Neal Thomas

Video Games as Moral Universes

ABSTRACT:

Agency in a video game, ruled by authorial, technological, and economic constraints in its construction and design, tends toward depicting a world and its inhabitants in purely instrumental terms and has difficulty communicating more intrinsic human values in a satisfying way. The video game as a narrative medium tends, with some interesting notable exceptions, to privilege means over ends, bivalency in decision-making, and reification through quantification. These tendencies are partly the result of the medium of the computer, and partly the result of authorial process. I will describe game interaction using ideas developed by sociologist Bruno Latour, and conclude by highlighting the ways in which video games might be made more compelling through alternative models of game design.

Emerging from the eternally polarized debate over simulated violence and social ills, and bolstered by entertainment industry revenue figures that are rapidly outpacing film (ESA 2003), there is a new conversation among academics about the nature of video games.[1] While a media type in its relative infancy (being only 30 or so years old) and, to many people, still too pedestrian to be worthy of critical study, video games occupy a huge amount of mental time and energy among 18 to 35-year-old minds in North America, Europe, and Asia (ESA 2003). Those in the fields of media studies, psychology, narratology, education, and the protozoan field of video game theory (currently coalescing around the term *ludology*—a theory of play) have trained their analytical lenses upon games in an effort to understand them as cultural texts. Academic and parental hand-wringing over the depiction of death and gore keeps symbiotic pace with graphics chip technologies that drive increasing levels of realism. But more central to the discussion of modern video games, and still sometimes overlooked in their analysis, is how agency is constructed within the game-as-text.

Games have increased in their sophistication to the point that they can be vast environments that allow for many forms of social interaction; they simulate the real world in increasingly complex ways. While in the past video games were crude representa-

tions of situations—a sports competition, a pitched outer space battle, or a jigsaw puzzle come to life—they now often possess graphics display capabilities that approach photo-realism, elaborate physics modeling that accurately describes properties like gravity and inertia found in the real world, and artificial intelligence to support challenging approximations of mood and disposition for virtual characters. These qualities of realism have long been with us in the representation of the world through film, yet visual realism worthy of the suspension of disbelief is the goal to which computer graphics aspires.[2]

But where films are about beholding, or reacting through ethos and pathos to the agency of characters on screen, video games are about giving viewers a kind of iconic agency themselves; doing, acting or enacting within the fictional universe. The capacity of film to rouse strong emotions through the dramatic interplay of characters and their actions, depicting complex ideas and nuanced cause-effect scenarios, is clear. This capacity when sought out as a consistent pattern in video games is to date far less apparent. Sean Cubitt helpfully describes the different (and to his mind, diminished) role of narrative in digital media by noting that the medium of the computer favours spatial metaphors over temporal ones, and that artists working with the medium face a privileging of eschatological metaphors over teleological ones (2002:7). Films and games both tell stories, but the general focus in games is that of privileging means over ends. The player engages with a storied system that has the often clichéd trappings of a traditional epic narrative, but on the other hand lacks a discrete beginning, middle, and end. So where films have developed a sophisticated use of allegory and parable—they are enjoyable for their knotty web of action, consequence and destiny among characters—video games as a genre to date are often found lacking. This has implications for communicating ideas about morality. There are some who study video games who feel that comparing films and video games is unfair, that games are a new medium, and that we need new ways of describing them that do not defer to traditional concepts related to understanding narrative (Juul 2001). In some respects, they are correct. But video games continue to exploit the traditional elements of drama—style, plot, character, setting, and theme (Rollings and Morris 2000:8-11). They borrow liberally from the cinematic idiom and thus it remains important to draw comparisons, especially as they continue to influence each other.

The expectations placed upon a gaming audience, with respect to understanding and engaging with narrative agency, diverge significantly from those of the film audience, and this will be the focus of my discussion. Janet Murray poses the problem with agency neatly when she writes that:

> Agency, then, goes beyond both participation and activity. As an aesthetic pleasure, as an experience to be savored for its own sake, it is offered to a limited degree in traditional art forms but is more commonly available in the structured activities we call games. Therefore, when we move narrative to the computer, we move it to a realm already shaped by the structures of games. Can we imagine a compelling narrative literature that builds on these game structures without being diminished by them? (Murray 1997:129)

