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The Immersive Medium: Art, Flow, and Video Games

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Introduction - Why now?

Video games are an inextricably important facet of today's high tech media landscape. Long gone are the days of *Pong* played on a dusty Atari 2600 cartridge and an old tube television; today we have plasma this, touch screen that, motion-sensors, facial recognition, and the ever-so creepy way you can give your Xbox commands as it whirrs away, mutely processing your every request. Without question, advances in technology have created advances in video games, and because of this video games have thrived since their inception. With each of these great advancements, however, there are cultural climates that irrevocably shift in response. Products that were once strictly utilitarian give way to an aesthetic appeal, so that their worth is no longer judged on their usefulness alone, but on their lines, their contours, and their design.

Video games are no different than other technology in this sense. If you strip down two first-person shooters to their basest parts you arrive at remarkably similar games, with extremely similar objectives. Yet every year the video game industry still launches hundreds of new titles, all demarcated into genres whose constituent games share near-identical mechanics. How is this possible? Just like the newest iPhone or Droid, the latest car, or the sleekest laptop, most people purchase new technology for one reason: aesthetics.

To understand what drives games, we have to understand what drives the people who play them. If you could expand the memory on your iPhone every year, would you be satisfied with one that looked like the first iPod from 2001? Let us say you could give it Wifi too, and a touchscreen, and GPS navigation, and everything else your current phone has, but you still had to use the same antiquated user interface. Would you truly be satisfied with that experience? Even if you are, you know at least three people who probably are not, whether they be your husband, wife, best friend, kid, or colleague, you know people who pay extra for design when they could get the same functions for less. Again, video games are no different. Why should you go out and buy the latest *Call of Duty* game when you have the three previous entries in the series at home? Sure many people purchase video games because of improved mechanics, or for new gameplay features, but at the end of the day, that alone cannot explain why gamers will go out and buy not only the newest entry of one gaming franchise, but the newest entry of *multiple* franchises, many of which may be within the same genre. A much more compelling explanation is that many gamers are not simply looking for a game; they are looking for an experience, and consciously or not, one intimately linked to the artistic content of video games.

As video games have evolved over the years they have had the privilege of devoting more time and effort to these aesthetic considerations, much like our cell phones nowadays have more freedom to make aesthetic choices than the bag phones of yesteryear. During the advent of the personal computer, a lone programmer was limited to a handful of tools on their own PC and their own skill set to make a functional game. Now, studios devote years to building games with staff numbers ranging from twenty to a hundred game designers, writers, audio engineers, programmers, testers, and artists. While many of these individuals, such as the programmers, will plod tirelessly on getting the core functions of the game world to work, some developers, such as the designers and the artist will never (or rarely) have to code or work on the guts of the game, working almost exclusively on the narrative and aesthetic environments that the player will be a part of. With this kind of specialization, game studios now have the ability to effectively imbue their games with artistic elements.

These artistic elements, however, are not simply minor changes in appearance. Many of these games have rich, vibrant narratives that ask provocative questions about human experience. Many games today have multiple sequels, like movies, that sustain a story line over many hours of gameplay.

Take for example the *Metroid Prime* series, which, over the course of three games, you could invest anywhere from 45-60 hours (How Long To Beat, 2014). All the while, an overarching narrative and game world is being constructed and detailed. These are not just narratives to explain your gameplay, they are full-fledged narratives, some of which, like *Assassin's Creed* are being adapted into full-length feature films (Vejvoda, 2013). These are not just extra curves on a smartphone, these are significantly rich, immersive worlds that take years to craft and perfect just like any movie, sculpture, or concerto you will experience.

There are some critics, however, who still believe that video games are still not an artistic form, even though they may have artistic elements in them. One such critic was the late Roger Ebert of the *Chicago-Sun Times* and the famous movie reviewing duo Ebert and Roeper. Ebert once cited his position as the following, "No one in or out of the [video game] field has ever been able to cite a game worthy of comparison with the great poets, filmmakers, novelists and poets" (Why Video Games, 2010). This single bold assertion sparked a string of 4,547 comments on Ebert's blog, which when combined into a single text, ran longer "than *Anna Karenina, David Copperfield* and *The Brothers Karamazov"* (Okay, Kids, 2010) There were many positions that Ebert took that sparked these copious and often impassioned comments, but I am going to idenitfy which ones I believe form the crux of his argument:

    a. That there was not a strict definition of "art" that everyone could agree on to become the center of the argument.
    b. That art cannot have any malleability, that it is attempting to lead you to a "inevitable conclusion not a smorgasbord of choices"
    c. That "No one in or out of the [video game] field has ever been able to cite a game worthy of comparison with the great poets, filmmakers, novelists and poets" (Why Video Games, 2010)

Due to all of these previous positions, Ebert said that video games would "never be art", although he admittedly had no desire to play a video game, nor had he played many when he made his initial decrees in 2005 and 2010, a position he condemns in a later article as "foolish" (Why Video Games, 2010; Okay Kids, 2010). I will also add one more that is tied to Ebert's critique, but is of my own creation, one that came to mind while I was ruminating over his original articles:

    d. That if there are "artistic video games" which ones? What criteria does a game have to meet to be artistic? What is the difference between artistic games and non-artistic?

While the feelings of one critic are by no means representative of all of those who may be in the "video games are not art" camp, Ebert's commentary (and hopefully my own addition as well) provides a good starting point from which we can begin to examine these essential problems for considering games art, problems that I hope to address, even if only partly, in this thesis.

The first two problems Ebert's commentary brings up are solved fairly easily. Since the posting of his inflammatory article, Ebert admitted in a later apology, "I should not have written that entry without being more familiar with the actual experience of video games" (Okay Kids, 2010). While Ebert seems to have acknowledged his lack of experience with video games himself, the issue of people critically examining video games without being familiar with them still plagues pockets of video game scholarship and criticism to this day. Chris Lavigne, a contributor to the arts quarterly *Maison Neuve,* offered a critique of 2008 study found in the journal *Aggressive Behavior* in which Dutch researchers attempted to examine the effect of violent video game content on children. The study in question broke up the sample of children into three groups, one that played the fighting game *Tekken 3*, one that played *Crash Bandicoot 2,* and one that watched participants from the first group play *Tekken 3*.

(Polman et. al, 2008). The researchers who ran the study contended that the two games "differed in only violent content" an assertion that Lavigne found intensely problematic, especially for someone who has played both games.

> "Tekken 3 involves playing a series of timed fights, whereas Crash Bandicoot 2 lets players explore environments and progress through levels. The gameplay is different. The graphic styles are not the same. The characters are mostly human in one, mostly animals in the other. The control schemes don't match. Plus, Crash Bandicoot 2 isn't even non-violent. Players kill Crash's enemies when they attack them" (Lavigne, 2009)

While this is a specific contradiction considering a specific study, Lavigne also claims, "There is also a much more basic criticism of video game research that needs to be made. The researchers, quite simply, don't understand video games." This is very unfortunate, considering the relatively new nature of the field.

This same lack of background knowledge can also be attributed to some art critics denying that video games are art. One such comment was made by Jonathan Jones, an art critic for *The Guardian*, who states that video games are not art because art must be "one person's reaction to life... Art may be made with a paintbrush or selected as a ready-made, but it has to be an act of personal imagination" (Jones, 2012) He then applies this to video games, claiming,

> "The worlds created by electronic games are more like playgrounds where experience is created by the interaction between a player and a programme. The player cannot claim to impose a personal vision of life on the game, while the creator of the game has ceded that responsibility. No one "owns" the game, so there is no artist, and therefore no work of art" (Jones, 2012)

To Jones' point, video games cannot be art because they are not manifestations of a single artist's personal view of the world, or the gamer's, so therefore no one is solely responsible for the "imagining" of the game. However, there is such a person working in every game studio across the country, and while their titles vary from Creative Director to Lead Designer to Game Director, their express purpose is to do one thing: maintain and manage the creative (read: artistic) direction of the game. These designers often have a respectable level of celebrity and are often credited with the creation of certain characters, one being Shigeru Miyamoto, who created Mario, and many other classic Nintendo characters. In fact, the setting and inspiration for Miyamoto's *The Legend Of Zelda* came from his own personal experiences exploring the wilderness around his home in Sonobe, Japan as child (Vestal, O'Neill & Shoemaker, 2011). So to say that any particular game is not a product of an individual's "personal vision on life", especially in Miyamoto's case, is equivalent to saying that Star Wars is not an extension of George Lucas' personal vision. So while Jones may be a fantastic critic in his own right, his assertion, like Ebert's, hinges of the critique of a development process he himself does not fully understand, which has been demonstrated as a trend rampant in both scientific and aesthetic approaches to understanding video games.

Yet are there "artistic" video games, and if so, how they different? Since this question covers an area somewhere between art, psychology, philosophy, media studies, and general interdisciplinary madness, it seems only natural that I will need to incorporate a number of approaches in order to achieve my goal: to provide an interdisciplinary argument that suggests, not proves, that "artful" video games do exist, and that these games are different from their contemporaries and predecessors, and that this difference foreshadows how artistic games may also be different from a media effects standpoint. The rest of my thesis will consist of three different methodologies in which I will hopefully suggest that video games can be art, that there are some standout examples of video game art

comparable to great works of art or film (see Ebert's contentions #3), and that these artistic video games are different in terms of media effects. During the aesthetic review I will be applying a variety of different perspectives from aesthetic philosophy to video games in order to see if they can meet some of the considerations set forth by some of the world's leading thinkers on the subject. By using these authors, I hope to frame an argument for artistic video games, and establish criteria that I can incorporate as a standard in my content analysis. Taking this criteria into account, I will then discuss and analyze some games that meet or exceed the criteria developed from the review. By isolating what makes these games so aesthetically powerful, I will showcase why they are good examples of artistic video games, and why they could potentially be more immersive than their non-artistic counterparts. It is not enough, however to simply read some analyze these games and conclude that they are "artistic". If these games do provide an aesthetic experience or reaction for the player, then it may be able to be measured through cognitive methods. To accomplish this, I will be centering my study around Mihaly Csikszentmihalyi's theory of cognitive flow. In short, flow occurs when we are as equally challenged by a task as we are skilled in it. (Csikszentmihalyi, 1990) Flow happens commonly in the workplace, but some studies have also established that artists and musicians exhibit flow when they are playing their instrument or creating a piece. Gamers also exhibit flow when they play video games, and their relationship between flow and gaming is very well-documented. (Jin, 2012; 2011) Yet when a violinist plays a solo, they my experience flow with most pieces, but a particularly powerful flow effect when they play pieces that they really love, or get an aesthetic experience out of. My study's hypothesis asserts that the same holds true with video games. You may get a flow experience by playing *Tetris*, but if you are emotionally invested in the characters of *The Last of Us*, then it may be likely that your flow experience would be more intense.

At no other point in our history have video games been such a prevalent cultural force. Video games were not as significant three years ago, nor five years ago, or five seconds ago. With each passing minute, gaming becomes a more deeply rooted aspect of human culture, and exponentially so. Yet despite the fact that we play *Angry Birds* on our phones, pass billboards for newly released games daily, and spend $20.77 billion dollars on them in 2013 alone, we know so little about them (ESA, 2013). Or maybe, more pointedly, we refuse to accept how important they are to us. Chris Messilinos once said in an interview with *Game Informer* "we're finally at the point where we can have this discussion about games as art. We couldn't have had this discussion 20 years ago. We can have it now." So let's have it.

