Digital games as new media [draft]
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Introduction

This chapter is about digital games as new, computer-based, media. Digital games are mass market commercial products, developed and distributed by established media corporations and often populated by characters and scenarios from television, cinema and comics. The playing of digital games is rooted in long-established patterns and practices of media consumption. As such, media studies as a discipline offers valuable theoretical resources to the study of digital games and new media. Yet we will argue that digital games are also a challenge to media studies, and require new concepts and theoretical resources to fully analyse these games as popular media artefacts, and their consumption in play as new media practices. We will concentrate on the newness of digital games: focusing in particular on key similarities with, and differences from, longer established forms of screen-based popular media such as television and film.

The newness of new media is precisely their digital nature, their status as computer software and hardware, and the new forms of engagement and experience this computer basis facilitates. Digital games are a paradigmatic new medium in that they offer experiences and pleasures based in the interactive and immersive possibilities of computer technologies. This chapter will explore these experiences and pleasures, identifying new conceptual frameworks to analyse and account for them. We will look at:

> • How digital technology facilitates new relationships between media consumers (gameplayers) and media objects (digital games).
> • Ways of understanding new media forms integral to the digital game: forms (such as interactivity and simulation) that have their origins in computer science rather than popular media.
> • Ways of understanding the distinct pleasures of *immersion* in the dynamic virtual worlds of digital games.
> • How digital gameplay raises questions of the meanings – and agency – of technology.
> • How digital games have imaged and dramatized technology, providing a 'technological imaginary' of digital culture.
> • How both the technological imaginary and the actual, real-world relationships and networks between players and digital games suggest new ways of theorising the subject in digital culture.

Texts or machines?

If the study of digital games necessarily foregrounds technology as key object of study, what then are the implications for media studies? Media studies has been rightly critical of notions of technological determinism, the assumption that technologies have inbuilt qualities or characteristics that absolutely determine their subsequent uses and effects (see in particular MacKenzie and Wacjman, 1999; Williams, 1974). In part to counter this technological determinism, media studies has used the metaphor of the 'text' to study the uses and meanings of media technologies. Manufacturers may attempt to build in, and articulate through promotion and advertising, particular uses for their products, but these meanings can never result in anything more than 'preferred readings'. For example, early home computers in the 1980s were often sold as 'respectable' information technologies, but were widely consumed as games machines by their purchasers. Media technologies (like all commodities or media content) then, are 'texts', 'encoded' products which may be 'decoded' in their consumption to reveal a quite different message (Mackay, 1997: 10). So, 'the effects of a technology ... are not determined by its production, its physical form or its capability. Rather than being built into the technology, these depend on how they are consumed' (Mackay, 1997: 263).

However this approach has its problems. Media technologies are not only decoded, they are *used*, they facilitate new uses and activities (for example, the various practices of domestic photography or texting on mobile phones). Computer media technologies in particular, whilst they carry media texts (games, essays, photographs) are also artefacts and machines. In important ways their effects *are* both limited and facilitated by their physical form and capabilities. Theorists in a wide range of disciplines have addressed this issue: how to study the effects or agencies of technologies (including digital technologies) without lapsing into over-simplistic versions of technological determinism. Marilyn Strathern sees domestic information and communication technologies as 'enabling'. In terms which seem to assign some agency to these technologies, she suggests

> [t]hey appear to amplify people's experiences, options, choices. But at the same time they also amplify people's experiences, options and choices in relation to themselves. These media for communication compel people to communicate with them (1992: xi).

Digital games, media consumption and production

In the late 1970s and early 1980s, home computer owners had to build their new computers themselves from a kit, and learn some programming to make them work. Home computers were rarely bought for any clearly perceived need or purpose, rather they were explored as new technology, to see 'what they could do' (Ceruzzi, 1999; Haddon, 1992). If nothing else, the purpose and pleasure of home computers lay in learning to program, exploring the machine and its system. Though computers were usually marketed as tools for home accounting and word processing, digital games would be bought, copied, or written by users to explore graphics, sound and interactivity in addition to the pleasures of gameplay itself (Haddon, 1992). As the market for home computers became more established, game-playing emerged as a dominant (though by no means the only) domestic computing practice. Digital games explored the aesthetic possibilities of computers as new media technologies.

By the late 1980s the dominance of the personal computer over the domestic information technology market saw the standardization of operating systems that removed the need for computer enthusiasts to learn how to program. However, digital games continue to encourage intervention with both software and hardware. The highly successful game *Doom* (1993) is a good example of the ways in which this characteristic of digital games facilitates new form of creative consumption. The publishers, id, produced a game editor and made game file formats for the game's design freely available, encouraging players to modify levels, add new enemies or construct new levels (or 'maps') themselves. Lev Manovich argues that:

> hacking and adding to the game became its essential part, with new levels widely available on the Internet for anybody to download. Here was a new cultural economy which transcended the usual relationship between producers and consumers ... *the producers define the basic structure of an object, and release few examples and the tools to allow the consumers to build their own versions, shared with other consumers*. (Manovich, 1998, our emphasis).

This approach underlies some of the most popular contemporary games, for example the highly successful modification ('mod') of the PC first-person shooter game *Half-Life* into the multiplayer networked terrorist/counterterrorist game *Counter-Strike*. *Doom*'s modding legacy lives on, as we explore below, in the *Quake* (id Software) series.

'Skinning': from players to producers

Devoted fans and ardent enthusiasts exist for all kinds of cultural consumption. Academic studies of screen media fans have long since demonstrated the creativity and complexity of the reading strategies as well as the cultural practices that have emerged to support the dissemination of fan art and fan fiction. Penley (1992) provides a detailed psychoanalytic reading of slash art – the production of images and stories based on popular media characters, often featuring male/ male romances or sexual images such as Captain Kirk and Mr Spock. Henry Jenkins (1992, 1998; Jenkins and Tulloch, 1995) has written extensively on fan cultures and Matt Hills (2002) has made a more recent

contribution to the study of fandom which analyses the relationship between fan knowledge and academic knowledge. Digital games are no exception. The practices of mod development and skinning belong on this continuum of fan activity but seem to enable new forms of relationship between producers and consumers where power relationships between them may become less fixed. There are clear economic benefits for the producers when using gamers to test the games prior to publication (beta-testing) which is not so different from screening a film to audiences before final edit or piloting a television serial. What is distinct here is the ways in which the accessibility of the technology allows for specific competences to develop which enable movement between consumer – producer relationships. Not all games allow for this degree of code manipulation on the part of the player but *Quake* has been extraordinarily successful in gaining and maintaining a fairly devoted network of committed players. The producers of *Quake* have actively fostered this range of cultural practices and have sought to facilitate the development of the community and and a vast range of both official and unofficial fan sites filled with walkthroughs (descriptions or itineraries of games, written by fans, taking the reader through the game's virtual world and events, identifying hidden objects and solving puzzles), cheats, artwork and fan fiction can be found on the Internet. The walkthroughs themselves often include many opportunities for exploring the limitations and blind spots within the software, devoted players find glitches in the system or ways of bypassing specific obstacles. The modding community can help to secure the success of a game – '[d]isappointment tinged reviews of *Quake III*, while often nonplussed with the actual content of the game proper, insisted it was worth buying for the support it would inevitably receive from the mod community' (*Edge*, #126: p. 58). New media consumption generally and digital games playing specifically allows for the emergence of participatory cultures where there is a collapse of distinction between the dominant culture (the games industry) and the sub-culture (games players, modders and skinners) not typically associated with cinema-going or television viewing.

Skinning

> Skinning is the art of creating the images that get wrapped around 3D player character models in 3D games. These images are what give the 'mesh' a solid, realistic look. A good analogy is if you think of the skin as the paper that goes around the bamboo frame (mesh) of a chinese lantern. You paint what you want on the paper and the game wraps it around the frame for you based on the mapping the model has with it. (Chiq/Milla, female Quake player and skin artist, see http://www.chiq.net)

A particularly adept skinner may eventually see their skins being included in the range of characters on offer to other players through online communities and may receive prizes and acclaim for their art. Polycount is one site that monitors and nominates particular skins as well as providing guides and downloads of recommended skins and mods (www.planetquake.com/polycount/). Skinning is not an easy process – some taking as much as 60 hours to complete a skin. Like other art forms it is a process requiring a great deal of commitment and engagement.

The skinner

Camilla Bennett (Milla) is a skin artist whose leisure practices have developed into more professional activities. A self-taught skinner since 2000, Milla has developed a high degree of competence and has moved on from designing her own skins to a professional role as a texture artist in the development of the skin for the heroine of Betty Bad (WildTangent) a web-based game (see details of her involvement in this online at http://www.planetquake.com/polycount/articles/chiq_interview 012602/chiq_interview.shtml.) Milla has won a number of awards for her skins, going on to receive commissions for her work and has been featured in many interviews as a significant and influential skin-artist. (Links to these interviews are available through her website listed above.) Examples of Milla's work can be viewed online at http://www.chiq.net

Digital games as technological imaginary

The characteristics of digital games as new media identified so far are primarily technical or material. We have looked at how digital hardware and software as media technologies facilitate different kinds of media use and experience. However it is difficult to separate these material characteristics from the sense of excitement (or fear) that computers have engendered. For example, the domestic computer has generated excitement and contemplation that mark it out as distinct from other consumer electronic devices. It has been seen as a machine within which we could see or create artificial 'microworlds' (Sudnow, 1983; Turkle, 1984). Many early home computer users felt a sense of participation in the wider economic and cultural forces of the information revolution (Haddon, 1992). To some theorists it heralded fundamental shifts in our relationship with technology, in particular inviting comparisons with the human brain, informing popular ideas of artificial intelligence (Pryor, 1991). Sherry Turkle evokes both these aspects in her study of the culture of programming. When programming, the computer is a 'projection of part of the self, a mirror of the mind' (Turkle, 1984: 15). Drawing on her ethnographic studies of computer users in the 1980s, she addresses the unique fascination of computing and its implications for media culture and its subjects:

> When you create a programmed world, you work in it, you experiment in it, you live in it. The computer's chameleonlike quality, the fact that when you program it, it becomes your creature, makes it an ideal medium for the construction of a wide variety of private worlds and through them, for self-exploration ... computers enter into the development of personality, of identity, and even of sexuality. (1984: 6)

For Turkle, digital games should not be regarded as a distraction from other, more practical, forms of computer use, rather they should be seen as the paradigmatic example of the attraction or fascination of interaction with computer-based media in general:

> Video games are a window onto a new kind of intimacy with machines that is characteristic of the nascent computer culture. The special relationship that players form with video games has elements that are common to interactions with other kinds of computers. The holding power of video games, their almost hypnotic fascination, is computer holding power. (1984: 60)

Take for example the term, 'cyberspace'. Originating in cyberpunk science fiction literature, it was an attempt to conceptualize and dramatize the kinds of communicative experiences made possible by computers as media technologies (Gibson, 1986). It is now applied very generally to cover virtual reality technologies and various Internet media (Benedikt, 1991; Featherstone and Burrows, 1995). However, we would argue that popular digital games can be seen as a specific and highly established form of cyberspace pre-dating the World Wide Web by some 15 years. From *Space Invaders* and *Defender* to the cyberpunk imagery of *Deus Ex*, digital games have represented a technologized future. However – and for the discussion in this chapter more importantly – regardless of the symbolic content (space ships, cyborgs, or other technologies) of any particular game, digital games are cyberspace: actual computer-generated dynamic spaces.

The technological imaginary

In the sense we are using it here, the concept of 'imaginary' originates in psychoanalytical theory and has migrated to the study of media and technology via film theory. On its most general level the technological imaginary refers to a popular or collective imagination about technologies:

> a realm of images, representations, ideas and intuitions of fulfilment, of wholeness and completeness that human beings, in their fragmented and incomplete selves, desire to become (Lister et al., 2003: 60).

The technological imaginary often takes the form of visions of an ideal technologized future, superseding all that is imperfect and unsatisfactory in the contemporary world. Popular and commercial visions in the first half of the 20th century of a technological future of monorails and domestic robots is one example, the widespread predictions for virtual reality in the early 1990s is another. Howard Rheingold for example saw virtual reality as bringing about a new world of free communication in direct opposition to what he saw as the alienated and violent aspects of the

contemporary 'real world'. The technological imaginary is not reducible to fantasy or illusion in any straightforward way though. At the very least it shapes consumers' expectations of, and producers' research into, new technologies. Indeed, though we should beware of the hype surrounding new technologies (not least from manufacturers and advertisers), in this chapter we argue that imaginary of digital games and their materiality as both computer hardware and software and as games played in everyday life are closely bound together.

Media studies theorists have argued that any act of media consumption is an active process (Fiske, 1987, 1992). Audience studies demonstrate that watching television for example is not a passive activity, the viewer or viewers actively interpret programmes in relation to their knowledge of particular codes and genres (Morley, 1980). So the interactive playing of a digital game is not necessarily a more active practice than the interpretive engagement with non-interactive media consumption, but it *is* distinct:

> the problems which face us in understanding the processes of mediation are multiplied by new media: the acts of multiple interpretation of traditional media are not made irrelevant by digital and technological forms of interactivity but are actually made more numerous and complex by them. The more text choices available to the reader the greater the possible interpretative responses. (Lister et al., 2003: 43)

Games as interactive media

Films such as *Tron* (1982) or *The Matrix* (1999) merely represent computer-generated worlds. All digital games are cyberspace because the player interacts with the games' computer-generated worlds.

Interactivity

Interactivity is a broad term, often vaguely applied. It is used to sell new consumer media services (interactive television for example) the interactive experience of which may well be of limited scope, while for cybercultural theorists such as Mark Poster it heralds a new 'media age' (Poster, 1995). Interactivity can be understood first as a technical mode of digital media use, 'the ability for the user to intervene in computing processes and see the effects of the intervention in real time' (Lister et al., 2003: 388). In these terms interactivity is not unique to digital media – changing television channels is a limited form of interactivity – however with digital media interactivity becomes the central mode of engagement with screen information, images and worlds.

In fact, 'decoding' or learning is foregrounded in the playing of digital games. Playing requires this decoding of its structure or system (of levels, of architectural organization, of points, timing of events, of non-player characters' AI and so forth). This process must take place with each genre of game as each has its own mode of interaction, its own conventions and controls – and each game within the genre invents its own variations, different combinations of buttons to press or peripherals to add. Mastering the controls of each game is a fundamental pleasure in its own right. Video games are, as Provenzo says, 'literally teaching machines that instruct the player ... in the rules ... as it is being played' (1991: 34).

Players or viewers?

Films based on games and games based on films bring into focus the distinctiveness of the act of playing a game from other forms of screen media consumption (see King and Krzywinska, this volume). A sense of 'being in' the game is central to understanding the nature of player – game interaction and potentially therefore a key element in the pleasure of digital gaming. Sony's *EyeToy* literalizes this through the use of a camera which projects the players image into the game.

Tomb Raider as film and game

Hunt (2002) writes of how games based on films are often experienced as disappointing through comparison with playing the game, the example being discussed here is the film adaptation of *Mortal Kombat* (1995), but also the ways in which these games 'refashion' traditional media texts. