Cyborg in the Mirror: Embodiment in Video Games

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ABSTRACT

The Kinect will be the primary focus of this thesis about the process of embodiment while interacting with video games of a third person perspective. The Kinect serves as a mirror to reflect back a cyborg identity on the screen that the player embodies.

INDEX WORDS: Embodiment, Cyborg, Video games, Kinect, Identity, Digital spaces, reflections, mirror, visual rhetoric, mirror/reflection, digital reflections
CYBORG IN THE MIRROR: EMBODIMENT IN VIDEO GAMES

by

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DEDICATION

Dedicated to my family, friends, and professors who have supported me.
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1 INTRODUCTION

The connection between the physical body and identity is often overlooked in current studies of identity in the digital age. This is especially true in the field of video game studies where the game controller interfaces have evolved to be more physically driven by the body of the player, but the research available does not reflect this change.

Games are becoming more physically tied to the player, the umbilical cord connecting gamer and virtual space is fading away to wireless connections or connections created through sophisticated cameras and interactive interfaces. The rise of such virtual connections can be seen in the Kinect system on the Xbox 360 where the player is connected to game system not by any cords but by a camera that tracks and processes the player’s movements and translates it into the space of the game in live time. This particular system, The Kinect, is what this thesis focuses on, looking at the mirror of digital identity in video games. The more active, material participation of the body positions the Xbox Kinect video game system as a mirror that reflects back an identity of the player that is a hybrid of physical, material, and digital: a cyborg.

The unique position of video games as an interactive medium that is engaged with and through various physical means allows for it to be particularly well studied. The player interacts with the controller (or becomes the controller) and finds a digital reflection of his or herself on the screen. This new mirror allows for a false identity, a merging of digital and physical to come into existence. The cyborg allows the player to be both machine and human, and engage in a digital and physical world. The realms and the
identities blur together in a new way born in the digital realm that has risen over the last decade in particular with the prominence of interactive controllers like the Kinect.

1.1 Purpose of the Study

Since the Kinect has only been out for the Xbox 360 since 2010, it is still a very new medium that is only now being discussed in scholarship. The system has been widely successful, holding a place in the Guinness Book of World Records as the "fastest selling consumer electronics device" after selling a total of 8 million units within its first 60 days on the market. It is also the first game element that does not require any wires or controllers on the player to interact with the system. As the slogan for the Kinect says, “You are the controller.”

The primary focus of this thesis will be how digital space is innately tied to the physical in connection to the Kinect video game system. A player is only capable of being on the computer or game system for as long as his or her body allows, and he or she can only complete the video games that his or her skills are honed to. While these digital spaces let the player do things he or she could otherwise not do, like slay a dragon or catch an NFL pass, he or she still must interact with them physically to complete these tasks. The seemingly limitless nature of digital spaces is still innately controlled by physical limits. Despite entering into this boundless realm, our bodies still dictate our access, and should not be disregarded as a crucial aspect of identity.

As these new physically driven game systems rise, the need for study also increases. The constant shift and change in the digital field leads to a constant struggle to remain current and to keep track with the constantly shifting environment. The field con-
tinues to grow on a daily basis. There are many aspects of video games that could be studied and carefully examined, so to keep the scope of this project at a manageable level, this thesis will be focusing strictly on the Kinect, particularly the Star Wars Kinect game, played in a single player, non-online capacity.

This idea of putting the control in the hands of the player is something that is a unique experience to games. There is an element of change to every play of the game. Games are not film, novels, websites, blogs or any other form of multimedia. They interact very differently with their audience, and must be looked at separately. Video games are also a relatively young medium, having only grown into popularity within the last 40-50 years, and, have only recently become their own field of studies within the academic community. Video Game Studies continues to grow in the academic community, taking theories from several other fields like rhetoric, visual studies, literary theory, and computer science theories. Amongst the field there is still debate on how best to accurately define what is a game, and why we engage in them.

To define games one must look at several aspects to clarify the purpose and reach a cohesive explanation of what is a game. Games are generally viewed to play for the purpose of fun, relaxation, and as a means to engage with culture at large. Johan Huizinga came up with the idea of the magic circle relating to games. When the player enters the magic circle it creates a division between the player and the real world and draws them into a space with alternate rules and requirements. However, this ‘magic circle’ also can apply to other events like birthdays, weddings, job interviews, etc. where the rules are different from those of the everyday world. It also is impossible to say that the ‘magic circle’ of the game does not extend into other aspects of life in the form of
time, behavior, mood, and the fact that some items gained in a virtual space (say an online account or a rare item) can be sold for real money.

Another definition comes from Rollings who described a game as, “…a series of interesting choices.” This definition also applies to multiple venues, not just virtual games, but brings in the important aspect of choice. Choice is one of the main areas where a game differs drastically from a book, movie and comic book. There is an interactive aspect of choice and control in the hands of the player. However, this definition focuses more on the textual and play aspects of the game than on the interface tying the player and the game together, and that does not aid in this discussion.

Games vary widely in their story in the narrative aspects, and the actual narrative of the games will not be looked at in detail, even though the style of interaction can vary based on the game’s narrative arc. Some games are very linear with a set task that must be accomplished in a specific way, with an assigned avatar (a character that represents the player in the game space) and a very limited path must be taken. Others allow for creation of the avatar and leave the world wide-open for a player to choose various options and create their own path. However, this thesis will focus on the interaction between player and interface, not the relationship between the player or the interface and the narrative text of the game.

Several other writers and philosophers have worked on defining what a game is. Roger Caillois claimed, in his 1958 book, *Man, Play and Games*, that 4 essential qualities must exist for something to count as ‘play.’ Those things are as follows: must be performed voluntarily, is uncertain, unproductive and consists of make-believe.
These, however, applied mainly to non-virtual based games and will not serve the purpose of this thesis.

The definition this thesis will use is from Natkin who states that a game is "...an interactive audiovisual work whose primary aim is to entertain and which uses for its implementation a machine-based or computer technology. (Natkin 2 Video Games and Interactive Media). The inclusion of a machine is a crucial element of the video game and is one of the main components to be considered in this thesis. The computer (system used to play the video game) plays a huge role because the machine manages the universe of the game, applies the rules, and creates the interface that connects the player and the game. This interface is the focus of the thesis and in order to keep that focus, this definition best applies.

The audiovisual aspect of the game combined with the interface work together with the interface to draw the player into the machine-created world. These aspects must function with and through the player to create the digital identity of the cyborg and allow the player to become immersed in this virtual space. The interface of the game must allow the player to enter into the digital world and embrace this virtual space. The game system itself serves as the portal connecting the two realms: the digital and the physical identity.

Identity, answering the age-old question of “Who am I?” is not an easy thing to define or explain, and it serves as a key role in the discussions presented in this thesis. I follow the definition presented by Foss, Foss and Trapp who explain:

Individuals form selves or identities through various properties or substances, which include such things as physical objects, occupations,
friends, activities, beliefs, and values. As they ally themselves with various properties or substances, they share substance with whatever or whomever they associate and simultaneously define themselves against or separate themselves from others with whom they choose not to identify. (192)

This definition shows exactly how closely the internal and external worlds are connected in the self and the fluid nature of identity. There is not a single, constant answer to the question of identity, but a constantly evolving and expanding self. The internal and external world work together and are not mutually exclusive. They very closely intertwine and work together and through one another. Identity is not concrete and stable, but shifts and changes over time and place.

Embodiment is often used in several different ways so to clarify what this thesis means by the term I am going to use Waskul’s definition, “…the term ‘embodiment’ refers quite precisely to the process by which the object-body is actively experienced, produced, sustained and/or transformed as a subject-body” (3). The shift of body from object to subject is what creates this action. The body goes from being the object, the thing that is doing the observing, to the subject, the thing that is being observed. Video games shift what the body is viewed as, and how it is regarded since the video game changes the body’s representation and allows it to not just be controlled, but to be fully observed on the screen in the idealized form of an avatar who mirrors the player’s actions in real time.

In order to tie these varying topics and ideas together, I will use the definition of rhetoric provided by Condit, who argues, “Human beings are bodies that have emotion/language/calculative subroutines/sensation/perception and so on tied iteratively
with each other. Therefore, rhetoric might be defined as theories of symbolic interactions among human bodies” (Condit 107). This definition generates a connection between human bodies and their identity, and looks at the relationship between them. Tying these topics together requires looking at several different schools of thought and concepts from multiple disciplines, but rhetoric ties together these topics by using symbolic interactions through interfaces among bodies, both physical and material.

The game becomes a blending of physical and virtual, of reality and fantasy, or human and digital. The video games create a cyborg identity as we use the medium to extend ourselves. Donna Haraway provides the definition of cyborg that this thesis will be using. She defines a cyborg as “a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction” (117). The cyborg is a blurred binary of opposites coming together into a new creature that exists in our modern society. As binaries blur together, more and more cyborgs appear. The character’s body becomes our body and we physically control those reactions. When the Kinect captures the movements of our physical body and reflects them on the screen, we see the cyborg reflection in the screen.

Identity within video game spaces is a new field to the realm of academic study, particularly in regards to the newer game systems that are available. The player and system work together, and “The human responds to the machine and the machine responds to the human in a feedback mechanism, where the organic and the inorganic are in constant communication with each other” (Nayar 77). Game systems, unlike movies or other narratives, require physical participation from the observer. Even if that participation is as simple as pressing a button, there is an umbilical-like link between the
player and the game that communication constantly takes place through. The player provides the information needed for the Kinect to birth a new identity on the screen; the avatar contains the movements of the player, but the shape of the virtual. There is a deep collaborative process between the two to create a new reflection of the player that is both organic and inorganic, machine, and human, a cyborg identity. Through the union of the physical and the digital, a new cyborg identity is born on the screen, without input from both the material and the virtual; this blurred reflection could not come into creation.

Particularly in video games, this constant feedback loop continually supplies the connection between physical and digital. By requiring the player’s interaction with the screen through physical means, the game interface continuously is reconnecting the player and game to the point where the identity of the avatar on screen and the physical body begin to blur into one identity reflected on the screen.

Many players refer to their game avatars as “me”; this is explained by Clark and Chalmer’s concept of the “extended mind”, which argues that humans have become skilled at using things within the world around us to extend ourselves (Crawford 84). This extension leads the player to see the reflection on the screen as a unified version of his or her identity. The prop of the video game console extends our identity because of our bodily connection to it.

The interface of the Kinect encourages a blurring of the line between virtual and physical. The movements of the physical body are translated to the virtual screen in real time; the player interacts with the intangible world of the game at the same rate that he or she would engage with the material world. The Kinect represents a cyborg reflection
of the player on the screen that the player engages with as though it were a physical presence.

This includes taking the physical action such as jumping, kicking, dancing, or trying to block attacks with one’s own body reacting in real time to the game. The instantaneous connection between player and digital world is one of the aspects that makes this link so strong. The player watches, reacts, and responds to the digital world in the same instant that he or she would to the physical world around the player. This makes the connection to the game that much stronger as compared to the original style video games where the player responds by pressing a button as opposed to responding with the whole body.

