

## Worlds of affect: virtual geographies of video games

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**Abstract.** Video games are virtual worlds, each with its own, distinctive spatiality. This paper suggests that there are two interrelated conceptual dimensions to the study of video games. First, there are the representational issues concerning the worlds depicted in video games, such as those portraying hypersexualized women or Orientalist depictions of Arab enemies. We suggest, however, that these cultural, sexual, and political representations are not the only forces doing work on the player within the virtual world of a video game. This paper complements a purely representational approach by considering ‘affect’ as a precognitive force which disrupts and delights the player with reactions ranging from fear to joy. We argue that, as the spatiality of video games has evolved from simple two-dimensional to complex three-dimensional worlds; the importance of an affective experience to the player has become paramount. Exploiting and manipulating the player’s sensory experience is now the central strategy for many game designers. The paper is divided in two interrelated sections: the first tackles representational issues from culture to violence, while the second section contributes to our understanding of video games as ‘worlds of affect’.

Video games invite players to explore, consume, and experience virtual universes. Embedded within video games are worlds, often of startling depth and complexity, which the player is able to navigate and manipulate. For example, promotional material for the online video game *World of Warcraft* invites the player to “Descend into the World of Warcraft and join thousands of mighty heroes in an online world of myth, magic and limitless adventure. Jagged snowy peaks, mountain fortresses, harsh winding canyons. Zeppelins flying over smoldering battlefields, epic sieges—an infinity of experiences await. So what are you waiting for?” These virtual spaces within video games simultaneously enable, limit, and contextualize the player’s perspectives and activities. It would be difficult or self-defeating to construct a game in which anything was possible, so the spatiality of a video game is crucial to its design and limitation. In this sense, video games are virtual spaces of activity.

Given the necessarily spatial quality of most video games, it is surprising that so few human geographers have engaged the topic. Johns (2006) examined the production networks and corporate structures of the industry, but to date no geography has delved into the consumption of this product, which represents the penetration of commodity relations into the innermost recesses of consciousness. Videogames are thus simultaneously commodities and sites of meaning. Given some of the social, cultural, political, and gender debates that video games have stimulated in wider public discourse, together with their capacity to invite the player into expansive alternate worlds, this reticence is regrettable.

This paper addresses this shortcoming. We contextualize the main themes of extant research for a geographic audience. Our approach is twofold. First, we discuss the representations of video game spaces. The ‘representational’ quality of video games is

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the object of research for most studies, with questions attending to how video game spaces are coded with meaning. In the section on ‘worlds of representation’ we discuss the placed, gendered, racialized and politicized quality of game spaces. The second thrust concerns ‘worlds of affect’ and goes beyond an essentially hermeneutic approach to seek out the ‘affective’ dimension of video games. We believe that discussions that focus squarely on video games as representations miss the way in which these worlds *affect* users on an embodied, preconscious level. Drawing from the literature on non-representational theory, we situate video games as increasingly sensorial commodities creating virtual spaces which expose the player to a variety of affects. Thrift (2008) aptly outlines the fundamental dimensions of affective theory. We have chosen this approach since it is one of the foundational approaches to affect, centered on emotional feelings such as surprise, fear, anger, disgust, sadness, and joy, as well as arousal of the autonomic nervous system and related behavioral expressions. Affects are thus types of precognitive and embodied (re)actions, and their analysis points to the dynamics of capitalism at an emotional as well as an intellectual level, that is, as it operates within the depths of the unconscious as well as consciousness. The theoretical purchase of this paper is the exploration of the connections between game spaces as representations and game spaces as constellations of affects. Whilst video games can be discerned both as ‘worlds of representation’ and as ‘worlds of affect’, the critical point we hope to make is that these separate dimensions are always interrelated. Before we discuss the representational and affective qualities of video games, we start by contextualizing video games and the video game industry.

