Genre and game studies: Toward a critical approach to video game genres

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This article examines the notion of genre in video games. The main argument is that the market-based categories of genre that have been developed in the context of video games obscure the new medium's crucial defining feature, by dividing them into categories (loosely) organized by their similarities to prior forms of mediation. The article explores the inherent tension between the conception of video games as a unified new media form, and the current fragmented genre-based approach that explicitly or implicitly concatenates video games with prior media forms. This tension reflects the current debate, within the fledgling discipline of Game Studies, between those who advocate narrative as the primary tool for understanding video games, "narratologists," and those that oppose this notion, "ludologists." In reference to this tension, the article argues that video game genres be examined in order to assess what kind of assumptions stem from the uncritical acceptance of genre as a descriptive category. Through a critical examination of the key game genres, this article will demonstrate how the clearly defined genre boundaries collapse to reveal structural similarities between the genres that exist within the current genre system, defined within the context of visual aesthetic or narrative structure. The inability of the current genre descriptions to locate and highlight these particular features suggests that to privilege the categories of the visual and narrative is a failure to understand the medium. The article concludes by suggesting that the tension between "ludology" and "narratology" can be more constructively engaged by conceptualizing video games as operating in the interplay between these two taxonomies of genre.

KEYWORDS: *genre; interactivity; remediation; video game*

In the introduction to "Theoretical frameworks for analyzing turn-based computer strategy games," Nick Caldwell (2004) muses over the notion of creating a "critical vocabulary" for computer games, concluding that

> different genres of game, even different subgenres of game, deployed such diverse *representational* strategies as to make general claims seem untenable. . . . Games might share some basic purpose—to entertain—but each new game that appeared on my screen could well have been in a different medium, or a different language, altogether [Emphasis added]. (P. 42)

I suggest that Caldwell's (2004) discussion marks a crucial problem in the study of video games: that they cannot be regarded as a consistent medium. Certainly, taken as a whole, the field of video games can hardly be considered to have a uniform—or

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consistent—*aesthetic*. Caldwell's statement indicates the crux of the problem: by focusing on the "diverse representational strategies" at the expense of other common features, the specific attribute of the video game medium is overlooked. *Interactivity*—the way in which the game is played, rather than watched—is a nonrepresentational feature common to all video games. By taking a critical approach to the understanding of genres of interactivity, useful observations can be made regarding the medium as a whole.

The claim of this article is that conventional video game genres rely overmuch on games representational characteristics. *Representational* in this case refers to the visual aesthetics of the games. Contra to conventional genres I argue that the nonrepresentational, specifically interactive, characteristics of video games should be deployed by game scholars to create a more nuanced, meaningful, and critical vocabulary for discussing video games; one that can perceive the underlying common characteristics of games that might otherwise be regarded as entirely dissimilar if judged solely on representation.

This focus on interactivity as the dominant defining feature of video games requires careful consideration of that concept. Espen Aarseth (1997) criticizes the notion of interactivity in *Cybertext: Perspectives on Ergodic Literature*, arguing that: "it is a purely ideological term [that is] lacking any analytical substance" (p. 51). In reaction, Aarseth first introduces the concept of the "cybertext" to describe the intricate feedback system that exists in certain types of texts that are characterized by a "mechanical organisation" and an "integrated" reader (1997, p. 1). He then coins the term *ergodic* to describe the role of the human actor in the process of creating the cybertext; specifically, *ergodic* refers to the point that "non-trivial effort is required to allow the reader to traverse the text" (Aarseth, 1997, p. 1). Although Aarseth's formulation is not medium specific, in the context of this article, the notion of "interactivity" refers to the ergodic actions taken in order to play a video game. The concern of this article is to examine critically the various types of "non-trivial" efforts involved in the ergodic "traverse" of video games.

I suggest that the primary problem with conventional video games genres is that rather than being a general description of the style of ergodic interaction that takes place within the game, it is instead loose aesthetic clusters based around video games' aesthetic linkages to prior media forms. Conventional video game genres implicitly follow what Jay David Bolter and Richard Grusin (1999) in *Remediation: Understanding New Media* describe as the "logic of remediation." Remediation being "the formal logic by which new media refashion prior media forms" (1999, p. 273). Bolter and Grusin (1999) describe two strategies of remediation: transparent immediacy and hypermediacy. Transparent immediacy seeks "to get to the real by bravely denying the fact of mediation" (p. 53). Hypermediacy—conversely—draws attention to the act of mediation, "by multiplying mediation to create a feeling of fullness, a satiety of experience, which can be taken as reality" (Bolter & Grusin, 1999, p. 53). By examining video games in the context of ergodic rather than representational genre, the "neatness" of Bolter and Grusin's (1999) notion of remediation as the recycling of representational aesthetics across mediums is challenged, as something more than the visual is

operating, requiring the tracing of genealogical trajectories that looks beyond video games aesthetic borrowing from cinema and television.