The Kinect changes the way that the player interacts with the digital world around him or her. The third person perspective creates the illusion of the mirror image being reflected back and is what this thesis will focus on. Many games utilize the first person point of view where the game literally puts the player as the controller by playing the game through the perspective of the avatar. This one forces the player to become the avatar and to embrace themselves as the avatar; however, most of these games shift from first person to third person perspective when dramatic moments happen. These moments are generally portrayed in a cinematic scene that cannot be interacted with. These scenes often take players out of the moment of being the character because there is a dramatic shift between being the avatar and seeing the avatar reflected back to them. For the purpose of this thesis I will focus on games that utilize a third person perspective throughout the game play rather than discussing both first person and third person perspectives within games. The game I will be focusing on, Star Wars Kinect,
almost exclusively takes place in the third person where the entire body of the avatar is visible on screen during most moments of the game, rather than a constant shifting from a third-person to a first-person perspective. This allows for me to focus more exclusively on the avatar as a cyborg reflection of the physical body on the screen.

The player takes on the role of these virtual characters and uses them as a digital “surrogate mind and body” (Gee 258). The character that is played within the game space is both the player and the machine. They become a blended binary guided by the interface of the game where the player can dictate the actions of the character through a series of physical movements. The player begins to blur the lines between their digital identity reflected on the screen of the game and their physical body. Their physical movements are recreated in a whole body reflection on the screen that allows for a sense of unification that is not possible without this reflection. Since a human cannot watch him or herself move, the digital reflection becomes accepted as the whole self and as an accurate representation of one’s self.

This physical connection and involvement is often overlooked in the field of video game studies, and there have been several calls for the return of the physical to the field of gaming. Emma Westecoot in particular argues that the body must be more closely examined in game studies. She explains:

...video gameplay requires physical input and response, whether holding and manipulating a game pad, swinging a Wii mote, or a PlayStation Move controller or the physical movements of a gamer in front of an Xbox Kinect sensor... It is also the video gamer, through the embodied sense, who watches and listens to the video game, through need to
physically master though learned and repeated actions. In fact, the Kinect and similar technologies make the body more obviously central to play. In turn, video gameplay can have an effect on our bodies, such as causing sweaty palms, aching muscles or eyestrain from repeated play. (3)

To try to tease apart the body and video games is to try to pull apart the player and the game. The player’s physical involvement with the game is what ties him or her into the video game, what blurs the lines between machine and human. This physical connection is what lends itself to the reflective nature of the game. The screen serves as a mirror reflecting the player’s movements, whether it be by the pressing of a button to create a kick or the physical act of kicking to create a kick on screen. The player’s movement is what creates the identity on screen, without the physical connection there is no reflection.

Within video game studies there is a lack of focus on the materiality behind the games, and the importance that the physical body plays in relation to the connection between player and avatar. With this thesis, I am hoping to begin to rectify this problem within the scholarship and encourage future studies that focus on the materiality within the video game fields, and how the controller, body, and physical space around the player inform the virtual world within the video game community. Due to space limitations of this thesis, I will use some materiality theories, and discuss the role of the body in Kinect video games, but the primary focus will remain on the interaction of physical and digital identity, in the future I hope to do more studies that delve further into the materiality of video games.
Video games, particularly the Kinect system, force the boundaries to blend further than most other electronic involvements because it replicates the body and reflects it back in a totally virtual space. While typing on a keyboard, I can still clearly see my own hands moving, and watch both them and the words they are creating, however, with the Kinect, I cannot both watch my entire body move and watch the digital reflection. I watch the reflection to see what my body has done: the reflection becomes the cyborg on the screen, and becomes, during the duration of the game, the representation of the player’s identity. The avatar merges to become both player and character, a combination of data and muscles that moves and bends and reacts physically to threats and events in the virtual space. The two become intertwined and indistinguishable from one another while the player is involved in the world of the game.

This creates a new way for the player to engage with the world around him or her. Through the lens of the Kinect the player becomes both audience and creator. Emma Westecott, in her article “The Player Characters as Performing Object” discusses the dual action of being player and creator by explaining her interactions with the act of playing a game, “A doubling happens in this action, between the physical movements on the controller and the representation of agency on screen. As a player I act, then watch the results of my action on screen, always already audience to my own play practice” (1). They can both observe and participate in the world around them, create the actions, and observe them in a way that is not possible in their daily life where one is either the audience or the actor; they cannot observe the actions of their body from an outsider’s perspective. However, through the lens of the game, they can suddenly view an outside, digital view of their body’s actions in real time. Put very simply, “…the play-
er is always audience to her own play act” (Westecott 1). The player always is able to watch his or her own reflection on the screen and interact with the digital space of the game. The reflection becomes the digital self, a cyborg on the screen. Here the player becomes both the object and the subject of his or her own gaze.

In this digital world, bodies are limitless and powerful far beyond the normal range. In this world, the player can wield swords, cross roaring rivers, and escape from a haunted manor all with a few movements. While some games record the movements of the body exactly, there are others that use the basic body movements to create something dramatic and that would not be physically possible by most players of the game. The game translates those movements into some far beyond the physical of the body. It extends not just the reach of the body, but the power behind it and that is a truly intoxicating experience for the player. They become something more than just a human when they are reflected back through the Kinect.
While other game systems use wireless controllers, the Kinect uses the body, without any sort of external controller as the control for the system. It is simply the body making and shaping the world of the game. There is no electronic attachment placed to the body, no outside force that must be acted upon. There is a camera, a panoptic watcher that sees, records, and translates every movement into the space of the digital. It is through the lens of the Kinect that the body becomes a cyborg reflection. The interface of the Kinect is what so successfully completes this transformation and is what the focus of this thesis, rather than the narrative texts of a game or the concept of video games as a whole.

The physical form of the object that we engage with holds a critical purpose in the way we interact with it. The material shape of the world we engage with serves a critical purpose, Looy, while looking at Walton's ideas examines the way that the purpose of the material object changes the way we perceive it when he states:

From Walton’s perspective, all three works are designed with a similar purpose in mind, i.e. to evoke imagining. As such, they anticipate their own use and provide a role for the person engaging with them. This implicit role manifests itself in the object's material characteristics – e.g. the size of the book, the number of frames per second for the film or the controls for the game – and in its content. (62)

The size and shape of the object, like a book, effect how it is viewed and interacted with. The shape and size of a video game controller changes how it is held and interacted with, how the body responds to it, and how the interface is crafted. A Wii
Mote is a long, slender object that is held in one hand and used mostly by swinging the object like a sword or a tennis racket, or to point towards a specific object on the screen; the PlayStation Move is built, and used in a similar manner. Before the release of the Kinect, the Xbox 360 controller is made to be held by two hands, and required multiple buttons, and joy sticks to be pushed to fully engage the controller. The interface for this device consisted on pushing varying buttons to complete an action, for example, pressing the ‘X’ button would cause the avatar to kick, but the bodily connection between kick and pressing that specific button only existed through the interface of the game, outside of the game, the body responded to a kick command with the motion of kicking. This all changed with the rise of the Kinect, as it does not require any material object to be held or reacted with. Instead, the body itself becomes the controller, and motions that are used to interact with the material world are recreated in the virtual space. A kick within the video game and a kick within the material become one and the same movement, creating a blur between the digital and physical.

This shifts the way that the object is engaged. It turns the body into a part of a machine by turning the body into the controller. This instantly ties the physical presence of the body into the material structure of the game in a more innate way then an external controller. Using the body as the interface of the machine creates an instant cyborg identity because, as Looy explained, the shape of the material object’s interface changes how it is engaged with, and since the way to interact with a Kinect game is to use the body, it presents an interface that is already learned in the material world, and encourages it to be reapplied to the virtual world. Suddenly a kick in the material world, can
shatter rocks, buildings, and bones in the virtual world, it allows for the frail physical body to become limitless, extending into the incorporeal reaches of digital space.

In McLuhan’s discussion of the Narcissus myth, it is not just the reflection of himself that Narcissus falls in love with, it is the extension of himself into another object that he is enamored with. McLuhan dissects the Narcissus myth in a new way:

The Greek myth of Narcissus is directly concerned with a fact of human experience, as the word Narcissus indicates. It is from the Greek narcosis, or numbness. The youth Narcissus mistook his own reflection in the water for another person. This extension of himself by mirror numbed his perceptions until he became the servomechanism of his own extended or repeated image. The nymph Echo tried to win his love with fragments of his own speech, but in vain. He was numb. He had adapted to his extension of himself and had become a closed system. Now the point of this myth is the fact that men at once become fascinated by any extension of themselves in any material other than themselves. (41)

The man or woman who engages with video games watches as his or her body expands and merges into the realm of the digital. It no longer takes on simply the physical space it occupies, but extends into realms that cannot be physically touched. This extension is fascinating, and the ability to watch one’s own body, something that can only be done in a mirror or by video, enhances the idea that the digital body reflecting back is their identity. The body reflected back to the player is often more physically appealing, sexualized, and stronger than the physical body. In the virtual space the body is capable of far more, and is much stronger, bullets, swords, and lasers do nothing to
stop the virtual body in the game. The player becomes enamored with the avatar, and the extension becomes their body on the screen.

Gilster Paul argues that the computer not only extends the body, but extends the world around us, and changes how we interact with the world around us, "A virtual world is an interface of unique power; it translates a complicated computer task into the universe of objects and motion we all inhabit" (Glister 249). The computer within the game helps to recreate the world in a new environment that expands out into both virtual and digital spaces. Rather than just extending the body, it is extending the environment around it by turning the physical space around the player into the game, when the player kicks forward, he or she physically (should) hit nothing, but he or she will react as if he or she struck something because in the digital world, there was contact. To even properly connect with the Kinect, the physical space around the player must be altered so that all other large material objects are pushed out of the way and a clear area is created around the player to allow for free movement. The rules of the Kinect interface dictate the shape the material world must take for the interaction to happen. The body becomes both master and servant in the space of the game. The body can work both within and outside of the game world, blurring together both the material and the physical into a cyborg space that the player works to build and control.

2.1 Dual Identities in Games

The controller connects this dual identity, and the medium ties them innately together, bringing the physical into the virtual. The player connects into the body and mind of the avatar they are inhabiting, or as Gee says, “Virtual characters have virtual minds and virtual bodies. They become the player's surrogate mind and body” (Gee 258). The
player inhabits the virtual shell presented to them, and the two identities blur together into something that is neither fully digital, nor fully material. The player straddles the boundary of cyberspace and physical space, inhabiting the avatar on screen and reacting to the digital world around them through their physical body.

Distinguishing between where the physical ends and the digital begins becomes harder and harder as our world becomes more digital, particularly with the Kinect where the body becomes the interface that connects body and machine. This slipping line is something Haraway notes, “The boundary between physical and non-physical is very imprecise for us” (120). The line that divides body and virtual is blurred even further with this relationship. The non-physical space of the game is only accessible by the physical connection through the body so the line is impossible to fully draw. When the body kicks and the digital reflection reacts in the same way, the line between the two worlds blurs. The interface cannot be interacted with without the physical body connecting with the digital one, the interface exists in this blurring space of cyborgs.

Trying to pry apart what is human and what is machine is a much larger challenge than one would originally guess. Mansfield argues this point by asking us, "If a computer and the system design that operates it are technology, is the hand equally a piece of technology, and the thought that makes it move?" (Mansfield 161) Why are the electrical impulses fired by a human mind to control a hand movement not considered the same as the electrical impulses that allow a game controller to communicate electronically with its main unit? How is the human body so different from a computer that we cannot see similarities between the two? Mansfield argues that the distinction between the two is much narrower than many would believe. The Kinect would be able to
function without a human body to be the controller for it, the human body is a part of the machine. It is made out of bones, flesh and blood instead of metal, but it still works as a part of the machine, trying to separate the two causes difficulties since only by their interaction is the system created and able to function.