### **Beyond fun and games: video games in social context**

Video games have a remarkably long history which stretches back to the flight simulators widely used during World War II. In 1962 Steve Russell, an MIT graduate student, invented the very first video game, *Spacewar*. Yet it was not until the software company Atari released the classic coin-operated video game *Pong* ten years later that video games flourished in popularity. From their explosive growth in public arcades, video games spilled rapidly into the domestic sphere in the 1980s, played on increasingly affordable home computers such as the Atari 400 and the Commodore 64, one of the most popular personal computers of all time. Eventually, Nintendo and Sega emerged as the dominant software and hardware producers in the video game industry, giving life to cult video game characters Mario and Sonic the Hedgehog in various graphical incarnations during the 1980s and 1990s. The release of the Playstation by Japanese company Sony signaled a turning point for the gaming industry as it was a hardware platform which engendered a mainstreaming of video games such as the iconic *Tomb Raider*, famous for its female heroine Lara Croft. Today, the video game market is split between three competing hardware and software companies: Microsoft and its Xbox 360 console; Sony and its Playstation 3 console; and Nintendo’s Wii console. The personal computer also remains a popular platform, with advances in broadband allowing for online-based games, such as *World of Warcraft*, to snare 10 million subscribers across the globe. Multiplayer games evolved from text-based multiuser domains to the more immersive environments of massively multiplayer online role-playing games, such as *World of Warcraft*, each with tens of millions of players connected worldwide via the Internet.

Today, video games constitute a vast and growing global market concentrated largely, but certainly not entirely, within the world’s industrialized countries. More than 67% of American heads of households play video games regularly; the majority of them are adults, and the average age of players is 35 years (Entertainment Software Association, 2008). South Korea offers perhaps the world’s most advanced video game

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culture (Schiesel, 2006), a \$5 billion annual industry in which video games approach the iconic status of sport in Western countries. For example, Korean *Starcraft* champions such as Lim Yo-Hwan or Hong Jin-Ho are national celebrities. The Korean government initiated and supports the Korean Games Development and Promotion Institute, an agency charged with encouraging and facilitating the gaming industry as a key strategic industry within that country.

Video games have generated a substantial commercial market. In the USA alone, video game sales exceeded \$9.5 billion in 2007, a level almost triple that of 1996 (Entertainment Software Association, 2008). According to Castronova (2001), the virtual world of *Everquest* has a GNP per capita of \$2266, making it the 77th richest nation in the world. The World Cyber Games (WCG) is an international e-sports event operated by the Korean company International Cyber Marketing and sponsored by various technology companies. At the 2006 WCG in Monza, Italy, 700 participants from 70 countries shared prize funds amounting to more than \$460 000. These competitive tournaments gave birth to the first professional video game player, Johnathan 'Fatal1ty' Wendel, who has amassed more than \$500 000 of prize funds over his career, playing against other competitors in games such as *Quake 3*, *Quake 4*, *Unreal Tournament*, and *Painkiller*.

Further evidence that video games are now being commercialized at an unprecedented rate comes from the increasing use of brand placement and advertising in game space, a phenomenon already widespread in television and movies. For example, Nelson et al (2006) reveal that feelings of immersion while playing a game can influence or persuade the player to purchase real-life brands. Malaby's (2006) study of 'capital' in video games reveals the plurality between virtual and nonvirtual markets. Arrays of valuable 'in-game' items belonging to virtual worlds of popular online games possess tangible value *outside* of the game. Indeed, metaverses such as *Second Life* (launched in 2003) and *Entropia Universe* (launched in 2006), with more than 20 million players each, allow real fortunes to be generated from virtual businesses: consider the Taiwanese entrepreneur Anshe Chung, who became a multimillionaire (Dibbell, 2006). Moreover, the legal consequences of blurring virtual and nonvirtual markets are only just becoming apparent. For example, a Dutch teenager was recently arrested for stealing online furniture (*BBC News* 2007). In this light, the blurring of boundaries between video games and the 'real world' has led to significant social impacts (Balkin and Noveck, 2006; Boellstorff, 2008; Castronova, 2007; Taylor, 2006).

Cybergeographies, embracing virtual reality and cyberspace, exemplify the wider predilection that human geography has recently shown for blurring rigid binaries such as nature–culture, local–global, or individual–society (Kitchin, 1998). There is an extensive and growing literature on the geographies of cyberspace that examines, inter alia, the spatiality of the Internet (Dodge, 2000) and differentials in access to it (Warf, 2001), the political origins and repercussions of digital worlds (Crampton, 2004), the multiple ways in which cyberspace and everyday life are interpenetrated (Nunes, 2006), and processes of on-line identity and community formation (Jones, 1997). The interfacing of everyday life and virtual worlds has rewired material landscapes, giving birth to complex sociotechnical relations across space and time (Graham, 1998). For example, some US players, seeking to skip the easy and boring early stages of online role-playing video games, outsource this stage to hired, often impoverished, Chinese players known as 'gold farmers', allowing them to advance rapidly to the later, more challenging, stages (Barboza, 2005).

