

VIDEO GAMES: PERSPECTIVE, POINT-OF-VIEW, AND IMMERSION

By

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To Pete

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Abstract of Thesis Presented to the Graduate School
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Presently, video game designers, players, and often even video game theorists approach the representation of point-of-view in video games as intuitive and uncomplicated. Drawing on the current critical work on video games, theories of immersion and engagement, and theories of human-computer-interaction, I question the significance of optical perspective in video games in terms of player point-of-view. Because video games are an experiential medium, critical study of video games must include the study of the diegetic, visual-auditory, interface, and experiential (often termed interactive or participatory) aspects of video game play. Through an analysis of the various points-of-view within different games and the differing points-of-view within a single game, I attempt to delineate the differences both in the creation of the experiential game space and in the possibilities for immersion within the game space. For this, I delimit two types of immersion: diegetic immersion, which corresponds to immersion in the game, and intra-diegetic or situated immersion, which corresponds to immersion

within the created virtual space of the game situated through both a character's perspective and an embodied point-of-view. I discuss how these are not necessarily mutually exclusive and how they can and do blend together, combined with the game's overall representation of perspective, for varied gaming experiences. I conclude with an analysis of how differing perspectives and points-of-view influence gameplay and game world spatial understanding.

PERSPECTIVE IN VIDEO GAMES

Video Game Construction

Representations of space are a defining element in video and computer games, but critical studies of exactly how these spaces are perceived and experienced by the player are, with few exceptions, lacking.¹ Space in video and computer games is virtual—a presentation and representation of space generated through the programmed code—and not physically experienced space, in the sense that there is no material dimensionality of the space of a video or computer game.² Video game *play* is understood experientially through visual and auditory presentation and through the game's human-computer interface.³ Video game *design* focuses chiefly on the visual register of play and, within the visual, on the act of seeing for the game's presentation, often ignoring the other aspects of the visual register and degrading the auditory to only a supporting role. The style and vocabulary of visual presentation in contemporary video games has embraced a representational discourse primarily based on the techniques of linear perspective and

¹ Notable exceptions include Espen Aarseth, "Allegories of Space: The Question of Spatiality in Computer Games," in *CyberText Yearbook 2000*, eds. Markku Eskelinen and Raine Koskimaa (Jyväskylä, Finland: Research Centre for Contemporary Culture, 2001), 152-71; Steven Poole, *Trigger Happy: Videogames and the Entertainment Revolution*, (New York: Arcade Publishing, 2000); and Terry Harpold, "Thick and Thin: 'Direct Manipulation' & The Spatial Regimes of Human-Computer Interaction." (*Proceedings of SIGGRAPH 2001* August 2001. 12 Jan. 2002. URL: <http://www.siggraph.org/artdesign/gallery/S01/essays/0386.pdf>).

² Hereafter all video and computer games will be included under the general title of video games with the interface being distinguished as either the console or the computer.

³ Video game HCI includes the presentation by the game, the actual apparatus by which the player affects the course of the game, such as a controller, and the design for the way the player interacts with the game as with the control set-up, player-character, and so on.

related schemes of spatiality.⁴ Thus, video games have given implicit priority to the concept of unified monocular vision, as demonstrated most directly in first-person perspective games.

While the dominance of linear perspective as a mode of representation has been much interrogated for other forms of pictorial representation, it has not been so for video games. Popular-critical video game studies like *Hamlet on the Holodeck* and *Trigger Happy* have instead focused on the potential of (in terms of virtual reality and market revenue) and history of video games, unquestioningly accepting the linearity and dominance of the visual component. Visual presentation of play in video games must, however, be interrogated in terms of the complex interactions between the game presentation, the player, and the interface, because of the pivotal distinction between depictions of space and experiences of space during play in that space. The critical problem of how perspective shapes the video game space is foregrounded by the often different or inconsistent perspectives which exist inside a single game and throughout video games as a medium.

The Game Interface

Representation of space in video games relies heavily on elements of the game interface because the player must work through the interface to act on the game and its spaces.⁵ Video game interfaces, like the interfaces of many new media objects, must be taken into consideration in this conflict, because they are pivotal to the user-player's

⁴ See Chapter 6 "Solid Geometry" in Steven Poole, *Trigger Happy: Videogames and the Entertainment Revolution*, (New York: Arcade Publishing, 2000).

⁵ This is often referred to as interactivity. In this study, interactivity means the ability of the player to cause any effect within the space of the game and the player's responses to the game. See J. Yellowlees Douglas, *The End of Books—Or Books without End?* (Ann Arbor, MI: University of Michigan Press, 2000).

reception of the object itself. The interface includes both the physical apparatus by which the player accesses the game—controllers, joysticks, keyboards and mice—and the varying configurations of that apparatus. Just as the game depends heavily on the interface, the interface also depends on attributes of the game. For instance, third-person trailing point-of-view (POV) games are played more frequently on consoles because controllers are widely thought to be more appropriate than keyboards for use with action-oriented games. In-depth strategy games, however, are more often published as desktop computer games. There are several reasons for this difference. In-depth role-playing games (RPGs), like *Planescape: Torment* and the *Might & Magic* series, and strategy games, like *Disciples II* and *Lords of the Realm II*, are easier to play with more key functionality. Even given the current generation of console controllers (having more buttons than ever before), games which require multiple menus, commands, and characters or squads to be controlled simultaneously are easier to play and design if one or two keys can be devoted to each command (See **Figure 1-1** and **1-2**). This devotion of device space to buttons is impossible on a controller; thus, games like these must have multiple menus which then access additional menus. Because the commands are used frequently, games using a controller often require the player to spend a great deal of time searching through menus. The keyboard and mouse of the desktop game simplify play for the player, with a menu or a command being accessible through the use of a single key. The primary game interfaces are: a keyboard and mouse, the joystick (primarily used with computer games), and the controller (also known as the controlpad).

The optical perspective from which the game is played, as it is represented in the involvement with interface, is also pivotal to the creation of the game space. Perspective



Figure 1-1: The Sony PlayStation 2 (PS2) Controller.

In addition to the standard controller layout with the directional pads on the left and buttons on the right, supplemental buttons may be at the tops, sides, and bottoms of the pads. On the PS2 controller, 2 buttons are atop the left and right side of the controller, which are labeled R1, R2, L1, and L2 to denote top right, bottom right, top left, and bottom left. The PS2 has rumble functionality—where the controller vibrates with certain games.



Figure 1-2: The Sega Dreamcast Controller.

While the Dreamcast controller is conceptually like the PS2 controller, the Dreamcast controller is different in that it has two (one left and one right) underside buttons. Unlike the PS2 controller, the Dreamcast needs an additional component to vibrate. For the Dreamcast controller, the memory card (with the Dreamcast, called a memory unit) slides in from the top into the slot area shown here underneath the Dreamcast name and symbol. Here, the virtual memory unit is shown—the virtual memory unit displays additional information during game play, such as maps or the health status, and for ease in checking memory information.

for video game play defines the point-of-view by which the player interacts with the overall game space and the internal game environment. The most used point-of-view perspectives for gameplay are: first-person (**Figure 1-3, 1-10, and 1-11**), third-person (**Figure 1-4, 1-6, 1-7, 1-8, and 1-9**), third-person trailing (**Figure 1-9**), overhead or top-down (generally called a god view) (**Figure 1-5**), and three-fourths isometric (**Figure 1-6**).⁶ These views support different experiences of immersion for video game play and different understandings of the game space. Most games blend these perspectives; many switch perspective solely for cinematic sequences, but many others switch perspective throughout based on the game play sequence. In many games, the player can also change the perspective point-of-view and zoom in or rotate the camera angles.

Generally, changes in perspective occur during cinematic sequences, or because some aspect of gameplay could not otherwise be conveyed. For example, *The Last Express* switches from first- to third-person for all fight scenes because the fight scenes would be too awkward to convey with the immobile straight-ahead vision of this first-person point-of-view (See **Figure 1-3 and 1-4**) or with *Resident Evil* where the view shifts to first-person for reading documents which would be illegible without being enlarged through first-person point-of-view.

Perspective shapes the player's perception of the game space because it tacitly encodes the vantage point from which the player acts on and engages with objects and actors in the game world. With this, perspective can shape a game space in a way that is disjointed, with the player being able to act on the game, but having no actual place

⁶ Third-person trailing views differ from other third-person views in that the perspective trails, or follows, behind the character, constantly changing the view to follow the character's change in positioning.



Figure 1-3: *The Last Express* first-person.

This scene is shown through the first-person of the main player-character, Robert Cath. *The Last Express* does use the same sort of minimalist control panel information present in **Figures 1-7** (*Metroid*), **1-10** (*Doom*), **1-6** (*Arcanum*), and **1-9** (*Alice*). But *The Last Express* presents the information outside of the traditional game space by placing the information on the black border and having the game take place inside of the window created within this border. In this way, the objects that Cath possesses can be shown without having to represent Cath visually, which requires a high processing load, and without having to contrive some other way to represent the objects that Cath holds. Some games do require the player-character to open a briefcase or jacket and then scroll through the different items—an interface which requires more processing power and more tedium for the player. (Image from: Smoking Car Productions. *The Last Express*. Novato, CA: Brøderbund, 1997.)

within the game world and game space. Games like this include the god views of puzzle games like chess, checkers, *Tetris*, simulation/strategy games like *SIMCITY*, and strategy games like *Disciples II* and *Black and White*. Gameplay in these games is based on the concept that the player is a force that acts upon the world of the game, rather than a force within the game that then acts on the objects and actors of the game from within. The god view is a distancing, abstracting point of view—the logical end of the “cone of vision” paradigm of linear perspective where the end of the cone is outside of the field of the



Figure 1-4: *The Last Express* third-person.

The vast majority of *The Last Express* is played from a first-person perspective, but the fight scenes are in third-person because of the need for spatial reference.

(Image from: Smoking Car Productions. *The Last Express*. Novato, CA: Brøderbund, 1997.)

game space: the view looks onto the game space, but is not present within it. Acting outside of the game world also occurs in party system games (like the *Final Fantasy* and *Might and Magic* games), where the player controls several characters at once (the 'party'). These games do not allow the player to manipulate objects from a point of contact within the game space because the player must act as an outsider controlling a group of characters.

Playing as the controlling force of a group is not the same as playing within the game space: in party system games, the player plays as a controlling external force which acts on the party, and the party then acts within the game. In party system games and simulation games, the player plays as a god, general, or director figure, that is a force outside of the game that directs the actions of the game. Opposingly, in a game like

Dynasty Warriors 3, where the player acts as a general-character in the game world (with troops which follow the particular general), the player-character occupies the position of



Figure 1-5: Overhead pull-out third-person (god view) in *SIMCITY 3000 Unlimited*.

Many strategy video games, drawing on earlier ludic strategy models like chess and GO, have the player operate as an all-seeing force on the world; hence the term 'god's-eye view.' The *SIMCITY* strategy design illustrates the god's-eye view by allowing the player to see everything that exists in the game world at any given time. (Image from: Maxis (EA). *SIMCITY 3000 Unlimited*. Redwood City, CA: Maxis (EA), 2000.)

the general within the game. In a game like this, the troops following the player-character are effectively an aspect of the general's character; the player cannot control the troops voluntarily so the player does have a unified and singular position within the game as the general and as only the general. In this way, single player-character games allow the player to play within the game space through the position of the player-character.

Controlling multiple player-characters as undifferentiated groups, the player functions as a force that acts on the game – the game as a system of structured rules and potentialities: instead of within the game space – the game space as a constructed representational space. One such game where the player functions as an external force is *Final Fantasy VIII*, in which the player always plays through a group of characters (including members

like Squall, Rinoa, and Selphie). As the game progresses, the player changes the members in the group. The player never directly identifies with any one character, because the characters only function as members of a unified group. With the player this removed and external from the game world and from unique or individual identification with any one character, she has no identifiable position within the game space or within the game narrative. For a player to play within the game space, she must have a clearly identified or demarcated position within that game space.