The established genres of video games, while being substantially different from literary or filmic genres, still emphasize representation over any notion of interactivity. Bolter and Grusin (1999, p. 81), for example, argue that interactivity is supplementary to representation, that it merely makes the representation more realistic, as an object can be potentially manipulated and acted upon even though it is virtual. Aarseth (2004, p. 52) refutes the configuration of interactivity as secondary to either narrative structure or visual representation in "Genre Trouble: Narrativism and the Art of Simulation." In "Simulation Versus Narrative: Introduction to Ludology," Gonzalo Frasca (2003) delineates two approaches to the study of video games; the narratological; those approaches that rely on narrative paradigms, and the ludological; which rather than seeking to understand games through their narrative or representational strategies, "focus[es] on the understanding of [their] structure and elements—particularly [their] rules—as well as creating typologies and models for explaining the mechanics of the games" (p. 222).

To ludological scholars, the way in which video games differ from prior media forms is that as James Newman (2002) states in "The Myth of the Ergodic Videogame: Some Thoughts on Player-Character Relationships in Videogames": "the pleasures of video game *play* are not principally visual, but rather kinaesthetic" (p. 2). As *kinesthesis* is defined as being the muscular effort that accompanies the motion of the body, I suggest that Newman in this case refers to the interactive effort required to keep the flow of the game in motion, making the concept synonymous with Aarseth's (2004) notion of ergodicity. Furthermore, Newman's (2002) configuration underscores the importance of the ergodic work of the player rather than the mechanical rules of the game as the central determinant of the players' experience.

Although Caldwell (2004) is confounded by the diverse representational strategies of video games, other scholars have approached the question of genre with a will to capture its dynamism and variety. In "Genre and the Video Game," Mark J. P. Wolf (2001, pp. 116-117) sets out to classify video game genres along the lines developed by the Library of Congress Moving Imagery Genre-Form Guide. The 42 categories listed in Wolf's adapted taxonomy of genre are a testament to the diversity of the medium. However, for the sake of brevity, this article will utilize case studies of four of the more popular video game genres: simulation, strategy, action, and role-playing games. Following these case studies, this article will discuss the implications of a shift from representational to ergodic understanding of genre in video games. However, first it is necessary to trace the development of genre as it pertains to video games in both its popular and critical contexts.

Video game genres

In response to the divergent characteristics of video games, useful scholarship has been done in an effort to establish a notion of genre. This helps to put a rough frame-

work on the divergent field. Although Jesper Juul (2001, p. 3) in "Games Telling Stories: A Brief Note on Games and Narratives," is resistant to any notion of genre that questions the established industry categories, Mark J. P. Wolf (2001, p. 113) in "Genre and the Video Game" argues in favor of Thomas Schatz's (1981, p. 15) notion from *Hollywood Genres: Formulas, Filmmaking, and the Studio System*—that film-genre classification is a consensual agreement between the audience and the producers—be considered relevant to video games. This understanding of genre conceives it as flexible, dynamic, and integrated with the technology of video games.

However, it must be noted that players of games—that is, their audience—are not necessarily satisfied with the same generic conventions being endlessly repeated. The expectation is that the stability of genre will be tempered by innovation; this innovation may be technical, not necessarily stylistic. An example of the failure of the industry to meet the demands of the consumers is the suggestion made by Stephen Kline, Nick Dyer-Witheford, and Greg de Peuter (2003, pp. 104-105) in *Digital Play: The Interaction of Technology, Culture, and Marketing* that the widespread adoption of unimaginative, formulaic game design was a contributing factor in the collapse of the games industry in the United States between 1983 and 1984. Consumers had become so disgruntled with the rehashed and poorly designed generic fare being produced that the market for games halved within 2 years, and the industry, which is believed to have made as much as eight billion dollars in 1982, was suddenly struggling to survive. In *The Nature of Computer Games: Play as Semiosis*, David Myers (2003) emphasizes that game genres are the result of a particular dynamic of technological contexts and popularity and are therefore neither "fundamental or lasting" (p. 97). I suggest that the collapse of the games industry in 1983 to 1984 demonstrates that video game genres, however disparate, were not considered stable by their audience, genre was rather expected to evolve to exploit the ever-growing capacities of the hardware on which the games were played.

This article marks a critical departure from Juul (2001), arguing that genre is a category that needs to be rethought with a critical perspective in mind, because the current established genres accepted by the audience and industry do not take into account the complex layering of genre that occurs within video games. The point of departure is based on the argument that Geoff King and Tanya Krzywinska (2002) make in the introduction to *ScreenPlay: Cinema/videogames/interfaces*, that games can be categorized on four levels: "according to platform, genre, mode and milieu" (p. 26). However, I suggest that King and Krzywinska's levels be understood as layers of ergodic interactivity, in particular, this requires a reconfiguration of their understanding of genre, which follows that typically used by the industry.