This lack of distinction is what allows humans and machines to merge together into a cyborg identity. There is a similarity that allows a cohesive joining of thoughts and ideas. To argue that machines and humans are entirely separate entities is to ignore the distinguishing similarities between the two that tie them so closely together, that machines exist because humans built them, and that they run because of human interaction. We are the machines that we have created. Without humans, there would be no machine.

The machines become an extension of the body, and we work with machines and use them to extend the reach and capabilities of the human body. These changes with interaction between human and machine lead to changes with wider interactions. The controller becomes an extension of the player and changes their perception of his or her self and the world around them. When the body itself becomes the controller and the object, the physical body becomes an extension into the digital world, more tightly interweaving the physical and the digital into a new blurred space that is a combination of factors. The way that the body interacts with the world changes, while the body may be moving in the physical realm, it is not interacting directly with the material world, but with the digital world.

The body becomes the subject reflected back to the player to be interacted with. As the line between machine and human, virtual and material continue to blur together,
games will continue to reflect the physical world into a virtual space and create a cyborg in the mirror that the players will view as a whole extension of themselves. Instead of getting lost in their reflection in the water, they will find themselves embodied in the cyborg reflected in the screen. The Kinect acts as a digital mirror by reflecting the physical into the digital realm, changing the body from subject to object. Just like a mirror, the Kinect shows us a reflection of our body as a whole. Since the body cannot be viewed as a whole without some sort of reflection, the player accepts this cyborg on the screen as an accurate reflection of their own body. The reflection is the digital representation of the player’s body reflected back through the screen.

Since the Kinect cannot be engaged without using the body as the controller, it must be engaged with in a physical sense to come into existence. Without the Kinect the player cannot participate in this realm; the body melds with the Kinect to become the controller. When distinguishing between the material and the virtual, the line between machine and human becomes even more blurred. The body becomes a part of the machine by serving as the controller that connects the body and the video game through the interface of the Kinect, and the power of blurring the digital and the physical.

Furthermore, drawing the line between the body and the self is also a very difficult distinction to draw with the rise of digital spaces. This challenge is something that has been struggled with for years, and one that Zhao embodies by simply stating, “One’s body is not one’s self, but one’s self cannot exist in separation from one’s body” (Zhao 399). This paradoxical relationship mirrors the relationship between the body and the game. The game cannot exist without the body to engage with it, and the virtual body cannot exist without the game to reflect it. The two are interconnected, co-
dependent on one another to continue to exist. The interface of the Kinect ties the two so closely together that they cannot be fully severed and creates this reflection on the screen that is both physical and digital.

How the game connects to the player is a very different relationship than the way that other mediums interact with their audiences. Unlike movies or TV shows, the video game needs participation from the viewer to exist, and creates an avatar for the player to embody, rather than inviting the player to simply be an audience to the digital world, the game world demands interaction and immersion, and even provides an avatar to house the player. Katherine Hayles describes this concept as, “Instead of an embodied consciousness looking through the window at a scene, consciousness moves through the screen to become the POV (point of view), leaving behind the body as an unoccupied shell” (38). The identity leaves the body, transmitted through the video game interface and is planted into the cyborg reflection on the screen. The body becomes the object of the action as the player views their own actions as a spectator. The player takes on dual roles of object, and subject, audience, and actor, digital and physical, all in the space of the interaction with the Kinect.

Video games exist in both the realm of the physical and the virtual and tie together the computer and the machine in a cyborgian identity that Haraway would embrace as a blending of the human and machine. The new game interfaces, like the Kinect, particularly blur the boundaries more than previous interfaces have because they require no external controller on the body. They take the physical and directly connect it to the digital world so the physical actions are instantly transported into the digital world,
reflecting the player’s actions back to him or her. The player is translated from the material world to the digital.

The translation of the physical to the digital, and the real to the virtual leads to the images on the screen becoming not true reflections, but cyborg creatures that the interaction of the player and the machine through the interface has created. This dual embodiment of avatar and play is best described by Sheila Murphy “When I game, I am both player and character simultaneously – in the virtual space of the game I am Tony Hawk and Sheila Murphy…My meat-body has tainted his virtual-body, for together we constitute the player-character.” (224). She is no longer just herself or just the character within the game, she has become a meshing of the two, of virtual and real. She recognizes this shift in her own identity that stepping both physically and virtually into the world of the game leads to this chimera identity of player and character, digital and material.

Sheila Murphy studies games extensively, and is one of the most dominant voices calling for the study of the body in relation to video game studies. She documents her own playing experiences, and maintains the importance of the gamer and controller interaction by explaining the roles and importance of the player and controller:

Control within a game and the controllers used to play a game are actually quite crucial factors in facilitating a player’s identification with an avatar and establishing a connection between the physical body of the gamer in front of the television or computer screen and one’s identity within the narrative world of a game. (230)
Ignoring the physical interaction of the gamer through the controller is to overlook one of the most critical aspects in the play of identity within video games. The controller is what connects the two together, tying together the real and the virtual, the machine and the human and allowing for the identity to be reflected on the screen back to us as a fully formed illusion of self. Because the Kinect uses the body as the controller, its connection of the player and the game is based out of the body of the player, and this allows for a direct connection between machine and human by turning the body into the interface.

The game becomes a blending of physical and virtual, of reality and fantasy, or human and digital all tied together through the human body. The video games create a cyborg identity as we use the medium to extend ourselves. The avatar’s body becomes the player’s body and the body physically controls those reactions in the digital space. When the Kinect captures the movements of our physical body and reflects them on the screen, we see the cyborg reflection in the screen.

This obsession with the extension of one’s self in virtual spaces is on the rise as the world turns to more and more digital forms of interaction. Defining boundaries of human and machine become increasingly blurred and difficult to tell apart when they are closely interacting. Pramod K. Nayar looks exactly at the idea of integrating the body into the machine, and what happens then. How do we separate the two at that point? He asks several questions, including:

If machines are external, i.e. foreign, to the human body—as devices to enhance our functions—then what happens when the machine is incorporated into the body? And if the body were to be inserted into cyberspace
or VR, is our ‘body” distinct from the machine? Does the foreign “body”
(the machine) become a part of our natural body? (65)

Now that the body and the machine are becoming so seamlessly integrated, how
can one tell them apart? When the machine represents the movements of the body then
how can you tell exactly where the two separate? The space between them is what
connects them, allows the body to be the controller. The separation of the body and the
machine has become increasingly blurred the more integrated into daily life the machine
becomes. The Kinect has integrated the body into its functions by allowing it to serve as
the controller and source of interaction. This has changed the relation because the
player is no longer a totally external part of the process, connected only by external con-
troller devices, but the actual movement of the body serves to control the game. If the
body moves from the screen, the game pauses until the body returns, it is a critical
piece of the machine.

The separation is often overlooked because of the idea of the body as a weak or
flawed object. As we continue forward into an increasingly digital age, the body is more
and more cast aside in exchange for more mechanical or virtual notions of identity.
There is a dominating view that the body is frail and needs to be replaced by the ma-
chine. In his book, Interactive Realism, Daniel Downes looks at this concept, and the
history behind the view of the body as weak:

The image of the cyborg has also been invoked an idealized virtual body
that offers at least a temporary solution to the Enlightenment view of the
body as irrational, weak, and passive; this view is characteristic of much
cyberculture writing. In the evolutionary view of technology, computers re-
place the body as well as mind. Indeed the same hierarchy of spirit over flesh is present—this time the operative narrative is a psychotic descent into the realm of the body as mechanism. (65)

This connection takes the physical body and transforms it into something more, something part machine. The body is translated into a digital realm where it cannot be hurt, and where the limits are much less restrictive. The Kinect allows the players, for a moment, to become a cyborg and to watch his or her own cyborg reflection on the screen. The connection of body and machine in the Kinect, then, is an ideal representation of this. It is the controller that is the main mechanism that connects player to game character. This link is what makes video games a unique medium and creates the two-way loop of information.

This devaluing of the body fails to see that interactions with virtual spaces still have a physical connection. Cyberspace still must be accessed through a material device that is controlled by physical means, and that ultimately these connections to an intangible space have tangible portals. Just as the mirror allows us to create a glimpse of the illusive ‘self’ so too do virtual spaces reflect our physical form. The two, physical and virtual, are innately connected, or as Haraway says, “The machine is us, our processes, an aspect of our embodiment. We can be responsible for machines; they do not dominate or threaten us. We are responsible for boundaries; we are they” (146). The cyborg blurs the boundaries that we attempt to set up between machine and human. The cyborg embraces a union of organic and inorganic and allows a blending of dualisms to be presented. A cyborg must have a physical biological component to exist. We
no longer have to decide whether the ‘self’ in virtual space is or isn’t reflective of us; we merely have to realize that it is a blurring of machine and human.

The controller body ties us into this new world where our identity has been rearranged and we are gaining a glimpse of the full cyborg through a screen/mirror. We are both physically and non-physically connected to this game world. Identity and the boundaries are constantly blurring and therefore incredibly difficult to pin down and understand. To try to totally separate the two is a difficult task because the identity has become a cyborg.

This blurring fits in with the idea of the cyborg which can exist across binaries and allow us to do the same. Haraway describes the difference between people and cyborgs, “People are nowhere near so fluid, being both material and opaque. Cyborgs are ether, quintessence” (113). By engaging with the interface of the Kinect we are able to become the cyborg and watch ourselves in the digital mirror. We are able to adopt the cyborg identity in order to engage with the digital world around us. The Kinect allows us to become more fluid and to exist in both the physical, and the digital, something that is difficult for humans to do.

Game characters in particular give us a cyborg vehicle to inhabit because the character is a creation outside of ourselves. The game character serves as both character and reflection, or “This dual nature of game characters— that they are projects the player has been handed and beings into which the players project their desires, intentions, and goals—is why I refer to them as projective beings, a phrase meant to capture their double-sided nature” (Gee 260). This very clearly reflects the cyborgian nature of these identities. The screen reflects back the player and the character as one creature
falsely unified through physical interaction. The player embodies the avatar, and becomes the digital reflection reflected back to him or her through the game. The player is able to interact with the digital world through the digital body of the avatar that he or she inhabits as the player interacts with the video game world.

Sheila Murphy discusses the dual role of being both in the video game world, and being a part of the game world. In discussing the PlayStation’s slogan, ‘Live in your world, play in ours,’ she says:

One both lives in his or her world while also playing in Sony’s PlayStation world. These spaces overlap one another and are literally linked through the screen and the console of the gaming system. The in-game structures that enable the identification of the gamer with the onscreen character – perspectival modes, narration, cinematics, audio cues, force feedback, densely orchestrated game levels and worlds – all serve to deepen the connection between the game world and the real world. (Murphy 235).

The game is designed to draw the player into the virtual space, to have him or her connect with the world on the screen and not the physical world around them. While the body ties the player to this virtual world, the world of the game blurs that connection until the player is focusing more on the virtual world than their own physical connection. The avatar in the game becomes the player, and the body becomes a part of the machine.