Figure 1-6: Three-fourths isometric with *Arcanum: Of Steamworks and Magick Obscura*.

The three-fourths isometric view puts the player-character(s) as part of the overall world structure and, by having a more simplified visual representation of the player-character and the game world, allows for more information to be present on the screen at any given point. Many of the three-fourths isometric view games are party-system games, as are many first-person games where the player ‘sees’ for the entire character-group through the ‘eyes’ of the screen. (Image from: Troika Games. *Arcanum: Of Steamworks and Magick Obscura*. Bellevue, WA: Sierra Studios, 2001.)

Optical perspective in game play directly addresses the question of which modality is better suited to, capable of more nuances in, the presentation of the concrete situation of the character’s body in the spatial domain of the game play; essentially,

perspective defines the ways in which the player may become a force *within* the game space. Most of the popular and critical writing on video games concludes that the first-person point-of-view is logically the most effective way the player can truly act on the elements of the gaming world.⁷ In *Trigger Happy*, Steven Poole completes this idea with its counterpoint, that the third-person point-of-view must not allow the player to act in the game world, when he observes that third-person point-of-view “is a perspectival construction in which the player can see the character under control, and the representational viewpoint is a completely disembodied one” (133). Poole is arguing that the viewpoint is disembodied because it shows the character’s body, rather than a representation of what the player sees (as with first-person games). Poole continues in this vein, observing that the point-of-view is disembodied because “it corresponds to no actual pair of eyes in the gameworld” (133).

The mistake that Poole makes here is in linking the representation of ocular vision to embodiment, as when he later observes of *Tomb Raider* that third-person point-of-view “enables the player to navigate far more easily and intuitively around the playing areas, because she can see immediately how close Lara is to a side wall, or just how far away that nasty spiked ditch is, in order to navigate its edge safely” (134). Poole thus equates mere optical accuracy or verisimilitude with the visual presentation of embodiment in the game space.

The critical favor given to first-person games appears to be based largely on the confidence that video games operate on a continuum of realism predicated on the player

⁷ See, for example, Steven Poole, *Trigger Happy: Videogames and the Entertainment Revolution*, (New York: Arcade Publishing, 2000); and Janet Murray, *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*, (Cambridge, MA: MIT Press, 1997).

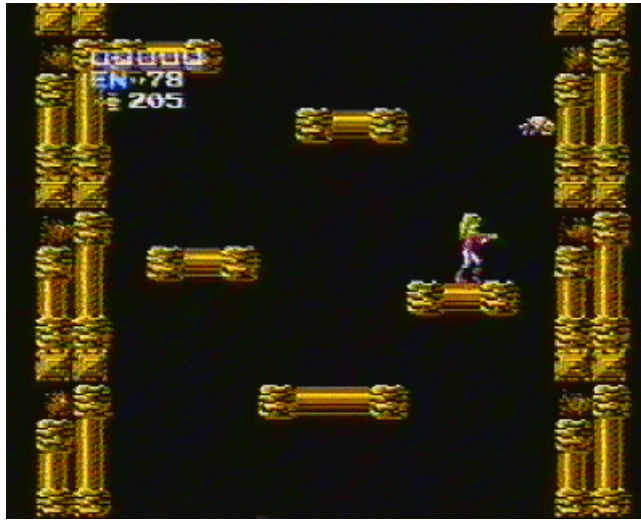


Figure 1-7: Third-person with *Metroid*.

This is a scene from *Metroid*, a retraceable side-scrolling game. The view in this game form, with other games like *Super Mario Brothers* and *Castlevania: Symphony of the Night*, centers the screen around the character. This view originated from technical limitations of the gaming environment, but this was essentially the precursor to later third-person point-of-view games like *Resident Evil –Code: Veronica-*, which is shown in **Figure 1-8**. (Image from: Nintendo. *Metroid*. Publisher: Redmond, WA: Nintendo, 1987.)

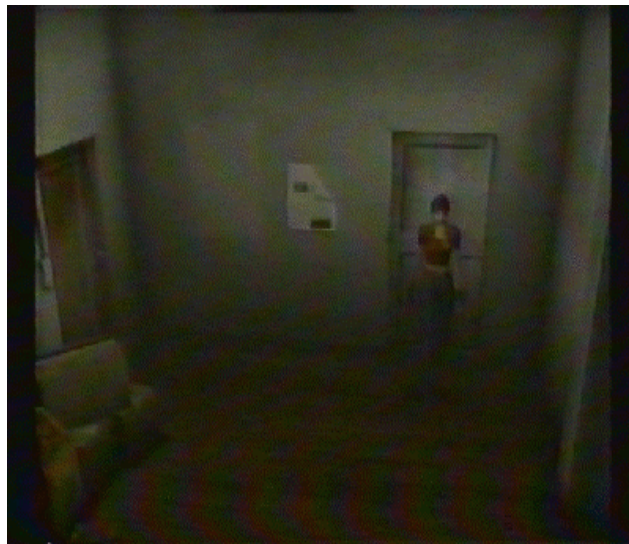


Figure 1-8: Third-person with *Resident Evil –Code: Veronica-*.

The camera in *RE-C:V-* is fixed for game play; meaning that the camera is stationary in each room, but is able to pan and rotate from its fixed position. Both *Metroid* (Figure 1-7) and *RE-C:V-* are third-person point-of-view games, but in very different ways. (Image from: Capcom. *Resident Evil – Code: Veronica –*. Sunnyvale, CA: Capcom, 2000.)

acting within the game as an extension of him or herself. This argument implies the equation of the ‘real’ player to the player-character and is the concept of an *ideal-player-character*, who is actually the player. As the ideal-player-character, the player can bring his or her ‘realism’ into the game space, thus making the game more ‘real’ through this infusion of reality. This argument fails to interrogate the significance of third-person point-of-view in their game worlds and the differences between *acting on* the game space and *acting within* the game space, because it assumes that the screen is transparent and the player can effectively merge with the game space.