Genre. Of the four layers suggested by King and Kryzwinska (2002), "genre" has the most problematic designation. By using genre as a category—I maintain that—King and Krzywinksa (2002) are appealing to the type of categorization that is unique to video games: their ergodicity. However, in their discussion, they are satisfied with the demarcations of genres made by "the wider gaming community" (King and Krzywinksa, 2002, p. 26). In short, their approach to genre, while acknowledging that

video games genres are necessarily different from those of film, is not critical. I suggest that this understanding of genre be replaced with Wolf's (2001, p. 114) alternative taxonomy of genre, which concentrates on the types of interactions that are available in the game, as distinct from the visual iconography. With the additional caveat that interactivity be focused on Aarseth's (1997) notion of the ergodic traversal.

Platform. The "platform" category of video game genre refers to the hardware systems on which the game is played. This includes personal computers, various consoles (Sony PlayStation 2, Nintendo GameCube, Microsoft Xbox, etc.), as well as handheld devices such as Game Boy Advanced, PDAs, and cell phones. Although this may seem unimportant, as it is common for popular games to shift across the various franchises, both Newman (2004, p. 44) in *Videogames*, and Will Brooker (2001) in "The Many Lives of the Jetman: A Case Study in Computer Game Analysis," point out that the specificity of design for a particular console may not be replicated when the software is adjusted to other hardware. Consequently, the experience of playing the game may be drastically different because of adjustments made to cope with a different style of controller or graphic interface. Furthermore, the platform used will often dictate the spaces, and social relations, in which the game takes place.

Mode. Of King and Krzywinska's (2002, p. 26) categories of genre, "mode" is the least clearly defined. This refers to the mode in which the "game world is experienced" by the players. I suggest that this appeal to environmental and experiential factors relates specifically to the spatial and temporal arrangements of the game. In the past, analysis of video games' space, and—more specifically—the ability of the player to move through space, has been a common focus. In *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*, Janet H. Murray (1997, p. 132) uses the notions of the "maze" and the "rhizome" to contrast free movement with movement that is basically linear. In "The Art of Contested Spaces" Henry Jenkins and Kurt Squire (2003, p. 69) make a similar categorical observation using the terms, *hard rails* and *soft rails*, to distinguish between games in which the player's movements are tightly structured and those games which are multidirectional and multilinear.

A key aspect of "mode" noted by King and Krzywinska (2002, p. 26) is the way in which a particular game's mode may vary according to whether it is played multi- or single-player. This observation is supported by the ethnographic investigation of Sue Morris (2002, pp. 82-85) described in "First Person Shooters—A Game Apparatus," who points out the structural differences between the single- and multi-player versions of HALF-LIFE (1998). The single-player version of the game centers around following a linear narrative, whereas the multi-player version takes on a number of permutations in which the various players either stalk each other within the virtual environment or group together to compete against other groups in discreet episodes or "missions" (Morris, 2002, pp. 83-84). However, I suggest that the most significant—and potentially confusing—aspect of this genre is King and Kryzwinska's (2002, p. 26) claim that the "physical proximity" of other players is an aspect of mode. This

infers that the environment encapsulated by "mode" is not solely virtual but extends into the physical also.

Milieu. Milieu is used to describe the visual genre of the video game. Several distinct established game genres of milieu exist: science fiction, fantasy, and horror being prominent. Aarseth (2004, p. 48)—and other ludologists—claim that this kind of "visual" aspect of the game is irrelevant to the mechanical rules of the simulation. Running counter to this, a growing body of work on horror-genre games argues that the effectiveness of the horror milieu is enhanced by using particular mechanical and structural rules (Carr, 2003, pp. 2, 7; Kryzwinska, 2002, p. 207). Thus, I suggest to construe this element of games as completely irrelevant is to ignore a key element of how games are structured.

Genre studies

Simulation

The simulation genre includes video games that simulate sports, flying and driving, and games that simulate the dynamics of towns, cities, and small communities. To use Bolter and Grusin's (1999) logic, most simulation games are located within the notion of remediation, as their content and play is either repurposed from relatively common activities, and/or the depiction of those activities on media such as cinema and television. However, for ludologists the notion of simulation has much higher stakes. In "Genre Trouble: Narrativism and the Art of Simulation" Aarseth (2004, p. 52) argues that video games should be understood as a particular genre of simulation. This position is discussed more expansively by Frasca (2003, p. 222) in "Simulation Versus Narrative: An Introduction to Ludology," which argues that it is video games' roots in simulation that constitutes a break with prior media forms, as simulation has a different semiotic system from that of orthodox narrative media.