Murray is right to highlight the risk that the game as mode of storytelling may diminish some of the best aspects of narrative literature. Narrative literature, as expressed through

video games, encodes social values as does any other media type. Of late this new form of narrative represents an interesting but sometimes troubling way of seeing the world. Todd Gitlin has likened them to cigarettes as a delivery method for adrenaline (2002:195). Agency in a video game, ruled by authorial, technological, and economic constraints in its construction and design, tends toward depicting a world and its inhabitants in purely instrumental terms, and has difficulty communicating more intrinsic human values in a satisfying way. The video game as a narrative medium tends, with some interesting notable exceptions, to privilege means over ends, bivalency in decision-making, and reification through quantification. These tendencies are partly the result of the medium of the computer and partly the result of authorial process. The resulting experience for the gamer is an extended strategic interaction with virtual automata in a quasi-mechanized environment. I will describe this interaction using ideas developed by sociologist Bruno Latour, and conclude by highlighting the ways in which video games might be made more compelling through alternative models of game design. I hope to show that the steps needed to improve our games parallel the steps needed to improve our broader relationship with modern technology. The problems in both cases will be solved through more diverse creative intervention into the process of authorship.

To begin an analysis of narrative agency in an interactive space, consider the classic *Quake* (idGames 1996) as an example; it is a first-person "shooter" game that definitely stakes out one basic pole with respect to agency. One can describe character agency in this game quite simply: (1) Move through a game world that is, with the exception of hulking monsters, physically representative of the "real world" (gravity, walls, doors, etc.); (2) Stay alive; (3) Accumulate weapons of increasing lethality; (4) Use technical means to bypass any physical obstacles in the game; and (5) Destroy anything that moves. More complex techniques in the game to fulfill these goals are developed as the gamer increases in skill. Character-developed motivations as to why such behaviour is necessary inside the fictional world—beyond the maxim "Killing is just"—are shunted to the wayside by the authors of *Quake*. It is after all just a game. And like any game, video or otherwise, it is a set of rules governing agency (what can and cannot be done in the game universe) that in this case isn't far off from the behavioural rules of a mean wasp—not particularly compelling as a form of moral introspection, yet surely entertaining to the adolescent male. We might ascribe this "plot," with a few variations, to many action-genre films as well.

But more complex attempts at modeling a fictional world with more nuanced kinds of narrative agency are cropping up; an example can be found in Will Wright's *The Sims* (Maxis 1999). In this game, your character is plunked down into a virtual community, and must fulfill all the basic needs of someone living in the suburbs. It is a game based upon a contemporary Maslowian hierarchy of needs, dominated by a satirical hyper-materialism: find something to eat, make friends, get a job, keep up with the Joneses, fall in love, and move together into suburban houses festooned with furniture, home gyms, and giant televisions. Again, the decisions made through authorial intent in the game's design, constrained by sociological, technical and economic factors for the game design firm, determine what constitutes agency within this fictional universe (Pearce 2002). Sex is uniformly heterosexual (and digitally fuzzed out in the more puritanical North American release of the game), and you can't rob another player, for example. Self-actualization is realized through the accumulation of goods and friends.

These new, complex world simulators like *The Sims* are entertaining for their vast number of rules that govern play, some of which is marginally moral play along dimensions of good and evil. Especially interesting is how the intersection of those many rules can simulate interesting, unforeseen behaviour. Game play that emerges from the player's subversive exploitation of these intersecting rules, usually tipping the balance of play far in the favour of the player, represents another interesting narrative development. The player manages, however provisionally, to cheat and to step "outside the rules" and effect change that was not foreseen by the game designers. Cindy Poremba writes on the hooker cheat—a so-called degenerate strategy that takes advantage of the intersection of game play rules in *Grand Theft Auto III* (Rockstar Games, 2002):

> When a player beats up a character, that character drops whatever they are carrying (often money). The second [rule] is that a character gains health points by picking up hooker characters and bringing them back to their garage for "sex" (the act itself is implied, not shown). The disadvantage of the latter is that it costs money to pay the hooker and thus raise health points in this way (this balances the action within the context of gameplay). By combining these two possibilities, players have found they can avoid a game consequence and continuously raise their health levels, which gives them an advantage in the game. (Poremba 2003:11)

Poremba goes on to discuss the different ways in which people perceive this degenerate strategy; not surprisingly, many find it a deplorable depiction. But people who are inured to how a game represents agency see the hooker cheat in purely utilitarian terms. They strip the notion of paying and then mugging a sex worker of its graphic and narrative importance and see only the interaction of two programmatic game rules—`IF sex THEN health points; IF beating administered to sex worker THEN easy theft`—and exploit them as necessary to win. Combine these two ideas—a fairly realistic cinematic depiction of an event in the real world, coupled with a programmatic abstraction that rewards exorcism of the moral dimension entirely from a grim situation—and you begin to understand how agency is important as a site for critical analysis.