Immersion and Consistency

The degree to which the player feels integrated with the game space is a measure of her or his sense of “immersion.” “Immersion” is another much-contested term in videogaming discourse. For my purposes, I will define it here as *diegetic immersion*, where the player is immersed in the act of playing the video game, and as *intra-diegetic* or *situated immersion*, where the player is immersed in playing the game and in the experience of the game space as a spatial and narrated space. Immersion is often taken to be a singular event where the player becomes engrossed in a video game just as a reader would become engrossed in a novel, or a viewer in a film. This immersion is diegetic immersion—the reader, watcher, player becomes lost in the text and becomes unaware of the creation and relation of the elements within the text. Video games also allow intra-diegetic immersion, which allows the player to become deeply involved in the game as an experiential space. In a video game, the attributes of the game do create the illusion that the player is indeed within the space of the diegesis, whereas this is a primarily figural notion—a conceit of narrative convention—in other modes of representation like film.

Yet, many popular and more critical works treat the player's insertion into the space as following from the proper visual presentation instead of a complex and varied playing experience.

Diegetic immersion and intra-diegetic immersion are both subsets of the possibilities for which a player may experience a game space; they are not exclusive forms, but exist on something like an xy axis with some games offering differing blends and others favoring diegetic forms more exclusively. Diegetic immersion is based on the user's ability to become absorbed into the text by forgetting that which is exterior to the text. This experience of immersion is a consequence of inattention to the spatial field, not because the spatial field is a given, natural domain of experience (and therefore simply "fades into the background,") but because the player's attention is simply turned elsewhere. With the attention turned elsewhere, the player is able to partially forget his or her independent existence and fade into the work as a nondiscernable and nondifferentiated aspect of the work. Once the player turns her attention to the experience of space, the player becomes aware, not of immersion, but of the body's insertion into, and, at some level, disjunction from, the space that surrounds it. Thus, there are two levels of immersion possible in video games: one where the player becomes absorbed into the experience of playing the game (diegetic immersion), and another where the player's focus is not merely on the playing of the game, but also on the experience of the game space through the player-character within that space; wherein the character's involvement with the space becomes the player's involvement with the space (intra-diegetic or situated immersion). When the player is immersed intra-diegetically in the space of the game the player is not acting *upon* the game, but *within* the game space.

In order for intra-diegetic immersion to occur, the player must first be diegetically immersed in the game. Diegetic immersion requires that the game have a consistent world, so that the player is not forced from immersion by inconsistencies of the game space, and that the interface issues are overcome or naturalized. Consistency in the game world does not mean consistency or verisimilitude with the extra-gaming world (that is, the perceptual manifold of the world outside of the game), but the consistency of the constructed game space within the confines of the game space.⁸ The game space is constructed with many elements working together: different game engines, programming code, interface, visual/aesthetic choices, and the game world boundaries set forth in the game narrative and game theme.⁹

Note also that a consistent game space need not be optically-visually presented, and need not resemble the spatial conventions of “actual” space, if its differences from the conventions of actual space serve the play of the game. In this regard, text-based adventure games (**Figure 1-9**) may be said to figure consistent spatial schemes, with an absolute minimum of detail. For spatial consistency to be felt throughout the game space, the player must first be able to overcome the problem of the game interface in order to interact with the space without having to constantly take notice of and account for the method of interaction. The interface includes the physical apparatus by which the player’s actions are allowed into the game space (a controller or a keyboard and mouse),

⁸ Inconsistencies in the game space can also occur from programming or system limitations or errors—slowdown (when there are too many variables for the game’s hardware and software to process at once and the game literally slows and hangs in the middle of play) is intrusive and immediately reveals the constructedness of the game space.

⁹ A game engine is the core of the game in that it generates effects (including, but not limited to: rendering, cinematics, the particle system, and physics engine of the game) and controls the in-game artificial intelligence. The game engine can define the attributes of the visual space of game, and thus the perspectival logic of the game.

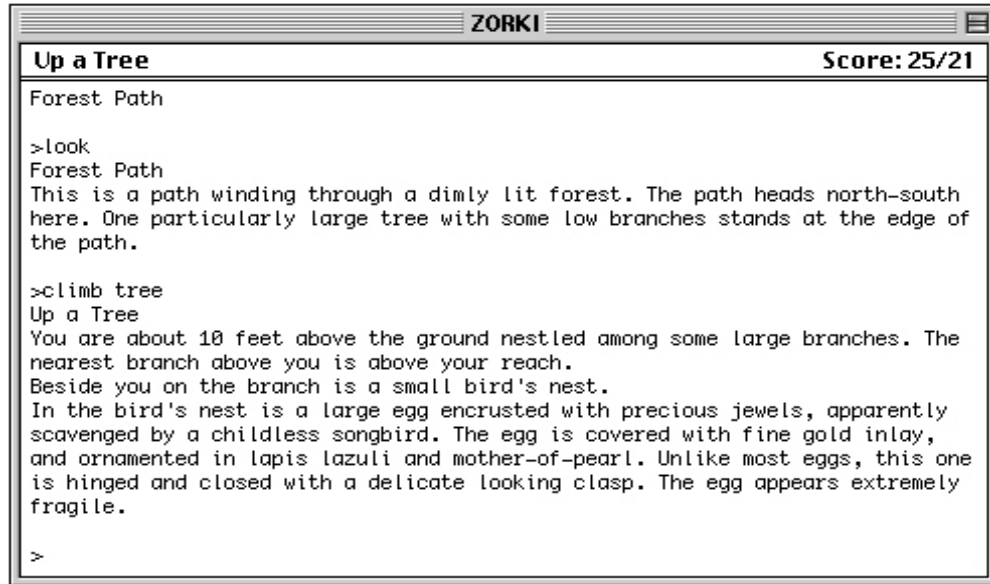


Figure 1-9: Text-based space in *Zork*.

Space is textually represented in text games like *Zork*, but the space is not inconsistent provided that it does follow the rules of the created game space.