2.2 Materiality

In the realm of video games, the player becomes fascinated by this extension of his or herself represented on the screen. Suddenly his or her body is on a virtual field
and he or she can control what happens. The use of the controller or, in the case of the Kinect, the body becomes the connection to the intangible. The body’s own movements extend into another space and reflects back to them. They become the subject, the object, and the audience of their own body and can experience it in new ways that were not available to them previously. This process makes the tangible into an intangible reflection of reality.

Games play a vital role in the material world for a variety of reasons, Marshall McLuhan describes games and their function in human society, “Any game, like any medium of information, is an extension of the individual or the group” (243). The body looks to extend itself into other mediums, particularly mediums that will allow the physical body to expand outwards. Humans use tools to develop their own abilities, and as these tools have become more digital; the body has begun to expand into these digital spaces. In video game spaces this expansion continues to transfer their identity into the cyborg space of the game where the body has served as the connection between the physical and material.

Donna Harraway, in her explosive Cyborg Manifesto, questions humans, bodies, and the boundaries that we are blurring. She looks at the world around her that is embodied in the physical and asks:

Why should our bodies end at the skin, or include at best other beings encapsulated by skin? From the 17th century till now, machines could be animated—given ghostly souls to make them speak or move or to account for their orderly development and mental capacities. Or organisms could be mechanized—reduced to body understood as resource of mind. (144)
She looks at the future as a time when the boundaries of the body no longer end with the boundary of skin. The body extends out into cyberspace, blurring together. Machines can possess souls and power, and we can put ourselves into the machines, becoming cyborgs that are no longer strictly made up of the space of our flesh, but the virtual spaces that we can expand ourselves to. However, the body still plays a crucial role in this, the body still ties the mind to these extensions, without the body there is not a connection to the digital realm. There is no experience without the body to provide the guide wire for the experience.

Another comment that Harraway makes discusses the fear that people often have of looking at machines in relations to our identity. Humans are still responsible for the boundaries and hold the control over the machines. They are us, and we are the machines. We use them as extensions of ourselves to reach into the digital world. The boundaries between us and the machines are slipping and blurring until we are left with embodied machines interacting with bodies. The Kinect is an example of this system where the body and the machine begin to blur and work together to complete their task. The body works in tandem with the machine, not as two separate entities, but as one.

Harraway views the computer not as something outside of us or as a totally foreign creature, but as something that we can control and use to extend our bodies. We are the machines because we dictate their use and function. The computers need us to work, and we need the computers to interact with the new digital world we’ve created. It is not a relationship where we have lost power, but one where we have the power to create and destroy boundaries by our choosing to blend with the machine.
Video games, particularly played through the Kinect interface, are the ideal combination of human and machine because the body becomes the controller and the connection to the machine. This blurs the idea of mechanical and natural by forcing the body to become a part of the machine. The Kinect then takes the movements of this body controller and reflects the body back in a digital form. The body and the digital image of the character combine into one creature. The body fills the digital avatar presented on the screen and views it as a reflection of the body’s movements, creating a digital cyborg.

The movements of the player affect how the character responds and moves. In order to ride in a certain direction, one must lean and actively move towards the chosen direction. This sensation makes the game world feel as responsive as the material world where choices such as picking up something or throwing something have more consequences, the experience of having a game respond in real time to the movements of the body intimately ties together the body, the reflection, and the sense of identity. As the body serves as the controller, the image reflected back on the screen acts just like a mirror, reflecting back the body in real time as it moves. The image is not an actual picture of the player, but through the lens of the Kinect, it is the cyborg reflection of the character and player merged together.

The interface of the Kinect creates this digital reflection on the screen that mimics the reflection used to view one’s own features. This mimicry allows for the player to easily identify the avatar on screen as his or her reflection when the avatar responds to the player’s movements. The rhetoric of the body works through the interface of the Kinect to create the blurring of the identity into the cyborg represented on the screen.
The process of embodiment complicates the matter of identity. The body goes from being the subject to becoming an object viewed through a virtual lens. The Kinect transforms the body from purely a physical construction that cannot be viewed without an outside source like a mirror into a cyborg merging of physical and virtual that can be watched by the player. The cyborg is the object that is viewed, and embodies the audience. The player will view the avatar on the screen as his or her own body, and be able to observe his or herself as an outside observer would. The game interface pushes this further because the body is still innately tied to the reflection. This is not just an imagined instant, but a moment where the body and its movements are reflected back in a real time and believable manner.

As the body moves from subject to object, it merges with the avatar on the screen. The Kinect loops the two together, and the player becomes the cyborg reflection on the screen. They become someone that they can watch as an outsider and that they can control, while remaining embodied. It allows another dualism of being both subject and object, performer and audience. The dual nature of video games as a truly cyborg medium continue to grow as they continue to merge together the material and the digital the more that they are engaged with and participated with.

What truly creates this process of embodiment where the body comes to be extended into the space of the cyborg, does not come just from the screen or from the game. It comes from the interface that links these two together. Paul Benedetti and Nancy DeHart look at interfaces and explain why they are crucial, "...there is a total metamorphosis of the user by the interface. It is the metamorphosis that I consider the message" (109). The interface creates this transformation from subject to object, and
that allows the body to be expanded into new realms. It is the unique Kinect interface itself that provides this because of its use of the body itself as a wireless, natural controller. By reflecting the body’s motions in the avatar, the Kinect creates the image of a mirror and that encourages the player to easily identify with the avatar on the screen. By Mimicking the rhetoric of the mirror, the Kinect creates an easily understood interface that allows the player to blur with the avatar on the screen.

Edward T. Hall in his work *The Silent Language*, looks at the history of humans interacting with things around them, and how they are involved in the use of objects to extend themselves. Like McLuhan, he sees the interaction of people with things by looking at the history of humankind. He describes:

> Today man has developed extensions for practically everything he used to do with his body. The evolution of weapons begins with the teeth and the fist and ends with the atom bomb. Clothes and houses are extensions of man’s biological temperature-control mechanisms. Furniture takes the place of squatting and sitting on the ground. Power tools, glasses, TV, telephones, and books which carry the voice across both time and space are examples of material extensions. Money is a way of extending and storing labor. Our transportation networks now do what we used to do with our feet and backs. In fact, all man-made material things can be treated as extensions of what man once did with his body or some specialized part of his body. (123)

The history of humans and their objects can be seen in the development of using objects to extend themselves. Money is used to extend goods and labor over time,
weapons extend and expand teeth and fists, and new objects like games extend the abilities of the body. The digital space allows the body to magnify its abilities to interact with the world around them. This digital space allows us to grow our ability to communicate, and our ability to shape our environment. They work to help the body reach out into other areas, extending the body into a limitless realm where physical space no longer constrains the activities of the body.

Materiality works together to look at the way that humans interact with things and sources around them. Woodward describes materiality as concerned with "the mutual relations between people and objects" (Woodward 14). People work with objects to extend their presence into new spaces, and in ways they would not otherwise be able to engage with the world. Games allow the player to interact with a digital world in ways they cannot otherwise do. The games allow the player to be able to perform tasks that are otherwise impossible to do. It allows the player to become a hero or villain in their own story, and to expand his or her body into the digital realm and become something more than human. The body, seen as something so weak, suddenly becomes something powerful and infinite in the digital space of the game.

The reason why the tie between object and the person innately bonds them together, as Woodward describes, is that "...objects are culturally powerful because, in practice, they connect physical and mental manipulation" (Woodward 15). Objects are how humans interact with the world around them and contain themselves in the objects they identify with. By interacting with the Kinect, the player is not just interacting with a machine but is becoming a part of the interface of the machine. The body has become a part of the object that is being engaged with.
The Kinect using the body as the interface turns the body into an object that is used by the mental aspect of the body to interact with the game system. The body no longer is just a part of the identity but is also a part of the machine. This blurs the body into a part of the object that it is engaging with. It interacts with the body and the machine, allowing the identity of the player to blur into the space of the game.

While the Kinect responds primarily to physical actions, it also can respond to verbal commands. This adds another layer of interaction that connects the body to the machine. Generally spoken words are only used to interact with other living creatures, but the Kinect is shifting that idea by responding to a variety of commands, though this feature is not made as much use of as the physical movements in most games played on the Kinect. It is primarily used to pause the game or access the menus within the game, more than to actually interact with the avatar of the game.

This avatar becomes the reflection of the player as they interact with the game. The player performs the dance action while watching the action be acted back to them. In this feedback loop they can watch their virtual bodies recreate their movements, usually with much better form and skill than the player. It is an idealized reflection of the player’s actions. There is also a small screen in the corner that allows the player to watch a literal live version of their dancing that accurately reflects their size and movements.

This creates both an idealized and an actual reflection of the player. The non-detailed version of the player creates the scans that the Kinect uses to create the user's image. So these represent a closer to reality reflection of the player, however, it is usually ignored in the gameplay because it does not dictate the gameplay. The directions
are displayed above the avatar and that is where the player’s attention is focused. If the scanned image of the player is displayed, it is in a small square at the top or bottom left of the screen, not the center where the eyes instantly are drawn. It also does not provide detail in these scans, so the shapes are vague, and uninteresting when compared to the fleshed out and detailed avatar. Through the way the screen displays information, the game encourages the player to interact with an idealized cyborg reflection as opposed to one that closer reflects the body.

2.3 Visual Rhetoric

Because the connection between player and game is created through a visual space, visual rhetoric must be examined to provide a more rounded view of the process of embodiment. It is the visual image of the avatar that the player becomes connected to, and it is the digital image on the screen that the player interacts with, so this plays a crucial role in the scope of this thesis. However, in order to keep this project to a manageable size, there will be a limited number of visual rhetorical focuses as the main focus remains on the interface and embodiment of the player into the space of the video game.

The connection between the visual and technology is a link that is prominent in much scholarship surrounding the topic. Video games are a visual medium that combine sound, and movement to create an interactive story. But what binds the player into the reflection of the avatar is the visual components reflected back on the screen. As such, visual rhetoric plays a crucial role in this thesis.

As most technologies are visually based, there is an extensive amount of research on technology and the visual, however there is less work directly relating to vid-
eo games. However, much of this work already done on technology and the visual can be applied to video games, for instance, Kristie S. Fleckenstein, provides a very efficient explanation in her book, *Embodied Literacies: Imageword and a Poetics of Teaching*, where she describes the process of technology and images working together:

Via spatial arrangements and visual technologies, a person is reduced to that which is seen but does not see; a person becomes an object of information but never the subject of communication. Central to Foucault’s argument about surveillance though is the degree to which individuals internalize the habit of surveillance so that it becomes the tool by which we establish our presence in the world. (Fleckenstein 57)

This is the process of embodiment where the player becomes the object on the screen, where he or she embodies the digital skin of the avatar, no longer his or her own body. She draws on Foucault’s discussion of the panopticon where there is the potential for someone to always be watching and observing. The Kinect transforms the player into this all-seeing observer for this digital world. The player internalizes the Kinect watching the player, and in turn, watches the avatar on the screen at all moments.

