**The Thesis Committee for Robert Randall Mallin**
**Certifies that this is the approved version of the following Thesis**

# VIDEO GAMES AS LIVE PERFORMANCE

**APPROVED BY**
**SUPERVISING COMMITTEE:**

Kirk E. Lynn, Supervisor

Sven Ortel, Co-Supervisor

Richard M. Isackes

Matthew Smith

# VIDEO GAMES AS LIVE PERFORMANCE

**by**

**Robert Randall Mallin**

**Thesis**

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

**Master of Fine Arts**

**The University of Texas at Austin**

**May 2018**

# Dedication

To my family; my mother and father Cathie and Burt; my grandparents Ross, Hilda, Leonard, and Olive; my sister Jennifer; my niece Nicole; nephews Joshua and Elliot; and my brother-in-law Felix. To all my mentors, teachers, friends, extended family, Bruce, Randy, and the Kellys. I thank each of you for your support that allowed this work to be made possible.

# Acknowledgements

Efforts were made to ensure all copyrights and citations are accurate – if however, an adjustment needs to be made, I will happily pursue correcting for the error. Please contact me with any such requests at rrmallin@gmail.com.

# Abstract

## Video Games as Live Performance

Robert Randall Mallin, MFA

The University of Texas at Austin, 2018

Supervisor: Kirk Lynn, Sven Ortel

Over the last 45 years, what started as small gatherings of video game players competing against each other, has grown into a 1.5 billion dollar industry known as – Esports (Chalk). Predominantly popular with gamer audiences, Esports does little to engage non-gamer audiences. Additionally, the live events make poor use of scenographic design techniques which includes media, scenic, lighting, and costume design. This is where the thesis investigation began by asking; "how can I enhance the live Esports experience with scenographic design?" However, the priority of Esports is to maintain the integrity of competition by ensuring a play space that allows players to perform uninhibited by any external factors. This priority to maintain the integrity of competition in Esports creates limitations over many scenographic design techniques – and due to this – I question whether Esports intends (or wants) to be a performance at all. This lead to the next driving question; "Can the playing of live video games be performative?" Furthermore, "Can a live video game performance engage both gamers and non-gamers?"

A format that allows gamers to perform characters or personas is streaming. Gamers who do this are called streamers. Streamers broadcast live video of themselves online while taking on personas and directly communicate with audiences via microphone. This thesis draws inspirations from the elements of streaming, and a popular platform for streaming is TwitchTV. The elements of streaming include personas, the streamers vocal communications, and audience interactions. None of these aspects are present in Esports. In fact, these elements of streaming have never been applied inside a shared space with a live audience.

To find answers to the questions presented in this thesis, I produced a live performance inspired by Esports and TwitchTV at the University of Texas at Austin. For this performance I will create a new scenographic design format to support a live performance of video games. With this design I will focus on performative gaming ahead of competitive gaming. To help gauge the success of the event, an anonymous survey was given to audiences. The survey identified audience members as gamers or non-gamers and had them answer a series of questions about their experience.

# Table of Contents

# List of Tables

# List of Figures

# BACKGROUND

## Who Am I?

Over the course of my life and up until this point I have spent the vast majority of free time between three personal interests; the performing arts, playing video games, and sports. I believe the experience garnered in each of these collectively gives me an effective and unique perspective on the growing industry of what is labelled as Esports.

### THE GAMER

I was born in the mid-80s and grew up playing video games. I had a variety of gaming consoles and even won a high score competition playing Super Mario at a local video store! When my family purchased our first computer, an Intel 486, I soon began to favor PC (computer) gaming over consoles. I got deeply involved in playing Counter-Strike, a first person shooter game, and joined online leagues and attended computer gaming tournaments. I had some moderate success in competitive play but never quite broke into the professional scene, which at that time, could not afford you a living. Still through my late teens and early twenties - I told my parents I wanted to be a professional gamer, and after explaining what that even was, they like most people - mocked the idea. Eventually I reached a point where I wasn't finding myself as committed to professional gaming anymore and gradually I became a casual gamer. This allowed me to focus on other aspects of my life - though I still regularly find time to PC game with friends!

## THE ARTIST

I was involved in performing arts from about the age of five. Though not an intentional focus in my life until later - I performed in yearly talent shows for both school and the private community pool in our neighbourhood. My sister and I would record ourselves on audio-cassette and I would act out the scenes of movie moments after watching them. I always enjoyed decorating the house for the holidays - in particular Halloween - and even stopped trick-or-treating at age thirteen to instead design and animate a haunted house in our garage. One year I was even given the opportunity to design a large scale haunted house on a stage in the basement of a local church - a very rewarding memory. I also enjoyed drawing and painting - often spending a lot of time doodling into my textbooks or onto my desk in class.

One of my grandfathers was a filmmaker and through him I became interested in exploring filmmaking myself. Throughout elementary and high school, I would create a film for any project that would allow me the opportunity. Friends and I formed a backyard-wrestling troupe and recorded our matches that included flaming tables and highflying stunts. I volunteered as a documentarian for the high school talent show, and I would also run the follow spot for the shows. Post high school, I studied and earned a diploma of collegiate studies in film and television from Champlain St. Lambert College. Later, I would pursue a Bachelor of Fine Arts in theatrical design at Concordia University where I focused primarily on scenic and lighting design. Starting in my last year of my undergraduate degree - I worked as the lighting and scenic designer for a startup theatre company called Lifelong Productions in Montreal, Quebec.

Almost a year after graduating from Concordia with my BFA - I moved to Austin, Texas in pursuit of my Master of Fine Arts at the University of Texas at Austin. During my first summer break (2016), I attended the Stagecraft Institute of Las Vegas (SILV) to

further my stagecraft abilities. In support of this thesis and through connections I made at SILV - I was given the opportunity, by Mat and Kate Stovall at LampedUp, to work as an intern on the *League of Legends Worlds Championship 2016* in Los Angeles and as an associate lighting designer at *Blizzcon* 2016 in Anaheim shortly thereafter.

**THE ATHLETE**

I started ice-skating when I was two years old, and I played hockey in organized leagues throughout my childhood and adolescence. I continue to play hockey in pick up/social leagues as an adult whenever the option arises. I played several other sports and was involved with martial arts - but was never as committed to any of those as much as to hockey. I was never a star athlete on any of the teams I played for but I loved the spirit of competition. I am interested in the live events associated with sports and the rituals we experience when present at the live games. I enjoy the audience atmosphere, and the collective energy felt from winning or losing and the tension in the final minutes of a close game are enthralling. During my undergraduate studies I wrote a paper about the rituals in sports and how they relate to theatre. In support of this thesis, I also took a class at the University of Texas at Austin on the business of sports media.

## A Brief History of Esports, and their (lack of) Presentation.

In October 1972, a video game competition took place at at the Standford Artificial Intelligence Lab using the game 'Spacewars.' The event was organized by Stewart Brand, a writer for Rollingstone magazine, and the (fitting) grand prize was a free subscription to Rollingstone magazine! This event is widely accepted as the first video game competition (Baker).

The "Spacewars" competition was documented and printed in the December 7th, 1972 issue of Rollingstone magazine - but the producers made no effort for it to be presented to live audiences. The seed was planted though, and for over a decade leading up to the advent of the Internet, video game competitions became larger and larger. With few exceptions, little effort was given to the live presentation of these video game competitions. This is understandable though, the primary motivation behind these competitions was to create a controlled environment that would ensure an undisputed champion of a given video game - not create a performance. The results of these competitions would be documented in publications - notably the *Guinness Book of World Records* and *Twin Galaxies*. The exception in this era was a television show called *Starcade* that aired from 1982-84. Selectively shot and edited for television, *Starcade* is arguably the first attempt at presenting video game competitions to audiences as viewable entertainment.