As mentioned above, it is limiting to conflate video games with other types of media which have traditionally been read as 'texts'. Video games differ greatly from traditional texts: they comprise imaginative geographies in which the virtual worlds are

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coproduced by the designer and the player (Berger, 2002). The two-dimensional or three-dimensional, interactive, and intensely visual nature of video games defies the linearity that underscores traditional textual narratives. This 'spatiality' of video games must therefore be the starting point for analytical considerations. In this paper we extend a representational approach by considering the nonrepresentational 'surplus' of video game worlds, which we label 'affect'. Understanding affect is critical to appreciating the experiential quality of video games.

There are many theoretical lenses through which one could approach video games. We adopted nonrepresentational theory, as developed in human geography through the work of Nigel Thrift (2000a; 2000b; 2004; 2005; 2006; 2008), because of its attendance to the way in which spaces are always in excess of our orderings and cognitions. Similarly, we maintain that the spaces in video games possess an affective excess, with virtual worlds increasingly 'spilling out' of the screen to affect the player in banal, exciting, or unexpected ways. One need not look further than someone engaged in an intense round of tennis in *Wii Sports* or screaming with fright while playing *Bioshock* to understand that the sensorial qualities of video games are increasingly becoming commodified in their production by industry producers. This dimension underscores why we argue that video games are becoming increasingly sophisticated 'worlds of affect'. What follows is an exploration of the representational issues of video game worlds, followed by our own theoretical contribution on the nonrepresentational or 'affective' quality of video games.

### **Worlds of representation**

Video games cultivate the idea of plural, alternative possible worlds which blur the distinction between the real and the imagined. This line of thought reflects Baudrillard's (1993) famous assertion that postmodern capitalism drenches the world in images without a fixed referent, creating a universe of free-floating signifiers increasingly detached from the 'real' world. Video games represent one dimension by which the world of computer graphics, so central to contemporary cinema, pervades the private spaces of the home and deepens the commodification and aestheticization of entertainment. Part of the attraction of video games is allowing players to engage in a unique and alien virtual environment. For example, in a study of 'world creation' in *World of Warcraft* Krzywinska (2006) illustrates that the environment constructed within the game is rich with distinctive mythologies, histories, cultures, races, and rhetorics. These signifiers cannot be discounted as mere footnotes to the game but, rather, serve to form an active device central to the experience of the player. However, Krzywinska's study reflects a wider tendency to ignore the affective dimension to these worlds, and how they shape the player.

Before exploring this idea further, we take time below to explore some of the key issues that arise from investigating the representational quality of video games, that is, how they are rooted in, and in turn project, social, sexual, and political norms. We first sketch out how the underlying spatiality of these worlds has changed over time. This spatial mapping is important, since we believe that the movement from simple two-dimensional worlds to complex three-dimensional worlds has facilitated the growing importance of 'affect' to the video game experience.

### **Spatiality**

Commenting on the way in which images are organized in paintings, Rose (2001, page 40) states that "All images have their space organized in some way, and there are two related aspects of this organization to consider: the organization of space 'within' an image, and the way the spatial organization of an image offers a particular

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viewing position to its spectator.” The virtual worlds embedded within video games also present a type of spatial organization and a type of viewing position. In the first instance, Wolf’s (1997) analysis of the evolution of spatial representations in video games is a useful starting point for sketching the leaps made in the spatial organization of virtual worlds. The first video games were text based, such as *Zork*, emerging in the early 1970s and relying on a command-line interface. *Pacman* heralded a movement away from this format yet, like text-based video games, the entire spatial organization of *Pacman* was projected onto a single and static screen. These static screens became sutured together, resulting in a pastiche of screens that could be traversed, as in the game *Pitfall* on the Atari 2600, for example. These ‘stitched together worlds’ then progressed into seamless and scrolling screens, embodied in games like *Defender* which could scroll on two axes. The scrolling screens then developed into independently moving layers, trumpeted by the colorful landscapes found in *Super Mario Brothers*. Together with *Sonic the Hedgehog*, these iconic figures cemented the popularity of the two-dimensional platform genre.