This genealogical connection between games and simulations is also identified by Myers in *The Nature of Computer Games: Play as Semiosis*. Myers (2003, p. 10) points out that both ADVENT (1976) and SPACEWAR! (1962) began as simulations: the former of a cave system, whereas the latter was of zero-gravity physics. However, Myers (2003) also notes a conflict between simulation and play, which differentiates his position from that of Aarseth (1997) and Frasca (2003). Regarding the design of SPACEWAR! he states: "although the game forced the two ships to accelerate and decelerate according to accepted laws of physics, the ships' rotation ultimately adhered only to laws of play" (Myers, 2003, p. 4). The strict adherence to "the real" demanded of the simulation gave way to the more pragmatic requirements of entertainment (Myers, 2003, p. 7). These contradictory demands that shape the simulation genre, highlight a broader conflict across the medium as a whole, between adherence to "the real" and pure entertainment.

To return to Bolter and Grusin's (1999) remediation argument, what these scholars are highlighting is that video games themselves are an example of the repurposing or remediation of the technology of the computer simulation. However, this places no imperative that video games be understood as simulations or even in the context of simulations. Cinema's technological origins in the scientific, "non-narrative" motion-capture technology of Eadwead Muybridge did not prevent the content of that medium from becoming dominated by narrative. However, to conceive cinema as a whole as primarily narrative, or in this case to conceive video games as simulations, places an undesirable conceptual homogeneity on the field.

Following Frasca's (2003) argument that all games are in some way simulations, what is particular about the conventional genre of simulation games is that they clearly remediate a "real" world activity. Within this is often the assumption—or the promise—that the game is "authentic" to the "real" activity, that the game will be a relatively accurate simulation, which does not subsume the authenticity of the simulation entirely within the demands of entertainment. For example in the subgenre of driving simulations, many games—like PROJECT GOTHAM RACING 2 and DAKAR 2 (2003)—clearly seek to simulate the activity of driving, through an accurate depiction of the physics involved in that process. Other games, such as CRASH NITRO KART and THE SIMPSONS: HIT AND RUN (2003) that also simulate driving, blatantly follow an entertainment paradigm. The latter of these games operates within its own internal logic, the physics that the gameworld obeys are remediated from the cartoon universe. As Bart explains to the neophyte player in the game's tutorial: "Press the A button to accelerate and use the left thumbstick or directional pad to steer. The B button is your break and reverse, the X button is your handbrake. You know, just like every driving game ever." Driving in THE SIMPSONS: HIT AND RUN (2003)—and as Bart infers—many other driving games, have been deliberately simplified in accordance with the demands of entertainment.

In contrast, PROJECT GOTHAM RACING 2 (2003) caters toward those players that demand a more authentic simulation; however, the complexities of gear shifting are optional and can be turned off by the player who does not desire such a degree of accuracy in the simulation. The real difference between the driving in the two games comes from the handling; for example, turning corners at high speed with the aid of the hand brake. In THE SIMPSONS: HIT AND RUN (2003), the technique was rather straightforward, and enabled the driver to turn rapidly without a dramatic loss of speed. This approach, when imported to PROJECT GOTHAM RACING 2 (2003) would invariably result in a temporary loss of control of the vehicle, as the game features a stricter adherence to the laws of physics. This divergence marks the way in which different games deal with the contradictory pressure noted by Myers (2003) between the "laws of physics" and the "laws of play."

Strategy

The examination of strategy games is crucial in offering an alternative to the argument that games remediate cinema. King and Krzywinska (2002, p. 14) point out that

of all video games strategy games have the fewest cinematic associations. The strategy genre is usually divided into two subgenres: real time strategy (RTS) and turn-based strategy (TBS). Both RTS and TBS games have a similar aesthetic, a general god's-eye-view of the actions taking place, with a tendency toward a more photorealistic depiction. However, both games, the TBS especially, cannot be considered remediated forms of any other orthodoxly conceived technological medium; rather they remediate the playing of the strategy table-top board game. Thus, this genre differs considerably from other genres in its visual aesthetic. Using Bolter and Grusin's (1999) logic of remediation to describe the strategy game also highlights a key aesthetic difference between this genre and others, in that it is hypermedia, deliberately drawing more attention to its interface as a method of conveying information, due to the considerable amount of information that needs to be accessed and contextualized to play the game.

The integrity of the strategy genre is complicated by many games that although not of the genre, may still be played strategically. Myers (2002, p. 68) argues that strategic play is associated with expert play. Expert players contextualize relationships between certain values within the game-world in order to obtain the best possible outcomes (p. 44). The beginner player is engaged with the play of the game on the level of response. The expert player—in addition to that level of engagement—is organizing and valuing variables within that system (p. 177). It is important to note that for Myers, this activity may take place outside of the game per se and involve contextualizing information gleaned from secondary sources—Internet sites, chat rooms, bulletin boards, conversations with other players, game magazines—as well as prior play of the particular game (p. 17).

