Schkolne 2016). In order to achieve a smooth playback for users, virtual reality requires a frame per second count of 60 frames per second (Robinson 2016) as opposed to the normal 24 frames per second used on traditional movies (Brownlow). This is excluding the fact that in a three dimensional environment the viewer needs three dimensional sound. This means that “when [viewers] are in a 360 environment where different images are placed around them, you want to make sure the sound is coming from that direction,” (Ruprah 2015). All together this creates a much larger amount of data than a standard movie or television show. For 30 minutes of tape without edits there are 100,000 frames of content, far greater than an average television show and nearly impossible to compose in the same amount of time (Robinson 2016). That is why the first virtual reality scripted shows to come out are all no longer than six minutes per episode (Zeitchik 2016). That requirement changes the entire appeal of television. Imagine trying to fit a full hour of Game of Thrones drama into a six minute episode. The content, story line, writing, acting, and editing must all change in order to accommodate the requirements that accompany virtual reality.

What this lack of knowledge and new filming technology has created is a way of watching scripted television that renders all the art of cinematography and editing futile. For many viewers, the art of a show beyond the story happening is the editing used to show it. A close up of someone crying, a pan from one character to another, or a quick cut from a quaint house to the people inside in order to set the scene. None of this is truly possible in virtual reality. The only common filmmaking technique used in virtual reality is cuts. The issue with

cuts in virtual reality is that transitioning needs to seem realistic. “In real life we don’t expect to be tele-transported to another place. It’s the same thing in a virtual reality movie” (Ruprah 2015). Because of this need for a feeling of reality, virtual reality film makers try to make each scene far longer than the average television show. This also gives users time to explore their environment. (Ruprah 2015). In traditional television, these editing techniques are what draws a viewer’s attention. Cuts, pans, zooms, and more show the viewer what is important in the scene and for the story and direct the viewer’s focus. What the lack of editing techniques ultimately leads to is what some call the biggest issue of virtual reality scripted television shows: lack of control of where the viewer is looking.

Creators of virtual reality content have no way of controlling where the user will look. A user’s view is not limited to the borders of a screen. Imagine watching a play that is taking place in a circle around the audience. Viewers can look wherever they would like at any point in the play. Without the same editing tools as normal television the creators have no way of controlling the head movements of viewers (Zeitchik 2016). Some viewers have found it distracting to have this kind of freedom. 360 degree viewing makes the viewer “take ownership of looking where [he or she] wants” (Paterson 2017). There is always the fear, by both the creators and the audience, that the viewer is not looking in the optimal location to experience the scene and advance the story. One user remarks “I watched as my friends took turns behind the eyes of this character, craning their necks around the room trying to make sure they weren't missing any content hidden in their 360-degree virtual space.” (Hines 2016). In any movie, the position of the camera “frames the understanding of the scene” (“The Art of Storytelling and Narrative in VR”).

It is the same in virtual reality: “the user’s position within the scene can dramatically shift how they think about the story as it unfolds” (“The Art of Storytelling and Narrative in VR”).

So far there have been two different approaches to addressing the issue of lack of control. The first is to attempt to control where viewers are looking. This pertains best to more traditional virtual reality scripted shows. The objective becomes less about controlling where the user is looking and more about forced guidance through quicker cuts and a singular action sequence occurring in the scene (Robinson 2016). In order to do this virtual reality content creators have attempted different techniques. One example from *Edge of Space,* a virtual reality narrative film, involved darkening the areas of the screen to the left of the viewer’s gaze in order to subconsciously push their gaze to the right where the important part of the scene was occurring. In order to do techniques such as this, virtual reality creators must have a way of roughly estimating where a viewer is looking (Natividad 2016). The issue with this is that it is fundamentally at odds with the freedom that virtual reality offers. This juxtaposition often frustrates viewers, one of whom said “I knew where to go, yes but I failed to see the point: It wasn’t a game, but it wasn’t a story either” (Neal 2016). Other directors have chosen to go the opposite direction and relinquish complete control to the viewer. This allows viewers time to openly explore their environment and then choose which areas to focus on. The virtual reality show *Invisible*, directed by Douglas Liman, shows multiple important conversations occurring at the same time in the same location, putting the control into the users hands. In order to get the full effect of the scene the viewer must watch it multiple times to listen to all the different conversations. In this way, creators are giving more work and responsibility to the viewer rather than the editor (Zeitchik). This is one of the biggest fears about virtual reality, especially for

traditional Hollywood. Steven Spielberg was one of the most famous people in Hollywood to speak out about this “dangerous development for traditional film-makers” (Child 2016) at the Cannes Film Festival. Spielberg suggested that “the new format risked undermining directors’ control of their art and gives the viewer a lot of latitude not to take direction from storytellers but make their own choices of where to look” (Child 2016). This freedom renders so much of the art of storytelling in film useless and, for many, diminishes much of the power of storytelling. Spielberg ended his speech by warning viewers, saying “I just hope it doesn’t forget the story when it starts enveloping us in a world that we can see all around us and make our own choices to look at” (Child 2016). Through his speech, Spielberg emphasized many of the fears of filmmakers when it comes to virtual reality destroying the art of storytelling.