The jump to three dimensions replaced the linear ‘obstacle courses’ found in most two-dimensional platform games with the opportunity to explore exponentially more expansive and open-ended worlds. This move to three dimensions is critical to understanding how these worlds have become increasingly affective. With one or two dimensions the on-screen character or avatar is detached from the player, producing a kind of ‘Cartesian transcendence’ or distinct separation between player and avatar. With three dimensions, however, a video game is substantially better positioned to immerse the player in a virtual and affective world. On-screen events appear more ‘immanent’ to the player than do the abstract representations found in two-dimensional games. This immanence is at its most pronounced when the game adopts a first-person perspective within a three-dimensional spatiality. With this perspective, designers of video games remove the on-screen character altogether, transforming the television or computer screen into the eyes and ears of the player. This removal of an on-screen object facilitates the player’s unmediated encounter with virtual space. It is in this sense that we argue that the range of possible affective experiences is intimately related both to the spatiality and to the subsequent perspective of the virtual world adopted by the video game, an idea explored below. What is worth mentioning at this stage is that representation and affect are not entirely separate: rather, they are interrelated forces always doing work on the player. The increasing sophistication of virtual worlds has given rise to pressing sexual, social, and political issues, all of which have affective consequences. It is to these representational issues that we turn before examining affect and video games.

### **Gender and race**

For many players, video game worlds are important, even addictive, sources of recreation. For example, Wright et al (2002) discuss the social character of many video games, and the complexity involved with game talk and specialized online parlance. In an Internet survey, Jansz and Tanis (2007) reveal that most gamers who play online shooting games do so for social interaction, with 80% of respondents being a member of a ‘clan’. In this sense, there is a significant degree of conceptual ‘bleed’ between cultural representations in video games and everyday life. However, an ontological ‘bleed’ (eg Massumi, 2002) between the player’s body and game space is usually omitted from these studies. Griebel (2006) investigated the links between personality and the way in which people play games. In an analysis of thirty participants, behavior manifested in the game *Sims 2* was positively correlated with distinct personality characteristics. Valentine and Holloway’s (2002) study of children aged 11–16 years highlights the plurality and mutual constitution of both online and offline worlds,

with Fromme (2003) suggesting that gaming is integrated into existing peer friendships. Yee et al (2007) mirrored this study by showing that social interactions in the virtual world parallel social patterns in the physical world. One consequence of this bleed, argues Delwiche (2006), is that playing online games has educational merit. He asserts that many abilities which players learn online, such as social skills, can translate into the offline world. With these skills in mind, Delwiche's study only begins to hint at the corporeal aftereffects of video games.

The growth of multiplayer games over the Internet has allowed users located at great distances from one another to share a common experience, even if it is generally a competitive one. Indeed, the competitive dimension of many games—player against machine or players against one another—accounts for the fact that the market exhibits a distinctively testosterone-laden culture dominated by hypermasculine narratives and representations (Cassell and Jenkins, 1998). In the vast bulk of video games, aggression, violence, war, and physical prowess are the standards by which the success or failure of players is judged. Despite the hypersexualized representations of women in videogames, the most notable portrayal of women is actually their invisibility, with men represented on game covers four times more often than women (Burgess and Burgess, 2007).

However, as Bryce and Rutter (2003) suggest, while gaming is usually accepted as a male leisure activity, it may provide the space in which overly coded and stratified gender roles become unhinged and rewritten, even if only at an ephemeral and representational level. For example, the widespread use of avatars, or on-screen characters controlled by players, opens the possibility of postmodern experiments in fluid, alternative identities:

“Indeed, virtual worlds may offer opportunities to recreate gender identities in ways that we have only begun to imagine” (Hayes, 2007, page 47).

Online role-playing games (such as *World of Warcraft*) are spaces in which the player can perform alternative gender identities. In this sense, video game worlds offer the space to experiment with new gender identities (Royse et al, 2007; Walkerdine, 2006). Video games are thus important elements in ongoing culture wars and negotiations (Squire, 2002).