Before the commercial availability of the Internet, it was only possible to compete with other humans directly in a video game if they were in the same room as you. With the advent of commercially available Internet, players were suddenly pushing themselves further and harder than before because of the exposure to a larger and more competitive player field. In the late 90's and early 2000's, online leagues and organized teams began

forming - but the need for live video game competitions was still necessary. In order to ensure fair play as the competitive field increased some players looked for cheats that would give them a competitive edge. For example, wall hacks would allow a player to see through an entire map and know where the enemy players where. In addition to hacking, another problem arose with online competitive play - latency. If you are experience lag in game, this will have a dramatic effect on the results of a game. In the case of Counter-Strike for example - your shots at an enemy player may not register, as they should. Therefore, if you want to know if a team from the East coast of America is better than team on the West coast, the only fair way is to have them meet and compete on LAN (Local Area Networks). This way latency can be negated, and players cannot cheat because their monitors are viewable to everyone present. LANs are events where participants gather in a location (commonly gymnasiums or hotel conference rooms) with their personal computers/consoles (sometimes provided) and face each other in tournament play that typically lasts a weekend.

Figure 1: CPL Lan Tournament 2004 *Source: CPL Facebook Public Page*

A notable moment in Esports comes in May of 1997, at a tournament called *Red Annihilation,* where players competed in a highly popular game known as *Quake*. The grand prize was a Ferrari 328 GTS (highest valued prize ever at that time) donated by the creator of *Quake*, and godfather of first person shooter genre, John Carmack. The winner, Dennis "Thresh" Phong, is credited by the Guiness Book of Records as the the first professional gamer. While *Red Annihilation* was arguably the highest profile Esports event at that time, almost no documentation beyond some in-game footage exists from the event. This is indicative of the lack of attention given to the presentation of Esports for audiences in North America at this time. During the same period in South Korea,

Esports had become hugely popular due to a perfect storm of unemployment, broadband internet, and internet cafes called PC Bang's.

Starting from the early years of the new millennium and onward to present day, Esports has expanded exponentially. The number of tournaments has grown and the prize money has reached into the millions. Organizations then, and still now, form and fold as they attempt to shape the growing industry of Esports. Also beginning in the early years of the new millenium, we begin to see a shift in production quality and attempts to make Esports (and video games as whole) attractive to a viewing audience and not just the participatory one. A variety of media starts being generated from the playing of video games that includes highly produced television shows, self-edited amateur highlight reel, film documentaries about the Esports industry and the popular streaming platforms of today.

## Video Games for Viewing Audiences

Video games are written and produced with an intention to entertain the individual player through an interactive experience. However, inspirations to create new experiences can be drawn from these games and manifest in any number of ways. These could be movies, studio art, cosplay, or even live events. We will look at some necessary examples that use the in-game experience of a video game as primary content for a viewing audience. Of particular interest in each case is the motivation behind each form. For example, Esports events created by a third party have different objectives from ones created by the games manufacturer. Each of these formats have their respective limitations.

### ESPORT EVENTS

Starting in 1972 with 'Spacewars' and up until the early 2000's, Esports were typically held in hotel conference rooms or gymnasiums and only event participants attended. They usually consisted of a weekend long tournament, culminating in a final on the Sunday evening. The events rarely considered a viewing audience - and when they did - the audience experience was a bottom priority. Esports events organically evolved from a room of contestants into an intentional effort to present a final tournament match on a stage. Today, the venues used for Esports often include audience seating - and regularly fill entire sport arenas. Although many of these events may still be weekend long LAN tournaments that finish with a final main-stage event, we also see entire events built around a final match(es) alone, such as the RIOT Worlds. While the weekend long version is most similar to a professional Golf tournament, the latter is most similar to an Olympic gold medal final. Esports events are generally hosted by one of two groups, the creators of the game(s) being played, or by one of the many third party organizations

such as, the World Cyber Games (WCG), Electronic Sports League (ESL), Cyber Professional League (CPL), or Major League Gaming (MLG).

**Esports Produced by Gaming Companies**

The *League of Legends World Championship* is one of, if not the, largest Esports competitions in the world by viewer count. In 2016 there were 43 million unique views according to Wikipedia. *Blizzcon* is Activision Blizzard's annual conference that takes place over the course of a weekend. All of Blizzards major announcements for the following year, and all the final Esports tournaments using their games happen during this weekend. In 2016, while I was at *Blizzcon,* Blizzard announced *Overwatch League*. *Overwatch League* is Blizzards attempt at creating an official Esport league that wants to sell out arenas and franchises across America.

Figure 2: League of Legends World Championship 2016 *Source : Robert Mallin*

In the case where the creators of a game produce an event - the primary objective is marketing. These events sometimes only include Esports as a portion of a larger event or conference - for example Blizzards annual event "Blizzcon." In another instance, RIOT's "League of Legends" tournaments focuses entirely on the one game but have costume contests and musical acts as part of the weekend entertainment. In both instances, Blizzard and RIOT use these events to announce big game changes and goals for the company in the coming year. Based on my research and experiences, I find that little consideration is given to the stage design of their Esports events. Screen placement for in-game action is often located far from the professional gamers audiences came to see play live. Additionally, the players themselves are often isolated behind their personal computers or arranged in such a way that we cannot even see them! Shoutcasters (aka commentators) do offer in-game play-by-play and personal excitement to gamer and non-gamer audiences alike. These events benefit from large budgets and have the *'flash and trash'* visuals you would find at a rock concert. While it remains to be seen where these efforts lead, some companies are trying to establish formats and leagues to best facilitate Esports to broader audiences - but currently no universal format exists.

**Esports Produced by Third Party Organizations**

In the case where an Esport event is produced by a third party organization the motivation is typically the integrity of competition. These events typically host multiple tournaments at a single event using the most popular games. The players and producers want to see Esports recognized as a legitimate spectator sport and need audiences for that. Therefore, scenographic design elements are welcome - but given that these events originated with a notion of pure competition - not even one of these elements can influence or impact the integrity of competition. This creates major scenographic

limitations that would otherwise enhance the audience's, particularly non-gamer audiences, viewing experience. Players make an extensive effort to isolate themselves from audiences - sometimes even being contained within sound-proof containers. It is of critical importance to the competition, that the player(s) cannot see the opposing players monitors or hear the opposing teams voice communication; thereby limiting staging options. Lighting can create glare on monitors, and therefore is also restricted in many ways. These events do consider the in-game screen placement carefully, as it ostensibly acts as the primary focus for the audience. Sometimes a hero screen for each team is shown to the audience. However, when audiences can see two opposing players' screens at the same time - they often shout with anticipation moments before a potential in-game engagement. This has proved to prevent action from players who recognize something is about to happen - giving away a surprise attack or strategy. To alleviate this, in-game screens are delayed, robbing audiences of these anticipatory moments of shared excitement.

### User Generated Content and Social Networks

User generated content is motivated by the spirit of competition and the gaming community. The motivation has been the same since "Spacewars;" to prove yourself the best gamer to the largest community of gamers possible. The tools available to prove yourself to be the best have become more sophisticated since 1972 when photography was your only option. Today gamers will record themselves playing video games - posting the resulting videos on social media and platforms like Youtube. Streamers are most active on TwitchTV but also use other streaming services such as Youtube or Facebook live.