These few but varied examples should reveal to the reader that there are nearly as many genres of video games as there are genres of film. The gamer may choose between first-person shooter games, puzzle games, mystery games, sports games, managerial world simulations, historicized games, and so forth. Games thus construct their sense of agency differently game-to-game, shaped by genre constraints, often dictated by them through the success of previous games in a series, or by other factors such as developmental funding, microchip processor speed or harried delivery schedules. As we shall see, some games are more successful in approximating the kind of moral introspection that one finds in a good film. Others, like *Quake*, are so reductionist in their depiction of a fictional rule-based world as to be adiaphoric, or morally indifferent. In general I'm concerned with developing a spectrum of moral agency onto which different games can be placed. It is not a pious spectrum that spreads from morally right to morally reprehensible, but rather a line that traces upward in an increasing sophistication of moral *capacity*—one's personal ability to reason about morality in the world. Can games develop important human concepts such as justice and welfare in their play structure while still being entertaining? Games do have a capacity to represent morality, but in general the deck seems stacked against them.

An important aspect of the difficulty is a necessity to rely upon a systems-theoretic, computationally-focused view of a given narrative world—one that, by dint of the digital medium, needs to be very concerned with quantifiable metrics. This bias in video games is not at all surprising when you locate them in the cluster of human activity in which they have been incubated; in research centres involved with computer programming, military simulation, artificial intelligence, game theory, statistical modeling, to name just a few domains, bolstered also, importantly, by entrepreneurship (Wolf 2001:28). We can reasonably say that video games are a fundamentally cybernetic art form. There are substantial implications to this statement as it relates to our discussion of video games as moral universes, and I can only gloss them here. The application of cybernetics onto issues of morality is well debated in Manfred Stanley's *The Technological Conscience*; his description of cybernetics as applied to institutional policy-making, now 25 years old, has an intriguing resonance with the discussion:

> Finally, we find in a wide diversity of specific institutional settings certain tendencies converging toward a common, cybernetically relevant mode of policy and decision vocabulary. These tendencies include the reduction of decision strategies to cost-accounting systems; the transformation of values into quantifiable social indicators; the codification of ends into legislated and measurable accountability criteria; the computerization of centrally stored information banks; and the encapsulation of social life into simulated models of experience. Such tendencies obscure the differences among the ends, values, experiences, and missions associated with different (and particular) institutions, not to speak of the nuances of life itself. (Stanley 1978:136)

Stanley is concerned in great detail with technicism, a process whereby agency and responsibility becomes mystified by specialized language. He writes that "mystification is concealment of the processes whereby things happen or are made to happen by means of intended actions" (1978:250). He is careful to point out that this concealment need not be deliberate in its design. Stanley considers technicism widely, applying it to aspects of policymaking, sociology, and education. He is unquestionably concerned with the state of our interlocking organizational systems—of knowledge, of human beings, of action—that are not also supported by a systemic, rigorous articulation of their moral dimension. In his epilogue, Stanley calls for a logic of moral accounting to be built into our systems. With deference to those who would not reflect upon video games in such a grandiose manner, I suggest that games, in order to deepen their narrative significance, need to consider a similar programmatic logic of moral accounting.

Drawing a parallel from Stanley's technicism, advancement in the art of game design tends to focus upon that which can be easily and precisely measured: on-screen polygon counts, elaborate methods of scoring, more accurate physics models based upon more sophisticated algorithms, and so forth. In order to make a game realistic and playable, developers need to be basically concerned with the thousands of rules and interactions that make up how a game unfolds. Developing convincing utilitarian interaction and entertaining, functional affordances in the gameworld thus tends to dominate authorship: If we offer the player a crowbar, can they pry open a chest with it? Can they use it as a weapon? Can they force a locked door? If we offer them a candle, can it be extinguished? Will it light other objects on fire? All of these interac-

tions need to be catalogued and interconnected to one another, occupying the bulk of development time, in what becomes quite literally a narrative bureaucracy (Rollings and Morris 2000:250). Semiotic taxonomies to make sense of this bureaucracy of physical space and interaction are in development, and such work is an important aspect of examining games critically.[3] But setting aside this kind of research, we can again gloss by saying that the video game typically tends to be a world of highly prosaic ends achieved through highly baroque means.