Aesthetic Review

The question of "what is art?" has plagued the minds of philosophers and art historians alike since the dawn of human civilization. While we all have ideas of what is "art", and what is "not art", those considerations are often shaped by our personal tastes, our upbringing, our exposure to "art", and thousands of other factors. So in order for us to consider bringing games in the artistic fold, logically we would need to settle on a definition. Unfortunately, to do so would lead us down a path that has less to do with video games and more with almost 3000 years of philosophical thought, so we must make do with what tools we have. In place of one specific, all-encompassing definition of art, I am simply going to put games under the same philosophical scrutiny that we would place great sculpture or poetry. Consequently, I will then be able synthesize these different perspectives to develop the specific criteria for what I will call "artistic games", showing that even when viewed from a number of different perspectives; video games still find themselves up for consideration as aesthetic objects.

Art as Imitation

Aristotle's *Poetics* is one of the oldest known works of literary and dramatic criticism in the world, but its commentary on the nature of art and imitation also make it a good place to begin our review. While Aristotle's work had the same subject as his mentor Plato's *Republic,* poetry, their arguments departed quickly from one another. Whereas in *The Republic* Plato, vis-à-vis Socrates, discusses the negative effects of certain kinds of poetry on the Greek populace, the *Poetics* describe poetry as a positive force, one that allows the reader or audience member to purge their negative emotions through *catharsis* (Aristotle*,* 2012; Plato, 2012). While this is one of the central theses of the *Poetics*, Aristotle's commentary on the nature of art and imitation also helps form what many would consider some of the basic ideas of what a piece of art is, such as its imitative power and the differences between different artistic mediums, which still remain with us to this day.

For Aristotle, the most basic principle of art is its power to imitate. While an epic poem and a song on a lyre may "imitate different things, or imitate them by different means, or in a different matter," they are "in principle, imitations" (Aristotle, 2012) Video games are no different. Whether it is a literal interpretation of a real-world place or figure, or metaphorical journey through an abstract landscape, games set forth to emulate specific environments, styles, or feelings. The *Call of Duty* series has taken great strides to make their game worlds authentic to live combat situations overseas, the *Grand Theft Auto* games evoke narrative tones similar to *Goodfellas* or *Scarface*, and fantasy games like *The Elder Scrolls: Skyrim* and *Kingdoms of Amalur: Reckoning* create as lush, magnificent environments as Peter Jackson did with J.R.R. Tolkien's *The Hobbit* and *The Lord of The Rings* series. So while this initial connection may seem very basic, self-evident even, it forms the bedrock of our forthcoming discussions.

While these games are at their heart imitations just like other pieces of art, Aristotle also informs us that "what is right for the poet is not the same as for every other craftsman" (Aristotle, 2012). So while games and other forms of art may be imitations (either in a strict sense or an abstract) what works for one particular medium does not necessarily work for another. Aristotle's example further compares the poet with the politician. While we allow the poet "many modifications of language" we do not allow a politician the same manner of modifications (Aristotle, 2012*)*. Conversely, what tools a politician has to work with may not make for good poetry. This also holds true with certain video games and their chosen source material. Specific genres of games often incorporate aspects of similar genres in other mediums, but this is not necessarily true in every case.

The first issue that accompanies this comparison between game genres and other genres of art is that video game genres are related to the type of gameplay that occurs, not necessarily an aesthetic or a narrative choice like other mediums. In this sense, a game mechanic in a strategy game may not work for an adventure game, just like a certain word a poet uses may not be as effective when used by a politician. This is further complicated by the fact that these games may have a specific "game genre" (denoted by their specific mechanics) on top of having an "aesthetic genre" (denoted by visuals and a storyline). Going back to *The Lord of the Rings* example, there have been many video game adaptations of both the films and other supporting material from Tolkien's universe. While these games have a range of different "game genres", from action-RPGs to Real-Time Strategy (RTS), they all have similar, if not congruent, aesthetic genres due to the choice of source material.

While *The Lord of The Rings* and other material, both adapted and original, have had success being incorporated across many different genres, some types of narratives or aesthetic choices are limited by what games offer as a medium. Some film and literary genres find natural places in a variety of different game genres; Fantasy fits naturally in the RPG or MMORPG genres, War or Action films and books tend

to gravitate towards the FPS or RTS's, and Dramas find their way into pretty much everything. Granted, there are plenty of games that blend these genres to create unique products, such as the *Mass Effect* or *Portal* series, but there are plenty of aesthetic genres that do not lend themselves to certain game genres, or to games at all. For example, a WWII piece would probably not fare well as a puzzle game, neither would a celebrity biopic make its way onto consoles anytime soon. Again, like the poet and the politician, these things do not lend themselves effectively to a gameplay experience (or at least one that has an example on the market today). Even though video games do make aesthetic choices in ways similar to film, literature, or the visual arts, those choices are limited by the genre of the core game and the nature of the aesthetic choices.

Given these cues from Aristotle, we can consider video games to have some basic qualities that are often attributed to art. Video games are clearly imitative works, both visually and in literary form, but games also have defined genres or styles that exist outside, and sometimes in spite of, the genre of the core game itself. On the other hand, this is far from an exacting critique of games or art, and leaves many questions still unresolved. One such question is the nature of the "aesthetic response", or the feeling that the artist wishes to evoke in the audience. Does this essential element manifest itself in certain video games? And what does that seemingly universal response tell us about gaming as a medium?

The Aesthetic Purpose and Interactivity

German writer, philosopher, dramatist, publicist and art critic Gotthold Ephraim Lessing states in the preface to his work *Laocoon: An Essay on the Limits of Painting and Poetry*, that:

> The first who likened painting and poetry to each other must have been a man of delicate perception, who found that both arts affected him in a similar manner. Both, he realized, present to us appearance as reality, absent things as present; both deceive and the deceit of either is pleasing (Lessing, 1766/2012).

While Lessing denotes this first observer the "amateur" compared to the philosophers and critics he continues to discuss in the remainder of his essay, this intuitive discovery is one that has echoes in our present day discussion. Although some might find it wanting, Lessing's amateur's experience with a "pleasing deceit" operates as a functional definition for the aesthetic response. Films, novels, and visual arts essentially generally present us art objects that are not truly present; they are either representations or abstracts of something that typically is not "there". Yet we know that Aristotle demonstrated in his *Poetics* that while a certain subject, or manner of speaking may be right for one type or artist, it may not prove effective with another type of artist, who operates in a different medium. Simply put, although they are both artists, creating artistic products, different types of artists operate under different conditions. Even though Lessing's amateur understands that there is a common aesthetic response being shared between painting and poetry, Lessing himself points out that "notwithstanding the complete similarity of this effect, they were yet distinct, both in their subjects and in the manner of their imitation" (Lessing, 1766/2012). Although it is yet too early to determine whether or not video games do evoke an aesthetic response in their audiences, if video games were to evoke a response it would happen in manner that is fundamentally different than other mediums. The most interesting way that video games do this, I assert, is through the interactive nature of the medium.

Lessing's thesis in *Laocoon* informs us how the difference between the renderings of artistic products in different mediums fundamentally change the experience of the audience, and it is because of this that we must adopt a new set ideas of what art is capable of doing, and by extension what video games are capable of doing. Lessing first discusses the sculpting of *Laocoon and His Sons* (Agesander of Rhodes, 27 BCE-68 CE; Fig. 1.) and how that even though Laocoon is experiencing great physical pain, his face reveals an "opposed and weary sigh", not the ugly contortions we would recognize with such a gruesome tale (Lessing, 1766/2012). Lessing asserts that this is because the sculptor was working for the beautiful perfection of his subject, despite his pain, and Lessing "merely wished to establish the fact that with the ancients, beauty was the supreme law of the plastic arts" (Lessing, 1766/2012). Poetry, as a medium, produces and altogether different effect, however, with Virgil's Laocoon in the *Aeneid* shouting with a terrible force. Unlike the sculptor, who can depict the pain in the contortions of the body, but also preserve form and beauty in such throes, the poet can only express the magnitude of the cry. On the other hand, both produce an aesthetic response, as the form of the sculpture entices our eyes, whereas the context of the poet's narrative breaks or hearts when we come upon Laocoon's cries. This narrative context provides an essential difference between the two, as Lessing states that "Virgil's Laocoon shrieks aloud, but this shrieking Laocoon we already know and love as the wisest of patriots and the most affective of fathers" (Lessing, 1766/2012). For the sculptor to try and create this context for the sculpture, it would take hundreds of blocks of marble, and countless single moments rendered in full form, but it "costs the poet only a single line" (Lessing, 1766/2012). Both mediums still touch us, but how they do so is very different. So given that these mediums impart similar effect just under different circumstances, how does the interactive nature of games change how this aesthetic response is communicated or developed?

Laocoon and His Sons. **Figure 1**

Video games offer two very unique twists on the aesthetic experience by engaging and developing content over long periods of time, and making the audience active participants in the experience. Games are increasingly becoming a longer format medium. Individual games can have up to 15 hours of gameplay easily, with longer games having 40 to 50 hours of just primary content, not to mention pieces of downloadable content, achievements, and other bonus content. Because of this, games have a depth of world-building that is unprecedented in other entertainment mediums, and might be second only to the multi-book fantasy series (*The Wheel of Time* series by Robert Jordan, the *A Song of Ice and Fire* saga by George R.R. Martin, and Rowling's *Harry Potter* all come to mind). While these series may easily out do a single game with their thousands of pages, a whole game series can hold its own in terms of development. For example, Ubisoft's *Assassin's Creed* series, which follows a singular character, Desmond Miles, and his ancestors over 110 hours of gameplay (not including additional downloadable content and other spin-off titles).To put it into perspective, if you wanted to read the entire Harry Potter series in the same amount of time as it would to complete the main entries of *Assassin's Creed* (4100 pages in the seven US hardcover editions) you would have about a minute and forty seconds to read each page. Consequently, because of this depth, video games can produce deep connections with characters over the course of a single, or a few games.

Interactivity comes in both explorative and narrative forms, each of which make the audience members active participants in creating the art experience they wish to get. While the magnitude of this interactivity ranges from simply moving through the game world to literally changing the narrative outcomes of the game, some level of interactivity is a universal and unique aspect of video games. This interactivity requires an active audience, one that is constantly engaging and responding to information in the game world. For many games this basis of interactivity is what drives the core mechanics of a game, whether it is "shoot this target" or "pick-up this item", but many games do more than funnel a player through sets of pre-defined obstacles. While many games may possess linear narratives, they give you a variety of ways to explore and meet your goals in terms of actions. One excellent example of this is Arkane Studios' *Dishonored*, in which you play a Corvo Attano a framed bodyguard, to an empress who is assassinated by a traitorous group of her closet advisors. What makes' *Dishonored*'s gameplay so unique is that you can go through literally the entire game without killing a single person, or you can become a ghastly, sadistic butcher of men, who lays intricate traps for his prey. *Dishonored* also tracks how much "chaos" you create during each of your missions, and if you create more chaos, you will begin to see the game world take on new and disturbing forms. Plague rats will crawl out of the sewers, infected members of the populace will attack you in syhphilitic-like insanity, streets that were once free and empty will now have guards searching high and low for any trace of you. *How* you play the game, whether by making conscious or unconscious choices, while eventually dictate what sort of challenges you face later, which means that the player effectively creates for his/herself what kind of art experience they will get from a game.