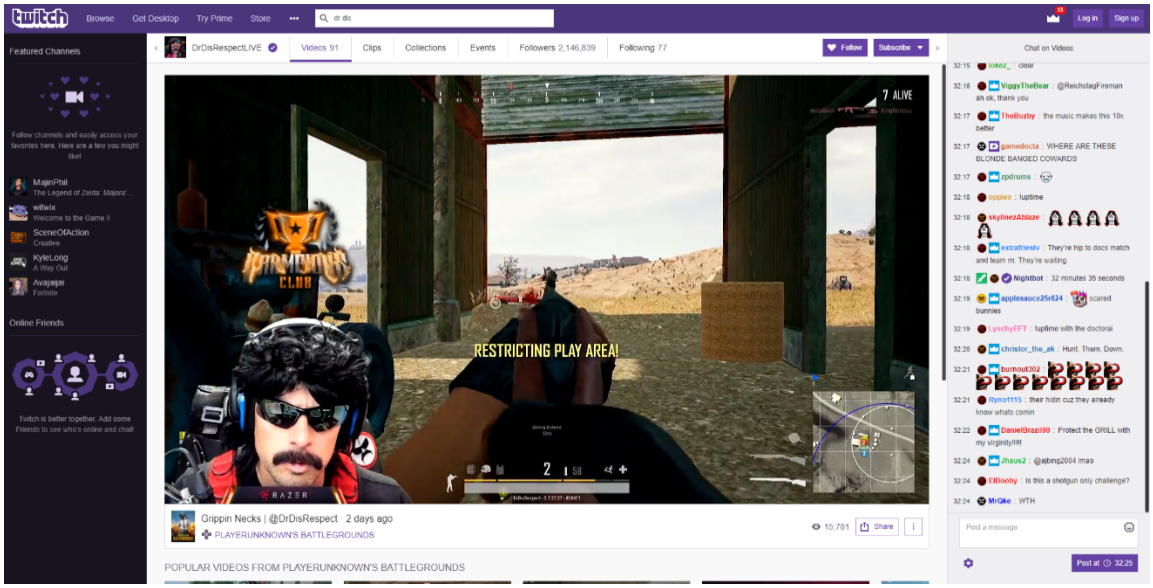


Figure 3: Example of a TwitchTV *Source: Screenshot by Robert Mallin*

**Screenshots, Demos, and In-Game Highlights**

Gamers often record their play sessions, either as an in-game screenshot or as a recorded demo of the match. This is often because videos and screenshots are generally required by online leagues in order to verify your play as legitimate. Once you have this recorded media however, you can also share your moment(s) of excellence with friends and communities - hopefully building your reputation as a top-tier player. If a player collects enough of these moments, they could create a highlight reel cut to some exciting music - marking you as a true professional gamer or team to the rest of the community. Before Youtube, these highlight videos would be available for download on dedicated websites. Very quickly these videos began to include blooper reels showing a players or teams worst/funniest moments. The desire to *'troll'* (intentionally subvert or oppose a set of rules or community for entertainment of others) competitive gaming became a genre of video in addition to the highlight reel. A professional Counter-Strike team named "PUBMASTERS" got their name from the term used to describe non-competitive gamers

who used public servers (casual gamers) instead of private servers (professional gamers). They employed non-traditional tactics and strategies and had moderate success in competitive play, however, they where highly entertaining to watch (see Appendix 5.) Despite only reaching moderate success, they were extremely well known within the Counter-Strike community due entirely to their in-game antics. In fact, if a team used a non-traditional strategy in a game of *counter-strike*, it would often be referred to as a "PUBMASTERS" strategy. Although the videos of their play is contained to in-game footage that is pre-recorded and edited content (and not a live production) - this notable team explored professional video gaming as performers and not just gamers. Pre-recorded and edited video-game content is still common today on platforms like Youtube - with the addition of how-to and strategy videos.

**Streaming**

Justin.TV was a website that started from an idea by Justin Kan in 2006: His idea was to broadcast his entire life 24/7 over a live stream (known as lifecasting). In 2007, Justin Kan changed the site from streaming only himself to allowing anyone to stream anything they wanted and categorized the streamers content into genres. Video games was one of those genres, and video game streaming quickly became the most popular channel on JustinTV. Eventually Justin Kan turned the single channel from JustinTV into its own stand-alone streaming platform – TwitchTV.

Donations from audiences, sponsorships, subscriptions, and merchandising make streaming a viable career. It all comes down to viewer counts and streamers who have the highest counts offer different combinations of personalities and content on their channel. With so many streamers, being successful means having something that keeps audiences watching. Streaming is often self-produced and therefore quality ranges dramatically. On

most platforms audiences can share comments, thoughts, challenges or give donations in a live chat room shared with the streamer. The streamer will generally respond (in character) and continue the dialogue or accept/deny a challenge. This gives audiences a sense of connectivity/intimacy unavailable in most entertainment.

***The Streamer***

Streamers are often essentially actors, assuming individual unique personalities during streaming sessions. In some cases these personalities are not far off their own personal traits, however others may take on entirely fictitious, costumed personas, whose characteristics may extend into, or be drawn from, an overall theme that reaches into the content and production of their live stream. Regardless of whether a streamer chooses theatrics or not, those that acknowledge their audiences are generally the most successful with respect to viewership. One notable example of a persona enhanced streamer is Dr. Disrespect, whose real name is Guy Beahm. He dons an iconic moustache, wig and sunglasses in addition to a leather jacket. His character is a love-to-hate personality and when faced with in-game decisions he delivers to his audience by making the choice his character would and then reacts accordingly. Despite his theatrics, he is an accomplished player and often teams up with professional gamers. These combined streams form a quasi super-team of famous streaming personalities which generate massive viewer counts. On March 11th. 2018, during the writing of this thesis, an impromptu super-team was formed between TwitchTV's top Fortnite streamer, “Ninja” and celebrity rap singers Drake and Travis Scott – drawing hundreds of thousands of live views. The notable aspect is that viewership numbers heavily favor streams that engage personalities playing video games and not just the video games themselves. In the former example of Dr. Disrespect, his persona and interaction with his audience enhance the experience of

gaming viewership, whereas in the example of Ninja, Drake and Travis Scott, we are watching something more akin to reality TV. In both cases though, despite being done for a live audience it is broadcast and not done in a shared space with a live audience.


Figure 4: Dr. Disrespect *Source: USGamer.net*

***The Content***

Similar to the pre-recorded highlight videos, how-to/strategy videos, or the comedic videos - streamers generally produce similar content. Each streamer would likely have themed-overlays added to their stream for donations or special moments. They will likely have dressed the background behind themselves according to their overall theme or sometimes they will position themselves against a green screen for any number of applications. They may have camera views they can swap, going from full screen image of themselves to in-game with a thumbnail overlay. The production value varies greatly and will have an effect on overall viewer count. The game played and

playstyle employed by each streamer is also related to their character and theme - for example - one streamer may choose to be more performative while another is more competitive.

# VIDEO GAMES AS LIVE PERFORMANCE

## Process

I began graduate school in 2015, and almost immediately began thinking about what I would create a thesis about. It considered my personal interests, video games, live performance, and competitive sports. Where do all these interests converge I wondered; Esports perhaps? I started reflecting on previous Esport events I had attended, and I recalled feeling underwhelmed. I felt that this underwhelming live event could benefit from a designers eye. The start of my thesis began with this question "How can I enhance the live Esports experience using scenographic design?" I gathered research images and videos, but the purest research would come from a generous offer by Mat and Kate Stovall of LampedUp. They offered me an internship to work at the *League of Legends Worlds Championship 2016* and at *Blizzcon* 2016 - possibly the two largest Esports/video game events in the world. This enabled me to talk to industry professionals from each of the respective companies as well as with the broadcast and production teams of both events. Returning from that trip in October 2016, I had only a few short weeks before presenting my thesis and guiding question to peers and professors in a class called *Forum*. From this presentation a conversation was generated that left everyone in *Forum* asking, do Esports qualify as a performance at all - or are they simply events? In order to continue with my thesis it was vital that I answer this question specifically.

In a lecture by Richard Isackes in *Design Theory* class, he described the three essential elements needed to qualify something as a performance. Those elements are; an audience; a space; and a performer. My immediate observation concluded that Esports contains an audience and a space, however I was left confused when identifying a

performer. One would assume the players themselves are the performers - however they are hidden away behind monitors or even isolated inside soundproof boxes to maintain competitive purity. Player cameras are used to overcome the isolation created as a result of competitive purity. In most designs each player can be seen on screens - and to some degree this helps - but then why bother sharing a live performance space? Additionally, the players on screen are frankly, boring to watch. Players are hyper focused on their in-game performance, and this could be interesting, but there is no outward expression of that tension. We also cannot hear anything happening on stage between the players even though we can see they are talking on camera to one another. If we can't hear them and can barely see them, what are audiences even looking at? The only answer is the live in-game feed - which is usually on a massive screen poorly located in the space relative to the players. This screen is often referred to as the "hero screen." The 'hero screen' shares the in-game audio and video of whichever player is featured by choice of the show director. The show director is monitoring the in-game action and choosing what is most interesting to watch. How does a show director know what is or will be the most interesting moment? He is initiated; he has played the game in question and can predict where the action will be. Thus, it follows that in order to fully appreciate the 'hero screen' as a performer, one also needs to be initiated. As such, for all but the initiated, an Esports event does not contain a performer.