The classics scholars of the visual rhetoric field even apply well to the field of video game studies, in Walter Benjamin’s classic, *The Work of Art in Age of the Mechanical Reproduction*, he discusses film at length, and while the mediums of film and video games are vastly different, his statements on the actor being viewed remain relevant to the process of the player becoming the avatar on the screen, particularly since the Kinect does serve as a camera recording the player and reflecting them back onto the screen. Benjamin describes the role between camera and actor as:
The camera that presents the performance of the film actor to the public need not respect the performance as an integral whole. Guided by the cameraman, the camera continually changes its position with respect to the performance… It comprises certain factors of movement which are in reality those of the camera, not to mention special camera angles, close-ups, etc. Hence the performance of the actor is subjected to a series of optical test. (9)

The Kinect acts as a camera recording the actions of the player and reflecting the actions instantly back in an idealized form. The movements of the avatar are not the exact movements of the player; they are movements picked up by the camera and made “better” in the machine’s reflection on the screen. Like the actor on the screen, the final production is not a true reflection of the performance as a whole, especially since the Kinect camera only captures and reflects the movements of the player, and not the virtual world which is controlled by coding within the individual game being played.

The world that is portrayed on the screen is a much more vibrant, engaging, and attractive world than the world around most players of the game. In the game there is an abundance of green spaces or space. There are attractive men and women all around who will happily engage with the player. The visual appeal of the game serves to lure the player even further into the digital world. The avatar itself is also an attractive anchor point to tie the player to the avatar. By allowing the player to choose or create their own body in the game world, the player is given control over their own body, a control that cannot be fully manifested in the physical world.
The game reflects the social standards of beauty and attractiveness in the avatars available to the player. The women are overtly sexualized, reflecting the culture of the physical world into the digital space. Marshall McLuhan in his work, Understanding Media: Extensions of Man discusses the social implications of games, and while he was not directly referring to the medium of video games, the ideas still apply.

Games are popular art, collective, social reactions to the main drive or action of any culture. Games, like institutions, are extensions of social man and of the body politic, as technologies are extensions of the animal organism. Both games and technologies are counter-irritants or ways of adjusting to the stress of the specialized actions that occur in any social group. As extensions of the popular response to the workday stress, games become faithful models of a culture. They incorporate both the action and the reaction of whole populations in a single dynamic image.

(McLuhan 235)

The games allow for the player to interact with the social rules of their world in ways that they cannot otherwise engage in. In games, he or she can lash out, rebel, or work through other solutions. The player can make his or herself into nearly anything they wish to be. They are given control over the visuals of his or her body, power over the world around them, and the ability to interact with things that otherwise would be outside of their range of control.

The reflection of the image in a visual format is what connects and ties the physical to the digital. Because the Kinect acts as a mirror, reflecting the image of movement back to the player, it is recognized as an extension of the body that is within the digital
space. The visual command and control of the image is because the body associates the movement controlled by the body with the reflected movement of the body on the screen. Just as Harraway describes, “The cyborg is a condensed image of both imagination and material reality, the two joined centers structuring any possibility of historical transformation” (118). The reflection on the screen is the joining of the physical and the digital into a visual representation that can be embodied. The visual of the cyborg allows for the body to begin to view the avatar as a reflection, a cyborg union of machine and human that interacts with the digital world in a way that the physical body on its own cannot hope to accomplish.

The avatar itself is usually represented or created as an idealized body. The avatar generally is a strong, young man or woman who possesses an array of skills, is attractive, and sexually appealing and capable of taking on enormous feats of skill that are beyond the range of the player. As the avatar becomes the cyborg it must become something viewed as superior to the physical body it is being embodied by. Downes describes how, “The image of the cyborg has also been invoked as an idealized virtual body that offers at least a temporary solution to the Enlightenment view of the body as irrational, weak, and passive” (Downes 65). Since the body of the player is viewed as weak and flawed, the avatar cyborg must be something visually appealing, and stronger than the body it is being controlled by. The movements of the body are smoothed out and made stronger and more active, while the visual appeal of the avatar allows for it to be seen as superior to any physical body.

While interacting with this world, the player must embody the avatar, not their own shape any longer. The avatar becomes the reflection of the player in this digital
world. Walter Benjamin quotes Pirandello in his description of the actor, another reflection of what role the player takes on:

The actor feels as if in exile—exiled not only from the stage but also from himself. With a vague sense of discomfort he feels inexplicable emptiness: his body loses its corporeality, it evaporates, it is deprived of reality, life, voice, and the noises caused by his moving about, in order to be changed into a mute image, flickering an instant on the screen, then vanishing into silence ... The projector will play with his shadow before the public, and he himself must be content to play before the camera. (8)

This description applies also to the player of the Kinect system. The player becomes a hollow shell that is reflected by the camera into a new visual shape created by the machine. The avatar becomes the body of the player and the physical world around him or her fades away as the entire focus is put into the screen where the body is now reflected.

These topics form the backbone of my thesis because they allow for a well-rounded and in-depth look at the role that identity plays in the digital realm of video games and their interfaces. Without a thorough understanding of these topics and the history of these theories, this project wouldn't be possible. Inspiration from Haraway's encouragement of blurring disciplines led me to investigate these different topics of rhetoric, video games, identity, and materiality to allow for the concepts to be more fully fleshed out and crafted.

While there are many components in the topic of video games, I focused on the topics here to allow for a more wide discussion of identity within the realm of the digital.
Understanding the visual rhetoric allows for a more clear discussion of how the graphic representations of the Kinect work to persuade and encourage the viewer to more fully participate in the union of body and machine. Since the distinction between physical and digital space serves a critical role in this thesis, a close look at materiality helps to set the boundaries of the physical and how it is defined and examined. Video games and identity must be discussed since they make up the primary interface that is being examined. There have already been discussions of the interplay between these two topics and how video games alter the player’s identity while he or she is engaged in that world. Pulling on those historical examinations allows me a basis to form my own ideas and to expand on thoughts of experts already in the field.
3 An Examination of Kinect Star Wars

My analysis in this chapter focuses particularly on the Star Wars Jedi Knight game. This game will be looked at because it best exemplifies the role of the Kinect in gameplay. The game allows the player to inhabit a wide variety of avatars and interact physically with the game without the use of an external controller at all. The body of the player is the controller for the entirety of the game.

The game requires the full range of motion: kicking, jumping, ducking, weaving from side to side, swinging a light saber, and responding to combat in real time. The game allows for the selection of pre-determined avatars but not the full customizing of the avatar. The player cannot directly make their avatar or fully control their appearance but still is able to choose the skin of the digital body he or she will embody throughout the duration of the game.

The game also is played almost exclusively in the third person perspective, which allows for a more full immersion of the player into the role of being both object and subject. They act upon the digital world, but they also watch their digital body, viewing as both object and subject. The game is played both through and with the player who takes on role of audience and participant. The player must interact with the digital world in a physical way, blurring the two realms together and creating a powerful link between player and machine.

I spent a significant amount of time playing and researching this game, and will be drawing on my experiences as a player to frame my explanations and analysis of the game play mechanics, and my own thoughts as I played the game.
This game forces the player to physically engage in a very active way. This game cannot be interacted with in a passive matter; it demands the player stand up and engage with the entire body for the duration of the game. The playing of the game works the body. The avatar also mimics the movements of the player. An errant wave of the hand creates a movement in the avatar instantly. The player having to react to digital threats and obstacles physically intricately connects the avatar and the player. A rock appearing in the path of the player means they have to dodge to the left or the right. The player must block attacks by raising his or her hand at the appropriate time. I was taken off guard by
how physically exhausting interacting with the game was, and how incredibly difficult some of the movements can be to master.

This is the case whether the player gets to use their own image taken directly from the camera or if the game puts the player into the body of a character. In Star Wars Kinect, the player inhabits the body of a character. There are several options available, pre-set appearances of varying appearances, both male and female, dark and light skinned, and even a few alien options that are less humanoid appearing. This avatar can be exchanged at various points of the game, so it is not a permanent decision. Unlike the physical body, the cyborg reflection can be easily altered in appearance to fit the player's desires or fantasies. I selected a male non-human character to play since this avatar was the furthest from my own appearance and would be most difficult for me to view as an extension of myself. I was then surprised by how quickly I came to refer to the avatar as 'me' by yelling 'They hit me!' for instance when I was attacked in the first fight in the game.

The game is also structured to ease the player into the role of the avatar. The player is instructed to "feel the weight of the light saber." The player is directly addressed as "you" as opposed to by an avatar name. The rhetoric that is used immediately draws the player into the game world and into the body of the avatar; there was only a few short moments at the start of the game where I was not already focusing on the avatar that I was playing as. There are training sessions that serve to instantly draw the player into the world of the game. The player must work with the avatar to understand how to interact with the game; the avatar body becomes the player's body as they merge together to respond to the digital world with a physical interaction.
At the very beginning of the game, in the title screen before the game has truly begun, two characters, R2D2 and C-3PO, have a discussion about and to the player. They continually look for ‘you’, and call out for you to introduce yourself. The game immediately begins drawing the player in by addressing them with the avatars on the screen. Even before the player’s chosen avatar is on the screen, the game is reaching out to engage with the player on an audial and visual level.

![Figure 1.2 Start Screen](image)

The start screen must be interacted with either by raising one’s arm or by speaking. To select an option, the player must hold his or her hand out and aim it towards the choice he or she wishes to select. The hand must then be held there for several seconds until the option is selected and the next screen appears; the first time this is attempted it can be difficult to hold the correct spot for long enough to select the wanted choice, but repeated plays made this much easier as my body learned the interface. There is the option to start a new game, continue a game, update the settings, or simply watch the title screen.
The pale blue of the menu options mimics that of a computer interface, and brings to mind similar styles of interaction on touch pads and other devices. The characters on the screen do not offer instructions on how to interact with the menu. No voice commands ‘Lift your arm and hover over your choice.’ Instead they ask, ‘Where are you? I thought you were already here. We cannot get started without you.’ This dialogue instantly draws the player into the world of the game world as not just an audience member, but as an active participant who is already being addressed as ‘you’ and not by the name of an avatar. From the title screen onwards, the game works to draw the player into the world of the game.

The first mission that is available to the player is introduced by C-3PO. The player then is then allowed to choose a character to play as. The avatars represent a wider racial range of options than most other video games available, but each avatar is also an idealized body shape. There are no options for overweight, short, tall, or physically disabled characters. There are three male and three female avatars to choose from. One of the female avatars is an alien race known for their sexualized portrayal in the films, and this avatar wears less clothing than any of the other avatars. The other two female characters are dressed in similar attire to the male characters and are not overtly sexualized. Two of the characters, one male and one female, also are portrayed with a darker skin tone.
Figure 1.3 Choose Character Screen

To select the character the player wishes to embody, the player must raise his or her hand and hold it over the proper avatar just as was done in the main screen to start the game. This begins to establish the pattern of interaction with the menu screen that is continued throughout the game. Being able to choose an avatar gives the player autonomy to choose their digital body. While the player cannot alter the appearance of the avatar, they are allowed to make a decision about what the body he or she inhabits will look like, and this allows for a closer sense of relation because the body has been chosen, rather than simply forced onto the player. All of the avatars have the same abilities, and aside from the appearance on screen, all react and respond to the game in the same manner.

The player can also change their avatar at multiple points within the game, or when loading up the save file at a later point, so the decision of the avatar is not a permanent choice and the appearance and gender of the character have no effect on the storyline that the player engages with. The avatars all also have identical abilities and movements so the decision of which avatar to select is strictly based on aesthetic
choices of the player for which body he or she finds the most appealing. I enjoyed playing as all of the different characters at various points throughout the game, and found that I identified with each avatar regardless of how little or how closely the avatar might resemble my physical appearance. The avatar becomes simply a skin to wear while interacting with digital world.