To round out what is possible in a narrative/game space with one final example, an important contemporary title that makes a very nuanced and generally successful attempt to depict moral agency is *Black & White* (Lionhead Studios 2001). It is a world simulator where the player is a god, watching over villages on an island, assisted by an earthly creature. The creature is a familiar to you that ages and learns as it does your bidding. Villagers pray to you to ease their pain and solve their problems. At every turn, the structure of the game seems carefully designed to draw a connection between means and ends, to show that volitional acts in the game-world have real consequences to the game play, other characters, and indeed to the overall story as it unfolds toward a world that is ruled by good or evil depending upon your actions. The game is not overly pedantic about being "morally good," nor do I wish to laud the game by being so myself, but it does choose to devote significant design resources (and during gameplay, significant computer processing power) to fostering moral introspection through play, using incidents and characters. A vignette of gameplay will help illustrate the point.

As the player progresses through *Black and White*, incidents that constitute gameplay action are watched by an AI-driven creature that will grow up to mimic your behaviour. So a game event where a villager promises an offering and pleads to her god (you) to find her child lost in the woods allows for a decision. The player may take the time to find the child and reunite him with the mother, receiving the offering and "belief" in quantified form. Or, the player may opt to rip off the woman's roof, and take the offering from her home, receiving belief through fear rather than benevolence, leaving the child to die in the woods. The player, feeling especially Machiavellian, might opt to find the child, and feed it to his creature in full view of the mother. All of these acts will ripple through other systems in the game—in the latter example, the creature will learn to seek out human flesh to eat instead of grain, unless you catch it in the act of eating a villager and slap it as you would a mischievous puppy. It may develop a tendency of throwing around villagers when bored. A creature that is trained to be friendly will spontaneously dance with the villagers; one that is evil will cause villagers to faint in its presence. The player is free throughout the game to be as idiosyncratic as they please while moving through the emergent world, and to experiment with behaviour that runs a sophisticated spectrum of good or evil. It's also worth noting that the designers of *Black & White* were careful in eschewing abstract quantification for the player in-game when possible, amplifying the game as a moral, humanistic universe. The game sometimes measures progress by requiring the player to graphically zoom into the streets and houses to listen to individual villagers' issues ("We need more housing!") rather than simply displaying traditional numeric metrics of success. In other words, the mechanisms driving gameplay are not front and centre, they are more carefully integrated and hidden away as elements that change in response to play over the course of the entire game.

Unfortunately, game designers don't often have the luxury of spending years and millions of dollars in the development of a game like *Black & White.* In the face of constraints, designers are often very clever in their use of traditional fictional and cinematic techniques to create a personae or group of characters that resembles characters in a film through dialogue, scene and story development. The characters are more commonly developed in the opening scenes of the game and in "cut scenes"—the in-between stages of game play that describe a basic advancing plotline, referred to by game designers as the non-interactive elements of the video game, also known as extradiegetic narration (Wolf 2001:101). The protagonists in these moments have motivations described in film language: lovers to be rescued, enemies to be defeated in epic battle, and comrades to be grieved as the camera cranes toward the sky. Both users and authors of games often neglect these non-interactive elements. Many gamers see them as irrelevant or at least tedious, getting in the way of the interactive elements of the game.

But in the game play itself—where substantial interaction takes place—the character (and thus the player controlling the character) is suddenly flattened in their narrative depth to become a collection of characteristics and functional affordances (Newman 2002). In game play, agency in the fictional universe is described through procedural rules that are programmed into the game. These rules constitute the universe of play—what is possible and impossible in the world—and how success and failure are measured. Not surprisingly, for reasons that anyone can intuit from understanding the definition of "game," most titles tend to modularize action to a degree that privileges short-term, highly situated environments to the detriment of appreciating longer narratives and the entangled moral introspection they can promote. This is so in the unfolding of many gameplay scenes or acts, but is also fundamentally expressed through the human-computer interaction with a video game system—a basic, instantaneous, real-time action-response feedback loop between the hands and the action on-screen. The player is constantly making decisions about what to do next; the process constitutes the interactive element in games. To draw an analogy, think about how your experience of a film would change if you had to constantly give stage and camera direction. This is not to say that the experience would be bad *per se*, or that it could not flourish as a narrative form; just that it would radically change the experience. And it would force a focus on far more utilitarian matters, possibly to the detriment of a complex traditional narrative.