Figure 5: ESL 2017 – Where is the performer? *Source: TalkEsports.com*

I had started my thesis from a personal interest in Esports, and indeed my initial question was specifically targeting Esports. However if Esports fails to qualify as a performance to non-gamers, and has questionable value to gamers, then how to proceed? It appeared that to solve this I would need to create a performer by drawing attention to the gamer and elevating his status from operator to performer - but how to do this without imposing on Esports mandate to maintain competitive integrity absolutely? For a brief while I considered the future of Esports and virtual reality. It seemed to me that having the performers wearing headsets alleviates limitations on lighting designs due to glare. I would posit that watching players moving around a space physically while competing in a virtual world is more compelling to a live audience than stoic players behind their monitors because audiences are engaged by moving bodies on stage.

Virtual reality is an exciting prospect for the future of the sport, however at the time of this thesis (2015-2018) there were only limited and unfinished competitive VR game options. Additionally, I was restricted by the lack of availability of virtual reality headsets and computers with adequate processing power. What then can I do within the current model of Esports to elevate the gamers status from operator to performer? I considered as wide a scope as possible, the promotion of the event, who the players are, how directed they would be, the layout of screens, the layout of the players, etc. I generated concepts and ideas that would come back around to the limiting factor of maintaining the integrity of competition - causing each design approach to be reduced to the point of futility or fail entirely. Serendipitously at this point in my thesis process - a new video game was attracting a lot of attention in the gaming community; it was called "*Playerunkowns Battlegrounds*."

*Playerunknowns Battlegrounds* is a shooter game (in 1st or 3rd person perspective) that is played in a battle royale scenario. Battle royale scenarios pit all players against each other, and in order to win you must be the last man (or team) standing. One day during the summer of 2017, I decided to avoid my thesis for awhile and played a couple hours of "PUBG." Shortly after playing, I expressed my own enthusiasm about the game to a friend online. In response he sent me a link to a compilation video composed of shared in-game clips from a variety of players (see Appendix 2.) This video showed exceptional and hilarious moments experienced in game by streamers. While the highlights and overall video was entertaining, what I found most interesting was the camaraderie being shared among teammates. I took this very same video, showed it to my peers and advisors, and whether they were gamers or non-gamers – almost all found the video entertaining (most exceptions were limited to a distaste for the violence). I decided to study streamers to identify elements that might help enhance

the live performer in Esports. What I noticed is that the vast majority of the streamers - even well-known competitive gamers with stoic personalities - kept a playful persona while playing PUBG. Another interesting element was how important hearing the vocal communication of the streamer was in sharing their experience with their audience - and communicating with their teammates. The shared audio allowed for a level of intimacy with a player and their team I had never witnessed in a live setting - precisely the kind of element I was seeking.

With these discoveries from streaming in mind, particularly the shared audio communication of a player and their teammates, I wondered how this might function within the design limitations of Esports. It would be very cacophonous and confusing to hear both teams, moreover, it would fly in the face of fair competition if you could hear the other team strategizing. It was here that I began to question what I was really trying to do. I had spent a lot of time focusing on how I could alter the current model of Esports to qualify as a performance. Thinking further though, if successful in enhancing the performer and thus qualifying Esports as a performance, would I have changed Esports or would I have created something new? I decided to remove the name Esports from my thesis question and replace it with; live video games. My new thesis question would be "Can the playing of live video games be performative?" Freed from the constraints of Esports, but guided by my research and critiques of them, combined with my inspirations and observations of PUBG streams, I finally felt ready to begin my ideal scenographic design for a production showing video games as live performance. I would come to name this design "The Bunker" for its similarities to the military structure, and as a tribute to my grandfather's good friend by the same name. Removing the limitations of Esport styled competitions allowed me the freedom necessary to conceive the Bunker.

Though I had solicited multiple companies to support the implementation of my design, I received almost no responses. Gamers Republik in Austin was the only supporter, and they provided gaming headsets for the duration of tech and performance. This left me having to make a decision about how I could afford to realize my design - I could either have a show in the round, by downgrading all the screen sizes and overall quality or I could cut the design in half and realize two sides out of four in their entirety. I opted for two fully realized sides, because it was important to get the full composition and feeling of the design. This way, at least two audience banks would experience the Bunker as it was designed – allowing for the most genuine feedback.

## Designing the Bunker

The following breakdown is not in chronological order but rather by the roles I filled throughout the design and realization process. The process of design and realization of the Bunker often forced me to shift roles from different design disciplines: technical direction, video engineering, programming, marketing, directing, and producing. The relationship between each role, particularly scenic and media design, was symbiotic by being contained within one mind. However, there were moments of internal debate and without the feedback of colleagues and friends, I would have had a much harder time progressing. Throughout the design process, there were multiple iterations, mostly due to needs in technical direction. Working within Unreal Engine as a tool for design and previsualization as well as Vectorworks for technical drawings allowed me to easily adjust to each iteration and maintain a relevant previsualization. During the week leading up to tech week and tech week itself, I had assembled a team to whom I could assign duties, thereby allowing me to have a wider vision on the overall result.

### THE GAME: PLAYERUNKNOWNS BATTLEGROUNDS

The question "which game is best suited for this project?" was one of the first design choices I made. As previously mentioned, one of the major catalysts going into the design process was the discovery of the game *PlayerUnknowns Battlegrounds* and the streamers playing it. PUBG (the acronym of *PlayerUnknowns Battlegroudns*) happened to be the perfect type of game to design around! I will breakdown PUBG as a game and why it was the right choice for this experiment.

**Premise of the Game**

Players can choose a server for their respective region of the world, in our case, North America (due to latency.) You can choose to play solo, or as a squad of two, three, or four. In each case you will play against the other online players or squads composed of the same team configuration you chose. You must be the last man or team standing in order to be declared the victor, and with each game filled to a maximum of 100 players, whether solo or teams, the odds are heavily against you. As the game begins, players find themselves in a plane flying over a large map and parachute out whenever they choose. Devoid of any supplies, weapons or armor, the first priority once on the ground is to race through the variety of buildings located in little villages, cities and special locations, such as a military base, in hopes of finding some of these essentials elements. Each of these locations contain varied loot potential, something the more experienced player will have learned, forcing players to decide between high risk/high reward areas and low risk/low reward areas. Anytime after landing on the ground conflict with another player or team could arise, thus keeping players on guard at all times. As game play continues, shrinking zones appear in the shape of a circle and players must ensure they are within the boundaries of the new (and increasingly smaller) zone or suffer health point penalties. Abandoned vehicles are a good resource to aid players in traversing the map, helping to allow them to move more quickly into the zones. The shrinking of the circle increases the probability of conflict thus resulting in mounting tension until the last man standing is deemed victorious.

**Why this game?**

While there are engaging games to watch as a gamer audience, PUBG offers a highly relatable experience to both gamers and non-gamers. PUBG is a realistic

simulation of our world as we know it - and for a non-gamer this means virtually no learning curve in understanding the environment and how they expect it to function. The only learning curve are the rules of the game, and those rules are potentially already familiar to non-gamers who are familiar with the Hunger Games. This is important because many other games include mechanics beyond our physical reality - such as unique character abilities, or other-worldly physics, magic, etc. I decided that the mechanics of those other games would create too steep of a learning curve to non-gamers that would impede their ability to immediately start enjoying the live performance. PUBG is also what can be described as an open world game. Open world style games allow players the freedom to explore a map as they choose (compared to a game which guides you). Apart from being forced to parachute onto the map, and staying within the boundaries of the circle, the players are not guided to do anything they do not choose to do. Therefore players can be creative in their strategy and play style - even if there is a proven best strategy and play style. This creates moments of brilliance, for example; a video shows two players setting a trap by hiding inside of an upside down vehicle (an unsuspicious object in PUBG) leading an enemy player into a false sense of security. The two players use this vulnerability and surprise attack the player and eliminate them. Another example of open world freedom can come in the way of challenges. Challenges are rules external to the in-games mechanics and created by players or spectators. A challenge could be; you can only use pistols this game or, you can't use vehicles. As pointed out during a meeting in Fall 2017 with thesis supervisor Kirk Lynn, he noted how challenges can create dramatic irony. Performers and spectators know the rules of the challenge, but the other players in the game have no awareness of these self imposed challenges. In summary, I chose PUBG because it resembles our world and allows for players to be creative with any situation because of its use of an open world style.