The beginning player of an Action Game like BUFFY THE VAMPIRE SLAYER (2002), will proceed through the various challenges unable to make informed choices regarding the various options available to them. As play progresses, the beginning player will discover that various foes have different points of vulnerability, and furthermore, various weapons, styles of attack, and environmental factors in the game may be exploited in order to dispatch the enemy with greater efficiency. Each piece of information informs their future play; eventually all the variables that the player controls will be contextualized, consequently, they will have the information to be able to chose the best response to a given situation. For example, the beginner player when confronted with zombies would not necessarily know that of the various weapons available to them the shovel would be the most useful, while the expert player will switch between weapons often in order to exploit the weaknesses of their opponents. The strategic play of the expert player comes from a combination of knowing the various options available and being able to correctly value them within the game context. This process is ongoing, as the player learns more about the values of the variables. The strategy genre is made from games that emphasize the ongoing play of contextualization.

Lev Manovich's (1996, p. 184) description of postindustrial perceptual labor in "The Labour of Perception" captures the key distinction between the activity of playing a strategy game and a game of another genre. In that article, he distinguishes between two types of perceptual labor, one which implicitly describes the contempo-

rary computer-mediated or cybernetic work-space, and a second that he argues represents the new kind of perceptual labor of the postindustrial society. He argues that the contemporary workspace is characterized as a constant engagement with overwhelming amounts of information, creating "a constant cascade of cognitive shocks that require immediate interventions," which he compares to the playing of a video game (1996, p. 185). The new situation, that of postindustrial labor, Manovich (1996, p. 185) describes as waiting for something to happen. Instead of a constant barrage of information, the worker will monitor a situation waiting for something that will require their intervention. It is to this latter situation that the strategy genre is closer, although the TBS game also shares many similarities with other genres.

To return to the simulation genre with this distinction in mind, I maintain that they operate along a pole of degrees of engagement in ergodic activity. By ergodic activity, I am referring to the kinds of attention that is paid to the interface, the way that the player watches the game screen and the kinds of movements involved by the player in operating the simulation. In this case, the activities involved in a driving simulation like PROJECT GOTHAM RACING 2 (2003) are characterized by detailed attention to the game-screen and constant interaction with the controller during the ergodic part of the play. In these games, the player has to constantly perform kinaesthetic actions, manipulate the controller, following the visual cues supplied by the screen. I suggest that games based on an ergodic performance are analogous to Manovich's (1996) description of the contemporary cybernetic workplace. The players' eventual success or failure at the game is determined by their skill at integrating and contextualizing the various activities involved within the physical rules of the simulation.

However, the activities involved in playing SIM CITY (1989) and THE SIMS (2000) are more strategic; in the SIM CITY (1989) series in particular the player must integrate information from, and make calibrations on, several screens in order to make effective interventions on a process of development that is already underway. The player has to manipulate the simulation as it progresses through time in order to get the result with the most utility. This may involve long periods of surveillance, where the player makes no direct interventions, as they accumulate funds, or anticipate the success or failure of a particular decision that can only be revealed in the process of time. This activity based around observation and intervention, resembles Manovich's (1996) description of the postindustrial workplace. I suggest that the difference in the ergodic engagement indicate two useful subgenres of interactivity. The first group are characterized by the players' crucial role in performing the ergodic process, whereas the second group are characterized by the interventions the player must make to bring the ergodic process to the desired end. The variety of activities involved in both intervention and performative computer games indicate disparate genres of nontrivial engagement.

This critical distinction provides a useful dichotomy for conceptualizing the mental process of the player. Ted Friedman (1999) in "Civilization and Its Discontents: Simulation, Subjectivity, and Space," argues that simulation games are characterized by process of the player learning gradually to think like the game:

> The constant interactivity in a simulation game—the perpetual feedback between a player's choice, the computer's almost instantaneous response, the player's response to that response, and so on—is a cybernetic loop, in which the line demarcating the end of the player's consciousness and the beginning of the computer's world blurs. (P. 137)

The performative games share this aspect to a degree, but they emphasize a physical response that requires the cybernetic integration of the games' challenges into the players' cognitive, kinaesthetic, and perceptual functions. Intervention games are outside of this constantly performative physical feedback loop. Newman (2002) argues that the notion of the "cybernetic feedback loop" can be applied to video games as a whole. Citing Friedman's (1999) work, Newman (2002) states that the linkage between player and game-world should be considered "as an experiential whole that synthesis, action, location, scenario, and not merely as a bond between subject and object within a world" (p. 8). The crucial point here is that the strategy genre of video games emphasize a particular mental process that is found in all video games; furthermore, this process indicates that in the ergodic process the boundary between play and player becomes blurred (see Myers, 2003, p. 144). This blurring is significant in the understanding of video games, and video game genres, as it indicates the inseparability of the player and the text.

Action

The action genre consists of two major subgenres: first-person shooters and third-person games. Although the first-person games are played as if the screen were the players' own vision, third person are played with avatars that are fully visible to the player. According to the categories suggested by King and Kryzwinksa (2002), this distinction is made along the lines of the "mode" genre, as it refers to the players' perceptual engagement with the game environment. These subgenres are demarcated through a remediation of terminology from cinematic perspective, which is based once again on the literary definitions of narration. Cinema that uses first person primarily or as a dominant form of narrative is almost unheard of, although is often used briefly within a film dominated by third-person narrative as a technique to create identification. Third person is far more common, and is historically the dominant perspective in cinema. The third-person film is characterized by the viewer watching the action unfold through the camera narrator rather than through the eyes of a particular character.