This necessary focus in games upon utilitarian rules of decision and action also flows naturally from the medium of the computer. To generalize somewhat, when you are playing a video game, you are interacting with a web of small machines. In a physical sense, of course you are using a controller, pushing appropriate buttons to move your character or to enact a certain technique—interrogate a character for information, pick up a weapon, sell an object. But beyond the physical aspects of video game play (meagre and feeble many parents would complain), consider the act of button-pushing as a kind of dramatic manipulation of many small interacting software machines (Rollings and Morris 2000:402); different bits of technology in the game universe that are akin to physical automatons and robots of the past. They are chunks of computer code that crudely ape "intelligent" behaviour, as did Vaucanson's mechanical duck in *1738*,[4] or Maskelyne's whist-playing Psycho in *1875*[5]; and they have simply been transported to the virtual realm (Geduld and Gottesman 1978:22). The AI-driven character that greets

you at the entrance to the castle and offers some tantalizing hints is a technology, a virtual machine with embedded logic to greet. The monster that would tear you from limb to limb is a killing technology with a similarly appropriate logic; bare rules define its narrative existence. While graphically represented to contribute to the traditional overall narrative structure of the game, characters, puzzle environments, manipulable objects in the game are all in essence just bits of technology unto themselves.

Here I want to shift the discussion to begin to understand how these games might project onto the real world. In doing so, I hope finally to re-insert the social individual as a meaningful actor in my discussion, in order to avoid what Marsha Kinder describes as the formalist methodology of "cyber-structuralism"—that the medium of the computer dictates above all else the structure of the text (Kinder 2002:120). The flat, generally instrumental environments I have described above may be familiar to us in that our modern lives are profuse with technologies that govern and control us in various ways. With important exceptions that extend along a moral dimension, our lives can sometimes be an endless interaction with the technology we have at hand. Certainly this is a common, though deterministic way of viewing the modern world. By the word of the utopian technocrat, the profusion of technology properly applied will make us safer, more prosperous, with greater amounts of leisure time, and so forth. By the word of the dystopian, the increasing technologization of our world deskills humans, robs the individual of volition, and traps us in a faceless hyper-rationalized bureaucracy (Ellul, 1964:432). And the reality is a social process demarcated by these two poles (Leiss 1990:28). Games are an artistic expression of this contemporary relationship with technology. And so understanding the role of technology as it relates to our everyday lives is in some way important to understanding the phenomenon of video games. We need new tools of critical enquiry to supplement our narratological analysis of film and interactive media, and I suggest that the work of French socio-technologist Bruno Latour is useful in this respect. Latour describes our relationship with technology as one that involves various processes fundamentally social in nature, rejecting more traditional approaches to understanding the effects of technology as overly deterministic (Latour 1997:248). He develops a refreshingly commonsensical approach to understanding how technology encodes moral and ethical directives, and these ideas are helpful in understanding how the same is accomplished in the planning and construction of video games.

Latour illustrates this encoding of morality through the example of an abrasive automobile seatbelt alarm in his car, where the design of the safety technology conceals yet embodies human directives and decisions, and thus moral imperatives (1997:225). The sound is constant and demanding upon starting the car. An insistent light flashes, and Latour suggests that the car, the engineer, the driver, the police, and the law, as a web of human and non-human actors (or *actants*, a term Latour uses to remove what he sees as an unnecessary distinction between humans and non-humans) impose upon him, through the seatbelt alert, to do the right thing—it is a moral directive. He muses that he might have a mechanic disconnect the sensor, thus freeing him from this "program of action," establishing his desire to drive unsafely yet undisturbed as an "anti-program" that he enacts. He goes on to describe the still further countervailing technique of seatbelts designed to strap in a driver whether they remember to put on the belt or not, integrated as they are into the door, sliding out of the way when the driver exits. The program of action is here more firmly reimposed, dictating behav-

iour with an even stronger imperative (1997:226). Latour's analysis here seems tailor-made for the discussion; he expands at length upon programs of action, and the ideas telescope easily onto the quite literally programmed actions in the games. Game designers develop a dramaturgical backdrop to our relationship with technology; borrowing from Latour, one could theorize that video games are extended exercises in anthropomorphism. They tie dramatic and figurative elements to our techniques of machine use.

The authors of a video game don't write what will happen in a game as an author would in writing a novel, they describe more procedurally but not definitively how the game can be used (Murray 1997:211). It is a role similar to that played by an industrial designer, or an engineer. The game designers embed directives in the game's technology for the purposes of entertainment, rules that define what must happen for the game to move forward along a plot line (or in the case of games with some emergent rules, as in *Black & White*, what could happen) and what cannot happen. They use objects, skill affordances, environments, and characters—all of which are created as software technologies—to delegate or circumscribe how the game will unfold through the player's interaction, while leaving as much room as possible for the player to fill in the rest through their use of the game. It is a blend of fiction and socio-technical program; the player gets pleasure from revealing the technological program in a narrative context, and also by finding and exploiting the frayed edges where the program falters or is absent, like Poremba's "degenerate strategy," which is analogous to Latour's anti-program, trying to get around the circumscription of the story obstacles in the game (Latour 1997:261). The most common manifestation of an anti-program in games is ubiquitous cheat software.

