

TRUE VALOR: A STUDY OF THE FUTURE OF TECHNOLOGY THROUGH GAMING

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With the growth of interactivity, technology, connectivity; hardware and software has become smaller and more accessible. Smart phones have emerged without keypads with touch screens used not only for making calls, but also surfing the web. Kindles are beginning to replace magazines because they have the capabilities to have magazine subscriptions and literature downloaded to read without the use of paper back issues. They are also easy to use because of the touch screen, which allows anyone from any technological background able to use it. Time will only tell how other pieces of life will be changed by interactivity and technology continuing to advance day by day.

My focus is on the interaction of technology, interactivity, and connectivity and will be shown through a study of video games. Even though, they are already interactive and are backed by strong hardware platforms, I think that in the future there will be even more interactivity because of the continuation of technology. Not only has the video game culture grown ever since its conception in the late 70's with the first commercial video game of *Computer Space* (Tyson,1), the technology for video games has grown with gaming consoles, having the power of a small computer. They also harness the power to play games that have high definition and real life imagery. These consoles can also surf the web, and with the ability of the web, the games can be played between of players on WiFi accounts. This has started a new generation of online gamers who either team up or compete with each other while playing the same video game in different areas. "Gamers thought it was especially rewarding to be able to play together in a gaming center, as a group, either against each other or as a team." (Frostling-Henningsson, 559)

Also, like phones, the interface is made simpler with users being able to use more motion of their body, rather than their fingers to do the actions on screen for game play. For example, the *Kinect* (Ha,1) allows players to use their body to control characters on screen in the game *Star Wars: Kinect*. The player can use a lightsaber, use special powers to move objects, and even race pods like in the actual films, without even touching a controller.

The modern video game is the perfect combination of interactivity, technology, and connectivity that displays how all three of those ideas come together to make a new experience for the person that is using it. My theory is that video games will become more portable and easier to use because the use of the interface is controlled mostly by the users hands and also a gun simulator.

To illustrate this theory, I will create a short video of my vision of the future of video games. To do this, I will use camera to capture the video in real life, edit it in final cut pro, then with the help of Adobe After Effects and Adobe Photoshop, use motion graphics and composite them on the video to create a video game experience that will display my idea of what video games will be in the future. Through this process, I will also add experience to my skills as a videographer, editor, and director. My skills in video production will be put to the test, since I will be the primary shooter of my footage, which will include figuring out how to develop a first person view for my video while also, holding a simulated weapon. I will also do pre production on the film, which consists of casting, scouting locations and setting up schedules to make sure the shoot goes as smoothly as possible. Finally with the post production, I will have to not only

edit the footage together, but also add special effects and graphics, to make the video seem as it is capturing an interactive experience.

The game that will be shown through the video will be a first person shooter using special glasses to show the game in the real world. The user will use their hands to control on screen menus and also a console gun as the weapon for gameplay. In essence, the audience will be the player since the video itself will be in first person. The reason for the first person view is to make the audience feel like they are the person playing the game. Adding to the audience feeling like they are playing the game, the first person view is to illustrate the point of video games becoming more immersive and easier to play.

For the research accompanied with developing the video for my project, I started with an investigation of the current first person shooter. This includes a brief history and also the style that current first person shooters use for the interface. Added to that, I also looked at how gaming consoles set up their interface. In particular, I was inspired by PS3 and X Box 360. Then I looked at how others illustrated a futuristic look of video gaming. This part of the investigation ranged from research of articles and then also, research of videos that were close to what I was doing with my project.

Video games date back to the 1970's, with one of the first successful games *Pong* (Tyson,1) produced by Atari, one of the first big gaming companies. Later on Atari would create the home version of *Pong* and would generate a buzz for the future gaming culture. Later on Nintendo would create the Nintendo Entertainment System (NES), that would spark the gaming console for household home across the world. The NES would

be the inspiration for other companies to produce games and game consoles such as the Microsoft X Box and Sony Playstation. This made the video game culture a valid one, with magazines, conferences and even channels such as G4tv, dedicated to video games. “Playing interactive video games is an exciting aspect of the new media landscape that has experienced considerable growth during the last decade. Interactive gameplay has become a daily behavior...” (Mathiak, 1).