2.3 Issues with Storytelling:

Ultimately, virtual reality is a world building tool, not a storytelling tool, and this fact undermines virtual reality’s ability to be used in the world of scripted television. It changes linear narratives to nonlinear, it undermines the jobs of narrators and screen writers, and it puts the power of creation and plot discovery in the hands of the audience. Although these aspects may work well within the realm of virtual reality video games, when it comes to scripted television this is where virtual reality is doomed to fail.

The first thing to note is that virtual reality creators do not call their pieces films, they often refer to them as “experiences” “storyscapes” (Damiani 2016) or “spatial storybuilders” (Damiani 2016). What virtual reality really does is world building. Virtual reality content creators build worlds and this is what has made virtual reality successful: its ability to

create realistic and fantastic environments. But where they are currently running into issues is in their ability to implement a story into these environments. The issue with creating a environment and relying on the "presence" and "immersion" aspects of virtual reality is that instead of telling stories, they are creating experiences. The allure of virtual reality is putting the viewer somewhere they currently are not to experience something. This is why users feel as if they are in a basketball arena, a state park, or an operating room. But the difference between an experience and a story is crucial. According to Jessica Brillhart, Google's principle virtual reality filmmaker, "a story is a result of an experience" (Haridy 2016). An experience is the moment something happens; it is the environment around a viewer. A story, on the other hand, is what happens when one looks back at an experience. A story is the act of adding meaning to experiences; stringing them together in a way that was most likely not conscious in the experiential moment, but looking back now provides new emphasis, emotions, and morals. The art of storytelling is making something meaningful from experiences, which is why virtual reality has failed in the storytelling arena. Even Brillhart asked this question: "As a medium can VR even function as a storytelling device, or does the inherent immersive interactivity of the medium make it fundamentally unsuitable for those ends?" (Haridy 2016).

With the move into scripted television, virtual reality has approached adding characters and story to their experiences in four ways by considering character presence and impact on the story. The first is to have the viewer be an "active story character" ("The Art of Storytelling and Narrative in VR"). This means the user has both a character presence and an impact on the story. One example of this is a virtual reality show set to debut shortly called *Defrost*. The premise of the show is that the viewer in the headset takes the place of the main character who is waking up

from a long spell in a coma to his family surrounding him in the hospital (Hines 2016). A show like this addresses multiple issues, many of which were already discussed above, including lack of viewing control. But what *Defrost* exemplifies is that having the point of view of a character does not generate empathy or emotion. The awfulness of an experience, such as waking up from a coma, cannot be felt through the sights and sounds of a hospital room. Gillian Swanson, the creator of the Be Another Lab project that examines the intersection of technology and empathy, is one critic of virtual reality. Swanson describes the feeling of using virtual reality as an "assemblage of visual and haptic experience of another putting me in their place, but not actually in their body" (Sutherland). Viewing the same things as a main character does not recreate their emotions or the physical effects of what he or she is going through. In fact, it may further restrict empathy because the viewer has no ability to see the character's facial expressions as a cue for what they may be feeling. Instead, *Defrost* seems to have had the effect of leaving viewers confused on where to look and what is happening. One viewer comments that waking up from the coma "should be a powerful emotional moment, but you can't help but wonder what you've been missing" (Hines 2016). While exploring the room, viewers are left to imagine what the main character should be feeling. The lack of knowledge about the character's history and the inability to view the main character's facial expressions makes it nearly impossible to attempt to understand the emotions of the main character. *Defrost* embodies the issues associated with "active story characters" in virtual reality by showing why a perspective change does not actually increase empathy or understanding.

The second option is to allow the viewer to be a "God-like Outside Force", meaning they are not a character in the show, but they do have an impact on the story ("The Art of Storytelling

and Narrative in VR"). *Wild: The Experience* is a scripted virtual reality show based off of the Reese Witherspoon movie *Wild.* It places the viewer in the forest on the Pacific Crest Trail watching two characters engage in conversation (Hines 2016). Unlike *Defrost, Wild* encourages viewers to look around and appreciate the environment. The story then unfolds as the viewer discovers new things within the environment. The script has far less dialogue and the plot is only forwarded by the action of the viewer (Hines 2016). Instead of the traditional "teller-listener paradigm" of stories, shows like *Wild* show the new "Builder-participator paradigm" of virtual reality (Damiani 2016). In these situations "stories aren't told at all. Environments and circumstances are constructed and while they can certainly be built with a particular director's visions in mind, the agencies lies in the hands of the participators" (Damiani 2016). In these types of shows every viewer could experience a different story. The viewers "choose how to participate" and the "user interaction fundamentally changes what the story becomes" (Damiani 2016). Oftentimes this can be determined by where the viewer is looking or focusing their attention. Dave Dorsey, Creative Director of the virtual reality production company SilVRscreen Productions, likens it to "watching a movie that changes depending on what part of the screen you're watching. Your eyes drift to the bird in the tree instead of the dog on the lawn, and as a result the next scene is about flying between houses instead of roaming in alleyways." (Damiani 2016). As exciting as this "choose-your-own-adventure" might seem, it takes away from the beauty of a pre-crafted story on television. When is comes to shows like *Wild: The Experience,* it is clear that "Wild is essentially, a type of video game" and not a story (Hines 2016).