Players download software patches to games, which give them various powers of omnipotence in single-player, or multiplayer environments. The ethical situations arising from the enactment of these kinds of anti-programs in game play can range from the harmless, with artificially "secret" codes published after a game's release (allowing a player to skip levels or acquire all weapons at once), all the way to real lawsuits laid to retrieve virtual property stolen from a character in a massively multiplayer online game (Lyman 2003). The rules of the game set by the authors, and the narrative structure built around these rules, are one level in which moral play mixes with strategy and tactics, and I have generally focused on this level. But players also modify their single-player game experiences using cheat codes, and use codes in multiplayer environments to gain a competitive edge, which in turn can radically upset the dynamics of the game; the cheats quickly become another important vector in moral play. These cheat codes are emancipatory in that they selectively free the player from the rules of the game, but such freedom is a short-lived pleasure if their only reward is to be brought closer to the end of a game, like skipping to the end of a murder mystery novel.

Beyond the individual player, the rules of intellectual property are a second level of moral play, where companies encourage, cede or outright prohibit control over modification of their games. On the one hand, gamers as "play hackers" modifying a game's original structure maintain interest in that title by creating new scenarios, characters, levels, and unforeseen uses for a game (Kline et al 2003:273). On the other hand, if cheating becomes widespread in a massively multiplayer online game, it can ruin the game's balance, which has immediate and dire economic consequences for the company, which relies on continued compelling online gameplay to drive revenues from monthly subscription fees. Blizzard Entertainment, for example, has taken an aggres-

sive policy towards cheating, that saw them recently cull 200,000 members from its multiplayer game servers for using software cheats (Blizzard Entertainment 2003). The problem is naturally amplified by the technology, where the decision to cheat becomes frictionless as one savvy gamer embeds their moral decision to cheat into a software object that is traded with ease over the network. And the rules of information economics and free-market capitalism are yet another level for moral play, where real money changes hands for these bits of software and virtual goods. These three spheres interact with each other in an accelerated manifestation of Latour's program/anti-program tension, elsewhere described as a tension in the gaming industry between *enclosure* and *access* (Kline et al, 2003:281).

Games are both produced and consumed on general-purpose computers, and so the end user has an equivalent amount of sophisticated, networked computing power to the designers at their disposal. Companies may capitalize on this end-user power by offering their audience robust tools for editing play levels, characters, and other properties in the game. But companies are also in constant battle with users who modify their games in more fraudulent ways, typically to defang them of security measures so they can be distributed for free. Game companies will mitigate this problem by limiting access to their intellectual property through enclosure. They may take a physical approach by building customized hardware that makes it non-trivially difficult to pick apart the game console to make games freely distributable or modifiable; they may digitally watermark their software to counter most would-be thieves. Pushing against this pressure to enclose software into a unit-based commodity are the benefits of access, for both gamers and game publishers. The same peer-to-peer networks and websites that facilitate the free exchange of pirated games also drive the fan base for the games in the first place. A game that is not widely pirated may actually fail to penetrate the very markets it needs to be profitable. A multiplayer online game that disallows a culture of play hacking will not grow into a community and a monthly fee for access.

So the user enjoys different levels of authorship in a relationship with these games; some pride themselves on constructing the best castle virtual money can buy, and others on writing the most elegant hack to remove security restrictions from the game. The publisher needs to curry favour with this audience, while trying to protect their intellectual property. Kline, Dyer-Witheford and De Peuter write that with one hand, the industry

> pushes to expand access to digital machines on which its market empires depend. With the other, it strives equally hard to police, contain, and constrain use of such machines to keep it within the boundaries of commercial profit, and to wipe out hacker practices. (2003:282)

The interaction among these Latourian actants provides a wealth of material for contemporary sociologists. They are keen to understand the consequences of the values embedded into the technology we create, and so-called ludologists should be doing the same with respect to the latest batch of simulator video games. The work of Latour, and others such as Andrew Feenberg in his excellent book *Questioning Technology* (1999), helps to explain the process of embedding moral values into our technology. In the world at large, Feenberg argues that it is a key site for contemporary democratic intervention, and that we need to stake a claim in this embedding process (131). The disconnect between us and our technical systems in the non-virtual world—and the

desire to understand them and control them more democratically—finds its way epiphenomenally into our interactive entertainment, mythologized in video games more benignly as a tension in the "balance of gameplay" (Rollings and Morris 2000:77).