Narrative interactivity is also commonplace among many different genres in today's gaming marketplace, but it is simultaneously one of the most unique and most problematic aspects considering games as an artistic medium. Many games offer their audiences any number of different narrative choices during the course of the game, ranging from simple things like whether or not you form a romance with a certain character, or choices that will fundamentally change the nature of your narrative. One game series that provides such a litany of choices, from the inconsequential to the irrevocable, is the *Mass Effect* series. To try and summarize the plot essential plot this epic space opera would be a discredit to those who created it, as it carries a single cohesive narrative over the course of three games, and presents the player with many different opportunities to play an active role in shaping the artistic experience. In the beginning of the series, you are essentially being introduced to the lore of the *Mass Effect* universe, who your own character is, the politics of the different alien races you will encounter, but before too long you will make choices that will carry over to other games and begin affecting the trajectory of your Shepard's narrative. At the end of the series in *Mass Effect 3*, you will have to try and unite the various alien races against a common threat, but if made certain choices, destroying certain facilities, allowing key characters to die, etc. during the previous games, you may spurn some of your alien allies, who will refuse to join your effort, thus helping dooming your mission to certain failure. This gives players a unprecedented amount of agency in the creation of their character's narrative, which could invest them deeper into their game world than standard narratives.

This agency consequently makes the narrative of *Mass Effect* and similar games very malleable, a trait that I earlier quoted Ebert outright rejecting, asserting that "If you can go through 'every emotional journey available,' doesn't that devalue each and every one of them? Art seeks to lead you to an inevitable conclusion, not a smorgasbord of choices."("Okay Kids…" 2010). However, the video game medium is not that clear cut, and not every game offers narrative interactivity to the scale of *Mass Effect*, and of these games there are plenty of fantastic, artistic ones that fall in line with Ebert's prized "inevitable conclusion". But for the games that complicate this definition, like *Mass Effect* or *Dishonored*, I believe for the sake of prudence I can partially qualify Ebert's point. Perhaps for some

having multiple endings to a movie devalues each ending, and perhaps for some it does not. Yet what if you made every choice that came to that conclusion? These are not just choices like left or right, black or white, red, blue, or green, they are most often moral choices that may resonate differently with different people. If a criminal takes an essential political figure as a hostage, do you shoot? Who do you save, your romantic interest or your best friend? These are the kinds of choices that invest a player into their storyline, because it is not just another path they happened to choose, it is a path that they chose because it resonated with them in some way. The effects of these choices are then magnified even more by the significant time investment that gamers put into these titles. After submersing yourself in a world for 80+ hours, it would seem likely that the choices you make in that world would seem far from inconsequential to you. But even then, sometimes those choices have negative consequences, and sometimes they do have no bearing at all. There are some events that will occur no matter what the player does. So while it may seem to some as just a "smorgasbord of choices" these player's decisions lead to the most aesthetically powerful moments, because they themselves helped make it happen. There is joy when a player saves a companion and tragedy when a player's decision leads to one's certain death. Even if this paradigm of choice devalues the ending for some, when employed correctly, it makes a whole journey that is just as affecting, emotive, and artistic as any single conclusion.

Although it happens in two very different ways, the interactive nature of games lends itself artistic considerations, although not in a traditional sense. Lessing showed us how sculptures and poems of Laocoon's death affected their audiences in different ways, but just because one was unable to perform in the same way as the other does not make it any less art. While interactivity can be a powerful tool in enriching a game, or elevating its narrative, too many choices while inevitably make each choice less important. What successful games like *Mass Effect* and *Dishonored* do so well is finding a balance between the interactive and the inevitable. Just like in real life, sometimes you will make seemingly innocuous choices that play out bigger later, and sometimes you will make seemingly big choices of no consequence at all. By adding this element of choice, players can experience a situation in way that can be just as effecting than a movie or a painting although in a different way. So while video games may operate in more complex, active, and idiosyncratic way, we can see how that despite these elements, certain video games can still evoke an aesthetic response in their audience similar to other arts.

A New Paradigm of Game Criticism

Up to this point, I have considered what makes games art, and how games differ from other works of art, yet this does not mean that every game possesses these qualities. The next step naturally, would assess some game criticism, and show what reputable critics value in the games they review, and make some rationales to why artistic games get all the good scores; if only it were that easy. The reality is that there are plenty of excellent games out there that do not have a real aesthetic purpose, and there are plenty of terrible games that try *really hard* to be high art. Yet to your average game review website like *IGN* or *Gamespot* these games, as far as the review process goes, are practically indistinguishable. Although it might be easier to ignore these games altogether, they are still a part of the gaming marketplace, and although they may not have the same aspirations as some of their artistic counterparts, they are not bad games, just not art, which is perfectly okay. By using Scottish philosopher David Hume's *Of The Standard of Taste* as my framework, I hope to address a growing need in game criticism to separate artistic video games from standard video games because each category seeks a very different kind of response from their audience, and why that distinction could cause different effects in players.

While one would think that all games have a single purpose, to entertain, we begin to see how the purpose of artistic games is not so cut-and-dry. Hume asserts in his essay that "Every work of art has also a certain end or purpose, for which it is calculated… The object of eloquence is to persuade, of history is to instruct, of poetry to please by means of the passions and the imagination" (Hume, 2012). This consideration also holds true with certain video games. Many iOS and Android games are of a very high quality, with standout examples like *Angry Birds, Temple Run,* and *Plants vs. Zombies,* all sporting solid controls, interesting gameplay, and lots of replay-ability. Yet the primary purposes of these games are to entertain, not necessarily to make their audiences feel something they have not felt before, or question things that have questioned before. The same goes for classic games like *Super Mario Brothers,* or *Pac-Man*, which, while immensely entertaining, are really just that: entertaining. Certain video games come to mind, however, that do much more than simply entertain, such as the recent PC hit *Papers, Please*. In *Papers, Please* you play as a border guard official between on the border between the fictional Eastern European nations of Kolechia and your home nation of Arstotzka. The gameplay is fairly straight-forward, make sure that each person who attempts to cross the border has all the proper documents in order to enter the country. As you do this however, the game tests you with a litany of moral choices, ranging from letting a mother with a recently expired passport enter to reunite with her long lost son, to letting in an anarchist group that plans to overthrow Arstotzka's cruel, totalitarian state. If the game's purpose was solely to entertain you, however, it would not need to incorporate its dark commentary on the moral struggles of a man stuck between his family, his country, and his fellow man, you could just play the game without the choices, without the 1980's Eastern European aesthetic, and without the clear allusions to our own storied history with the Cold War. Simply put, *Papers, Please* is trying to make you reflect about a specific time and a specific aspect of humanity, and by doing so elevates itself from a fun timewaster, to something a bit more serious.

Papers, Please may have something different to offer, but why does it matter that it is trying to be more than just a game? If both artistic and non-artistic games excite responses within us, are they not using different means to arouse a similar effect? Hume suggests that "It is impossible to continue in the practice of contemplating any order of beauty, without being frequently obliged to form *comparisons* between several species and degrees of excellence, and estimating their proportion to each other" (Hume, 2012). Although Hume's context is related to comparing similar pieces of art in order to determine what "beauty" is, we could also apply this perspective and compare what artistic games do well to what non-artistic games do well in order to have a stronger idea of what each offers over the other. With this in mind, let us compare three very different games that are out to achieve three very different effects, *The Stanley Parable,* a story-driven exploration of choice, *Peggle 2*, a widely popular puzzle/arcade title, and *God of War III*, the last in the *God of War* trilogy, and see how that while these titles are all trying to excite a specific response, distinctions between what they offer are fundamental to determining what we can consider an artful video game.

The Stanley Parable, while not an intricate RPG or action-packed FPS, shows how a game with well-crafted intent can communicate a powerful message without needing a powerful game engine to support it. The game offers the player a chance to play the role of Stanley, whose co-workers all mysteriously disappear one day at the office. While trying to uncover the mystery behind his co-worker's disappearance, Stanley is led by a Narrator, whom outlines Stanley's story as he goes along. You, as Stanley, however do not need to follow the Narrator's instructions, and are offered a multitude of ways to "defy" the Narrator, who becomes increasingly irate with your insubordination. Most of these defiant actions end with either Stanley's gruesome death or with him effectively "ruining the story" (as the narrator puts it) and the only option in which you "complete" the game, is by following the Narrator's instructions to the tee. In essence, it is a critique of choice in video games, with all of

Stanley's choices leading him farther and farther astray from the intended narrative of the Narrator, which is the only one that yields a true feeling of completion. Yet while *The Stanley Parable* is questioning the importance of choice in video games, it also solidifies its importance. If you follow the Narrator's instructions to the tee, you will effectively miss the whole point of the game, because you will never have made any choices to question. Unlike other titles, however, other than some point and clicking, there is no "gameplay" to *The Stanley Parable* other than exploring Stanley's abandoned workplace, no puzzles, no mini-games, just a lot of walking. Even the graphics of the updated HD edition are still more functional than anything, with only a few calculated moments of simplistic beauty to really hang its hat on. All these aspects though are in service to the game's message, and consequently puts more emphasis on the critique that the game is trying to make, and less the gameplay itself.

God of War III, however, takes great care to craft a gameplay experience that is both mesmerizing and awe-inspiring. Ripped from the often bloody, and cruel mythology of Ancient Greece, the *God of War* series is known for its epic scale and bold imagination that even Homer cannot shake a finger at. Carefully placed camera angles feature grand vistas worthy of Greek myth, like the ebony hewn towers of Hades, or the scale and power of the game's copious monsters. While the game can often depicts Tarantino-esque bouts of blood and violence, if you are familiar with some of the more brutal tales of Greek myth, *God of War III* seems to only push the envelope slightly more than its source material. From a gameplay standpoint, your character Kratos feels as fearsome as the narrative paints him as, as with a flick of a button you send swords flying across sandy battlefields, charging and crushing enemies as you go. This balance with the control system enhances the immersion of the game, as you feel like Kratos, you feel how effortlessly he pummels droves of minions, and you feel the struggle as you try and take down Olympian gods. The story of *God of War III* is not perfect, however,and Kratos can seem sometimes nonsensical to modern tastes, but then again, his characterization seems not to far away from Odysseus or Achilles, which makes helps put the game into further dialogue with its Greek roots. But what *God of War III*, and the *God of War* series does the most effectively is seamlessly combine gameplay and aesthetic and narrative choices. Many games have tried to copy *God of War*'s game design, and found varying levels of success, such as *Dante's Inferno,* or *Castlevania: Lords of Shadow*, which shows of the strength of the core game elements, but what elevates *God of War* from a good game to a piece of game art, is its commitment to delivering an immersive experience both with both its game and aesthetic design.

While *Peggle 2* and its predecessors *Peggle* and *Peggle Nights* are well-reviewed and altogether excellent games, the imagery that is associated with it is superfluous to the goals of the game itself. In *Peggle 2*, you and a cast of colorful fantasy creatures called the "Peggle Masters" try to clear the board of a variety of different colored pegs. A puzzle game of the highest caliber, the *Peggle* series is simple, fun, and all-around addictive, and will likely entertain about anyone who plays it. Yet beyond its colorful creatures and backgrounds, *Peggle 2* and its cohorts do not have any pretensions of being art. Sure, you might feel cultured with Beethoven's "Ode to Joy" plays when you nail your last orange peg, but overall the additions of characters and landscapes do not transform the gameplay experience, but act rather like a sideshow to your main focus, which are the puzzles. If you were to strip away all of these aspects from *Peggle 2,* the creatures, the colors, etc. you would still have a fun game that may lack a little personality, but it would still be just as addicting as the *Peggle 2* we know and love.

It might seem unfair games to compare games that set out to perform such different things in terms of effects and performances, as Hume suggests, but it is an inherently embedded part of today's video game criticism. If you look at a major game reviewing site like *IGN,* or *Gamespot*, or *Game Informer*, all use a similar 1-10 rating system and that system dictates how consumers will perceive that game. While this system is perfectly useful for assessing a game's quality compared to industry

standards, it does not truly account for the impact that certain games have that others do not. Yes, *Peggle 2* may be a great game that people will cherish, or love to play, but will it change how they think, or make them question something about humanity, or let them explore a whole new world? Probably not, and no one should ever put those kinds of expectations on a simple game like *Peggle 2*. The purpose of *Peggle 2* is to entertain you, no more, no less, but games like *The Stanley Parable* attempt to do so much more given the same tools, and by doing so they transcend being categorized and numbered alongside their largely dissimilar counterparts. All in all, my point is this: something about artistic games makes them different. Whether it is a different aesthetic purpose, different means of engaging a player, or just altogether different gameplay, these games make some serious departures from the predecessors and some of their contemporaries.

Aesthetic Conclusions

The expressed purpose of this review was to attempt to generate certain criteria that could be used to help define what an artistic game is. The first few are less of criteria and more of aspects that one should keep in mind when considering the question of "Are games art?"

1. Games are imitations. (Aristotle)
2. They have defined genres (of game, and of the aesthetic itself). (Aristotle)
3. Games may not operate under the same conditions as other art forms, but (in theory) still produce an aesthetic response. (Lessing)

The latter are the specific criteria that I hope will help shed some light on what an artistic game is, and what qualities are shared in common among the many disparate genres of artistic games:

4. Artistic games must have an artistic purpose, or a desire to provoke an aesthetic response. (Hume)
5. The characters of artistic games are developed in such a way as to inspire empathy in their audience, in order to give the illusion that they are "real" in terms of depth and personality. (Lessing)
6. There are some games that achieve artistic consideration, and some that do not. (Hume)
7. There is likely to be a strong visual or literary narrative. (Lessing)
8. Different genres will achieve their art in different ways. (Aristotle, Lessing)

While these will serve as invaluable guideposts in the content analysis portion of this thesis, the aesthetic review has revealed much more than a few criteria. At the heart of this distinction there is a key idea, which is that artistic video games are different than other video games, and must be considered as such. I previously cited a study conducted by Dutch researchers who were comparing violent outcomes as a product of watching violent video games (Polman et. al, 2008). One the key flaws in this study was that the researchers compared two games, *Tekken 4* and *Crash Bandicoot,* as if they were seemingly interchangeable other than violent content, and did not account for the context, genre, or gameplay differences of each title. If we try to compare a game like *The Stanley Parable* to *Peggle 2* as we have previously established, we are making a similar error. Each of these titles, *Tekken 4, Crash Bandicoot, The Stanley Parable,* and *Peggle 2* all have different purposes and qualities that make them wildly different although they may all be games. Yet the one factor that is particularly divisive is the aesthetic. Normal games eventual all have one purpose: to entertain, but artistic games have a plurality of purposes, which also on occasion include entertainment. As we have seen, artistic games are trying to achieve wholly different ends, so to put them in the same category as other games would be neglecting the most fundamental difference that makes them worth comparing in the first place. Yet is there

something beyond this asserted or inferred difference that I have suggested? Can we "prove" that artistic games are different? I cannot answer all of these questions, but by showing how and why video games could be art we have moved one step closer to determining this essential difference.

Content Analysis

As I previously stated, developing criteria for identifying artistic games is only the first step in the analytical process. While we have seen games that meet certain aspects of our criteria in the aesthetic review, we still need to determine what games will be used in the pilot flow study. Over the course of the past 50 or so years, we can highlight many games that have possessed some or many of our artful criteria, but in order to meet our end goal, which is to see what effect, if any, these games have on us, we must narrow our focus to a select few games. Because of this, I have chosen three games in particular which I will analyze at length, which have all made fairly recent entries into the video game scene: *The Elder Scrolls V: Skyrim, Bioshock Infinite,* and *Mass Effect 2.* I chose these games for a number of reasons. First, these games are all from different genres, so we can see how different styles of game meet these criteria (see criteria #2). Also, each of these games has a different narrative style, ranging from the strict, linear narrative (*Bioshock Infinite)* to one completely dictated by the gamer's actions (*Mass Effect 2)*. Furthermore, these games are aesthetically very different as well, *Skyrim* being a traditional fantasy role-playing game*, Mass Effect 2* being a third-person action game set in a near-future space opera, and *Bioshock Infinite* being set in an alternate history of early 20th century America. Through my analysis I will try to demonstrate how and why the games selected are excellent examples of artistic games and how their immersive qualities could make them worthy of closer examination in the flow study.

Bioshock Infinite (2013)

Bioshock Infinite takes place in the early 1900's upon a floating utopia in the clouds called Columbia. You play Booker DeWitt, a private investigator with an immense debt he needs repaid. One night, Booker receives a note with a proposition: to bring a young woman, Elizabeth, to some mysterious benefactors in order to "wipe away the debt". Booker is then rocketed into the clouds towards Columbia, and it is here that our story truly begins. *Infinite* is excellent example of the artistic power of games because Columbia is steeped in the historical and aesthetic milleux of turn-of-the-20th-century America. This environment was one that Creative Director Ken Levine wished to incorporate in earnest, and served as the inspiration for the game's design:

> We wanted to use everything from the period – the politics of the time, the clothes of the time, the music and specifically what was going on in science… around 1905 you have Einstein coming up with the theory of special relativity, and you have Max Planck, and Heisenberg – all these people around this time, some a little earlier, some a little later, starting to understand that the Newtonian view of the universe was not comprehensive (Griffiths, 2013).

Indeed, the themes of science, religion, xenophobia, politics, and American Exceptionalism are all well represented in the visual design of *Infinite*, but what makes *Infinite* truly effective is the cohesiveness of these themes between both the literary and visual aspects of the narrative. Not only is the narrative content engaging, but characters such as Booker's companion, Elizabeth, are as well, which continues to deepen the gamer's connection to the game world. By tying strong themes into its literary and visual narratives, developing equally dynamic and empathetic characters, and by trying to evoke an aesthetic response by doing so, *Bioshock Infinite* meets our criteria and demonstrates its suitability as an artistic game.

Bioshock Infinite's greatest asset, as far as considering it as an artful game, is its poignant storyline and narrative structure, which sets out not only to create new narratives, but also imitate and allude to topics within its historical situation. Set in the early 1900's, *Infinite* brings with it many different themes that, while true to the historical context of the time, still reverberate with us today. One great example of this is Booker's first experience walking through Columbia. After walking down a few streets from where his rocket lands, Booker finds himself amongst a carnival. There are demonstrations, carnival games, children running around in the sun, Booker enters a raffle, an altogether idyllic scene. Little do we know that Booker's raffle prize is the first shot at an interracial couple who has been arrested and is now being punished by a public stoning. Yet while this shocking turn of events may seem foreign to us

An interracial couple being publically humiliated. Figure 2

now, less than 100 years ago imprisonment would have been commonplace for interracial couples since interracial marriage was illegal in the southern US until 1967 (*Loving v. Virginia).* Considering criteria #1, *Bioshock Infinite* certainly tries to imitate many different portrayals of turn-of-the-century America, some ideal and some not, and it is through these juxtapositions of the brutal realities and the wanton idealism that *Infinite's* story truly begins to beg for an aesthetic response.

Another such event is when Booker and Elizabeth finally confront Columbia's political and spiritual leader, Zachary Comstock, on his zeppelin, a scene which helps situate *Bioshock Infinite* within conventions of the dystopian genre (Fig. 3). The room itself is a testament to Comstock's stature a
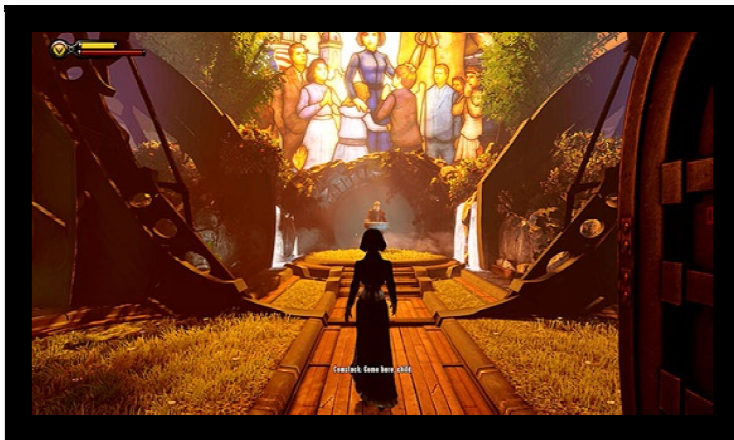
Elizabeth approaching Comstock's basin. Figure 3

prominent holy figure, with trees, stained glass windows, and basin of holy water adorning the room. The reality behind this ideal is that Comstock is the Big-Brother-like antagonist who has been chasing Booker and Elizabeth the whole game, who had scientists perform terrible experiments on Elizabeth even as a small child, and who has been responsible for the marginalization and subjugation of many of Columbia's citizens. Yet when you enter the room, he is a picture of prophetic serenity, not a mustache-twirling villain. He bids Elizabeth to come towards him, so he can wash her hands in the baptismal water and tell her that all he did was in order to protect her. In this sense, our "Big Brother", truly loves Elizabeth. Again, we have the ideal, in which Comstock is the purest member of Columbia, when in reality Comstock is the most evil, and the most corrupt member of the floating dystopia. Comstock and his citizens often refer to those living on the ground as "the Sodom below", yet with their prejudice, institutionalized slavery, and proto-Fascism, it is they who are truly corrupt. This thin veneer of perfection we encounter at the beginning of the game, followed by the eventual discovery of Comstock and Columbia's true nature not only strengthens *Infinite's* literary narrative (criteria #7) but also situates the game within a respected aesthetic genre (criteria #2). Yet

while these moments lay the groundwork for the prominent themes in our main narrative, we also see these same ideas and themes at work in the visual narrative of the various posters, flyers, murals, and other propaganda we see throughout Columbia, providing more instances that agree with our criteria.