## DEVELOPING THE DESIGN


Figure 6: Previsual screen shots of iterations 1 through 4. *Source: Robert Mallin*

During my studies at the University of Texas I took a class that taught me the intro to Unreal Engine. Since then I've used Unreal Engine (UE) as my go-to theatrical design and previsualization tool. This project was no different - and UE was absolutely essential in allowing me to explore multiple design disciplines and compare their relationships in a single piece of software. Additionally, it made updating and changing the design in each iteration easier - allowing me to try out ideas with the ability to undo them effortlessly. I could look at a design from different perspectives, sit back and visually react to the entire composition of the design. It simplified my ability to take images to advisors and collaborators for opinions or reference. For marketing, promotion,

and funding - I was able to generate video examples of the design and distribute that content accordingly. Working in UE also allowed me to take my concept model into *Vectorworks*, for the technical drawings necessary for realization but also allowing me then bring the updated model back into UE.

After completing the initial conceptual design of the Bunker, I met with an entrepreneurial advisor who helped me prepare power point pitches selling the Bunker concept to different companies. In order to prepare these packages I was encouraged to find the value to a company that might invest in the realization of the Bunker - I was asked "think about what they want out of this." What I found to be the primary value was that, in theory, The Bunker could attract a larger audience than the current Esports models. I used an analogy to explain the relationship of Esports to the Bunker by comparing professional wrestling to the World Wrestling Entertainment company. I also noted that any established sport had a format, boxing has the ring, basketball has the court, hockey the ice rink, football the field, etc. I wanted to prove the value of the Bunker and that value would be created through proof that it could engage both gamers and non-gamers. I shifted my focus to another question; can a live video game performance engage both gamers and non-gamers?

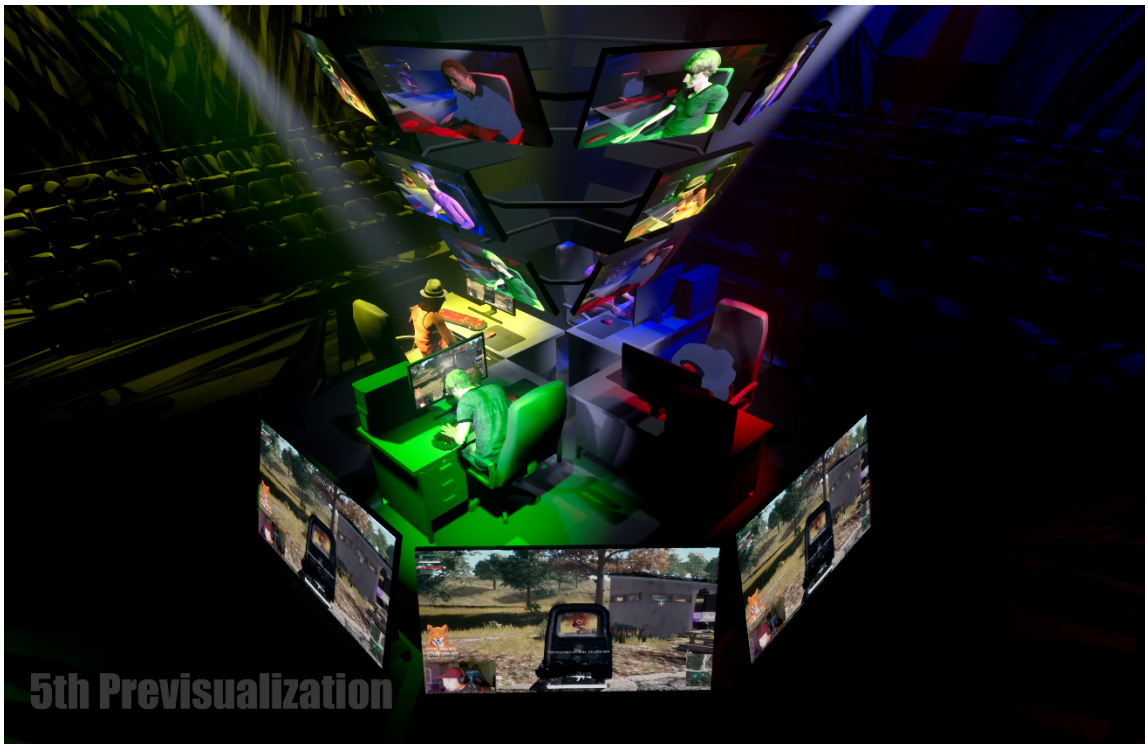


Figure 7: Fifth and Final Previsualization *Source: Robert Mallin*

**SCENIC & MEDIA DESIGN**

Scenic design and media design have a special relationship to each other because the placement of screens in space, and the content on them is important to both disciplines. It was efficient and rewarding to be both the scenic and media designer given that I could consider both needs simultaneously. It makes the most sense to describe the design of these elements at the same time. To begin, I knew I wanted to design for the round, similar to an arena – so I applied for, and was granted use of, the Oscar Brockett Theatre. The Oscar Brockett is a three-quarter thrust, and I intended to place audience seating upstage to complete the entire round. Being in the round would make the performance feel more communal and less presentational. This configuration supported, even forced, my desire to position the players in a way that they could easily be seen

while on stage. I placed the players in a circular fashion to one another, and in profile to the audience bank closest to them. In this way, the players interactions between one another could be easily seen - as could each player - and from almost any seat in the house. To ensure all faces could be seen, and provide a place for individual player data such as heart rates and player statuses (dead or alive) I wanted a screen per player - per side. I knew that I wanted these screens above the players, but wanted to ensure audiences wouldn't lose focus during gameplay and stare up and away from the players. Thus it was both important to have the media information, but also that it not be too far from the players, and that it didn't create a place for the eye to get lost. I decided to arrange the four screens on each side into a 'T' shape that was angled toward the center of the players. There was also a need to provide a 'hero' screen to show the in-game action the players were experiencing. I decided to create an octagonal shape with the hero screens. These hero screens slanted inwards toward the players. This created an hourglass shape with the screens above and below – drawing audiences eyes to the players in the center point of the screen layout. Doing this also ensured audiences looking at the upper screens, or down at the lower screens – would have to pass their gaze over the actual players when engaging with the screens. The content on the hero screens would show the same live in-game feed on all sides so that audiences would never miss a moment. It was important to focus on a single player at a time to keep the experience similar for audiences on all sides. In order to be able to identify the player whose screen we were looking at, I had the players live face camera (the same feed as on the four overhead screens) as an overlay on his respective hero screen feed. This way, as we jumped from player to player (based on interesting moments in game) we always knew which player we were watching. I placed the players on a platform that raised them up so that the top of their desk was in line with the top of the hero screens. They each wore a *Garmin* heart

rate monitor and their heart rate was transmitted via Ant+ to the Antware software that allowed for python scripts. Using a script, the heart rate data would be written into a text file that would then be read by Touchdesigner. Using the data, an overlay on each player camera would show the live audience the heart rate of each player. These heart rates sometimes reached up to 160 beats per minutes (bpm). To further enhance the visual representation of these extremes, the heart rate data was color coded over a spectrum of 55 bpm to a max of 180 bpm. The colors ranged from green to represent a normal bpm, yellow to indicate an elevated bpm, and red for a high bpm.

**LIGHTING**

The lighting design was ultimately created by Jia-Jing Qi, under my artistic leadership as the creative director. However before turning this discipline over to Jia-Jing, I personally needed to explore lighting looks in previsualization. Pictures of those lighting looks also served to help facilitate conversations about my vision with Jia-Jing before he created the final design. With consideration to the lighting, I wanted to ensure that the audience would always be lit - they shouldn't feel like the lights have turned off implying they should be silent. I hoped audiences would be encouraged to talk, laugh, and cheer! I also experimented with lighting each player a separate color to further enhance the visual difference between them. Finally, not in previsualization, but in conversation - I requested that Jia-Jing explore 'flashy' lighting for the players entrances and between matches. During matches however, the lighting should be simplified and static. We both felt it was necessary to have haze in the room to enhance the effect of lighting and establish an environment.