(Image from: Infocom, Inc. *Zork I: The Great Underground Empire*. Cambridge, MA: Infocom, Inc., 1981.)

the relationship between the player's actions and the actions in the game space, and the onscreen elements that provide the player with information. The internal game interface itself is a kind of framework or window, within which the game is represented and it surrounds the visual scene of gameplay. This internal interface is comprised of game progress elements, control panels, maps, health meters, weapon status elements (showing the weapon in use and the ammunition remaining,) and the like. The *Doom* control panel (see **Figure 1-11**) and the Item Screen are classics models of this (See the left side screen area for *The Last Express* in **Figure 1-3**). The interface also includes the player learning the experiential space of video games to see video games as having more than just represented space—space must exist as representational and lived so that the game narrative and character exist within a space. Game spaces can also be more or less

consistent based on the cultural assumptions of the game space and the game narrative, with games that are ported (transferred) over from one culture to another showing very specific biases that may not be recognized in the culture in which they originated.¹⁰ *Fatal Frame*, a game made in Japan and released in Japan and the United States, features a female player-character named Miku Hinasaki. In the Japanese version, she is an elementary school girl in search of her missing older brother and is dressed in a traditional elementary school uniform. The game's publishing company, believing that players in the United States would not understand the uniform and would have trouble with such a young player-character, changed the U.S. release version of Miku Hinasaki so as to be significantly older (in her late teens) and dressed her in a blouse, mini-skirt, and knee-high boots. Similar changes are commonly made in the translation of games from Japan to the United States because Japan's legal and cultural regulations differ from those in the United States.

Because video games are created from many elements, game spaces are highly varied and what constitutes diegetic consistency for one game may be inconsistent for another. For instance, *Diablo I* and *II* both have randomly generated game levels for more equal competition in online multiplayer games, but the level randomization and regenerating enemies are inconsistent with the overall game structure when one plays the game as a single-player. Both *Diablo I* and *II* are three-fourths isometric view games. Their levels randomize when a player leaves and returns to an area. Essentially, the levels all have certain attributes: the kind of enemies, certain special items, and passages to certain other areas. These attributes are created and the player can play through that

¹⁰ The vast majority of video games are made by the United States and Japan, so the cultural differences are heavily influenced by the video game market and cultures of these two nations.

portion of the map, but when the player returns to the area, the level maps will have changed. The attributes remain the same (provided the player does not change the game difficulty setting,) but the placement of the attributes on the level map changes just as the level map itself changes. This randomization is inconsistent because the game narrative and theme presuppose the areas as constant and unchanging, which directly contradicts the game play when the levels change.

American McGee's Alice does not have randomly generated levels or levels that alter with gameplay. Rather, the game narrative and theme of Wonderland, fused with the player-character Alice's madness, could situate level alterations within an overall consistent game space. Game spaces that are perceived from the standpoint of



Figure 1-10: Third-person trailing view with *American McGee's Alice*.

Alice is a third-person trailing perspective game. With a third-person trailing perspective, if the perspective is not manipulated by the player or because of the environment, the perspective remains slightly behind and above the player-character. Here, Alice is backed into a walled corner so the perspective has automatically altered to be higher and closer than in normal gameplay to avoid showing awkward perspectives, such as showing only the wall and not the game space. *Alice* is based on the conceit that Alice is mentally ill and has been institutionalized and that to regain her sanity and freedom, she must fight through the treacherous evils of her own mind. (Image from: Rogue Entertainment. *American McGee's Alice*. Redwood City, CA: EA, 2000.)

mentally disturbed characters and game worlds in which magic plays a significant role can undergo significant changes in the spaces, but these changes must still remain consistent with the overall game space and they must be narrativized by the game space.

Experiential Space

French philosopher Henri Lefebvre's definition of represented and representational space is useful in this context. Lefebvre divides space into three categories: spatial practice, which is the material perceived geometric space; represented space, which is the conceived mental re-presentations of space; and representational space, which is the combination of both spatial practice and represented space and is space that is experientially lived.¹¹ Video games are generally viewed to be represented and not representational space because the experiential aspect of video games has been ignored or forgotten.¹² Essentially, for video game space to become representational, the conventions of video game space and of the interface must become naturalized. As print interfaces and conventions must be learned—a point often ignored by critics because the interfaces and conventions have become so seemingly standard and natural—so must video game interfaces and conventions be learned for the player to play in the game space.

¹¹ For a discussion of Lefebvre's definitions of spatiality and for a discussion of how these terms can be applied to a spatial analysis of cityscapes, see Edward Soja, *Thirdspace* (Malden, MA: Blackwell Publishing, 1997).

¹² See Espen Aarseth, "Allegories of Space: The Question of Spatiality in Computer Games," in *CyberText Yearbook 2000*, eds. Markku Eskelinen and Raine Koskimaa (Jyväskylä, Finland: Research Centre for Contemporary Culture, 2001), 152-71. Aarseth concludes that video games lack a social and cultural level which keeps video games from the possibility of representational space.

Unlike the spaces of film, paintings, and photography, videogame spaces are spaces that are both observed and engaged directly; they are thus experiential spaces.¹³ The experience of any space in video games varies depending on the player's presuppositions regarding the forms and limits of game space, the importance and use of a particular space to the game narrative, and the player's vantage point in the space. Once the player learns the conventions of both the geometric and experiential aspects of video game space, the player can then begin to both play and dwell within these spaces. Because these spaces are experiential, varying and heterogeneous phenomenological spaces may be encountered within a single geometrical space, stemming both from the multiplicity of spatial purposes figured within the games and the differing narrative and gameplay contexts in which the experience of these spaces are situated.