The third option is to make viewers as "Passive Story Character" ("The Art of Storytelling and Narrative in VR"). In this case viewers have a role as a character within a show,

but do not have any impact on the story ("The Art of Storytelling and Narrative in VR"). An example of this is the show *Satchel.* The murder mystery is set up so each episode the viewer takes the perspective of a different character in order to solve how another character was killed (Cshirley). Shows like *Satchel* bring up the important question of how being a viewer versus being a character changes the impact of a show. One of the biggest issues with being a character is that viewers feel as if they are a participant in the show with an ultimate goal of "winning" by solving something like a murder mystery (Haridy 2016). What this "winning" aspect does is "separates the interactive nature of a game from interpretive qualities of engaging in stories" (Haridy 2016), thereby keeping viewers from fully appreciating the storytelling content.

The fourth and final option is to allow users to be "traditional story viewers" ("The Art of Storytelling and Narrative in VR"). In order to do this viewers have neither a role in the story nor any impact on the story. While virtual reality scripted television may be drawn to this as a way of further separating themselves from video games, attempting to make traditional scripted television function for virtual reality is met with its own set of difficulties. Some have questioned whether or not viewers can function as just audience members in virtual reality since it "is primarily defined by its ability to immerse" (Natividad 2016). *Invisible,* arguably the best acclaimed and most traditional scripted virtual reality TV show, is the biggest hope for Hollywood and virtual reality to collide. The director, Doug Liman, is known for his work on *The Bourne Identity* and *Edge of Tomorrow* (Robinson). The screen play is written by award winning writers Julina Matlock and Melissa Wallack (Smith). The show follows an heiress who has recently inherited her deceased grandfather's estate and must guard the family's supernatural secrets. As the most traditional of its kind, *Invisible* is the ultimate experiment for virtual reality

scripted shows (Robinson). Despite its attempt as a standard television show, *Invisible* changes the linear format of television shows. Each episode can be watched sequentially or out of order and within each episode each scene must be watched multiple times to focus on the important conversations co-occuring (Zeitchic 2016). Because of this, *Invisble* barely resembles the temporal-linear television format and instead creates a new kind of spatial, non-linear format where things occur in the same place, but in no particular time order. Invisible also struggles with the lack of viewer control. The trailer has been described as "not great" by viewers' constant need to "pan around left or right [which] mostly just rewards you with shots of walls or out-of-focus background characters" (Ligman 2016). Despite its best attempts, *Invisible*'s attempt to bring traditional storytelling to virtual reality only seems to highlight the inability to merge these two juxtaposing art forms.

Despite all four questionable formatting attempts to bring storytelling to virtual reality, the biggest argument against attempting traditional storytelling using virtual reality comes from the creators of virtual reality themselves. The director of the virtual reality narrative film *Edge of Space* comments that "sometimes when there's too much story it destroys the experience" (Natividad 2016). Even the owners of the highly acclaimed virtual reality studio Felix & Paul have expressed concerned saying we have to "make sure story telling doesn't destroy [virtual reality]" (Neal 2016). It seems the problem may be a two-way street. Virtual reality may fundamentally be at odds with the art of story telling, but storytelling may also take away the interactive and novel power of virtual reality. Ultimately, it seems that the reason why virtual reality will not gain wide acceptance for scripted television is that in order to be mediocre (at best) in one medium, it looses its defining characteristics in its other mediums.

3. Conclusion:

The big issue against employing virtual reality in scripted television shows has to do with timing. With today's technology virtual reality for scripted television is somewhat limited. What will the future implications of improving technology and increased experience mean? It is clear the medium of virtual reality and linear television shows do not complement each other. Virtual reality has gained acceptance by the gaming community, but that is unlikely to determine whether it succeeds in film and television. Scripted television shows will continue to be popular on television just as they always have, without virtual reality. Just as one virtual reality director pointed out, "You don't actually need VR to tell a good story: you can use a show-puppet on the wall and move people if the story is really good" (Natividad 2016). The single issue is that virtual reality fundamentally interferes with the art of storytelling. Virtual reality fails to improve upon scripted television shows, in fact it diminishes viewing enjoyment. In order to even attempt to keep the strengths of a television show, virtual reality loses its own strength, that of interactivity. At best, the combination of the two will create a mediocre television show and a reduced version of virtual reality. The interactive and technological strengths of virtual reality make it perfect for experience-based activities and video games, but when it comes to storytelling it takes away from the medium. In order for virtual reality to not have the same path as 3-D television, it must stick to its strengths, which ultimately means retreating from the medium of scripted television.

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