This purely visual distinction collapses within the computer game medium for two reasons. First, Anne-Marie Schliener (2001, pp. 222-224) in "Does Lara Croft Wear Fake Polygons? Gender and Gender Role Subversion in Computer Adventure Games," Barry Atkins (2003, pp. 44-45) in *More Than a Game: The Computer Game as a Fictional Form*, and Mia Consalvo (2003, p. 331) in "Zelda 64 and Video Game Fans: A Walkthrough of Games, Intertextuality, and Narrative," all argue that the player identifies with their avatar, even through they are viewed in the third person. The avatar acts as a virtual prosthetic that acts as the connecting point between the player and the virtual environment. In "Nintendo and New World Travel Writing: A

Dialogue," Henry Jenkins and Mary Fuller (1995, p. 61) argue that the avatar serves a function rather like that of a cursor in a more conventional computer-mediated environments (for example *Microsoft Word*), to link the perceptual to the cognitive and kinaesthetic aspects of the game. Second, all first-person games utilize some kind a visual technique that creates a static object that functions as an avatar to link the kinaesthetic, cognitive, and perceptual within the game-space, in the form of a gun or arm that extends out from the bottom of the screen into the virtual world or a gun-sight superimposed onto the center of the screen. This shows that, crucially, whether the perspective be first or third person in visual appearance, in order to experience the virtual world of the game, the player and game must be linked by a static physical locator that acts as an indexical axis that connects the players' gaze and kinaesthetic actions to the virtual game world.

Action games in particular are often intensively performative, in a manner distinctly different from other genres of performative games, in that it is action games that will often require the player to engage in extreme nontrivial actions in order to make the ergodic traversal. In many action games, the player must actually perform a desired action by selecting the correct inputs, while in other genres of video games, the player will merely select the desired action and the computer will determine the performance of that action. For example, in the action game THE LORD OF THE RINGS: RETURN OF THE KING (2003), in order to attack a foe the character must maneuver their avatar in range of the selected foe and then select an attack based on a combination of buttons. The effectiveness of the attack will vary according to the type of foe faced, as the more powerful the foe, the more difficult it is to perform the combination that is most useful against them. To slay an orc champion, in THE LORD OF THE RINGS: RETURN OF THE KING (2003), the player could use the combination Y, Y, B, Y, called the "Shield Cleaver," which will first smash the foes' shield, then knock them to the ground, and then strike them while they are vulnerable. However, failure to follow the sequence with the precise order and timing will result in a less effective, or even ineffective attack.

The performative element described is extremely different to the combat in the action and/or role-playing game STAR WARS: KNIGHTS OF THE OLD REPUBLIC (2003), where the player selects a target and then selects an attack, the computer then determines whether the attack fails of succeeds based on the skill and abilities of the character the avatar represents rather than the skill of the player. Games like this allow a strategic intervention in the performance, whereas action games—exemplified by THE LORD OF THE RINGS: RETURN OF THE KING (2003)—are performative to the extreme. The abilities possessed by the avatar of the player must be activated by a technical performance by the player. Atkins (2003) describes the process of discovering the correct technical performance as creating a "moment of gaming cinema [that] requires the continuing active participation of the player if it is to be successfully realised" (p. 39). This type of performance, of game-play virtuosity, represents a considerable nontrivial effort, and furthermore, this effort suggests a type of "textual" mastery that represents a significant break with prior media, that cannot be explain easily with the notion of remediation.

Role-playing

The genre of adventure or role-playing games (RPG) is closely tied to the literary genre of fantasy. Both King and Krzywinska (2002, p. 29), and Bolter and Grusin (1999, p. 94) describe the genre as remediated Tolkien. This assertion misses a key stage in the mediation and remediation process of the RPG: the pencil-and-paper role-playing game, of which the most widely known is DUNGEONS AND DRAGONS (1974). To emphasize the importance of addressing this oversight it is necessary to briefly explain the difference between pencil-and-paper role-playing and "Tolkien" as a stand-in for the fantasy genre as a whole.

DUNGEONS AND DRAGONS (1974) differed considerably from fantasy literature, in that the game was primarily a set of rules for interaction between players and the fantasy environment. One of the players would take on responsibility for the environment and minor characters (the DM, or Dungeon Master), whereas the other players would create one or more characters to play within the world created by the DM. The story took place in the imagination of the players, as they each described their actions and the DM in turn described the results of their actions, perhaps referring to the rules, and to die rolls—should the rules demand a random factor. The key change in the role-playing game that came with the remediation into video game format is that—initially—they lost their primarily social aspect, as the original games were single player. In most computer RPGs, the computer replaces the role of the DM, not only in facilitating the players' actions within the fantasy world but in creating the fantastic environment in which those actions take place.