Equally concerning is that video games worlds remain steeped in racialized representations (Jansz and Martis, 2007), including the near universal portrayal of white video game protagonists. This privileging of the white normative user is still widely prevalent in new forms of media and cyberspace (Lovink, 2005), creating highly racialized (and often racist) virtual topographies. Despite these racist and hypersexual representations, whether or not the affective experience of the player is universal (that is, cross-cultural) or specific to the social world of individual users is largely an unexamined question.

Driving cultural representations is the video game industry itself, which started as a mosaic of small firms which gradually aggregated into the multinational corporations we see today. According to Johns (2006), through takeovers, mergers, and acquisitions, power in the industry increasingly congealed in American, Japanese, and French firms. Notwithstanding this triregional structure, video games can act as a hub for diverging cultural representations able to capture, commodify, and distribute cross-cultural representations. Similarly, Consalvo (2006) argues that the video game industry is a hybrid of American and Japanese business cultures, with the cross-cultural content of the *Final Fantasy* series illustrating a bleeding of normative national identities.

## **Violence**

Concerns about sexual and violent representations in video game worlds have long been voiced by parents' organizations and conservative political groups, who have

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called for more stringent rating systems than the ones currently maintained by the Entertainment Software Ratings Board. The controversy surrounding explicit (or not so explicit) sexual scenes embedded in *Grand Theft Auto: San Andreas* prompted Senator Hillary Clinton to call for an investigation by the Federal Trade Commission. A more recent debate concerned the controversial world of *Manhunt*, which allows players to perform stylistic murders. Psychologists have hotly debated the relationship between violent video games and violence in everyday life, exploring whether or not a ‘bleed’ exists. When conducting a review of the video game and violence literature, Anderson and Bushman (2001) concluded that there *is* a positive correlation between exposure to violent video games, aggressive behavior, and sexual arousal in males, females, children, and adults. Chumbley and Griffiths (2006) point out that it is possible that this correlation between game play and behavior may represent backwards causation, that is, aggressive people may be attracted to video games in the first place. More likely is that the predisposition to violence in games and users is a simultaneously determinant phenomenon.

As virtual worlds are frequently moored in off-screen cultural norms, we can ponder how video games can comprise channels through which ethnocentric and political agendas are funneled. One need only look at the Orientalist depictions of Arab enemies in games like *Call of Duty 4* for confirmation of this suspicion. Halter’s (2006) analysis of the links between video games and the US Army illustrates that virtual worlds can be created explicitly to further nationalist propaganda. *America’s Army* is a first-person-shooter game created by the US military as a recruitment aid, and cost over \$7 million to produce. The game bluntly deploys colonial and imperial representations within cyberspace. Realistic representations are crucial to the success of this virtual world, since realism is utilized by the US Army intentionally to blur the lines between virtual and nonvirtual representations. Video-game worlds thus expose the player to politically driven representations which are much more immanent and interactive than news reports on the television or in a newspaper: the ‘War on Terror’ can and is being waged in virtual space. The ‘affective consequences’ of immersing the player in the racist and war-torn landscapes of games like *Call of Duty 4* are currently not considered in the literature; the bleed is representational rather than ontological, that is, concern is on how video game worlds are moored in everyday cultures and worlds. It is the separate but always interrelated affective dimensions of gaming worlds that we turn to now.

### **Worlds of affect**

Through the increasing sophistication of virtual worlds, video games have become progressively more affective. The genre has always operated on representational and affective levels, but the literature on video games has largely failed to capture this latter dimension, thus implicitly assuming that the player is an incorporeal being numb to the virtual topographies he (or, less frequently, she) navigates. We redress this shortcoming by stressing the affective link between video game worlds and bodies. Our focus in this final section is to investigate the ways in which gaming worlds are increasingly produced to thrill the player with scripted and nonscripted ‘affective experiences’.

What exactly is this thing called ‘affect’? Thrift (2008) outlines five main schools of affective theory, and the one that we use here, affect programs theory, is most congruent with commonsensical interpretations of affect. This view is derived from an hermeneutic of emotions such as surprise, fear, anger, disgust, contempt, sadness, and joy. We use affect, then, to designate the precognitive, unconscious, and embodied reactions to on-screen representations. Affect and representation are indelibly linked, as argued by Massumi (2002). As noted, the leap to three dimensions, galvanized

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by immanent first-person perspectives, opened virtual space up to a host of affective potentials. First-person perspectives excel in creating an affective, even narcissistic, experience. According to Taylor (2003), the empathy which players attach to the in-game character alters our levels of immersion and affection: through empathy, players become narcissistic forces *within* the game's space. In distinction, the Cartesian perspective resulting from two-dimensional worlds minimizes the empathy and immersion experienced while playing.