Part of what makes *Bioshock Infinite* so visually meaningful, is not the quality of its imagery alone, but the thematic content that exists behind them to strengthen its visual narrative. Without a doubt, many of the vistas and overlooks of Columbia are awe-inspiring in their own ways, but

sometimes even the most out-of-place image addresses many of *Infinite's* major themes. One such image is a mural of George Washington found in the museum of Columbia's achievements, the Hall of Heroes. In this one image alone, we can dissect many of the major themes at play in *Infinite*'s narrative, but also discover what kind of place Columbia is. In the mural, George Washington stands holding both the Liberty Bell and the Ten Commandments, showing Columbia's commitment to both Religion, as we saw with Comstock, and to the ideals of American Exceptionalism. This is further supported

The mural in the Hall of Heroes. Figure 4

by the wreath of American flags which hug the epigraph "It is our holy duty to guard against the foreign hordes". These "foreign hordes" flank Washington on all side,each a stereotypical representation of Chinese, Native American, Jewish, Hispanic, and Irish immigrants to Columbia. Each of these ethnicities were marginalized in the early 1900's and this image, like the interracial couple at the raffle, helps reinforce the idea that Columbia is thematically linked with the time period it is set in. We also see four symbolic representations of Columbia's ideals, a cross for Faith, arrows for Defense, wheat for Prosperity, but for Purity we see a raven. The raven is a nod to the Order of The Raven, which is Columbia's version of the Ku Klu Klan, again reinforcing Columbia's racist/xenophobic tendencies. So

An anti-Vox carnival game in the opening sequence. Figure 5

even within just this single image, a mass of information about the game world is provided for us. Not only does this mural communicate some of the important themes of the game, but it also reminds the gamer of their historical context, which makes this image not only a piece of propaganda in the game world, but also a critique of the political and social happenings of the 1910's.

While there are many instances of standalone images like the Washington mural that link to themes we have seen in the main narrative, there are many instances in which we can see Columbia change over the course of main plot, such as with the Vox Populi banners. When the game begins, and Comstock is in power, these banners are practically non-existent. The streets are

adorned only with anti-Vox propoganda, such as the anti-Vox carnival game shown to the left. As the game progresses, however, and the Vox begin to gain more traction in the game's narrative, and you begin to see Columbia transformed by the Vox. Comstock's propoganda is painted over or burned, and new banners erected in their place. These changes show how the game's environments are as dynamic

as its main narrative, and how Levine and his development team are reinforcing the political upheaval in the main plotline with a visual change in the game world. This demonstrates that Levine and his team have taken great care to make sure that the world of *Bioshock Infinite*, from the smallest poster to the most poigniant ending cutscene, is all pulling from the same book thematically. Having this in mind, its not out of the question to think that Irrational Game's efforts creating a cohesive statement with *Infinite* is in service to some larger aesthetic aim or purpose, as per criteria #4. With the cohesiveness of all of these different aspects its seems as if *Infinite* has a

Vox propaganda over a destroyed version of the Hall of Heroes mural. Figure 6

strong visual or literary narrative that supports an artistic purpose or statement, but in what ways does *Infinite* shape its characters in order to support this desire to move its audience?

While there are many characters throughout *Infinite* that one could potentially empathize with, the character that most effectively meets this criteria (#5) is Elizabeth, your companion. Elizabeth begins our adventure as a Disney-Princess-like figure, trapped away in her room in the tallest tower of Columbia, Monument Island. Elizabeth is kept under constant surveillance because she can open tears into other dimensions, a power Comstock plans on exploiting. When Booker breaks her out of her isolation and brings her amongst other people in Columbia, she is giddy with delight to dance and talk

with other people. All in all, Elizabeth does the things that you would expect someone locked up in a tower their entire life to do. This thoughtfulness on the part of the design team really helps accentuate the parts of Elizabeth that make her "real", since her actions are not just poignant, but they make sense given her prior circumstance, which makes it easier to empathize with her. One such event occurs with Elizabeth and Booker happen upon a guitar in a basement, between one of their skirmishes with the Columbian police. Elizabeth points out the guitar and remarks that she wishes she "knew how to play". At

Elizabeth after your first break out of her prison. Figure 7

this point Booker can interact with the guitar, and begin playing it. While he plays, Elizabeth lifts her voice to sing a sweet hymn, "While the Circle Be Unbroken?" Then a young boy, scared and hiding underneath a set of stair, peeks out for a moment to see. Elizabeth, who catches him out of the corner of her eye, slowly walks over to him with an apple, and hands it to him. The young boy grabs the apple, and then retreats under the stairs, never to be seen again. This moment shows Elizabeth's kindness,

which moves us closer to her as character, but does so in a way that feels natural, and not out of place in the narrative of political upheaval of Columbia.

Yet over the course of the game, Elizabeth's naiveté fades away as she becomes hardened by journey with Booker, and one can empathize with this change. One of the first moments we see this is when Booker kills some of Comstock's men in front of Elizabeth for the first time. As Elizabeth sees

Elizabeth after she murders Daisy. Figure 8

Booker return fire and kill one of Comstock's men, she does not sit idly by like many other naïve companions would, she runs for the hills, fearing Booker just as much as the men he has killed. When Booker finally finds her corned on a gondola, he tries to calm her down, only to have Elizabeth call him a "monster". This moment illustrates how real and deep Elizabeth is a character. It would be much easier to let Elizabeth be okay with Booker killing people, but instead the developers have given her a distinct personality, one that was sheltered from violence her whole life, and therefore reacts harshly to witnessing a man murdered in front of her own eyes. Yet this initial distinction proves essential when Elizabeth must rescue a young boy from the leader of the Vox Populi, Daisy Fitzroy. Booker tracks down Fitzroy, but is trapped outside. He can see Daisy with her young hostage, powerless to do anything. As Booker's attempts to talk her down from the ledge fail, and Daisy readies her shot, we see her get stabbed in the back, revealing Elizabeth, distraught and covered in Daisy's blood. This moment demonstrates quite clearly how Elizabeth has changed since she escaped with Booker. Even though she once was an upright, moral person, Columbia has changed her, corrupted her even. When she returns to Booker, she has changed her clothes, cut her hair, and wears a more somber expression. The once happy, innocent Elizabeth we knew is gone, and is replaced with a world-weary Elizabeth that will eventually become a much different figure than the young girl we were introduced to at the beginning of *Infinite*.

The Elizabeth we see at the end of *Bioshock Infinite* has completed her transformation from trapped ingénue, to conflicted runaway, to a determined and powerful character, which demonstrates the emotional depth of her character and her ability to make the audience feel for her loss of innocence. This inevitable transformation is realized in two specific events, her torturing at Comstock House, and the destruction of The Siphon. During the last few chapters of the game, Elizabeth is abducted and taken to Comstock House, an insane asylum, to be tortured. As Booker rescues her, Elizabeth vows to stop Comstock once and for all, but Booker says that he will not let her. Elizabeth responds by ripping a giant inter-dimensional tear into a field with a tornado, and asks Booker how he plans to stop her. This not only shows for the first time Elizabeth's steely resolve to end Comstock's reign, but also how truly dangerous she is, and she knows it. After Booker has killed Comstock and they have destroyed the Siphon, the device Comstock was using to attempt to harness Elizabeth's abilities, Elizabeth gains access to all of her powers. Now fully tapped into the fabric of infinite parallel universes, Elizabeth becomes practically omniscient and extremely powerful, and what she learns about Comstock and Columbia leads us to the climactic end of *Bioshock Infinite*. This Elizabeth that we leave at the end of *Infinite* is an altogether different person from the Elizabeth we met at the beginning. Unlike other video game

characters, she has a dynamic arc that forces the audience to watch her succumb to the destructive forces of Columbia. As a character, we see her at her lowest lows, and witness first hand as she bears the burden of her powers. Watching Elizabeth's development over the course of *Infinite* affords its audience ample opportunity to empathize and create a connection with her, and whether it is watching her meet other people for the first time, or her distress as she witnesses someone lose their life right in front of her, these connections certainly make her a dynamic, life-like character that evokes a aesthetic

Elizabeth displaying her power at Comstock House. Figure 9

response in *Infinite's* audience, and sets her as an exemplar of how well-developed characters can help video games transcend the boundaries of mere entertainment to that of artistic consideration.

Whether it is through its narrative style, or the nuanced and realistic development of its characters, *Bioshock Infinite* seems to meet plenty our criteria for considering it as an artistic game. Its literary and visual narratives are well-situated within a specific genre and have the thematic power and poignancy that suggest potential for aesthetic response (#2, 4, 7), and its characters are developed in ways that are true to life and beg our empathy (#1, 8). Turning my focus towards the flow study, I think that this consistent and thought-provoking narrative delivery of both the main storyline and the visuals that will help enhance the flow experience of my participants. Because the narrative content of *Infinite* can be "difficult" in the sense that it can be quite dark and unsettling, I believe that this extra challenge might help further engross players who might otherwise fall out of the flow state because of a lack of difficulty in the gameplay. This would allow gamers who are on the fence between a flow and non-flow state to get knocked into the flow category, or induce a deeper flow for those who might be experiencing a low flow effect. This could have negative side effects as well, as it could potentially make a game that might already be frustrating for an unsuccessful player depressing as well, which would certainly prevent them from reaching a flow state. The consistency of narrative engagement may also help contribute to an enhanced flow state because the audience is frequently experiencing narrative aspects of Columbia, whether it is dialogue between Booker and Elizabeth, audio recordings of other characters, and through the copious propaganda that hangs throughout Columbia's streets. Given these advantages, and despite these potential issues, its seems that *Bioshock Infinite* can be considered not only as a work of art that meets the criteria set forth for it, but also a solid candidate for the flow study.

Mass Effect 2 (2010)

Like *Bioshock Infinite* launched you into the clouds of Columbia, the *Mass Effect* series launches you into the wide open wonder of the Milky Way. A space opera at heart (criteria #2), the *Mass Effect* series is the story of Commander Shepard, an officer in the human race's intergalactic navy, The Alliance. During your adventures you will encounter innumerable races of alien creatures, awaken long lost galactic nemeses, and defend the galaxy from them by uniting all of the aforementioned races into one galactic community. Yet if there is a single entry of the trilogy that captures the heart of what the series is all about, it would have to be *Mass Effect 2*. After the events that occur at the end of the first game, the galaxy as you know it is on a collision course for disaster, and it is up to you, as Shepard, to

gather the allies necessary in order to complete your mission. Yet over the course of your adventure you will meet many colorful characters, both human and alien, and you while have to make decisions that will affect the lives of those characters, and at the intersection of these two elements, we get what makes *Mass Effect 2* an artful game. By cultivating parasocial connections with your party members, and by presenting audience members with decisions that will effect both them personally and the rest of the galaxy, *Mass Effect 2* wraps its high-action gameplay with deep, immersive, and meaningful choices that dictate the final outcomes of both the plot and character's lives, thereby evoking a response in the audience that meets our criteria and begs an artistic consideration.