In the beginning, games only had a few types of play, like pong for example, which only had two bars that hit a small dot back and forth. As gaming systems became more power and allowed more activity on screen, new game types arose. Some of them consisted on one on one fighting games, level platformers and first person shooters.

A first person shooter video game has the simulated look of the game being seen by the person playing it, resulting in the player controlling the weapon on screen with simulated hands, as if they are in the game themselves. “First person shooter games (FPSGs) are designed to closely engage players in violent virtual activities.” (Weber,1). From *Wolfstein 3D*, (Reed,1) which was made in 1992, the genre has grown through time with many different games in the genre including, *Call of Duty* and *Goldeneye 64*. The player usually has a large number of guns to use to kill enemies and sometimes overcome obstacles provided in the game. Maybe the most popular current first person shooter *Modern Warfare 3* (Activision), a game set in present time, with the world superpowers engaged in a world war, has the player playing different roles as soldiers from the United States, France and Germany. Other games include, *Battlefield 3* (Dice), *Killzone* (Sony) and *Halo* (Bungie), which also provide online play against players across the world.

From looking at these games, I developed how the actual hub would look for my video. The hubs I saw had a map in the left corner, a symbol or text of the type of gun that was being used and how much ammo was left. For the actual gameplay, I noticed that many current first person shooters use the actual weapon to aim down the sights, rather than a cross hair used for third person shooters. The camera even changes to make the view smaller making the aim more fine tuned. Also, when the player is taking damage from enemies, the whole screen changes to blots of red or, the color gets desaturated. There are no bars of health to indicate how much health the player has left. All of these had to be shown of course, through the production of my video.

For the actual production of the video, I will have to use three programs for different parts of the project. First, I did research on how to do a first person shot for the view of the video. I researched a method called the “first person camera rig” which gives the perception that the camera is actually the view of a person. Most of these rigs were made with a smaller camera fitted on a motorcycle helmet, with either metal fastenings or PVC. Added to that it was important for the weight of the camera be compensated with either the support that the camera was on, or counter balanced with weights on the back of the helmet. For the editing, Final Cut Pro is a common editing software that allowed the footage to be edited together and exported as a whole file. For motion graphics and 3D elements, After Effects would be used to add the actual elements that would convey the feeling of being in a video game. Inspiration for doing my video relied heavily of the YouTube videos of Freddie Wu. His videos are focused on video games being live action rather than being played on a present system. One particular video that was an

inspiration was *Battlefield 4*, which was a first person short, based off the actual game, *Battlefield 3*.

Method

The goal of my video is to illustrate a vision of what I think the future of video games will look like. My focus will be on the actual interface that the player will interact with, such as the menu and the hub. Another focus will be the actual look of the gameplay. That will include how the gun will fire, how the opponents will look in gameplay, and also how the actual game will transition to other modes.

For the short film, I began my pre-production with the idea of what the video was going to be. I felt that the video should be from a first person perspective, to make the audience feel as they are the ones playing the game. I started first with a short treatment of the video which detailed a short skirmish between two teams playing the game. Then I made a storyboard, which told the story in the pictures. After that, for timing, and pace I took the images from the storyboard and made an animatic, which is the animated version of the story board. After that, I scouted locations for shooting. Based off my storyboard, I decided to scout the nearby recreation center to back up the idea of being able to play anywhere.