Feenberg's work addresses our relationship to the technical sphere in a more fundamental way than a leisurely game; he is concerned with how society negotiates the technologies that give us nuclear power, worker safety, and those that enable clinical research in medicine, to name just a few examples. Yet it is not frivolous to pursue the analysis of modern video games as technical artifacts that embed values into the non-virtual world. Simulators and games are discussed at length by the Woodrow Wilson International Center for Scholars as a means to develop public policy in the future (http://www.seriousgames.org/). The U.S. Army offers its cutting-edge military training simulator for free download as a recruitment tool (http://www.americasarmy.com). *Virtual U 2.1* simulates the management practices of a modern American university, measuring the interaction between "...everything from faculty salaries to campus parking;" it is used to improve the real-world bureaucracy of universities (http://www.virtual-u.org/). Games will continue to influence our media ecology, and in some cases real decision-making.

Cultural studies scholar Marsha Kinder frames the issue in terms of storytelling, but the idea strongly echoes Latour and Feenberg:

> Ideologically, the function of narrative is to transmit or challenge the dominant values of a culture, as in myths, religion and history. The key questions are: how do narratives interpellate us as subjects who accept the prevailing order or, more interactively, how can we re-inscribe them for our own ends? (2002:121)

Videogames are a compelling new mix of technology and traditional storytelling, and on two important fronts that inform their design—namely, sociology of technology, and narratology—theorists are calling for users to be reinscribed into the technology in an improved, more participatory way. In the case of video games, this could mean different developments in the near future. Aside from the kinds of interaction I have already highlighted, users enjoy video games on many different cultural levels that I cannot hope to address in this article, particularly in the newer massively multiplayer online games that allow them to participate in the development of more open-ended narratives. Occupying a world sewn together through the Internet, they can roam freely and interact with other player-characters, slaying monsters and each other, solving puzzles, and chatting together. An *Ultima Online* virtual castle sold recently on EBay for US$2000, showing yet another way that players will continue to interact (Dibbell 2003).

Kinder catalogues these developments in her search to find new ways of interpellating us as subjects into games. Following her lead, innovation in the medium may occur through the development of still more participatory structures for in-game narrative. An obstacle to realizing innovation is the lack of publishers. There are fewer than 80 video game publishers of any scale worldwide, with perhaps 25 of them capable of regular publication (ESA 2003). The small number of publishers prevents so-called indie game development from taking much hold in North America, although Sony manages some measure of success with more "art house" style titles in Japan. The BBC recently reported that the French Government is offering four million euros to help

aspiring game developers turn their ideas into new games (Hermida 2003), and this kind of initiative may spur innovation in the development of more games that play along a sophisticated moral dimension.

Perhaps another step worth taking by existing game developers would be the creation of more robust authorship tools within their games. Many are content to be able to personalize their characters through clothing and naming. Others enjoy creating new virtual architectural spaces for others to play in using game-level editors. But more substantial innovation could result from allowing users access to more holistic development tools. Imagine a massively multiplayer online game with an author character class that would allow users to create their own virtual sandboxes of activity within the world. Not only could they build a castle, they could populate it with artificial intelligence characters and environmental effects. They could write dialogue and apply different styles of interaction, perhaps even in real time in a cluster with other players, in effect creating a story that doesn't rely solely on programmed dramatic events created by the original game designers. Given the disproportionate number of dungeon masters among them, developers have no doubt considered this idea, with truly staggering computational and logistical implications in game design.

But these technical issues of game-narrative authorship remain a subset of the larger media-ecological issues surrounding video games; possibilities for innovation are narrowed by the video game's location in a matrix of media concentration. The economics of a market dominated by a few large game publishing houses guarantees that only the most profitable markets will be pursued, to the detriment of niche titles that might be innovative from a narrative perspective. Kline et al are again useful here. Invoking the work of Heather Menzies (and by proxy that of Harold Innis), they are strident in naming this matrix and revealing it as a force that subsumes culture: "In the operations of the interactive game industry, cultural, marketing, and technological circuits are coordinated to reinforce each other in the creation of the 'ideal commodity' of the post-Fordist, postmodern world market—Sim Capital" (2003:291).

Discussion of the complex socio-economic framework surrounding video games must for sake of space fall afield of this article, except to show through snapshots that it is a powerful force shaping their design. Institutions like the Canada Council or Telefilm Canada, which might shelter independently published games from a hyperactive market that quells experimentation, do not yet support game design. The industry-created Entertainment Software Rating Board hews to traditional and still useful language borrowed from the film rating system,[6] but the language does not address this new capacity to act in the game. Parents accustomed to evaluating films in the context of violence and gender roles in the moral development of their children may comfort themselves in knowing that violence in a game, for example, is visually cartoonish or fantastic. But there is so far little in ratings language that addresses the nature of agency in the game or the ethical dimensions of doing things narratively in the simulated world, and evaluating the consequences of those actions. Armed with this information, parents might make purchasing choices that steer the development of new games away from overly mechanistic attempts at interactive storytelling, towards something new.