## SOUND

A key contribution to the overall design came from sound. The break from Esports started with the inspiration from the shared vocal commentary of streamers with their audiences (and in some instances their teammates). This audio commentary from the players allowed audiences to be part of the camaraderie and strategy of the streamer as they played. I wanted to reproduce this effect for a live audience. This choice replaced the conventional Esports approach of a play by play shoutcaster. Instead, the responsibility of keeping audiences engaged was left to the performers. Audio also served as a base layer of energy to the entire performance, as PUBG can have stretches of gameplay where the players are simply moving around the map or collecting loot with little action. In order to maintain a basic level of energy – I decided that music would be played at a low level during the entire performance. The choice of music was a genre known as "New Retro Wave" and a genre that can elicit memories or thoughts of video games in some listeners. The audio needs were ultimately achieved through low-tech solutions.

## COSTUME

While no specific costume decisions were made by me, as the creative director I encouraged each player/performer to pick a persona. Based on that persona they could choose any costuming they felt might enhance or support themselves in playing that role. This could literally be anything from pedestrian wear to cat costumes, provided the player/performer embraced their choice in character. I asked each player/performer to research a couple streamers for ideas of personas and costuming.

## Realizing the Bunker

Realizing the Bunker was challenging, as I moved from digital space and previsualizations to reality. The final design called for; 16 50" TVs, 8 80" TVs, 4 gaming grade computers and peripherals, 1 high-end playback computer with 6 outputs, 1 slave capture computer, 1 streaming computer, 3 Touchdesigner licenses, a gigabit network switch, a 16 port HDMI switcher, 4 heart rate straps, 4 Ant+ devices, 4 webcams, 1 video camera, 4 capture cards, decking, rigging, and all the supporting cables. Budgets to afford the screens and materials to build the Bunker as well as solving technical challenges in rigging and construction forced me to make decisions. I had reached out to attain financial support however, as noted earlier, I received no responses. I ultimately faced a choice, realize a scaled down version of the Bunker, or realize a full scale version but on on two sides. I decided that a two-sided option was best and could serve as a proof of concept.

### MARKETING/SPONSORSHIPS

In an attempt to gather resources, I sought out advice on how to best promote my concept. I spoke to Jan Ryan who advised that I consider who I am 'selling' to and what they will perceive as 'value.' I prepared entire promotional packages that included breakdowns of the design and the values of the Bunker. One of those values is the potential of larger audiences by having multiple teams playing within multiple Bunkers in multiple venues. In the case of PUBG this could be up to 20 venues – and could even be spread across America! Another value is generating an experience that is engaging to non-gamer audiences as well as gamers. Yet another value is establishing a standardized format that would allow for video game to change, without shifting the way we visually understand the live performance. Ultimately, despite positive feedback on the design

from the several companies I solicited - only one provided any support. Support came in the way of gaming headsets from a local LAN center called Gamers Republik.

**PRODUCER**

With no monetary support, I was left to fund the entire project myself. I could draw on the resources from the Department of Theatre and Dance at the University of Texas, but I needed some custom scenic pieces. After consulting with JE Johnson (Technical Director of Texas Performing Arts) it became evident that I would not be able to afford to create the entire design with my own money. Though I held out hoping for support, ultimately, I was forced to make tough decisions about what to cut from my design. This is where I made the decision to realize only half of the design as a proof of concept. This decision meant I only needed 8 50" TVs - and fortunately there were 8 50" TVs in the department for an upcoming design. I decided I would use projectors for the hero screens instead of the 80" TVs. By suggestion from JE, I purchased 'Gatorboard' and cut them into the needed screen ratio and size. I used gaming laptops from the Integrated Media department instead of high-end desktop gaming computers. I purchased and built the necessary angled platforms to function with the stock 4'x8' platforms from TPA. All rigging was entirely borrowed from TPA and IM. The playback system came from IM. As for the Touchdesigner licenses, I used a personal license, a license from IM, and a borrowed license from my advisor Sven Ortel. I purchased the four webcams and four heart rate devices. Numerous emails and in person meetings where necessary to arrange haze, borrow lighting equipment, borrow sound equipment, organize the front of house, and organize building services. Though the cable was run and ready to go, networking at UT never came through to connect it. Instead, we had to use the wifi in the building - which worked out fine.

## TECHNICAL DIRECTOR

There were a number of technical needs for the design of the Bunker. They included, rigging for the overhead screens, the curved pipe necessary to correctly hang the TVs, the decking layout, how the hero screens could be moved to allow players to enter and exit the bunker. Before meeting with JE Johnson  I prepared a list of suggestions for solving the technical challenges I had identified on the Bunker. During the meeting I made the decision to change the curved piping, which would have required fabrication, to straight piping in two sections (one for each realized side). After meeting with JE he suggested I have someone take on the roll of technical director and scenic construction. I took this advice and had an undergraduate tentatively signed on to construct the project. That undergraduate ultimately decided this project wasn't for them which left  me to continue as the technical director and fabricator. I found help from another undergraduate, Griffin Hanson, and I was able to construct and paint all the necessary components for the Bunker with him. Technical director David Tolin assisted in all rigging and as a team we hung two sections of screens. Each section was composed by the assembly of pipe into a 'T' shape. Each section then had four TV's mounted to them.

# Systems

## VIDEO SYSTEM

Figure 8: Test System *Source: Robert Mallin*

Though I began the process alone, collaborators Jesse Easdon (MFA IM) and Tim Zawitowski (BSc AET) become integral to the video system as it developed. I had chosen to use a software called Touchdesigner. Touchdesigner is a video playback system that excels at handling multiple inputs and outputs. It is highly customizable and could be tailored to my specific needs. Those needs where for a system that could output five different feeds and a GUI. Additionally, it had to be able to capture and manage four computers, four webcams, and heart rate data. I needed audio to be controlled at the same

time as the video and also needed it to be in synchronization with video. The initial plan was to utilize a single computer with a single capture card. However due to the functionality of the video switchers we had, I needed to add a second computer to act as a capture machine. This capture computer ran a second instance of Touchdesigner and gathered video feeds from three of the four gaming machines. sending them to the master via NDI protocol. Audio was similarly executed, however instead of NDI protocol we found the TouchIn and TouchOut protocol to be the most effective component at handling audio. I found an open source switcher patch through the Touchdesigner community online and reverse-engineered it for my needs on this project. Before installing the Bunker, I built a temporary system to test if the master could handle all the inputs and outputs I needed. I discovered performance issues that would arise over time with the audio drifting out of sync from video. As I would later learn, there were two major factors causing this - but it wasn't until days before opening that we managed to find a solution. Ultimately it came down to CPU performance, and we were asking the master to compute too much data. We moved the audio processing and output from the master to the slave and triggered everything with OSC. Over multiple days, we ran trial and errors to solve a graphic card issue. Once we had solved the issue and the system appeared stable, Jesse and I began adding another element to the system - a live stream.

**STREAMING SYSTEM**

To add a live stream we installed a third computer, also running Touchdesigner, and sent the hero screen and audio to the streaming computer. We also added another capture card and camera to use as a cut-away live shot for the live stream. We used Xsplit to capture the output and send the event out to a live stream via Youtube.

### HEART RATE SYSTEM


Figure 9: Heart Rates overlaid on player cameras *Source: Jon Haas*

The heart rate tracking was done through a Garmin heart rate device. These devices monitored heart rate data via chest strap worn on the skin. This was preferable to devices that connected to the fingers or wrists because that could impede a players ability to play the game. These chest straps also sent their data wirelessly using ANT+. A software created by ANT called SimulANT could connect and collect data from the device, but a script was needed to write that data into a text file. Once written into the text file, Touchdesigner would read the latest entry - refreshing itself each time the file was updated.

### AUDIO SYSTEM

In order to capture all player microphones - we had to set each gaming machine to use the internal windows mixer. This way we would record all audio passing through the players head set - and send it out over the HDMI feed that we were also using to capture the video. This limited our ability to balance audio within Touchdesigner, because the microphone of an individual player was being heard through the voice chat software Discord, on each respective players computer. Additionally, the microphone audio was baked into the in-game audio. In order to balance the audio we had to set all levels on the gaming machines themselves and request that the players not adjust any audio settings. Also, in order to sync audio playback and video, a delay was needed. This meant we could hear the actual player say something on stage - but hear it again through the audio system in the room again a second after.