Recent technical improvements have enabled game designers to portray a more geometrically accurate space, but, as much of 20th century phenomenology of vision has demonstrated, geometrically accurate space is not equivalent to lived, representational space. A phenomenological awareness of the space must exist in order for the space to constitute a lived, representational space. This awareness of space is constructed from the combination of the geometric construction of space, the narrative of the game space, and the character through which the player interacts within the space. In order to create a story, one must take on or take part in the role of a character, whether it be acting as that character oneself, or playing as a character viewed only within that world. Once there is a

¹³ In this regard, Espen Aarseth has termed video games 'ergodic' texts to describe how video games require the player to work through the text and that this working through is an important part of the text itself. See Espen Aarseth, "Aporia and Epiphany in *Doom* and *The Speaking Clock*: The Temporality of Ergodic Art," in *Cyberspace Textuality: Computer Technology and Literary Theory*, ed. Marie-Laure Ryan (Bloomington, IN: Indiana UP, 1999), 31-41.

sense of character, then there is some involvement with the space of the game world. Then whatever occurs can create mood, evoke emotional response, and construct a story around the actions or inactions of that character.

In addition to the cognitive grasp of the nature of the medium and its spatial construction and of the specific traits of the work, players must overcome the actual cognitive engagement of the physical interface to become immersed in the game world. The physical interface, generally the controller or the keyboard and mouse, requires frequent input from the player and the input required can disrupt the player's involvement with the game space. Douglas and Haragadon's "The Pleasure of Immersion and Engagement: Schemas, Scripts, and the Fifth Business," a study of immersion and engagement, shows that texts which require the user to respond require a greater cognitive load make the user more aware of the distance between her or himself and the text.¹⁴ However, a common but inaccurate view has been that video games, as interactive media, necessarily require the player to consciously act while playing because of the high level of manual input required. In *A User's Guide to the Brain*, John Ratey cites a number of studies of explicit memory (conscious recollection) and implicit memory (where no conscious recollection is needed,) which show that physical acts do initially require cognitive work. These studies also show that, as the physical acts become learned, they no longer require the cognitive load, like tying one's shoes or riding a bike—at first it takes conscious thought, but then it becomes learned. After the learning period, these complex actions become motor memory, requiring little cognitive processing and no

¹⁴ J. Yellowlees Douglas and Andrew Hargadon, "The Pleasures of Immersion and Engagement: Schemas, Scripts, and the Fifth Business," *Digital Creativity* 12.3 (2001): 153-166.

conscious thought is required for the actions to be completed.¹⁵ Video game control operations are cognitively appropriated in the same manner. They first require a prefrontal cortex cognitive load, and then are learned and the tasks are relegated to the brainstem where the operation of the controls requires no conscious effort. New game interface configurations are an adaptation of the already existing muscle memory and so should take less time for players to learn than having to learn the initial game interface.¹⁶

Context

The evidence of the role of cognitive load and muscle memory in gameplay raises an additional question: how the player learns to relate the movements dictated by the control interface to the actions on the screen. Much of the work on this area comes from the field of computer interface design, which aims at the ideal of direct manipulation. Direct manipulation refers to the concept of the user acting through the supposedly invisible and transparent screen to directly manipulate the items on the screen, which directly correspond to the system applications. For instance, the idea that the user moves a file by moving a file icon: the user does not directly ‘move’ the file (which exists only as a visual representation of intangible electronic data,) but the operating system interprets the user’s commands (which the user dictates through the interface of the mouse and keyboard) and the operating system then responds.¹⁷

¹⁵ See pages 20-1 on Merzenick’s work with monkeys in John J. Ratey, M. D, *A User’s Guide to the Brain*, (New York: Pantheon Books, 2001).

¹⁶ On the conventions of interface design – even though games are notoriously idiomatic in their applications of interface principles, certain trends emerge – and players who are familiar with one idiom of play are able to quickly adapt to another.

¹⁷ See Edwin L. Hutchins, James D. Hollan, and Donald A. Norman, “Direct Manipulation Interfaces,” *User Centered System Design: New Perspectives on Human–Computer Interaction*, eds. Donald A. Norman and Stephen W. Draper (Hillsdale, NJ: Lawrence Erlbaum, 1986), 87–124; and Sun Microsystems, *Starfire: A Vision of Future Computing*, (Sun Microsystems, El Dorado Hills, 1995).

The design goals of direct manipulation also play a large part in the design of video games, where what the player *does* is supposedly what *happens*. Many video games and computer interfaces rely on the idea that the user acts as the user-her or himself through the screen; thus the ideal-user, who like the ideal-player-character, acts through the screen (and with no complicating factors introduced by the passage through the screen) instead of acting within the screen. The idea of a computer or video game space as a space that the user acts *on* instead of *within* makes the space at most representational and not lived because the user is fundamentally separate from the space that he or she is acting on. The two are separated not just in the sense of being inconsistent in their spatial construction, but also in that they are also physically separated by the screen which divides one spatial modality from the other. The difference between acting on the world (ideal-user or ideal-player-character) and acting within the world is based on context within the world. Context within the space accounts for the consistent spatial construction because actions within the space are coming from within the space instead of coming from some nebulous external space.

For the player to have a context within the overall game space, two conditions must be met. One is narrative context, which affords the player a context within some sort of cultural and social spatial construction. Without some sort of narrative context, the world space is hollow, but the narrative context can be simple so that the player, by playing, helps create the narrative context. An example of basic narrative context is the plot line for *Super Mario Brothers (SMB)*, which places the player as the hero figure of either Mario or Luigi with the goal to save the land, its people, and Princess Toadstool by defeating Bowser. Given even the simplicity of the *SMB* game narrative, it allows for the

possibility of a narrativized space; a production of space which exceeds its geometric dimensions. Game spaces like *Tetris*, chess, and checkers do not have this simple narrative form and they also do not have characters through that the player can work with the game to create a narrative that is not already present. Multi-user dungeons (MUDS)¹⁸ do not begin with a predetermined narrative that each new character must fit into, but MUDS allow the player to create a player-character or to play as the player. In this regard, MUDS are more open-ended and do allow for the possibility of narrative as the character plays within the space and MUDS also allow for the possibility of no game and no narrative outside the social connections of people through the created environment in much the same way that chat rooms function.¹⁹ For narrative to be produced there must be the possibility of character; thus, text-based games can allow for character within game space because text-based games allow for narrative and consistent spatial construction. The character's place is not propped up by the audio and visual code, but the place is created within the game physics and game rules. Player identification with the character may not be as easy as with visual video games because of the cultural significance placed on the visual, but the possibility still exists.²⁰

Fighting games like *Street Fighter EX Plus Alpha* have characters and backstories and the games can be played in a particular series for a particular character, but the

¹⁸ MUDS began as text-based games and at first were played mainly in textually created dungeon areas. They are now graphically displayed and their current equivalent is with games like *Everquest* and *Asheron's Call*.

¹⁹ For an in-depth discussion of MUDS, see Sherry Turkle, *The Second Self: Computers and the Human Spirit*, (New York: Simon & Schuster, 1984); and, *Life on the Screen: Identity in the Age of the Internet*, (New York: Simon & Schuster, 1997).

²⁰ For more on the cultural emphasis on the visual, see Frederic Jameson, *Postmodernism, or, the Cultural Logic of Late Capitalism*, (Durham, NC: Duke UP, 1991); and Marshall McLuhan, *The Gutenberg Galaxy: The Making of Typographic Man*, (Toronto: University of Toronto Press, 1972).

stories do not influence the actual game play except in determining the order in which the opponents are fought. Because the game does have a narrative component (though the narrative is largely unimportant to game play) the player is the determining factor in whether or not the player is playing as a character or playing as a variable set of moves. When there is a distinct character of any sort in a game, provided the character has a place within the game world, narrative context is discernable because the narrative context can stream from the character's existence within the world. However, the way the player plays must be held as an indivisible part of the equation because the player determines whether or not he or she is playing as a character. Thus, the possibility of both a character and a narrative is required, but this requirement is very low and the player completes the equation by playing as a character or just playing.

The second condition for context within the game space is a sense of presence in that space. Presence in a game space means that the player must have some embodied presence, a sense of 'being' in the game space (created through sensory perception of the audio and visual positioning that the game displays). In current video games, the player-character must be visually represented within the game space in order that embodiment is successfully signified—meaning in effect that the game perspective must be at least episodically third-person. Role-playing games (RPGs) are often held to have the most detailed story lines because RPGs often create complex game worlds with many non-player characters (NPCs) and player-characters (PCs) and because RPGs often have party systems where the player functions through a group of characters.²¹ But no amount of narrative context can create a spatial bodied context. For embodiment to occur a player

²¹ NPCs are the non-player characters that populate the game world. They are often merchants and training assistants. In *Diablo II* the townspeople who give quests, sell items, and offer healing are all NPCs.

must play as a singular entity because embodiment for humans will always be experienced as a singular phenomenon. Human embodiment is embodiment through one position in space, but this one position is also through a complete body with all the nuances of that body. Even with the fragmentary nature of a singular human body, human embodiment is singular in that it cannot cross the divide between two separately embodied creatures. Even though the body is often perceived through only parts of the body, these parts are viewed within the context of the body as a singular entity comprised of parts.

Thus, a video game with simultaneous multiple bodily representations does not allow for embodied context because it fragments the body not into parts of the body, but into multiple bodies. Yet, if the context is narrativized in such a way that the multiple embodiments become singular, then the multiple embodiments can function adequately for embodiment. For instance, if a player plays as one character and then another while switching back over very distinctly separate time frames or if the character is leading another character in ways which the player-character cannot control or can only control in narrativized ways, then the player is not fragmented and the possibility for embodiment exists. In the *Resident Evil* games the player plays as one character and then another over separated parts of the game—the player never simultaneously controls more than one character. In *ICO*, the player plays as the boy player-character who must lead around a blind princess—as long as the player-character holds her hand, she follows. But, once the player-character lets go, then she can wander off. The blind princess never responds to commands of the player; she only responds to the player-character's actions towards her. Having a god-view and playing in a party system game automatically

eliminate the possibility for game world embodiment because they fracture the player into multiple bodies or into the space surrounding the bodies and thus do not place the player in a bodied representation at all.

The player's understanding of context in first-person point-of-view games commonly is based on the idea that the player plays as the player-character by seeing through the player-character's eyes, which seems to many in the game design field as more intuitive and natural because the player appears to act and perceive the gaming space in the way that the characters act and perceive the game. But, this ignores the fact that the player has no context within the game space (that is, intra-diegetically) because the player has a very limited access to the representation of positionality and spatial relations within the game space. Just as the player cannot be within the game space for god-view and party system or squad based games (because the player has no place or presence *within* the world, but is rather a force *on* the world,) the player cannot enter the game through the screen. The player cannot enter into the game space to function from within the game space through the supposedly transparent medium of the screen, because the player has no context within the world and because the spatial construction of the player and the game space are incompatible regardless of refinements of graphic presentation of the game space. All strictly fighting games, like the *Street Fighter*, *Tekken*, *DOA*, and *Bushido Blade* games, are in third-person point-of-view because fighters require a bodied presence for dynamic control and for recognition of context or placement within the space itself and in relation to the other character. Fighters make a singularly pertinent example of this restriction because, to execute the combinatorial

movements of block, hit, crouch, or jump accurately, it is necessary to see the character and to see the character in context with the other elements.



Figure 1-11: First-person with *Doom*.

Doom is a first-person shooter (FPS). The display at the bottom of the screen shows the items that the character has, the character's health, and other basic game information. At the bottom center of the screen is a gun; this part of the display changes based on the weapon which is equipped and is intended to give the player a sense of being in the world by connecting the player to the gun that represents the player's movement on the screen.

(Image from: id Software. *Doom*. Mesquite, TX: id Software, 1993.)

The Third-Person Point-of-View Paradox

First-person point-of-view seems to promise the "best" sense of and engagement with the space because optical perspective is closer to that of "normal" optical subjectivity than other perspectives. But, closeness to "normal" optical subjectivity need not be given priority in the game space where consistency reigns, and verisimilitude with the extra-gaming world has no bearing in the creation or the implementation of a consistent space in a video game. On the other hand, third-person point-of-view graphically represents a physical presence through an embodied character in the world. First-person games sometimes have a pseudo-bodily representation in the game by

having a hand or hand-held object at the center of the screen. The hand or hand-held object on the screen is not analogous to the character's position within the game space: the hand is a visual aid as to what item the hand is holding, a targeting help, or is merely there; none of these representations show a bodily representation within the game space.²²

Third-person point-of-view games do present an embodied representation within the context of the game space. While Stephen Poole contends that this view is disembodied because the player 'sees' the game space in a different way than the player would 'see' a nongame space, the perception of the space is, ironically, richer because the player is allowed a sense of the space. In third-person point-of-view games, the player is given an embodied representation in the space with all that an embodied representation entails, including the physical relationship of the character to the space and objects around the character and a contextualized presence in the game space so that the player can experience the space through the player-character as other than simply a geometric construction. Ironically, then, third-person point-of-view affords the player an experience of embodied space that is more complex and closer to the corresponding encounter with the extra-gaming world than does first-person point-of-view.

Part of the trouble with the first-person point-of-view is that it isolates one dimension of spatial experience—in its most abstracted and subjectively impoverished form. Proponents of first-person point-of-view, like Richard Rouse claim that, because this is how humans all see the world through their eyes, it is the most "natural" method

²² The lack of correlation between the gun or hand and the character's position in first-person games is often noted by new players as a part of the overall confusion in trying to determine what the player-character's position is in the space, where the character is, and how the character moves. For an example, see **Figure 1-11** *Doom*.

for figuring the “first-person” experience of the world.²³ An exclusively first-person point-of-view impoverishes spatial presentation in the game and removes the possibility of the player playing within the game space, which removes the possibility for the player to internally experience the game space. The presumptive “consistency” of visual representation of the first-person point-of-view neglects the heterogeneity and complexity of visual representation and perception in the actual world.

The third-person point-of-view augments the limited information of the first-person point-of-view, and suggests another aspect of this problem: embodiment is not merely seeing more (i.e., peripherally), but seeing within a context, whose meaning extends well beyond the optical registers privileged by most games. Third-person games allow for the representation of other-than-visual perception, like often being able to sense entities behind and beside one’s body and being able to see straight ahead, to the periphery, and down all at the same instance. Perception often includes the ability to sense when another presence moves right behind or next to a person. In first-person games, this is lost. In a first-person game, another character can move directly behind the player-character without the player character being given any warning or sense of the other’s presence. In a third-person game, the player would be able to see the other character and would be aware of the other’s presence and the relationship to the player-character’s position. The third-person game would thus be substituting, in this richer visual presentation, for other perceptual abilities like the tactile abilities to feel the shift in pressure on a floor, the shift in air currents, the change in temperature from the proximity to another body, or the possible odor of another with the point-of-view.

²³ See Richard Rouse III, “What’s Your Perspective?” *Computer Graphics* 33.3 (1999):9-12.

This may at first seem more counter-intuitive because it transfers other senses of spatial situation into the visual register. But, video games have been founded on the premise of representing all spaces and possibilities through the strictly visual and audible elements of play, with a heavy emphasis on the visual elements. Even now, when game designers are developing more complex and refined soundtracks and are able to utilize rumble packs and other ways in which the controllers may vibrate, the focus remains on polygon count and frame rates because video games are focused on the visual registers of representation.²⁴

Even possessed of an embodied character, a consistent gameworld, and a familiar interface, the player can still refuse immersion in both senses: the player is a part of the game space experience. Thus, all criteria for immersion within the game space can be met, and the player can still ignore them while playing with another aim (for instance playing only for improved statistics with power-ups and points). Because space is constructed partially by those experiencing the space, a player may for some reason not experience the space as other players do. The player in many instances determines his or her own experience of the game space.

While more cultural-theoretical work is being done on video games, that work must base itself on the experience of playing video games, accepting that video games are an experiential medium and that to remove the experiential aspect of video game play reduces video games to something that they are not. Many critics site video games as narratives, but many also reduce video games to their narrative aspects because they do

²⁴ Recently video games have begun using well-known musicians and composers in the development of sound effects and soundtracks. For instance, the music for *American McGee's Alice* was composed by former Nine Inch Nails member Chris Vrenna and the music for *Quake* was composed by Nine Inch Nails lead Trent Reznor.

not actually play video games despite the pivotal importance of that play.²⁵ Also important to remember is that optical perspective and the possibilities it creates for immersion within the game space do not dictate any sort of qualitative judgment of a game or game space. As one game designer states in an argument oddly for the supposedly fuller experience with first-person point-of-view:

It's important to realize that the shift from first to third-person in any computer game represents not just a switch in what the player is allowed to view of the world, but also a transformation in the type of game being played. Certain game designs will cease to function when viewed from any viewpoint other than the one they were designed to use. (Rouse 12)

Video games vary greatly in terms of their construction and presentation, and video games need to be analyzed on all levels so that a critical vocabulary and critical method can be developed as a starting point for the exploration of video games. Currently, video games have chiefly co-opted theories of space and immersivity from other, generally unlike media, like print and film, or their more popular understanding has entirely lacked theory; or has been based on limited notions of direct manipulation. These methods have done a disservice to the need for a more completed understanding of video games and how they are already experienced in the specific contexts of play.

²⁵ Using a game guide still involves the player in the experiential aspect of video games, but simply watching another play video games does not. For work on actual video game play, with all the frustrations, see the works by Espen Aarseth, J. Yellowlees Douglas, Terry Harpold, and Steven Poole.

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BIOGRAPHICAL SKETCH

Laurie N. Taylor was born in Philadelphia, Pennsylvania, but has lived in Florida since the age of three. Laurie has studied at the University of Florida for the past two years and is continuing at the University of Florida as a Ph.D. student in the Department of English. Laurie is most interested in studying video games and new media, and this thesis attempts to better understand new media and specifically video games in terms of perspective. She currently lives with her partner, James (Pete) C. Taylor, in Gainesville, Florida, and with her brothers, Colin and Eric.