Once the player has selected his or her avatar, the game begins with an introduction to the universe, and shows the player on a training ship where he or she is to show their teacher what they have learned. The game goes over the basic movements of fighting in the game: how to pick and use the light saber, dodge attacks, hit things, and win in duels. The player is forced to go over these movements until they have been completed a number of times. By forcing repetition, the game already begins to engrain the means of interaction into the player. Since each action must be completed a number of times, it means that as a player I had to know how exactly to perform each movement and prove that over and over, so by the time each training session was done, I was confident in my abilities of that skill.
As the player is going through these training tutorials, a transparent blue figure appears in the middle left corner of the screen to show the player what movements he or she must make to complete the action. This small figure serves as the main component of the tutorial as it shows the player what to do to achieve the desired result. This figure only appears during the tutorial sections, and once a move has been deemed mastered by the player the tutorial figure no longer appears. I found the figure incredibly helpful, and its placement near the center of the screen ensured that I could watch the figure and my own avatar at one time without having to divide my attention. This let my focus stay on my avatar to complete the task.

The game determines if a skill is mastered or not by the number of times it is successfully completed. By having the player complete the same actions over and over, it creates a sense of familiarity with the movements and allows the player to more closely begin to embody the avatar on the screen. After the first few training rounds, I was
already starting to try to mimic what my avatar was doing even when not in training sequences. By starting with the small ghost avatar teaching the player the move, and then faded that away, the game brings the focus onto the movements and how it ties the player and avatar together. By the end of the tutorial, I had lost track of the material world around me, and was focused totally on the screen reflecting back my movements.

At the end of the tutorial, the player must duel another character controlled by the game. There is no ghost avatar to provide answers or guides on how to respond, and the player must learn how to react to the game, dodge attacks at the appropriate times and attack at the right moments in order to move forward. All while the player is proceeding through this section of the game, the game addresses the player directly, speaking to ‘you’ and offer suggestions and encouragement to ‘you’ as well as positive feedback without much criticism. The player is continuously told to ‘defend yourself’ and to feel the weight of the light saber, and to move in reaction to the digital events. I was very involved in the game, and my avatar at this point, once jumping too far and out of the Kinect’s view in my haste to dodge an attack. I found myself moving more forward to attack and reacting stronger than I had at the start of the tutorial.
Figure 1.5 Defend Yourself

By having the player have to immediately respond to the actions of the game, the player must embody their avatar and view his or her avatar as their body. Their dodging to the left or right immediately changes how the fight is proceeding and whether they fail or succeed in the battle itself. As the game does not allow for the player to be killed or for a game over to be reached at this point in the game, the player can continue in this fight until they have finally mastered the art of combat and understand how to interact with the interface of the game. Until the player is fully embodied in the game, he or she cannot proceed past the training point.

Once the player makes it past this training session, they are taken to a training session that focuses on the other core group of skills needed to interact with the game space: jumping, kicking, dodging, picking things up, and timing. This level involves pro-
ceeding through a training course within the game, a space similar to an obstacle course. The player must kick down obstacles, jump over objects, dodge from left to right, and learn how to properly time running through a series of moving obstacles. Once again, during the training session, the transparent blue training avatar appears, but once the move has been completed once, it no longer appears. This extended tutorial continues the drawing in of the player into the game. I found this section of the game the most compelling as I had to jump, kick, lunge, and shift from side to side in response to events within the game, like swinging logs or rolling boulders. This forced me to pay total attention to the screen and not the physical spaces my body inhabited.

Figure 1.6 Jump

Star Wars forces the player to engage and react in real time to events that are digitally taking place. The physical body must respond to the digital world problems immediately; the two spaces mingle together in that the body must react. Forcing the body to learn to respond to the obstacles in the digital space in real time, it draws the body
into the avatar’s shape. There is not time for a full separation; instead the body must instantly react. The player begins to jump, with the avatar, and attempt to fully engage with the digital space, no longer focused on the physical spaces around him or her.

At this point, the game moves into the beginnings of the story, and the training mostly ends. There are still moments where new skills are taught, and the blue training avatar appears again, but after this point in the game, the player is primarily embodying their avatar and working within the space of that digital body without tutorial.

The avatar within the game idealizes the movements of the player. While the player is not able to really kick or jump in the same way that the avatar is, in the space of the game, the avatar reflects the player’s body and allows the body to be viewed as much more capable. The game continuously addresses the player as ‘you’ and demands immediate reactions to events that occur within the space of the game. By constantly referencing ‘you’ and not the avatar’s name, the game directly addresses the player as the avatar. This kept me engaged with the game and willing to follow its direction because I was included in a role within the game itself. ‘You’ begins to refer to the blurred identity of avatar and player, and more firmly ties them together as the game progresses. The physical world around the player fades away as the player interacts strictly with the digital world they are immersed in. Watching his or her avatar on the screen the player is watching his or her own body reflected back to them in a digital state. This merging of the player and the avatar creates this cyborg identity on the screen.

Much like Haraway discusses, this identity is a total blurring of the machine and the human into something that is not quite either. The avatar is not simply a machine
because it is controlled by human movements, but it is not something totally human because it is created by machines, this blurred line is what makes the avatar such a compelling subject to study.

What makes this avatar particularly appealing as a reflection is that the cyborg presents an idealized body for the player to embody. The avatar on the screen is presented as strong, powerful, and attractive. The avatar can do and control things that the player cannot. By allowing the player to control the body of the avatar the game allows the player the chance to embody something that is not available in the physical world, it allows the player the chance to become something more than just a human, something powerful, and digital: a cyborg with human muscles propelling forward in a digital space. I know that the avatar on my screen jumped, fought, and reacted to the world in a far smoother manner than I did, but, my vision only sees the avatar as mimicking my own movements, so the smooth grace of the avatar’s jump becomes mine. The body and its movements idealized in the cyborg reflection.

Much like the earlier discussion of the body as weak, these avatars come across as stronger and capable, much stronger than any player could. The avatars leap massive canyons, fly, sword fight, and complete other tasks with ease while I, as the player, struggle to not trip over household furniture while clearing a space to play the Kinect. While I embody the avatar, however, my digital body escapes the confines, and weakness of my material form, and takes on the skills and strength of the Jedi I inhabit within the game, and my own body fades away until I only watch the avatar as my true reflection on the screen.
Within the game there is one section where the invisible player makes an appearance on the screen, revealing a small game that can be accessed within the larger game where the player can enter into dance competitions. In this game within a game, the player’s body is more closely reflected on the screen, though without physical refinement and details, and not in a prominent way. The avatar is still dominant on the screen.

The player’s body is displayed as a blue transparent ghost figure in the upper left hand corner of the screen. This small box takes the camera image that the Kinect records and reflects it on screen in a very non-descript way that does not distract from the avatar. In fact, I did not immediately notice this, because my eyes were trained on my avatar, and its movements on the screen.

![Figure 1.7 Dance-Vadar](image)

The display of the body on the screen is much smaller than the avatar, and also presents only the minutest amount of detail. The face is not visible, and even clothes or skin color are all turned the same shade of blue as the dance commands. This keeps
the display far out of the player’s main focus, especially while dancing within this mini
game. It also seems to be provided for the value of mocking the player’s body when
compared to the smooth movements of the avatar. My body never managed to match
what the avatar was capable of, and attempting to play the game while focusing on this
reflection led to a failed game. And even this more accurate reflection of the body is still
a digital representation of the material object, and not the player.

The game also provides a small guide about what dance moves to perform next in the sequence of the game, however, the avatar remains the front focus of the screen, taking up the entire center of the screen and reflected much larger than either the directions or the small camera image of the player. This mini-game is less a part of the cohesive story than a part of a more social side of the game where the player can choose to dance with friends. It still requires instant responses, but it also gives the player more detailed instructions about how to participate, and encourages co-op playing with two players joining in.

This section of the game is also not a part of the main cohesive story line of the game and does not allow for as deep a level of embodiment as the rest of the game where the player is directly spoken to and forced to respond to the game without prompt because the player has become embodied into the cyborg reflection on the screen. However, visually, this section of the game is still cohesive with the rest of the game in that the avatar is still the main focus on the screen, and is what the player identifies with. It also continues to use the same menu format of scrolling with hand gestures and selecting by holding the hand in place. The same color pattern of blues is also used along with cohesive character use.
What visually varies in this section is that it easily presents the most idealized, version of the player’s movements in the form of simple gestures on the part of the player create complex dance moves that the player feels as though he or she has completed because the avatar has come to be the player’s body reflected back to them in an idealized state. Complex moves are changed to arm raises to the left and the right or shifting of the feet. While the player does minimal movements, the avatar reacts as though the player were an accomplished dancer. I left this section of the game feeling quite confident in my abysmal dance moves.

Figure 1.8 Dance Han Solo

One of visually distancing aspects of this section is that the women in this particular mini-game are sexualized more so than in any other part of the game. Every woman in this dance area usually wears little clothing or very tight outfits. Their movements are also much more sexualized than any of the male characters in this section. Visually, this is a completely different representation than anywhere else in the game where the women are not sexualized. For me, it was jarring for the representation to
shift so dramatically from the rest of the game for no real discernable reason other than to attempt to make the dance section more appealing to the audience's gaze.

Figure 1.9 Dance Leia

Figure 1.10 Dance Women 01

This mini-game also offers another feature where if the player preforms a move incorrectly, the area is highlighted in red. For instance, if the arm movement is wrong, the avatar’s arm will be highlighted in red to show the player the area that needs work. This does not appear anywhere else in the game and creates a less unified vision of the avatar as embodied body, because the red is so clearly out of place, and disjointed from the rest of the image. It also forces attention back to the physical body, and its defects.
What most caught my attention about this, was that it is the avatar’s body that is highlighted when an incorrect move is attempted. Rather than highlighting the wrong move in the directions, the decision was made to highlight the avatar’s body. This corresponds to the player’s digital body. For instance, when I was playing this section, and the arm flashed red, I had no doubt that it was my arm that was in the wrong position, I instantly identified with the avatar without having to stop and consciously think because my identity had become so engrained into the avatar. I simply tried to move my arm in a different direction and try again for the idealized movements of the avatar on the screen.

![Figure 1.11 Dance Women 02](image)

There are two other mini-games within the game as a whole, one where a giant monster replaces the player’s chosen avatar and the objective is to smash and destroy everything in sight. This mini-game is also less physically engaging than the main story that the player interacts with, because this is an unappealing avatar that was not chosen and is forced upon the player. I struggled with this section because I did not enjoy being the monster, and the movements associated with it of smashing or grabbing things. After the previous time spent as other avatars, I did not ever fully identify with this avatar.
and was acutely aware of my own body during this segment in the game. Part of this was that visually the monster is not as detailed or appealing as the other avatars. It also is a shade of green/brown that blends into the background and does not really stand out. Also, the tutorial for this section does not address ‘you’ as much as previous learning sessions so the game never directly addressed the ‘you’ of my digital reflection.