By acknowledging that remediation to computer significantly alters the RPG, in become possible to explore what exactly is lost in the process. In an interview with www.WomenGamers.Com, Gary Gygax, cocreator of DUNGEONS AND DRAGONS (1974) points out: "the player assumes a character model and takes action in that environment, without any real role-playing at all. Try suggesting something to a computer that isn't in the program, of course" (Gel214th, 2000). To expand this point, I maintain that the key difference between pencil-and-paper RPGs and computer RPGs is that the game is no longer a collectively produced fantasy, but one which takes place within an official fantasy world with strictly defined parameters. Furthermore, it shifts the focus of the games from role-playing, and character development, to a series of purely functional physical challenges where success is measured by the accumulation of rewards. As Newman (2002, p. 1) argues, the character in the computer RPG is not valued in terms of a character in a novel or another medium but only in terms of a set of characteristics.

I suggest that key to understanding this shift to valuing characters in video games in terms of characteristics is Myers' (2003, p. 19) notion of "character transformations." This notion is of particular importance in the role-playing genre as it is through character transformations that the character develops. In STAR WARS: KNIGHTS OF THE OLD REPUBLIC (2003) the player is given periodic opportunities to assign new skills to their characters, which transforms the role of that character within the game. As the game contains over one hundred assignable "feats" and "powers" the various

combinations possible are myriad, and are contextualized within the game and assigned relative values through the game's play, in much the same way as the variables within the strategy game. The remediation of role-playing to computers changed the focus of the games from character development to the acquisition of characteristics that are contextualized and valued through play.

The contextualization of these transformative characteristics potentially involves quite complex understandings of the various characteristics and their transformative roles. Myers (2003, p. 12) describes this as a specific cultural knowledge. He implies that RPGs operate intertextually, as the context of the game is often larger than the individual game: "significations conducted during current game play more and more often referred to a single, all-encompassing context determined beyond the immediacy of current game play" (Myers, 2003, p. 117). The context comes not from the game itself, but by the contextualizing play of many individuals who collectively form a discourse that assigns value to the various transformations. Myers states, "Websites, fanzines, cheat sheets, walkthroughs, message boards, and a variety of supplemental publications provided further extensions to and reinforcements of the . . . game context" (2003, p. 178). RPG—rather than losing their social aspect through remediation—formed the beginnings of the notion of the game community. This genre of video games, although not remediating the communal aspect of pencil-and-paper role-playing tapped into an already formed community that was based partially about contextualizing character transformations. The development of the Internet has led to a proliferation of official, and unofficial, game-based or game-centered communities, which eventually included all genres of video games.

These communities primarily use bulletin boards or blogs to communicate, although some of the more popular sites may also have a chatroom. Most games that are primarily played online, such as STARCRAFT (1998), HALF-LIFE: COUNTERSTRIKE (2000), and MEDAL OF HONOR ALLIED ASSAULT (2002) have incorporated chat functions into the game to allow players on the same team to communicate, or to abuse and taunt members of opposing teams. However, Massive Multi-player Online RPGs (MMORPGs) blur the boundary between game and community completely; in "Computer Game Studies: Year One" Aarseth (2001, p. 2) describes this shift as the social arena of the game becoming the game itself. Thus, I suggest that MMORPGs should be conceptualized as a convergent technology. In *New Media: An Introduction*, Terry Flew (2002, p. 18) defines convergence as "the bringing together of the computing, telecommunications, and media and information sectors." Convergence has allowed a complex and participatory practice to be remediated. The only factor lacking in the new MMORPGs that differentiates them from pencil-and-paper role-playing games is that they lack the DM, whose role is replaced by the programmed environment and augmented by company employees who monitor the interactions between players'. I suggest that adventure or RPGs are an example of the notion of remediation. However, the focus on the visual and on immediacy as a strategy of remediation, glosses over the complex, social and participatory nature of play which is apparent in convergent MMORPGs, and which also exists in other games—either within the game in the form of chat, or outside in the form of extra-textual Web-

based chat and bulletin boards. In the case of MMORPGs, the remediation is not simply one of content, but also of a social practice.

Discussion

Returning to Caldwell's (2004) argument that the divergent representational aesthetics of video games make it impossible to conceive them as a cohesive field, I suggest that what is lost in understanding genre in purely visual terms in relation to video games is a notion of the various other generic features that can serve to both recognize similarities between games and to mark key distinctions. What is crucially important to video game genres is to be able to think of each individual game as belonging to several genres at once. This point forms the basis of the critical understanding of genre across all mediums. Steve Neale (2000, p. 16) in *Genre and Hollywood* points out that while some film genres are indeed organized around the visual iconography of the film—for example the Western and Film Noir—other genres like melodrama and comedy have no consistent iconography and their generic classification refers to the films' narrative structure. I suggest that this points to the heterogenous and multifaceted use to which the notion of genre is put, as—in the case of cinema as Neale points out—genre is used in a way that both marks its distinct qualities and connects it back to prior media forms that it is remediating.