The turn to the explicit engineering of affect by game designers is an essential strategy to keep gamers consuming, that is, it reveals video games as much more than simple sources of entertainment, but as avenues through which commodity production and consumption penetrate into ever-deeper levels of consciousness. Thrift (2000b) notes the current rise of the 'experience economy' in industrialized countries, with capitalist firms now aggressively targeting sensory, perceptual, and cognitive dimensions as a largely untapped market. With their uniquely absorbing virtual worlds, video games have always possessed an affective impact above and beyond their on-screen representations. This connection is increasingly exploited by a new generation of three-dimensional video games which entrance players with deeply affective spaces and events. It is not the case that video games prior to the three-dimensional universes found today were any less likely to produce affect: the frustration felt in simple, even primitive, games like *Tetris* is very real indeed. What is new is that affects such as fear or surprise now play an increasingly central role in video games. The three-dimensional landscape is unique precisely because of what the player *cannot* see. The perspective gained from three dimensions allows the game designer to hide affective events. For example, monsters can lurk behind corners or enemies can sneak up from behind the player. With a two-dimensional Cartesian perspective, the landscape is largely mapped before the player. On the other hand, with a first-person perspective, the spatiality of the world becomes far more *experiential* for the player: there is a 'near' and a 'far', an 'above' and 'below', and a 'behind'. Exploring virtual space is increasingly an experiential negotiation ripe with affective potentials.

As such, the relationship between the player's body and his or her gaming space is not a simple duality. Hillis (1999, page 164) argues that in virtual environments "a quasi merger of embodied perception and externally transmitted conception happens at the level of sensation." In what follows, we think through this ontological relation. We use the term 'body' in an abstract sense, to mean the potential to affect and be affected emotionally as well as cognitively, unconsciously as well as consciously. In this sense, following Deleuze and Guattari (1987), we are more interested in 'virtual' bodies than 'actual' bodies. For Merleau-Ponty, on the other hand, "The body is the vehicle of being in the world. To have a body is, for a living being, to join itself to a certain environment, to involve itself with certain projects and therein to engage itself continuously" (quoted by Nguyen and Alexander, 1996, page 117). The body is the locus of the self and self-consciousness; it is the only part of our environment that is also part of us, simultaneously 'it' and 'I'. A growing literature has examined the relations between cyberspace and the body (Featherstone and Burrows, 1995; Shields, 1996). Haraway (1991) famously declared that, in an age of digital technologies, the boundaries between bodies and machines have blurred, asserting that most people have become 'cyborgs', or cybernetic articulations of tissue and technologies. Relatedly, Leslie and Butz (1998) note how cybernetic systems are used to code the body in post-Fordist capitalism. Given these interdependencies, simple dichotomies like player and game, or real and virtual space, fail to do justice to the depth and extent to which digital technologies have penetrated minds and bodies in contemporary capitalism, an age of bewildering time-space compression (Warf, 2000).

Video game worlds can expose the body to a maelstrom of affective events “affirming both a materiality and its affective density, mapping out a fluctuating geography of experience wherein the nexus (and the certainty) of the subject dissolves in an aura of affective energy coloured by different degrees of force intensity” (Dewsbury, 2000, page 487). The affects encountered by the player in virtual worlds are never ‘possessed’ by the body: rather, they are impressions fleetingly experienced:

“Affects and percepts are precisely domains of experience that are more-than-subjective” (Wylie, 2005, page 236).

Similarly, for Deleuze, all organisms are contractions of their immediate sensory and material milieus:

“By its existence alone, the lily of the field sings the glory of the heavens, the goddesses and gods—in other words, the elements that it contemplates in contracting” (1994, page 75).

In this sense, the link between affect and representation is one of contraction: as the player navigates virtual space, the representations contemplated become embodied, felt, experienced, and lived.