More troubling still is that game publishers have been taken to task by the U.S. Federal Trade Commission for actively marketing violent games to children (2003:45). Game publishers seek out market efficiencies by simultaneously advertising to teenagers and

adults (the average age of a gamer is now 29), usually addressing the ethical implications of minors playing adult games by designing a software "parent switch" that intervenes systematically by coloring blood green, or by having people knocked down in a game environment instead of having them die; here the anti-program offered parents seems a superficial panacea. Clearly introducing a more substantial dimension of moral reasoning into video games should happen more substantially on all fronts, beyond that of in-game narrative.

Fortunately, parents and government officials are not alone in lamenting the stagnation of game development. Designers and players too see what is lacking in games as a narrative art form, and experiment to address the often shallow, commoditized approach to these new narrative worlds. Michael Mateas and Andrew Stern are taking some first compelling steps in a new direction with their interactive drama *Façade.*

> In *Façade,* you, the player, using your own name and gender, play the character of a longtime friend of Grace and Trip, an attractive and materially successful couple in their early thirties. During an evening get-together at their apartment that quickly turns ugly, you become entangled in the high-conflict dissolution of Grace and Trip's marriage.... AI controls Grace and Trip's personality and behaviour, including emotive expressions, spoken voice and full-body animation. Furthermore, the AI intelligently chooses the next story "beat" based on your moment-by-moment interaction, what story beats have happened so far, and the need to satisfy an overall dramatic arc. (Mateas and Stern 2002:2)

While it is in many ways too pat to set *Façade* in contrast to *Quake* when speaking of moral agency, the two games do bookend a spectrum of moral play. Here complex weaponry, gore and dazzling graphics are set aside in favour of a new kind of artificial intelligence, driven by expressiveness and emotive actions along with instrumental ones. Where in a conventional game a computer programmer might encounter a coded variable designated `Kick_LeftAggressionHigh` as a computer script to encapsulate the subsequent movement of virtual limbs in a fighting game, in *Façade* the code embeds a different kind of behaviour, like `Mixin_GraceSuggestsCoaxing Reluctant` (2002:13). Such a variable in turn contains the instrumental dramatic behaviours of a smile, the gesture of touching an arm, and perhaps dialogue to entreat. The language of the variables in *Façade* suggests how the focus of the interactive drama is different from that of a contemporary video game, and thus how their work might be integrated with development methods in future game designs.

Mateas and Stern are thorough in pointing out the failures of their interactive drama system. Even in a simple one-act play, authorial labour and the complexity of composing convincing behaviour continue to hamper their efforts to produce wide-ranging agency within the scenario. Natural language—the interface by which the player interacts with the piece—is perniciously difficult to parse, and embodied interaction by the player's character needs to matter in a newly subtle way (2002:29). Nonetheless, we see in *Façade* the protozoan building blocks of an interactive narrative game space, where the system keeps track of promises, rivalries and discourses along with position, speed, and energy. Embedding this logic into tools, and making these tools accessible to gamers who fancy themselves procedural playwrights seems to be the logical direction to deepening the experience of what will be a maturing audience in the years to come.

In this way we might get past the cybernetic, bureaucratic focus of current games and start sharing stories with one another more substantially.

Notes

1. The best examples of these conversations can be found at Gonzalo Frasca's http://www.Ludology.org and the online scholarly publication, http://www.GameStudies.org.

2. The computational brinksmanship among graphics card manufacturers for cinematic realism has most recently (and rather stunningly) reached its pinnacle with Nvidia's FX series of cards: http://www.nvidia.com/page/power_demos.html.

3. See for example papers presented at the 2003 Level Up Conference (http://www.gamesconference.org/), and Mark JP Wolf's *The Medium of the Video Game*. 2001. Austin, TX: University of Texas Press. James Gee's *What Video Games Have to Teach Us About Learning and Literacy* is also an instructive discussion of semiotic domains as they relate to video games. 2003. New York, NY: Palgrave Macmillan.

4. Vaucanson was proud that his gilded copper duck could eat, quack, splash about, digest food, and even defecate (1978:22).

5. The automaton Psycho could perform feats of mathematics, spell, smoke, and also give the Masonic handshake (1978:22).

6. See http://www.esrb.org/esrbratings_guide.asp for a detailed listing of terminology used in the rating of games.

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