Next was the actual planning for the shooting of the actual video. Since the game is a first person shooter, I felt that the audience would feel more immersed if the video itself represented the view of how they would play the game themselves. For this view, I would have to make a helmet camera; a camera that gave a first person view. To do this,

I had to research online how to make the rig, and choose a camera that would be light enough to be used on a camera. For my research I turned to YouTube and found a “do it yourself” model. This particular “camera rig” was made with PVC (plastic plumbing pipe) and a motorcycle helmet that I found online. The camera was a DSLR photography camera capable of recording high definition video. For playing against the opponents, I would have to cast people that have some experience using weapons like the ones used in the video game. I reached out to the Human Vs Zombies group on campus and they brought their nerf guns as props for guns. The actual shooting of the video took place on a field near campus and a church. I would wear the helmet cam while I would direct my cast on how to move and hold their weapons for the video.

For the actual story of the video, it would be the user walking on the field and putting on the pair of glasses to begin the game. The user would then turn on the gaming system and, it would load through a main menu interface for the system and then for the actual game being loaded. After going through the game’s menu, the user will go through a tutorial to do simple functions during gameplay. After that, the user will go through a simulation of actual game play, both single player and co op.

After shooting the video, I edited the footage in Final Cut Pro and did compositing of visual effects and menu interface in After Effects. The work in After Effects consisted of me creating graphics for the video and also adding visual effects for the guns.

I would also add the sound effects and music later also in After Effects. The sound effects that I used were provided by Action Essentials (Video Co Pilot) and also,

Freesound.org. Action essentials provided the sounds needed for the the gunfire and explosions. Freesound.org provided other ambient sounds such as ambient sound outside and foot steps in the grass.

From the project, I have learned many things from both the concept phase and the production phase. From the actual production side, I ran into a lot of problems that I had to become flexible too. For the original shooting, I planned to shoot in the nearby recreation center. I talked to one of the managers at the recreation and explained my project and what I was doing, and he eventually let me film there. When I did go to film there, I was stopped, since the actors were using Nerf guns and because of a recent shooting in Ohio on a college campus, I was told to stop. This changed my venue to a grassy knoll near my apartment. Added to this, I could not get enough actors that I originally wanted from the Human vs Zombies group. Even though I had multiple meetings, I could at only get three actors to commit. Added to that, as a result of the first shooting being a failure, I had to lose one of my actors because of his schedule. For my next shoot, I moved my venue to a grassy knoll near my apartment. I only had two actors from my original cast and I was also on a tight time schedule since one of them had to leave because of choir practice. The shoot went well enough but once the footage was edited together, it wasn't long enough and didn't have enough content for the thesis of the overall project. Once again, I planned another shooting this time in a bigger space, which was located near a church in a slightly wooded area. I lost another cast member, but I replaced him with a Telecommunications student who also helped me shoot on that particular day. On this day of shooting, I shot more content, did more takes, which led to

a longer video once it was finally put together. After that, I made the necessary edits to the video and I began to start adding effects in After Effects.

In the actual compositing phase of the project, I found that I had to learn a lot more about motion graphics and special effects to actually make this project work. A lot of motion tracking had to be done to make the interactive menu seem realistic. To illustrate an actual pointer for the menu, I used an effect to highlight the tip of the finger with light to show what was being selected. The actual menu, which was made in After Effects, had buttons that had to be synched up with the highlighter to glow when the finger rolled across certain buttons. This made the menu look like a functioning menu rather than just something seen on screen. Motion tracking was also used on the Nerf gun for the ammo counter. I also had to use pre captured gunshots to make the gun look like it was actually firing like a real weapon. The gun shots and also the explosions that I used were from an online source of Video Co Pilot, which also sold Action Essentials; which provided the actual effects that I needed. Video Co Pilot also provided tutorials on other ways to make gunfire and to make the gun operation more realistic. The gunfire provided were only single bursts that wouldn't work for my video since the player is behind the gun. The gun fire had to be masked; edited to look like it came out of the gun from a first person perspective. Additional graphics, such as the other gamer tags and icons were created in Adobe Photoshop. The icons were used to illustrate a certain individuality of the other players in the game. For example, one of the actors in the video was part of the Human vs Zombies, for his gamer tag I took a picture of a zombies face and I put a no sign over it, with his username being "ZMBkiller".

Looking back at the project, I realized I could have maybe taken a step further into the interface. With the actual gun simulator it would have been more advanced to have actually mapped out a 3D hologram gun. The hologram would have probably been made in Maya or even After Effects. There would have to be more tracking done to fit the actual gun in the hand to make sure it looked real when either reloading it or firing the gun. This would have added to my simplicity thesis and really push the idea of everything being simulated with the glasses and hand movement.

The project as a whole was a combination of studying current generation video games and video production, with a strong emphasis on post-production. From the study of

video games, particularly those that are first person shooters, I found that this type of video game depended on a simplicity of gameplay, that has the user only dependent on their skills of shooting a weapon and moving strategically on a simulated battlefield. This transfers to my project by making the game play as simplistic as possible and not making the hub too complicated for the player to understand. Added to that, this makes the game a lot more interactive and easier for anyone to use, which goes to my original statement of how technology is making things easier and in return broadens the spectrum for the audience to use it. This goes with the idea of “flow” created by Mihaly Csikzenthmihalyi and applied to video games by Seung-A Annie Jin.

“Consistent with Csikzenthmihalyi’s (1993) explication of activities that are most likely to induce the flow state, video games 1 have concrete goals with manageable rules 2 provide actions and opportunities that can be

*manually or automatically adjusted to user's skill and capabilities 2
provide clear information on how users are doing, especially via
interactive feedback systems and have abundant multimodal information
that screens out distractions and facilitates concentration. (Jin, 1).*

In the video, I wanted to demonstrate how all the user needed was the glasses to produce the image of the actual game and a gun simulator for the actual gameplay. This combination is what video games are, an interactive experience. Relating this back to my thesis of how technology is becoming easier to use, I feel that technology is becoming more of an experience rather than something that we use. It is becoming more of a part of us because of the ease of use and that will carry into more of our lives. This makes the actual simulated game more open for other people to use rather than the stereotypical player of video games which is male and from the ages of 6 to 40 years of age. "Our results cast doubt on the accuracy of the stereotype that the typical player of a FPSG is loner trying to escape social interaction by playing video games." (Jansz, 3)

This is similar to the Nintendo Wii, which broaden its scope of an audience to female gamers and also, older games, 50 years and older. The game that I created for the video is able to be played by anyone with a shallow learning curve, so that means that the game could possibly be played by anyone and makes the technology more accessible to more people.

For the production side of the project, the concept, the shooting of the footage and the post production was something that had to be intertwined with each other to illustrate the idea that I had. For the initial concept, I had to make sure that what I thought fit what

an actual first person shooter was and combine that with real life. This meant that everything from the menu to the actual weapon firing had to match a video game. On the other hand, since the audience is only watching the video, I had to add other elements, such as back ground music, which makes it an easy viewing experience. The shooting had to be done to show case a first person view, which gives the feeling of the person watching that they are the one playing the game themselves. This type of shooting had to be smooth as possible and if there were any cuts they had to be justified by the technology. For the post production, After Effects was used in addition to Photoshop, to make the actual experience of the video game. In After Effects, the menu was made to react to the previous footage shot in production, but it had to look connected to it. A lot of motion tracking and timing had to be done to the effects to make it work in addition to manipulating the footage at certain points. This type of editing also relates to my idea of an interactive experience because the menu it is not there in the game play it is merely simulated through the glasses and the shots fired and people in the game are not there, they are only simulated through virtual reality. Relating this to current technology, the I-Phone does not have buttons on the screen; they are only simulated through touch of the screen and the digital information provided by the phone. The reality that is provided by both the phone and the video game is almost an illusion that is created with digital technology and interactive menus.

With my project I want to illustrate the idea that technology is growing primarily through its ease of use through interactivity. What the technology can do is important, but the really important thing is making the technology easy to use for

anyone. This idea in itself makes the challenge of how to get the user to be able to use a certain device quickly and for longevity of time. This will lead to a future of more people intertwined with the internet, software and other things to come. So the idea of human beings becoming more technologically advanced isn't based on what we can do with the technology, but all who can use the technology.

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