Practically all video game players have at one stage been so immersed in a gaming world that a synergy occurs between what happens on screen and what happens to the body. When visiting an amusement arcade, Buse (1996) asks whether we are seeing bodies controlling machines or machines controlling bodies. Certainly for Thrift (2008), they both possess at least an equal weighting. In playing games, players experience two sets of time and space simultaneously: the time and space interior to the game, and that external to it. Often these dimensions bleed into one another. Murphy (2004) argues that the television screen once contained game worlds and environments but, through the introduction of ‘force-feedback’ technologies, players now feel the action of the gaming world as a corporeal sensation. In this sense, traditional televisual spaces once contained by the television have now *spilled* out into the physical world, generating new topographies of body and game space. We can think of Nintendo’s *Wii* as breaking the mould of traditional game–body interactions. The unique ‘Wiimote controller’—a handheld remote-control device that functions in a similar way to a traditional gaming pad—also extends gaming space by correlating the movements and rhythms of the body with the gaming world.

As Wylie (2006) points out on his work on landscape, the visual world always transcends our perceptions of it. Our senses can never entirely grasp the richness, complexity, and depth of life. There are first and foremost virtual associations (affects and precepts) that are anterior to subject and object. We are thus led to think of the video game player as an *affective event*, a constellation of affects and percepts that is constantly changing and coming undone:

“In such a world, that is incessantly bifurcating and resonating amongst the different movements of its many compositions, our subjectification is always occurring” (Dewsbury, 2000, page 487).

In each moment between the experiential (what is experienced) and the referential (what is represented), there is always the potential to *become other* and to transform oneself (Deleuze and Guattari, 1987). Escaping everyday representations is one of many possibilities offered by virtual gaming worlds, and these alternative representations produce their own distinctive constellations of affect.

Accordingly, much of the enjoyment derived from video games is derived from embracing the in-between moments and events within virtual worlds where players exist ‘outside themselves’ as constellations of shifting affects. Virtual worlds provide the space necessary to rearticulate everyday affective sensations through an assault on the senses. Video game worlds expose bodies to events which produce a range of

affects from fear to joy. Game space is increasingly an affective landscape, and once the player turns his or her attention to the experience of space, he or she is shaped not by the representations of space, but of the body's *affective* articulation in another world. Like a roller coaster, the player experiences the thrill of virtual space without the risks: a *premeditated adrenaline*. As such, the link between the representative and the affective dimensions of game space is more a Möbius strip than a clearly cut divide.

### Conclusions: game over

Video games (re)present rich and expansive worlds which provide the player with a virtual milieu for a multitude of activities, often violent social worlds, complex political environments, deeply racialized landscapes, and hypersexualized sites. The embryonic and cross-disciplinary literature on video games has explored many of these challenging and diverse dimensions. Yet this body of research will grow stale if it remains concerned purely with the representational dimensions: there is a need to go beyond exploring video games solely as representational and investigate the concomitant work that affect is always busy doing 'behind the scenes'. We make this claim because of the ways in which each player's sensory register is increasingly commodified and exploited under postmodern capitalism. The representational and affective qualities of video game worlds are not opposites but complementary forces always doing work on the player. The questions raised by this line of thought are multitude. For example, what are the intellectual opportunities posed by treating video games as more than just representational worlds, but as *affective* worlds too? What are the consequences of going 'beyond the screen'?

Certainly, an affective insight sheds some light on the dangers of cultivating *hatred* towards 'Arab enemies' in games like *Call of Duty 4* (or any 'Other' enemy), or feelings of *desire* or *disgust* for hypersexualized and racist portrayals of men and women. Following Massumi (2002), we can claim that affects are always *qualified* by on-screen representations: images, characters, and worlds can become objects of joy and hatred. While clearly it does not simply or deterministically follow that what happens 'on-screen' will affect the player 'off-screen', the bleed between these two domains hinted at by numerous studies should be cause for concern. Similarly to the way in which Debord (1994) warned of a society of the spectacle based on the worship and autonomy of images, there is a risk that the affective–representational worlds of video games can resonate in disturbing and problematic ways: recount the 19-year-old US marine in Iraq, who, after driving into an ambush remarked:

"*Grand Theft Auto: Vice City*. I felt like I was living it when I seen flames coming out of windows, the blown-up car in the streets, guys crawling around shooting at us. It was fucking cool" (Wright, 2004, page 5, emphasis added).

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