## Performance Structure

Through my personal involvement with the professional gaming circuit on UT campus I gathered pro PUBG players willing to play in front of a live audience. I would refer to these players as 'gamers' and they represented themselves as they are - stoic pro gamers. The other portion of my player pool was made up of acting students from the department of Theatre and Dance. These players had little or no gaming experience, particularly in PUBG, but they where encouraged to assume a gamer persona.

There are many stereotypical gamer archetypes to work with, like the rager who gets overly frustrated all the time or the troll who intentionally sabotages his team. I sent examples of successful Twitch streamers and their personas for the actors to study and be inspired. The actors became referred to as the 'performers.' Each player would have a player entrance and gamer handle. The structure of each night saw three team compositions. I had 2 performers with 2 gamers, had all 4 gamers, or had all 4 performers, play a round or two together in front of the audience. Between the rounds, I acted as an emcee and offered the audience the opportunity to issue challenges to the players on stage. If no challenge was issued, I issued the challenge myself. Meanwhile, Jesse Easdon ran the calling for the hero screens on stage as well as the live stream. His job was to ensure the most interesting action was always visible to the audience, troubleshoot issues between rounds, and facilitate heart rate monitor changes between player swaps.

# OUTCOMES

## Performances

Figure 10: The Bunker realized. *Source: Jon Haas*

### REHEARSAL

I called a rehearsal to explain the structure of the performance and allow the players to familiarize themselves with the Bunker and computers they would be using. I explained the player entrances, and introduced the gamers to the performers. This put the system under the same type of stress testing it would have to survive during the show - and it held up fine. It was necessary to point out the need to remain politically correct to the gamers, who, given gamer culture - are often far from this. It is worth noting also that while the performers seemed comfortable in front of the audience and being on camera,

the gamers appeared less so. Sometimes losing themselves in the game they might make awkward gestures or faces - we avoided anything embarrassing like nose picking. It was almost immediately clear to me that the best combination for performance was a mix of gamers and performers. This is because they would support each others weaknesses - the performers being outgoing and driving conversations and humor, while the gamers would actually make it possible to win the game which was also extremely exciting. It was also exciting to see the performers exploring and being genuinely surprised by playing the game for the first time.

**PERFORMANCE ONE**

Friday, January 19th was the opening night of the show! We began shortly after 7pm. The house was approximately 20 people, these mostly included friends and faculty but a few unfamiliar audience members who knew the gamers in the show where in attendance. In all games both nights, and entirely by chance, the all gamer team won in front of the live audience! Spontaneous and unanimous cheers erupted without any direction to do so from any part of the thesis team. The show was encouraged as a walk-in and walk-out at your leisure. The audiences fluctuated throughout the night. The evening lasted nearly 2 hours before audiences had almost entirely left (see Appendix 4.)

**PERFORMANCE TWO**

Saturday, January 20th was the final and closing night of the show! We also began the show shortly after 7pm. Audience numbers were also comparable, however more audience members who were friends of the performers where present. Team compositions where slightly skewed due to late arrivals by the gamers. This meant that we had one match where there waere three performers paired with one gamer. The crowd

grew smaller around the same time period - however myself and Jesse Easdon played a round for the remaining audience as the last match before closing the event. In total the event lasted approximately two and half hours (see Appendix 5.)

## Survey Results

Although the survey sample size was relatively small (26 respondents) and not all 26 responded to every question, the results still proved intriguing (see Appendix 1.) To begin with, the audience averaged a 6/10 for their self-assessed interest in video games. This means the audiences were almost perfectly balanced between gamers and non-gamers. Eight respondents made an extra effort to add notes using the words 'unique' or 'engaging' in response to the performance. This is exciting to me because among the respondents were both gamers and non-gamers. Two non-gamers noted that this show had opened a world of new performances they'd never known of! Some of the gamer responses went as far as expressing this event as the future of Esports and the best event they'd ever seen using video games (including Esports). Three responders made an effort to directly comment on the camaraderie and community they felt while watching the players interact with each other and the audience. A majority of responders (75%) said that they found the performers more engaging than the competitive gamers. The interesting part to me was that the remaining 25% who said the competitive gamers were more entertaining, were gamers themselves. This statistic supports the theory, that my particular design could take video game performances and make them accessible to both gamers and non-gamers, while acknowledging that some gamers are going to still prefer the purity of existing Esport formats. Responders were asked where they primarily focused their attention and then secondarily in regard to the performance. Overall the majority of responders, gamers and non-gamers, said that the primary focus for them was the hero screen. The interesting stat is the secondary focus. Non-gamers responded that their secondary focus was on the live players (62%) but the gamers said their secondary focus was on the heart rate data (55%) or player cameras (33%). Be reminded that the

heart rate data was overlaid onto the player camera, thus the focus would be similarly placed in both instances. The data isn't surprising because it proves the theory, I will explain. Hero screens provide the main source of information and were also the largest and brightest element in the design. This would inevitably attract the majority of focus from spectators – and this is why I asked what the secondary focus was (after the suspected hero screen).

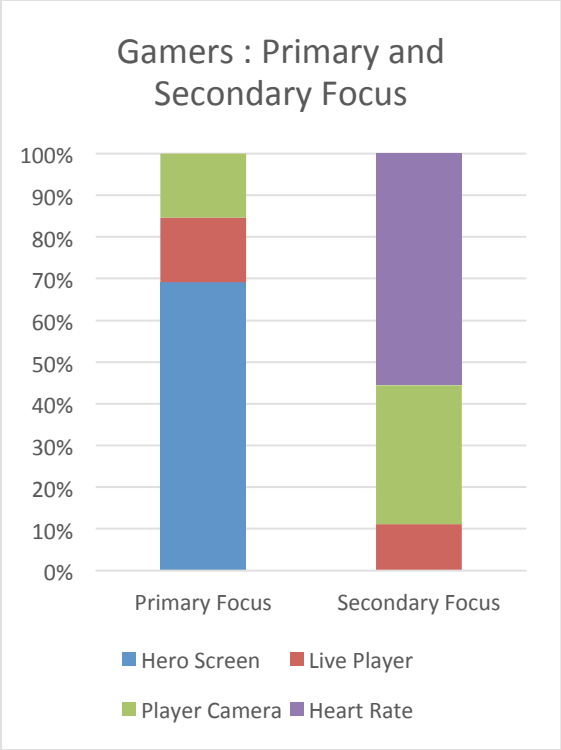


Table 1: Gamers Primary/Secondary Focus

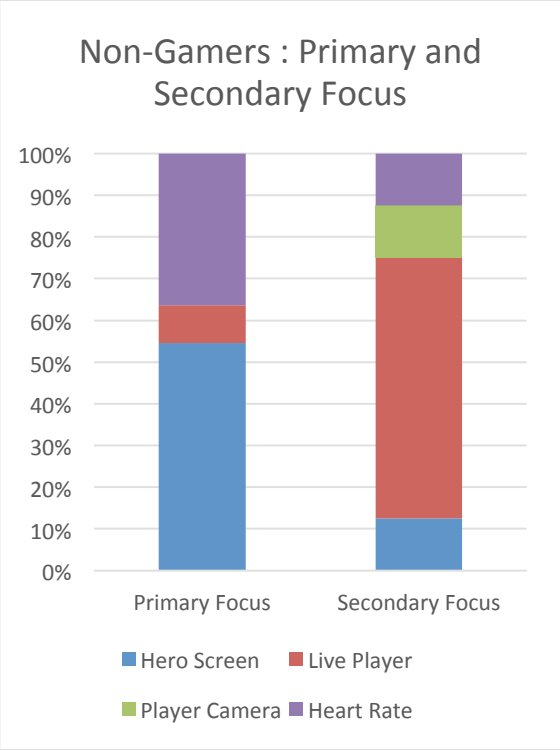


Table 2: Non-Gamers Primary/Secondary Focus

The data here proves that the consumption of live entertainment is a learned behavior. Gamers are initiated and look to the conventional elements of this type of event, hero screens and player cameras, and in this instance the added element of heart rates. The majority of non-gamers did look at the hero screens (55%) primarily, but in

addition, found the heart rates interesting (35%) which is indicative of an interest in a human experience on stage. This is further supported by the fact that a majority of non-gamers (63%) found themselves looking at the live players on stage secondarily. I am not arguing for a correct way to engage with this form of entertainment, but this data does prove that a performer is vital to engaging non-gamer audiences.