Figure 1.12 Smash

The last mini-game is one where the player can race small pods around a course against other players or computer controlled opponents. This one also does not follow the same pattern as the other components of the game as it switches between a first person perspective (which is nowhere else in the game) and a third person perspective. The first person viewpoint is particularly jarring since it is not presented at any other point, and the game appears to shift between the two at random intervals.
Since I had grown used to viewing the avatar as my reflection on the screen, the sudden arrival of a first person perspective was jarring, and disconnected me from the avatar that had come to be viewed as the reflection of my body. When this shift in per-
spective happened, I often struggled to regain proper motions for the game because my identifying body, the avatar, was no longer visible on the screen. Several times I literally crashed and burned within the game because I could not adjust to this rapid shift. The digital space changes perspective and the new perspective is disorienting, especially when the view shifts between being able to see the avatar, and not see the avatar. This creates confusion about what to identify with on the screen and leads to a disjointing and upsetting attempts to play this mini-game. The visual change from third to first person and back again breaks the illusion of the avatar as the reflection of the player.

3.1 Analysis

Since the interface of the Kinect ties the player into the body of the avatar, linking the two together, it needs to be reflected on screen mimicking the movements of the player’s body for the player to embody him or herself within that digital skin. The avatar, reflecting the physical actions of the physical body, becomes viewed as both an object and as a reflection of the self. The visual representation of the character on the screen of the Star Wars Kinect game helps to ensure that the player identifies with the image on the screen. Much like the Narcissus myth that McLuhan discusses, the player becomes focused on nothing but the image on the screen, the extension of the self into this digital space.

By using a third person perspective where the player character is almost constantly on screen reflecting the player’s physical actions, the visual field ensures that the player begins to view the screen as a reflection where he or she can watch the actions of the body on a digital screen. Since the physical body itself cannot be observed except by means of a mirror, the character in the screen becomes the reflection of the
player and accepted as a digital reflection and extension of the self, blurring the boundaries of body and avatar as the player responds to digital stimuli and reacts to a non-material world with physical motions.

Within the game itself, there are moments when the player is jarred out of this association with the avatar on the screen, and these moments further expose the intricate connection between player and character. When the player is suddenly thrown into a moment in the game where the screen shifts into a first person perspective, as if the player him or herself was looking around the world with his or her own eyes, without an avatar reflected on screen, the movements of the player falter as he or she attempts to re-identify with the digital space of the game and find his or her reflection on the screen. These moments where the player is thrown out of their reflection leads to a disjointed moment where the player cannot fully identify what on screen represents him or her in the digital space, and in my experiences playing Star Wars Kinect, it lead to a failure within the game space as I failed to complete the level or task at hand when the perspective was changed.

This power over the interaction between player and avatar is based on the visual rhetoric of the screen, and the images that it displays to the player. The avatar is usually the foremost object on the screen, colorful against a dark background, and responsive to the player’s movements. The interface informs the interaction with the digital space, and is what encourages the interaction and collaboration between digital and physical through the Kinect. The screen allows the player to become both actor and audience for a story that he or she can control through physical actions that dictate what happens on screen.
Because the game almost exclusively uses the third person perspective, the player grows accustomed to identifying with the body represented on the screen that reflects back their movements. This visual connection between body, digital, and visual is what makes the connection created by the interface of the Kinect so strong. It connects the player not just through a visual representation of a character on the screen, but by also connecting the body and the visual since the character enacts the player’s movements in real time.

Nayar describes this interaction between the player and the avatar by as, “The character in the game is thus configured at the interface of the "real" human player and the computer-generated figure on the screen is not completely autonomous (Nayar 47).” The avatar cannot exist without the human interaction with the digital. It is these two pieces coming together to create the realm of the cyborg. Since the avatar is dependent on the interaction of physical and virtual, it cannot be viewed as an object independent of control, but it also cannot be viewed as simply an extension of the human body, it is something blurred between these lines, existing through both the human body and the machine.

It is this connection between visual, physical, and digital that creates this cyborg reflection on the screen of the Kinect, and why Star Wars Kinect, presents a compelling example to explore. Because Star Wars Kinect uses an almost exclusive third person perspective that keeps the player represented on the screen by an avatar at almost all points in the game, it creates an entanglement of the body in digital space in ways that previous game systems have lacked because they are missing the connection between the body, the digital, and the visual. Previous controllers that only required pressing a
button did not engage the entire body and mirror the movements of the player in the same way that the Kinect interface allows. Star Wars Kinect demonstrates this in a wide range of activities like dancing, stomping, fighting, and reacting in real time to a wide range of actions.

The connection during the racing simulation is where the Star Wars Kinect game exposes how strong the connection is because of this visual identity. While I played the game, any time the perspective took my avatar, my reflection, off the screen, I struggled to continue the game with the proper movements because I had grown accustomed to seeing myself, and my reflection on the screen reflecting what actions I was taking. Without this reflection, I struggled to react appropriately and connect with the game, and was immediately taken out of the game, focusing more on my physical body than on the digital world I was suppose to be immersed within. When the avatar returned to the screen, I again became fixated on the reflection on the screen, allowing for it to serve as an accurate reflection of my body, and becoming immersed within the space of the game again. The visual component of the connection is the critical link between player and avatar blurring into cyborg.

This was true even during different parts of the game, including the dancing mini-game where the player can choose a character to dance as, this portion of the game forces a tight focus on the avatar and the movements to be completed. The player must rely entirely on the reflection to see what his or her body is doing, and what movements need to be done to complete the task successfully. The avatar’s body is also used to reflect flaws in the player’s movements so that the player’s physical body can adjust the movements accordingly.
As McLuhan’s earlier definition of games as “extensions of social man and body politic” (255), the women are still represented within the male gaze of sexualization particularly in the dancing mini-game while not in other aspects of the game. The avatars and the world of the game itself also present a chance to reflect back cultural norms or to challenge those norms as the player is allowed to fight against injustices, or attempt daring escapes that are not possible in the physical world.

In the realm of the digital, the visuals reflected back are idealized; the women and the men are generally depicted as almost flawless. They are strong, attractive by conventional standards, and physically capable. Even if the player cannot complete these tasks, the character reflected on the screen can. This allows for idealizing of the shape on the screen, an easier to associate with improved, and flawless reflection. This encourages the player to abandon their ‘weak physical bodies’ to inhabit the ageless, flawless shapes of the avatar on the screen reflecting back to them. By presenting an ideal shape, the game plays to the idea of the body as inherently flawed, and this digital identity is a superior option, however, the digital skin is still controlled by the flesh and blood so the body is not relegated to being useless, but is still powerful and of critical importance.

By displaying this reflection with the player’s movements, Star Wars Kinect ensures that the player focuses on the screen and becomes the avatar reflected back to them. The player views the character on the screen as an accurate representation of what movements his or her body is doing and uses the avatar to gauge responses to the virtual world, responding to these virtual stimuli as though they were physical obstacles. For instance, when a tree falls in a player’s path during the game, he or she will
immediately jump to evade it as if it physically had happened. He or she responds to the
digital stimuli in the same way that he or she would respond to a physical stimulus be-
cause the interface has so engrained the connection between character and player.

The Kinect changes the way that the body acts around the digital world. It turns
the body into a part of the machine, a tool connecting human and machine. The body is
taken in by the machine and becomes reflected into the space of the game world where
it becomes a hybrid between human and machine and a merging of subject and object.
The Kinect ties the body into the idea of movement more than any of the previous inter-
faces. It also enhances what the body is doing. The avatar has a preset animation of
motion that corresponds to the movements that the player is completing on command.
The player views the avatar’s movements as their own and begins to see the digital re-
fection as him or herself. The combination of the Kinect reflecting back the player's
movements into the moves of the avatar create a cyborg reflection that merges the
physical and the material.

The player can also control the difficulty of the moves they are asked to perform
by choosing different skill settings. This allows the user to keep the game play more in
line with their own physical abilities, but the games do remain physically taxing on the
player after extended amounts of time spent engaged with the game. However, the dif-
ferent difficulties does not widely change the moves of the avatar, but changes how
sensitive the Kinect is and how precise the movements must be. The player can physi-
cally perform very simple moves but look very complicated and involved while watching
the cyborg reflection. In this way the player can control how he or she engages his or
her body with the game and how he or she is reflected to him or herself as he or she is able to watch their own idealized version of the body move in the digital space.

The game puts the player through a variety of tasks with different controls. They control a light saber with swinging motions. Different patterns of movement create different effects from the light saber and change the player interacts with their environment. The player can also pick up, catch, and throw items, as well as jump, kick, punch, run, and dodge. The timing of the movements must mesh with the actions of the game or the player will fail and the game will end.

The controls themselves are relatively simple to understand and similar to the physical actions the body performs. A kick, jump, and dodge are exactly the same as they would be in a physical situation, while the light saber use is exactly as one would imagine swinging a weighted object. The position of the arms affects the way the light saber reacts to the game and determines if the attack or block was successful so positioning of the body in relation to the game is vital.

Jumping, dodging and running follow slightly different patterns. Jumping requires just upward movement of the body, though most players will physically jump instead of just moving their body upwards. To dodge, the player must simply shift to the side they wish to move to. Often times the player will physically dodge something on the screen and step out of the Kinect’s cameras, instead of just shifting. The body engages with the Kinect as it would a physical event but within the rules of the game interface. There is a range that the body must be in to be observed by the camera and for the movements to be picked up, step out of this range and the game pauses automatically until the body is found again.
However, after time spent with the system, the interface, limitations, and rules of the Kinect fade away and the body blurs into the game itself becoming the avatar that has been selected and not concerned with the camera that is tying the player into the character. The player embodies the character and becomes audience, object and subject of the game as they watch their own actions fed back to them. Unlike the panopticon where the prisoner can only know someone could be watching, the Kinect lets the player be both the observer and the observed. The Star Wars Kinect even allows for some incorrect actions to be reflected back. For instance, while another character is talking, the player can continue to move his or her arms and cause the avatar to swing their weapon wildly within the realm of the game. Thus the control of the player is constant, even through movements when the player would doubt that the controls would be connected.

The Kinect has shifted the way that the body interacts with the video game machine. The body becomes a part of the machine, while the identity of the player is shifted into the avatar on the screen. The player is able to watch their virtual body respond to and perform the tasks of the physical body in real time. The visual of the avatar gives the player a digital body to embody, without that visual, the player has nothing to view as their own reflection and does not have a space to be embodied.

This new interface allows for immersion into the digital world. This is more complete than using a controller or other outside force as the Kinect utilizes the body and makes the player physically a vital part of the interface. This means that the player no longer is just an audience or a small participant but a full active participant in the game.
world. They move, jump, kick, and fight with the digital world just as they would engage
with the physical world around them.

The Kinect ties the body and the player together by acting as both mirror and ex-
tension of the body. The Kinect takes in the image of the body, interrupts and recreates
it in the virtual space as a cyborg reflection. It keeps the body tied in with the game, and
the game tied to the player. There is a constant exchange of information where the body
must communicate physically with the game and the game must communicate digitally
with the player. This constant feedback loop ensures that the player and game stay
blurred together for the duration of their involvement. The player views him or herself as
a part of the game and as the avatar. The player becomes part of the game, part of the
machine and the vital part of interface and communication that allows the game to func-
tion.