Video games may share many features with other media forms; however, I believe that it is crucial to acknowledge that running contra to the "neat" categories defined by the industry are emerging "messy" categories that cross the traditional boundaries of video game genres to place visually disparate games into new circuits of connectivity. It is by turning to the notion of "interactivity" in particular, that these new notions of video game genre are able to emerge from the domination of remediated genre categories. This shift away from the visual and narrative understanding of video game genres is the key point of departure for this article. Although it follows others who have demarcated this territory, it also follows as a strategic move the notion of ludology. Although I find the ludological position questionable, I agree with Patrick Crogan's (2004, p. 13) reflection upon it in "The Game Thing: Ludology and Other Theory Games" that the primary virtue of this "movement" has been the problematization of the smooth application of narrative theory to new media.

The general acceptance of this aspect of the ludologists' argument is follows a key development in the study of new media in general. The ludologists' concern that narrative is not entirely relevant for understanding games is accompanied by a more deep-seated ambivalence toward narratives from some scholars within the field of new media. In "Digital Filmmaking and Special Effects," Sean Cubitt (2002, pp. 26-27) argues that narrative is just one possible system of organizing new media and suggests that the structure and use of new media like Photoshop encourages a system of organization that he dubs "post narrative spatialization."

In particular, the removal of narrative as the key concept in understanding video games reflects a major strand of contemporary film studies. Following the work of

Tom Gunning (1989) in "An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator," there has been a tendency toward connecting the emergent genre of special effects blockbuster with the nonnarrative and spectacular origins of early cinema. The move away from narrative has reinvigorated contemporary cinema studies as well as the study of video games. As King and Krywinska (2002, p. 3) point out, examining games in the light of cinema benefits the study of cinema as it encourages questioning of orthodox understanding of film interpretation. The end of narrative as the paramount defining feature of media is heralded in video games.

However, this turn away from narrative should be accompanied by an acknowledgement that video games, as well as being games are also, at least in part, textual, in that they make reference to what is outside of the game. Both Newman (2004, pp. 57-58) and Mia Consalvo (2003, p. 331) rally against the notion that all meaning in games is derived independently of context. Video games, they argue independently, are understood intertextually, through other media texts and through the shared experience of gaming. Certainly, to revisit the example of THE SIMPSONS: HIT AND RUN (2003), Bart's self-reflexive instructions to the player explicitly acknowledges an implied agreement between game designers and gamers that driving games—at least—will have rather similar sets of inputting controls. This agreed form of interaction suggests a consistent genre has been established. This contradicts Aarseth's (2004, p. 48) argument that games cannot be understood intertextually. Rather, they are played in negotiation with, and through understanding of, other video games. Consalvo (2003) widens the influences that shape the experience of play, arguing that game players bring to bear a wide range of medium-specific and general media in the production of meaning from a game: "They do not . . . discard knowledge of all other media while engaging with a primary text. Rather, they approach all of these media intertextually with knowledge of all informing all of their actions' (pp. 331-332). In support of this notion Newman (2004) states:

> Videogames do not exist within a vacuum. Rather, they reside, are produced, and are encountered within a web of intertextuality in which explicit and implicit references to other media forms proliferate in videogames, and in which videogames are referred to aesthetically and stylistically within other media. As such, advertising and marketing materials, not to mention the various and extensive tie-ins and spin-offs such as movies and cartoons, must be considered alongside the content of the game. (Pp. 57-58)

Conclusion

Through a critical examination of the current video game genres, a tension between an understanding of genre in terms of ergodicity or interactivity, and an understanding of video games purely in terms of the remediation of prior representational media emerges. Of the genres selected for examination, both the strategy and role-playing genres have their roots in pre-computer forms of play; whereas the simulation genre can be compared to nonentertainment computer simulations; finally the action genre is implicitly connected to cinema through its deployment of the terminology of that

medium to mark key generic distinctions. Despite the clear connects to prior media forms, I maintain that a critical approach to video game genres in the light of ergodic interactivity suggests that a more useful generic layering exists. Both simulation and strategy provide general tropes for understanding video games as a whole. In addition, the genre of simulation also suggests that games can be organized according to how authentically they follow the rules of simulation as opposed to the demands of entertainment. The strategy genre highlights the distinction between games that require the constant attention and performance of the player, and those that require a more distant approach characterized by intervention. The action genre demonstrates a particular category of hyper-performative games, whereas the crucial element of the role-playing genre is understanding the way that generic conventions circulate between and within communities of players.

By shifting the focus of genre in video games from the imbroglio of visual, narrative, and interactive terminology to a specific focus on genres of interactivity, I suggest that a space is created that allows the scholar to examine games in a way that can classify them according to their underlying similarities rather than their superficial visual or narrative differences. This shift marks the unique function and role of video games within contemporary media.

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