The first step *Mass Effect 2* takes in trying to evoke a response in its audience is by crafting memorable characters that people can respond to, just as *Infinite* did with Elizabeth. All in all, you have ten squad-mates in the base game, with two additional ones available through downloadable content. Although twelve may seem like a lot, each has a fully crafted backstory, their own struggles, and their own goals or ambitions which grow as the story unfolds. While any given player may not take a vested interest every single crew member, if you do invest the time into learning about any particular character, you will find a deeply nuanced care taken with each individual's background. Take for example Garrus Vakarian, a Turian who you meet in the original *Mass Effect*. The Turian race is known in the *Mass Effect* universe as the galaxy's enforcers and protectors, they have the largest galactic military, and their culture is a very disciplined and hierarchical meritocracy. When you first meet Garrus, he is a seasoned but increasingly frustrated security officer at the Citadel, the galaxy's center for politics and commerce. Garrus has a deep desire to protect others, but the red-tape at Citadel Security (C-Sec) often keeps him from catching criminals, and he feels like he can make little difference as a result. After your adventures in the first game, Garrus cannot go back to C-Sec after acting so freely with you, so he forms a vigilante group on the seedy underworld space station of Omega, where you find him at the beginning of the second game. While this short summary just barely does him justice, if given the chance, Garrus develops in a loyal, affable, and dry-witted companion for the course of the trilogy, and these qualities allow him to easily meet criteria #5. This dynamic arc, however, is not unique to just Garrus, as all of your squad mates are irrevocably changed by your actions, leading you into deeper state of empathy with them as you watch them struggle, grow, and triumph over the course of the game.

Garrus Vakarian, one of your crewmates. Figure 10

While building relationships with your crew is one of the essential parts of *Mass Effect 2*, the most affecting experiences stem from moral choices you must make as the commanding officer of your crew. This key element of the series carries itself over the course of trilogy, with choices you made in *Mass Effect* carrying over to *2* and *3*. This is an interesting aspect of the series because it gives the player a sense of agency in shaping the game world, and their own reputation as a Commander. As I previously mentioned in my aesthetic review, some critics believe that this leads to a "smorgasbord of choices" which are consequently not artistic. While I can understand why one could come to this conclusion, as there is no one "true" ending to *Mass Effect*, as far as the choices are concerned, they are less like choices and more like invitations. You do not *have* to make most of the possible choices in *Mass*

Effect 2, in fact, you can outright avoid them. Don't want to have to have Miranda and Kasumi have a cat fight over your affections? You do not have to romance them. Do you not want to do a mission to earn a crew member's loyalty? You do not have to do it. This brings back the idea that forms criteria #3, that games may not operate under the same conditions as other art forms. While art forms may be damaged by having these "smorgasbord of choices", it is exactly these kinds of choices that bring the *Mass Effect 2* audience the active agency that makes their choices connect with them long after they've done them.

Two seemingly distinct parts of *Mass Effect 2*: characters and choices; but put them together and you get what the *Mass Effect* series is all about at its heart, consequences, and it is these outcomes that make the strongest attempts to create an aesthetic response. While choices in the *Mass Effect* series may seem like self-contained instances at first, many of them will come back to help or haunt Shepard and his/her crew later in the storyline. These decisions are not always a lesson in ethics either, in fact the "morality" system of *Mass Effect 2* represents that in a nut-shell. Instead of being labeled "good" or "bad", like in other games you are gauged on a system of "Paragon" and "Renegade" points. "Paragons" are not necessarily good, and "Renegades" are not necessarily evil, they just represent two different ways to achieve a similar end. If two allies to your war effort are having a heated argument, playing a Paragon-like damage control might end up losing influence with both parties, or hastily choosing one side in a Renegade option may cost you an essential tool that could have helped you in your mission. Making these choices, however, is not always as cause-and effect as the above example, and while some choices may be just setbacks, others can cause irreparable damage to your mission, and to your crew. Your main mission in *Mass Effect 2* is frequently called a "suicide mission" for a simple reason: because you can send every member of your squad to their death if you do not make the "right" decisions. This idea is key to what *Mass Effect 2* hopes to achieve as a piece, and what makes it different from other video games. Other games set you on a path and you are forced to watch specific characters die because that is their role. *Mass Effect 2* on the other hand makes the player personally responsible for their entire crew, and if they make a series of decisions that lead to one character's death, it is on their head. After engaging for hours with these colorful characters to have them die as result of the gamer's performance is often a tragic occurrence, one that certainly tries to exploit player's connections with these characters (#5) in order to provoke an aesthetic response (#6). Not only that, other decisions in your journey force you to take sides in the ever evolving politics of the *Mass Effect* universe, and these arguments often touch on themes like prejudice, the costs of war, cross-cultural contact, and many others that make one challenge their preconceived notions about the nature of humanity. In short, these choices are not just gimmicks but rather essential elements to the artistic message of the game, and the means in which the game immerses the player into the game world.

Yet overall, what does this mean for the artistic experience of *Mass Effect 2?* In this sense, *Mass Effect 2* provides an excellent story (#7) situated within a popular genre (#2), with as many empathetic characters as any great film (#4), but then it heightens this experience by giving you direct agency in the game world. While it meets all of the same criteria as *Infinite*, *ME2* goes about meeting these criteria in an altogether different way. Although *ME2* has a strong literary narrative, its visuals however, do not shoulder the amount narrative as *Bioshock Infinite*, even though *ME2*'s choice-driven dialogue seems to makes up for it in terms of immersion. Furthermore, as an action-RPG, *ME2* delivers its artistic concepts differently by putting an emphasis on familiarizing you with your squad mates, with whom you spend a majority of your time out in the game world with, and serve as your ambassadors to the game world at large (#8). These parasocial relationships are not uncommon in other forms of media, and as communication scholar Alan Rubin puts it, players involve themselves with these characters by "seeing media personalities as friends, [or] imagining being a part of their favorite program's social world" (Rubin, 1985). Games like *Mass Effect 2* take this one step further by forming these relationships with

players and then asking them to be an active participant, not just an imaginary one, in the game world. This puts the player in dialogue with these characters and the world they live in, makes them rethink what it is to be human, or what is "right" or "wrong", or what they value. Above all though, it makes them feel. This is the aesthetic purpose, and the most important distinction, of Mass Effect 2 in short; to immerse you in a world, befriend its characters, and hopefully lead them to victory, or mourn them as fallen heroes and reap the consequences of your choices. All these things considered, I believe this combination of artistic quality, and the interplay between both your choices and how the world reacts to them will amplify the flow of any participant assigned this game.

The Elder Scrolls V: Skyrim (2011)

The most recent single-player outing of the immensely popular *Elder Scrolls* series, *The Elder Scrolls V: Skyrim* builds on the achievements of its successors while incorporating new elements that make it a unique aesthetic experience. Coming from a pedigree of immersive, award-winning RPG's, *Skyrim's* predecessors *The Elder Scrolls III: Morrowind,* and *The Elder Scrolls IV: Oblivion* both won numerous accolades after their releases, and *Oblivion* was even included in Chris Melissino's *The Art of Video Games* at the Smithsonian (Smithsonian Art Museum, 2011). *Skyrim* itself has also won multiple Game of The Year awards from many different game reviewers, but these distinctions are only a cursory indicator of what makes *Skyrim* so successful (IGN, 2012). Unlike *Mass Effect 2* or *Bioshock Infinite*, *Skyrim* does not lead you by the nose to a penultimate conclusion, or draw you in with characters or symbolic images, instead offers you a fleshed out, vibrant world that feels as living and breathing as you and me. Although you will still find plenty of story and lore to develop the game world (#7), *Skyrim's* most artistic moments come from its dangerous, yet beautiful landscape, and by giving the gamer complete freedom to explore that fully fledged fantasy world in any way they see fit, we can see how effectively *Skyrim* makes its audience feel like a true wandering adventurer.

One of the elements that most clearly communicates the feeling of being an adventurer in *Skyrim* is the amount of freedom you have in terms of exploring both narrative and character choices. Unlike *Bioshock Infinite*, which pushed you down a very clearly defined narrative, and *Mass Effect 2*, which confined you to a specific number of character classes to choose from[1], *Skyrim* allows the player copious freedom when it comes to choosing what and who their adventure is about. After a short tutorial at the very beginning of the game, *Skyrim* lets you loose in the game world, and after that point how you tackle the game will be completely up to you. Players can even choose to completely ignore the main questline, and pursue other side-quests to their heart's content without any repercussions. The same can be said when it comes to creating your character. You have many races to choose from in *Skyrim*, from different races of humans and elves, to anthromorphic cat and lizard-like creatures, and unlike *Mass Effect 2*, you do not have to choose a specific class at the beginning of your game, meaning your character's abilities can evolve organically from your natural play style, or you can dream up a specific type of character and set of abilities that you wish to play. While this all sounds systematic, of which it is to a good extent, these concepts are all in service to the aesthetic purpose of *Skyrim*, which is to make you feel like you are on a grand adventure. By developing your own character and exploring dungeons and areas as you see fit, players are free to make choices that resonate and affect them more deeply, just as *Mass Effect 2* offered you to chance to make moral choices that you resonated with. As players continue to make these choices they become more immersed in the game world and begin to feel more akin to the adventurer they are playing, and in this sense their character becomes as more fully realized imitation of the player's desires (#1).

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[1] *Mass Effect 2* includes six different character classes to choose when you first create your character, and this choice fundamentally dictates what style of play you will engage in for the rest of the game.

Another way *Skyrim* helps build this immersive effect is by tying in the lore and history of *The Elder Scrolls* series in both text, visuals, and narrative. One set of objects you find quite frequently around *Skyrim* are books. From diaries, to recounting major events of Tamriel's (the nation *Skyrim* belongs to) history, to recipe books and riddles, *Skyrim* has a wonderful subset of literature to help fill in characters on the way of the world. Whether it is an author recounting the events of a past *Elder Scrolls* titles in-universe, or informative works discussing the religions of the game world, these pieces frame parts of the universe that many games would not bother reincorporating into subsequent titles. As part of your adventure, you also happen upon many ruins, reliefs, and doors carved with ancient runes of a bygone era, communicating the age of the land you find yourself in. The city of Markarth is built into the ancient halls of a mysterious bygone race, Skyrim's capital, Solitude, is a new, proud city that drapes the insignia of the Empire of Tamriel on every corner, and Winterhold is an old seat of power that dates back from when the first men ever set foot on the continent. The same holds true with the narrative of the game, as you become wrapped up in major events that are as unique to Skyrim as her mead halls and ruins. This is important context, because like *Bioshock Infinite* carried some of its narrative into its visuals, so does *Skyrim* with its history, which meets another of the aesthetic criteria (#7). This context effectively becomes the life force of the world, and is what gives it the lived-in, historic, worth-spending-hours-crawling-through-its-ruins feel of *Skyrim's* gameplay.