The interaction is more consistent in the Kinect where there is no controller at-
tached to the body at all. This allows for the connection between the body and the ma-
chine to feel almost natural as it is simply the body moving and being reflected onto the
screen. In the Star Wars game, there is only one instance when the player's body can
be visible on the screen, and that is during the dancing mini-game where the player ap-
ppears in a pale blue box in the upper left of the screen. The player's body is a blue
vaguely human shape that is not presented at the center of the screen where the play-
er's attention would be. Instead, the avatar occupies this space. Even when the more
accurate reflection of the human body is on the screen, the visual layout of the screen
encourages the player to identify with the avatar, not the reflection put to the side of the
screen.
The layout of the screen is one of the primary reasons that the body and the avatar become so connected. The visual rhetoric and choices of layout maintain the connection between player and avatar by reinforcing the idea of reflection and blurring of the two worlds. Because the avatar is presented at the center of the screen and at the primary point of attention, it is what immediately draws and keeps the player’s attention, more so than anything else presented on the screen. The player watches this digital body respond in the same way they would anticipate a mirror to respond, and with the image in the same location. When you look in the mirror, your reflection appears front and center before you, mimicking the actions; this digital avatar does the same thing, appearing front and center and mirroring the actions, including shifting from the right and left side of the screen, and jumping up and down. This visual mimicry of the mirror makes it easy to relate to this avatar as a reflection since it responds and appears in a similar manner to a mirror.

The visual layout of the screen and the physical body is what leads to this cyborg body on the screen. The body’s movements being reflected back create the illusion of a reflection, of the body as a whole being reflected back just as it is in a mirror. The Kinect then becomes this digital mirror that reflects back not an image of the physical body but an image of the avatar reflecting the body’s image. This combination of game and player intertwines together through the lens of the Kinect that is unique to this interface.

Star Wars Kinect is a particularly interesting game to examine because of the variety of forms the avatars take and the availability to change them to multiple, pre-created shapes. While the player does not directly control the appearance of the avatar he or she can choose which character he or she wants to have represent the body on
screen. These options allow for a range of choices from male to female, and a variation of races including alien options. The game also allows for changing (at certain moments) into a large monster that crushes everything in its path and is far from human in appearance. It also lets the player take control of various characters from the larger franchise and for the player in a first person perspective to take control of the hover scooter rider.

What allows for even more attachment and identification with this character is the fact that the vast majority of the time on screen, the avatar has its back to the character. This allows for the players to not focus on the facial features of the avatar and imagine his or herself as the Jedi battling through the game. Without a face to identify with through the entire game, the avatar becomes an even more likely reflection as it presents an almost blank slate body for the player to reflect on, and connect with. This particular visual detail is one that helps keep the player engaged with the avatar on the screen and is a vital part of the interface.

Donna Haraway looked at the idea of the cyborg being a blurring of these things, being both human and machine, and that is what the Kinect presents on the screen. It gives a reflection that is made of both virtual and physical interactions coming together in a new and engaging way to create this digital reflection. Harrway’s explosive Cyborg Manifesto paved the way for a closer look at the decline of the binary as more and more separate entities begin to merge together as the digital further integrates into the life of the physical. Game studies encourage us to continue looking at the way that the body intertwines with the digital and how that interaction changes us. The body continues to use objects to extend itself, and the spaces that can be extended and continue to ex-
The body becomes a part of the tool, blurring the line between human and machine, digital and physical within the space of the game. Because of this blurring, to study games, there must be a wide examination of literature from several areas to give a wide and accurate reflection of the game and its various processes.
4 CONCLUSIONS

Going into this study, I was wary of what connections I would find, and of the academic links that could be made with the world of video games. I discovered that the virtual worlds of these video games are ripe for exploring and researching in ways that I had never anticipated, and that a number of theorists are already working in the growing field of game studies. Haraway’s Cyborg Manifesto is what first planted the idea in my mind that the video game creates a cyborg, but it wasn’t until I engaged with many more texts that I discovered how closely interwoven these different theorists and topics were, and that I realized how important and far-reaching these theories are in my own work and in the countless works by others. Video games are just recently becoming seriously studied, and now that they are in the academic community, I imagine they will only continue to grow and expand in their study and implication.

Rhetoric, which looks at “theories of symbolic interactions among human bodies” (Condit 107) allowed me the ideal opportunity to be able to study how the human body interacted with, and was affected by video games and the digital realm. Through this field, I was able to learn about both materiality, visual, and digital aspects which tie together into the new, and evolving field of video games. Without this grounding perspective forming the backbone of my research, this thesis would have struggled to remain focused, and cohesive.

This thesis has made clear to me how involved the body becomes in the digital realm, and how much is involved in what at first glance seems a simple interaction. When I played Star Wars Kinect, I found myself becoming totally unaware of my physical surroundings because I was drawn into the virtual world. I occasionally bumped into
pieces of furniture, or rushed forward towards the TV because I was attempting some move for the game. It became my reality as I focused on my avatar and the world around that digital reflection. I did not realize how truly involved interacting with the Kinect was until I began getting involved with my research and interacting with the Kinect on a regular basis. I also later realized that this Kinect interface can lead to other physical consequences such as losing weight, redefining muscles, or even improving reflex times and hand eye coordination. These are all external factors and changes to the body that I will have to more carefully pay attention to in future studies. How much does this interaction and embodiment of the reflection change the physical body?

As humans have a long history of interacting with objects to extend our own reach, looking into the way that these new electronic systems are allowing us to expand our abilities is critical for understanding our future, and moving towards a more firm understanding of both the material and the digital. While the two still exist as separate entities, interfaces like the Kinect are rapidly blurring that line as the body is becoming and more a part of the machine.

Games are an excellent place to study this since they are often reflections of societal ideas, and, unlike mediums like film, interaction drives them forward. Games demand to be played with, interacted with, and explored in a far more active manner than many mediums still available. Games literally cannot function without a player to interact with them, and that makes them already start to blur the line between digital and physical since the game needs both to come into existence.

While playing through the game, and conducting my research, I also became aware of the fact that while the gameplay of the Kinect has many options and freedom
in its play, it resembles many of Foucault’s thoughts on discipline and prison. The player learns how and when to move his or her body to complete the set tasks. There is a limited space that the player can act in for the movements to be recorded, the moves must be performed at the right time, and place to be effective, and only certain movements are accepted as valid. The game then takes these limited, trained motions and turns them into a wider range of motions that the avatar can perform, but the player’s body is limited in the timing, and location of the movements, and if the player steps out of line the punishment is the ending of game. This means of control keeps the player within the rules and language of the game, and also reflects the societal norms of the society around the player where rules and systems must be obeyed in a narrow, prescribed manner. However, the game also allows for the player to act out in ways that are social acceptable and explore outside ideas and actions, and presents more freedom than previous controllers where all interactions were controlled by a single button or joystick. This is a concept I would like to delve further into in future research, looking at the conflicting concepts of freedom and discipline within video games as a medium.

As the modern world continues to progress into more digital realms and technology continues towards more Kinect-like interfaces that engage more fully with the body, the way that we identify with these spaces will continue to become more and more vital to our understanding of ourselves and our world. We continue to learn how to negotiate both the physical and the virtual world, and learn how to engage with one or both, alternating between physical and digital communication, expression, and creation while we attempt to put a value on the physical versus the virtual.
There are now markets that take place entirely with nontangible goods, and this continues to grow by leaps every year. The digital is changing our relationship with the world around us, and, because of its economic and political implications for our culture, it needs to be studied so that we can have better understanding of these changes. The lines between virtual and physical, human and machine are already blurring all around the world, and more study needs to be done in the ways that this is affecting human interaction and the understanding of the body. As the virtual spaces continue to grow, there needs to be a concentrated effort to still remember the body and its vital connection to the digital.

Studying the Kinect and its effects on identity is the beginning of looking at a wider trend where interactions between humans and machines are constantly changing and becoming more interconnected and blurred. The Kinect allows for the user to extend his or her body into cyberspace and engage with the game in an intangible space. The game creates a space that blurs together the digital and the physical and combines them together into a new identity, that of the cyborg. This intimate connection between machine and human is only going to continue to grow in new ways as the virtual expands into our physical world and we begin to interact with the virtual space in more physical means.

By taking the body and making it into a part of the machine, the Kinect has destroyed the boundaries that have been previously established. This reflects the rise of more physically driven technology like touchscreens, virtual reality, and the potential for totally immersive experiences that will give us an entirely new way to examine our own world. The continued use of technology shifts expectations of the world around us, and
how we interact with non-virtual events, and I believe that this is just going to continue to grow as technology becomes more and more integrated into our daily lives and the world around us.

From the ancient tale of Narcissus, and his obsession with the extension of himself, humans have and will always be fascinated by objects; tools that can be used to extend the body into other spaces. These objects are what push society forward and create growth and change. Continuing to study games give us an excellent opportunity to look at how humans use objects in relation to the self. Games in particular give an interesting platform to study this phenomenon of digital and physical interaction because the player interacts with both game interface and the avatar of the game to create the ultimate outcome. An entirely first person perspective game where no avatar reflects the player on the screen is interacted with differently than a game like Star Wars Kinect that almost constantly has an avatar representing the player on screen. In the future I would like to study these differences in interaction and further examine how the avatar gives the player a location to relate their own body to, and to view as his or herself within the game world.

This interconnectedness between humans and machines is only going to expand as the future heads for an increasingly digital age, and we must study how interaction with these technologies affects our identities and the world around us and how we interact with it. Looking at video games that tend to move at a fast rate of development in technology with a new console or advancement coming out every few years, allows a glimpse of what the future is going to look like with interaction between humans and machines. Technology is impossible to keep up with, and shortly after this thesis is pub-
lished, the next generation of video game systems will be out and a whole new experience of gameplay will start again, and I hope to try to keep up with these new systems and their shifting interfaces. Likely in the future more consoles will be physically driven, and contain an embedded online ability so that players can interact with other players across the world. Games will continue to change and interact with the player in new ways with each incarnation.

To look further at the relation of games and identity, and how people interact with them, there also exists a variety of consoles that can be played over several platforms and interfaces. There are other game systems and responsive systems that respond to external, physical stimuli such as being tilted in different directions, or rotated. These responsive systems create a different means of interaction than has been previously seen between the material and virtual. In the future I would love to look at one game and see how it is different in interface, interaction, and overall appearance based on the format it exists on.

For instance, there are games that are available online, offline, on computers, on the Xbox 360, and on mobile devices like smart phones or tablets. Looking at the differences between these games would be able to explore a lot about what each platform presents and the differences in how each audience engages with the interface of their choice. I would like to include a survey in this study to find the common demographic for each device and if there is a correlation between a specific style of interaction and some other common factor like age, race, and or gender.

This study also hints towards things like social media where a person attempts to recreate their identity in a digital space, and in some cases, even lives an entire exist-
ence based out of this virtual profile. These interactions are less physically drawn but still look intently at how identity and the digital world interact with one another and shape each other. Even within video games, there is the option to play online with other players that never meet, and that exist entirely online. These entirely digital interactions change the way that not just games are played, but the ways that people interact with one another. There is also a subset combination of games like Farmville and Candy Crush that are played on a social media site and work with a different interface and towards a different but similar role with identity. These are all things to explore in the future; the field of games and identity is almost limitless.

Video game studies present a wide new field of study, especially as the interfaces continue to grow in interactive abilities. As the avatar on the screen continues to reflect the physical body of the player, the blurring between human and machine will continue to shift. As the cameras that watch become more and more complex, the player will begin to disappear, replaced by the cyborg avatar on the screen. Like the actor reproduced in an artificial version of film, the player becomes the reflection on the screen as his or her body is reproduced into the digital spaces beyond the physical touch. As game systems continue to change and evolve to become more immersive, the player will continue on as the interactive link between machine and human and the cyborg in the screen. The player becomes an image reproduced by the Kinect, controlled by the body but painted by the hands of the machine.
REFERENCES