## Reflections

The audience for this event was a mixed crowd of theatre professionals, students, and gamers - in some instances a combination of these. My personal observation of the audience was that the attention span of the audience types varied. Generally, those who were interested in video games stayed for multiple rounds or even the entire event. The opposite non-gamer audiences typically watched 2-3 rounds before leaving. All audience members showed signs of being engaged - by outward laughter, cheers, or playful jeering of the players inside the Bunker. When possible I had Myles Agee, one of the actors, sit closest to the audience. He gave a boisterous performance each night and it attracted most of the audience attention. In instances where we had two gamers and two performers I opted to have a gamer and a performer as the two closest to the audience to gauge any difference. I cannot conclude anything final in these instances however, as I did not focus any survey questions on this nor did I personally observe an obvious difference in engagement by either audience bank in respect to the gamer or performer closest to them.

Working and communicating with dozens of responsible parties and individuals for each aspect of the design was a lot to manage. Previsualization work in Unreal Engine proved vital when moving into the production and realization phase of the Bunker – it provided me photos that served as references to collaborators, advisors, and sponsors. These photos generated excitement with people - making them more interested in helping to realize my thesis performance.

Negative feedback came in response to the audio sync issues: audiences found it distracting. Additionally, a few gamers felt that the chosen game could have been a more engaging game than PUBG. Critique of the audio was justified, and this project would have greatly benefited from a dedicated audio engineer on the team. In regards to the

second comment, I disagree - the section above “Why this game?” explains my decision as to why I chose PUBG. I wanted a game that could engage gamers and non-gamers alike.

In the positive feedback category , the heart rate monitors where an absolute hit. Not a single person had any negative feedback about them and it was often a major point of conversation and excitement for the audience. Regularly throughout the game, audience members would get excited by seeing the heart rates shoot up to shockingly high levels during tense game moments. This was highly effective at externalizing the internal tension so that the audience could share in that experience with the player. There were a number of positive comments which described the event as interactive, engaging, or unique. Additionally there were comments made about the camaraderie and community felt during the event.

## Conclusion and Future Growth

Though the sample size was small, the results from the surveys were very positive in relation to the thesis questions. The inciting question, "how can I enhance the live Esports experience with scenographic design?" was achieved through the design of the Bunker. I believe the screen layout is more efficient than any previous design for a live video game event. The intimate audience experience being in the round and in a smaller performance space along with shared voice communication has also (to my knowledge) never been done – and was notably successful from audience feedback. That feedback came as survey comments from gamers saying they felt this design could be the future of Esports! Notably an interesting comment, given that my goal was to move away from competitive Esports and toward a performative outcome. Upon reflection, this design could service as an Esports format as well by isolating each team in their own respective performance spaces with their own audiences. To link the teams in competitive play could be a LAN (if in a shared building) or potentially over the internet with each team playing from their respective cities. If each of those venues could seat 1000 people, and you multiplied that by 25 cities – you would have an audience of 25000. This is comparable to ticket sales of sports arenas that typically seat between 20000 and 30000 people.

The pivotal thesis question, "Can the playing of live video games be performative?" needed to, by my assessment, address a lack of performer in order to be considered performative. The breakthrough came from the inspirations found in live streaming. These elements where the shared audio, audience feedback, the personas of the streamers and the necessity of the steamer to entertain their audiences before concerning themselves with competitive play. Survey data revealed that virtually all

respondents either as a primary or secondary focus, chose the players themselves, the camera on them, or their heart rate data. This means that through one of multiple ways, audiences all where engaged by the live players in some form. Therefore I concluded, and as the title of this thesis suggests already – yes, video games can be performative.

Finally, the late addition of the question "Can a live video game performance engage both gamers and non-gamers?" would be answered through survey data. The data showed that over seventy-five percent of audiences felt this event was better than previous events they had seen, or would attend a similar event after having never seen one like it before. Thus the survey data suggested that - yes, a video game performance can engage both gamers and on gamers. However, due to the small sample size this data may not be totally conclusive.

Having done this proof of concept I would love to have the opportunity to realize the entire design for a full house configured "in the round." I hope I can see the design legitimized through its use by a super team of professional streamers and/or celebrities. It would also be exciting to see the Bunker in twenty-five different venues across America. Should that happen I would imagine a supporting streaming structure would be necessary in order to share the event with any teams audience after that team was eliminated. Additionally it would serve as way for at home audiences to watch.

If I produced the Bunker again, I would like to do it with a director/writer that could push the performative aspects further entertainment. Can there be the *WWE* of video games? Can it tour? Examples show that audiences want to watch it (from the famous Counter-Strike team "PUBMASTERS" to the popular streamers of today). Perhaps it doesn't need to tour at all, but instead, there can be a TwitchTV stream that is actually created in a live studio that can be attended by live audiences - surely that would be a popular stream and a stream no other current streamers are offering. My final

thoughts are a series of continuing questions, can future versions be scripted; can a game be designed to support video games as live performance; or would scripting moments or designing games remove the element of surprise that can be exciting to audiences?

# Appendix

## 1. QUESTIONNAIRE

**Please remain anonymous!**

1. Rate your personal interest in video games / video game culture from 1 (low) to 10 (high)

2. Have you ever attended a video game event before and/or watch TwitchTV? (ex. BYOC events / Lan Tournaments / Gaming Conferences)

    If Yes; How does this performance rank against your previous experiences?

    If No; Has this performance helped or hindered the potential for you to attend another one?

3. Where was your attention primarily throughout the show? Where was it secondarily?

4. Which performer/gamer did you find the most entertaining? Which did you find the least entertaining?

5. Additional Comments?

## 2. PUBG HIGHLIGHTS

https://www.youtube.com/watch?v=p2D5KAcRG1A

## 3. STREAM OF PERFORMANCE I

https://youtu.be/qzgerKNdkdU

## 4. STREAM OF PERFORMANCE II

https://youtu.be/5vW7vRN4iBA

## 5. PUBMASTERS VIDEO

https://www.youtube.com/watch?v=dqkYmVWdxVE

## Works Cited


Baker, Chris. "Stewart Brand Recalls First 'Spacewar' Video Game Tournament." *Rolling Stone*, Rolling Stone, 25 May 2016, www.rollingstone.com/culture/news/stewart-brand-recalls-first-spacewar-video-game-tournament-20160525.

Ben Fischer. *Unlocking Media Riches in Esports*, 2017, www.sportsbusinessdaily.com/Journal/Issues/2017/02/27/In-Depth/Main.aspx.

Brand, Stewart. "S P A C E W A R." *SPACEWAR - Fanatic Life and Symbolic Death Among the Computer Bums*, 7 Dec. 1972, wheels.org/spacewar/stone/rolling_stone.html.

Chalk, Andy. "Esports Was Worth $1.5 Billion in 2017." *Pcgamer*, PC Gamer THE GLOBAL AUTHORITY ON PC GAMES, 11 Dec. 2017, www.pcgamer.com/esports-was-worth-15-billion-in-2017/.

Eric Fisher. *Wearable Tech Wins over MLB*, 13 Mar. 2017, www.sportsbusinessdaily.com/Journal/Issues/2017/03/13/Technology/MLB-analytics.aspx.

Giesekam, Greg. *Staging the Screen: the Use of Film and Video in Theatre*. Palgrave Macmillan, 2011.

Lee, Paul. "Predictions 2016: ESports-Bigger and Smaller than You Think | Technology, Media, and Telecommunications." *Deloitte*, 30 Nov. 2016, www2.deloitte.com/global/en/pages/technology-media-and-telecommunications/articles/tmt-pred16-media-esports-bigger-smaller-than-you-think.html.

McAuley, Gay. *Space in Performance: Making Meaning in the Theatre*. University of Michigan Press, 2010.

The MIT Press. "Raising the Stakes." *The MIT Press*, The MIT Press, mitpress.mit.edu/books/raising-stakes.

Robinson, Raquel et al. "All the Feels: Introducing Biometric Data to Online Gameplay Streams." *CHI PLAY* (2016).

Salen, Katie, and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. The MIT Press, 2010.