While this freedom of exploration and the immersive feel of the game's world provide important context to your time in *Skyrim*, we truly begin to resonate with our aesthetic experience once we begin to engage with the sublime in *Skyrim's* environment and gameplay. The sublime is an aesthetic concept prevalent in the Romantic art and literature of the Eigtheenth Century,

Alduin, one of the most fearsome dragons in Skyrim. Figure 11

but it also has been incorporated in the world of *Skyrim*. Irish statesman and philosopher Edmund Burke defined the sublime as, "whatever is fitted in any sort to excite the ideas of pain and danger, that is to say, whatever is in any sort terrible, or conversant about terrible objects, or operates in a manner analogous to terror" (Burke, 2006). Burke also asserts that sublime encompasses features like vastness, power, obscurity, terror, and infinity, and by incorporating these traits into works of art, the artist hopes to evoke the sublime in the audience, which is consider by Burke, "productive of the strongest emotion which the mind is capable of feeling" (Burke, 2006). At almost every corner of *Skyrim*, players are engaging with sublime, whether it is from looking over the vast plains of Whiterun, or sitting atop the mist-veiled, craggy peak of the Throat of The World. Whereas the scenery of *Skyrim* the employs these traits of vastness, obscurity, and infinity, players face true horror and the sublime when they begin to hunt the game's copious dragons. Dragons in *Skyrim* are immensely powerful, huge beasts, which soar over its towns and villages. While you find from the game's narrative it is your destiny to hunt these dragons, each bout is a terrifying experience, as these dark-scaled creatures can slay you more efficiently than any other creature in the game. What also makes these dragons so terrifying is that they swoop down seemingly at random, with no warning. When they land in Skyrim's villages, and they often do, people run into their homes, except for the town guards, who all begin to defend their posts with their lives. There have been plenty of times in my own experience with *Skyrim* that I have found myself

crawling near-death from a dungeon or cave, only to find one of these terrible beasts swooping down to meet me in combat, and many times I have no choice but to flee. Yet dragons are not just big terrible monsters you can kill because its "cool", nor are the vistas just "pretty" each one these aspects communicates something about Skyrim using the sublime as a tool: Skyrim is a magnificent, yet dangerous place. This engagement with the sublime is the clearest example of *Skyrim's* aesthetic purpose, which is to make the player feel like they are on an adventure, and through the impending fear of falling off a cliff, or being eaten by a dragon, *Skyrim* provokes an aesthetic response from its audience (#4).

History, adventure, danger: these are all things that we find in *Skyrim* and they take us from simple audience members to recipients of an experience. When a player begins to read about some of the different heroes of the ancient Nords, they are investing themselves in the experience (#7). When a player feels a rush of excitement as they stealthily loose an arrow into the back of evil necromancer, they are investing themselves in an experience (#1). When their heart drops into their gut because a dragon catches them completely unprepared, they are investing in an experience (#4). Because *Skyrim* communicates this purpose to us in so many different facets it not only meets the criteria we set forth for an artistic video game, but it practically makes its artistic experience inextricable from the game itself. If *Bioshock Infinite* made us hold a mirror up to the prejudices of the 1900's, and *Mass Effect 2* made us question what humanity is all about, *Skyrim* is helping understand the terrifying vastness of an adventure. Yet even though we might fear the power of its harsh landscape and creatures, *Skyrim* rattles us so powerfully that it is just begging for an aesthetic response, and it does so successfully. It may not ask the same sort of thought provoking philosophical questions as its cohort, but *Skyrim* certainly makes a concerted effort to make us feel that rush. That rush of excitement, that rush of fear, that rush of joy, they can happen for a player in *Skyrim*, and this excitement of false passions is what most keenly elevates *Skyrim* from simple game to an artistic product.

…But what about everyone else?

Obviously these three games do not make up the whole of modern video gaming, nor were they ever intended to, but even if we count them as representative samples of *artistic* games, we still have all of these other games that "not art". Why is this? Why are not all games prepossessed with the same abilities and functions as *Bioshock* and its cohort? While some video games no doubt have art in them, whether in the form of level design or soundtracks etc., these alone do not make a game artistic. Take *Mario Kart* for example. *Mario Kart* has been around since the original Nintendo Entertainment System, has an incarnation on every Nintendo console to date, and is arguably one of the most popular racing games in all of video game-dom. It has a cast of colorful characters, interesting locales, whimsically delightful music, all of which many designers, composers, and musicians spent hours of their lives and countless creative juices bringing into existence. These are no doubt important parts of *Mario Kart*, as they make core racing gameplay much more interesting and pleasing to the eye, but do they make *Mario Kart* more than just another racing game? As we have seen previously, artistic games go beyond just adding pretty scenery; they make their artistic efforts an extension of the game itself. *Mass Effect 2*'s choices not only affected how you would have to handle certain missions, but it also affected the outcome of the story, and *Papers, Please's* slow, grinding gameplay emulates the real, demoralizing duties of your position as a border check officer. Does *Mario Kart's* scenery improve its game play, make it more poignant, or effective? Not particularly.

But here is the caveat: *Mario Kart* is still a very fun game. So is *Tetris.* And many other games that make up the almost 21 billion dollars that consumers spent on video games in 2013 (ESA 2013). These games may not be artistic (or at least by our criteria), but that still does not mean they are not

effective at providing entertainment for millions of gamers across the globe. So why split hairs? Well, there are two important reasons. First, if some games are considered to be art, then that very much changes the relationship between people and games. Games could no longer be stigmatized as timewasters or the refuge for the social inept, but as experiences that most people can enjoy. This is largely a matter of public opinion, and can really only be moved further by developers continuing to make games that evoke aesthetic responses, and by critics, scholars, and researchers to continue to highlight the importance and difference between these games and others. Second, if these games are so different from their counterparts, as I have suggested, would it not be reasonable to hypothesize these games could have a different spectrum of effects on their audiences? While this could be true many different effects, how they cultivate ideas about society, how they increase or decrease the effects of video game violence, etc. since most of these artistic choices developers make in their video games help make the game a more immersive, interactive experience, I suspect that we will see the clearest difference between these two types of games if we examine what effect (if any) these artistic choices have on the gamer's cognitive flow.

The Study – What is flow?

Flow is a concept from positive psychology developed by Mihaly Csikszentmihalyi in his 1990 book *Flow: The Psychology of Optimal Experience.* Many have described flow as a "single-minded immersion" or "hyperfocus" but Csikzentmihalyi himself describes flow in a much fuller way in this excerpt from a 1997 *Psychology Today* article:

> "Imagine that you are skiing down a slope and your full attention is focused on the movements of your body and your full attention is focused on the movements of your body, the position of the skis, the air whistling past your face, and the snow-shrouded trees running by. There is no room in your awareness for conflicts or contradictions; you know that a distracting thought or emotion might get you buried face down in the snow. The run is so perfect that you want it to last forever…These exceptional moments are what I have called "flow" experiences. The metaphor of flow is one that many people have used to describe the sense of effortless action they feel in moments that stand out as the best in their lives. Athletes refer to it as "being in the zone," religious mystics as being in "ecstasy," artists and musicians as "aesthetic rapture."

Additionally, flow is the "integration of a clear goal, feedback, a match between challenge and skill, concentration, focus, control, loss of self-consciousness, transformation of time, and the activity's autotelic nature." (Jin, 2012). These nine concepts are the guiding indicators of flow, and if an individual experiences all or most of these components during a particular activity, they are most likely engaging in a flow experience.

Flow as a theory has been applied to many facets of human experience, from work (Peters et. al 2014) to sports (River, & Sachs, 2013) but a fairly recent area of application is studying flow in video games. From studying effects of gaming difficulty on flow experiences (Jin, 2012; 2011), to using flow to design more engaging games (Chen, 2006) there have been many studies that examine the relationship between games and the flow state, but very few trying to determine which kinds games produce the highest rates of flow. There have also been many studies that have incorporated flow as a way to gauge immersion in artistic processes as well, and Csikszentmihalyi himself describes one of the many possible interpretations of a flow state to be an "aesthetic rapture" (Banfield & Burgess, 2013; Chilton, 2013; Lee, 2013; Csikszentmihalyi 1997) Therefore, since literature on both gaming and artistic experiences seems to suggest flow as valid framework for both fields, it seems likely that flow could also work as a theoretical framework for studying artistic gaming experiences. Pulling from some of this prior

literature, the following pilot study hopes to provide empirical evidence for my earlier theoretical assertions about artistic video games by suggesting whether or not artistic games produce higher rates of flow than non-artistic games (H_1).

Overview

Twenty undergraduate students from a U.S. university were randomly assigned two games, a game from an artistic game group and a game from a non-artistic game group. The artistic games group consisted of *The Elder Scrolls V: Skyrim* (N=7), *Bioshock Infinite* (N=6), and *Mass Effect 2* (N=7). The non-artistic games group consisted of *Angry Birds Space* (N=7), *Plants vs. Zombies* (N=7)*, and *Trials Evolution* (N=6). Participants were undergraduate students from a US university. Participants played their artistic game for a total of 10 hours, and their non-artistic game for a total of 2 hours. Artistic games were given 10 hours so that participants could make their way through a considerable chunk of their game's storyline, and non-artistic game were given 2 hours so that participants could have ample opportunity to progress to the more difficult sections of the game.

Measures

Flow was measured using the Long Flow State Scale-2 developed, refined and validated by Jackson and Elkund (2002,2004). The Long FSS-2 consisted of a 36-item questionnaire with seven-item Likert scale for responses. A "Strongly disagree" response would yield a "0" score for that particular question, a "slightly disagree", a "1", and so on to "Strongly agree" which would yield a "6". Each component of flow, such as self-awareness, temporal distortion, sense of control, etc. was measured by four separate questions. The responses to these questions (Strongly agree – 6, Agree nor Disagree - 3, etc.) were then averaged together to create nine sub-scores for each individual flow component. To get the total depth of flow depth for each participant, these sub-scores were averaged together for a "total flow" score. Flow scores then fell into 4 different categories of flow, "high flow" which consisted of scores from 5-6, "medium flow", 4-4.99, "low flow", 3-3.99, and finally "no flow" which was any score of 2.9 or lower. There was one issue with how a question addressing the "Time" component was framed, but I will address this at length in the discussion portion.

Methods

Participants were asked to fill out an online demographic questionnaire before their first session that also detailed how frequently they played video games in a given week, and if they had played specific series of games before (*Assassin's Creed* series etc.). Some of the series listed as responses for this section of the questionnaire included the games in the artistic group (*Infinite, Skyrim, ME2)* although this data was not considered when assigning games as each participant was randomly assigned their artistic and non-artistic game during their first session. Participants met in private study rooms outfitted with gaming equipment. Participants were instructed to remove any cell phones or watches at the beginning of each session in order to prevent potential distractions. The study rooms were comfortably furnished, and participants were encouraged to make themselves comfortable. Participants were then instructed to play their video game for their allotted time for each session. Sessions were a minimum of two hours long in order to give participants ample time to engage in a deep flow. Paper questionnaires were administered at the 10 hour mark, after the artistic game time requirements were met, and at the 12 hour mark, after the non-artistic time requirements were met. Participants were instructed to answer the survey questions with the game they had just played in mind. Questionnaires were also randomized into two separate forms to improve reliability between the separate administrations of the survey. Participants received $50 in compensation upon completion of the 12 hours.
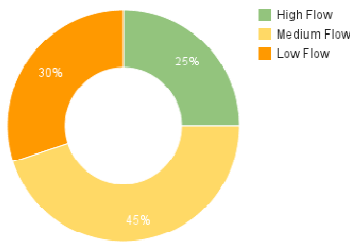
Results

Initial analysis of the means and medians of both sets of games was promising in relation to H_1. Artistic video games largely exhibited higher mean and median flow scores than their non-artistic counterparts, with the

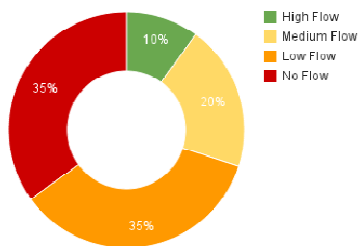|	BI	SKY	ME2	PvZ	ABS	TE
Mean	4.71	4.49	4.14	4.05	3.46	3.07
Median	4.88	4.69	3.8	3.97	3.14	2.9

exception of *Mass Effect 2*, which had a lower median flow score than *Plants vs. Zombies*, although it had a higher mean score. This may be due to a discrepancy among the gaming assignment that will be discussed along with flow scores by participant graph (Fig. 14). The distribution of flow depth among participants was also promising. Among the artistic games category (Fig.12), 25% of participants scored into the "high flow" category (N=5), and 45% scored into "medium flow" (N=9), and 30% into "low flow" (N=6). No participants received total flow scores that would put them into the "no flow" category for the artistic games group. By comparison, in the non-artistic games category (Fig.13), only 10% of participants were in "high flow" (N=2), 20% were in "medium flow" (N=4), 35% were in "low flow" (N=7), and 35% scored into the "no flow" category (N=7). Since the distribution of participants in the higher

flow groups (high and medium) was greater among the artistic group, and the distribution of participants in the lower flow groups (low and no flow) was greater among non-artistic games, H_1 was supported by initial analysis.

The score comparison within individual participants did not support H_1 initially, but upon further investigation this seems to be due to an error in the game assignment procedure. In Fig. 14 (pp. 27) we can see that on the whole participants scored higher rates of flow in artistic games than non-artistic games except for participants 4, 6,8,10, 13 and 14. Each of these participant's demographic questionnaire was consulted, and it was discovered that these participants had reported that they had played the game that they had been assigned beforehand. This pattern suggests that replaying an artistic game mitigates the depth of that participants flow experience, although data

Figures 12 & 13

gathered from this study was incidental and far from conclusive. This was not true for all participants who had played games before hand, however, as some did score higher in the artistic category as hypothesized, but it cannot be determined with certainty whether or not their scores were also mitigated as well.

Perhaps other contributions in the literature can explore these phenomena in more depth to see if these same patterns arise again. In future iterations of this particular study however, these variables will need to be controlled for.

Repeated measures ANOVA tests were conducted in SPSS order to show significance in both effects size and to support H_1. A repeated measures ANOVA assuming sphericity determined that mean artistic flow scores differed statistically significantly from non-artistic video games, ($F(1, 19) = 13.194$, $P < 0.0005$). Post-hoc tests using the Bonferroni correction confirmed that there was indeed a significant difference between flow scores from artistic games vs. non-artistic games as well (p = 0.002). Therefore, our data suggests that artistic video games elicits a statistically significant increase in flow depth compared to non-artistic video games.
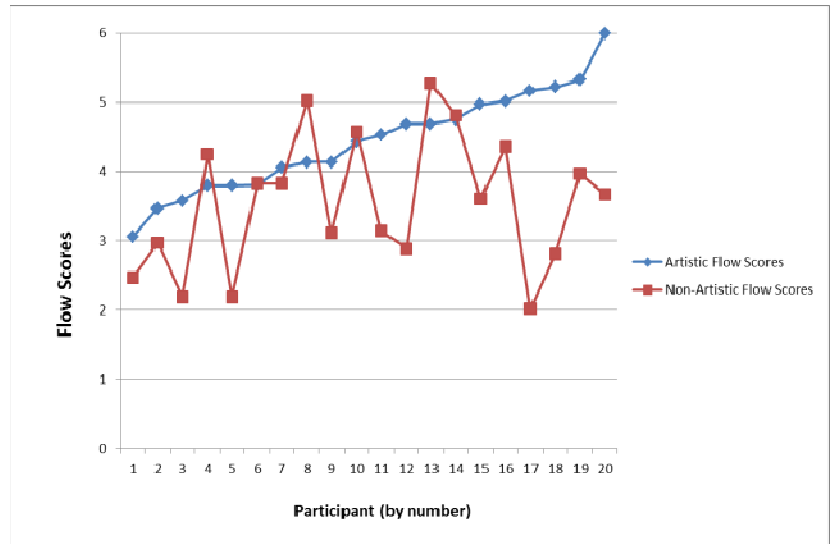

Figure 14 – Mean flow score comparison by participant

Table 2 – SPSS Output

Tests of Within-Subjects Effects

Measure:Flow

Source		Type III Sum of Squares	df	Mean Square	F
Gametype	Sphericity Assumed	7.788	1	7.788	13.194
	Greenhouse-Geisser	7.788	1.000	7.788	13.194
	Huynh-Feldt	7.788	1.000	7.788	13.194
	Lower-bound	7.788	1.000	7.788	13.194
Error(Gametype)	Sphericity Assumed	11.215	19	.590	
	Greenhouse-Geisser	11.215	19.000	.590	
	Huynh-Feldt	11.215	19.000	.590	
	Lower-bound	11.215	19.000	.590	

Measure:Flow

Source		Sig.	Partial Eta Squared
Gametype	Sphericity Assumed	.002	.410
	Greenhouse-Geisser	.002	.410
	Huynh-Feldt	.002	.410
	Lower-bound	.002	.410

Pairwise Comparisons

Measure:Flow

(I) Gametype	(J) Gametype	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	.882	.243	.002	.374	1.391
2	1	-.882	.243	.002	-1.391	-.374

Based on estimated marginal means

*. The mean difference is significant at the .05 level.
a. Adjustment for multiple comparisons: Bonferroni.

Discussion

Flow as theory has demonstrated many applications in both the visual arts and in video games, but never before has there been a study that has used flow to synthesize these seemingly disparate mediums. Overall, H_1 was suggested by the results of the study, although there are many improvements and mitigating factors to consider. First, there is the matter of controlling for the extraneous variable of participants playing their assigned game beforehand. While random assignments can still be incorporated in future studies, this issue of participants having already played their assigned game will inevitably crop up again, and therefore should be closely monitored. This could be potentially solved by including all games being examined as responses in the demographic questionnaire as was done in this study. Perhaps future literature could also see if this same "pre-playing" scenario has a similar effect on the non-artistic game group as well, as non-artistic games were not included in this study's demographic questionnaire.

Another mitigating factor came from the FSS-2 survey that was administered to participants. Concerning time, flow does not move in a specific direction, meaning that it does not always slow down or speed up, but rather, some participants may feel like time is speeding up whereas others may feel like time is slowing down (Csikszentmihalyi, 1990). Of the four questions that addressed the "time" component, however, one framed the question in such a way that a temporal direction was indicated, specifically "I feel like time went by quickly," instead of the more general and more inclusive "I lost my normal awareness of time," or "The way time passed seemed to be different than normal." Because of this, if a participant were in a very deep flow, and they felt like time was *slowing down* because of flow, their response would likely be "strongly agree" for the more inclusive questions, but when they arrived to "I felt like time went by quickly" they tended to (and logically would) enter "strongly disagree" or "disagree". Because there were only four questions regarding time as a flow component, these responses would drastically alter the time component score for artistic games, many dropping from 6 to 4.5, which in turn deflated the overall flow scores for the artistic games.

Furthermore, other studies could improve on this one by increasing the number of participants and the length of the study itself. While 20 participants certainly allowed for some interesting data, a larger sample size would allow for some considerably more persuasive results. I also believe a gold-standard expansion of this frame work would have participants in the artistic group complete each game, or complete as much reasonably expected (for games like *Skyrim* that have no definitive end). This would entail, depending on the games analyzed, anywhere from 30-40 hours per artistic game, which would require a significant time commitment on behalf of the participant and the researcher. This would be a daunting task, but is the next logical step in the maturation of this concept. Unfortunately, what this study offered to its participants was only a lengthy preview compared to the actual lengths of many of the games examined, and in order to see if these flow experiences are maintained throughout the length of the game, the participant must therefore experience the game in its entirety. Yet despite these detractions and possible improvements, significance was still observed in the size of the effects under consideration, which shows that future research in this area would have some theoretical and statistical foundation to work from.

Conclusion – Looking towards the future

While this thesis has suggested that there are criteria for artistic video games, games that meet these criteria, and that these games have a significant effect on their audience's immersion vis-à-vis flow, this only a small aspect society's changing relationship with video games. Video games did not always possess the artistic power en-masse that many games do today, and even though Ebert and similar critic's assumption may be incorrect now by some standards, this was not always the case. While *Pong, Tetris,* and *Minesweeper* certainly kept many people occupied, they are a far cry from the titles that drive the $20 billion dollar gaming industry of today. Yet even then, we must accept that as of right now, artistic video games do not make up the entirety of the video game market. There are no "artistic game" review sections on *IGN.com* or in *Game Informer* magazine, nor does Gamestop organize their games by the genre of a game's storyline, and not the genre of the game's mechanics, and even the most talented, critically-lauded, and all-around genius game designers are most assuredly not household names by any stretch of the imagination. But if we look to where society is today with video games compared to where we were almost 16 years ago when I got my first Nintendo 64, we can see the shifting climate. There are video game art exhibits, games get nominated for BAFTA's, as do game designers, there are game awards shows that are broadcasted on basic cable, there are gamers who purchase downloadable content just to extend their favorite title's storyline by a handful of hours, and if someone cries because of video game, today it is more likely because they were so deeply moved but what they experienced that it brought them to tears as opposed to crying in frustration because they could not beat a particular level. Of course there are still games that do not move people to tears, and there are game designers who churn out titles for a paycheck and not for any intrinsic artistic fulfillment, but they are not the only members video game market anymore.

As we move forward into the future we must reconsider old notions that we once held as true. Although not every video game today is artistic and this will always be the case, we cannot deny the potential for their existence. However, there is no landmark study that can "prove" that games are art, nor is there any one game that will announce itself as comparable to a Monet or a Chopin nocturne. While the *potential* for games to be considered as art cannot be denied, the only way this will ever happen is if society deems video games worthy for consideration as artistic products. This is not a battle of competing theories, but a war of attrition against the hearts and minds of the 7 billion on this planet, and it is only through their consideration that video games can ever be treated as art. There was a time where the novel was deemed as inferior to poetry, and a time where the abstract was deemed less-moving than the landscape, and much of this was decided by the ebbs in popular opinion. Yet as time wore on, society began to recognize the merits of these mediums, and even though they may not have happened in a single lifetime, they were eventually given the credit they deserve. The climate for video games is changing, but how society adapts to that change remains to be seen. While it may be a while before games join the pantheon of artistic mediums for global culture at large, for now we can still reconsider why we buy video games, what games mean to us, how they affect us, and how they affect others, and their place in our world today, because for better or for worse, video games are here to stay.

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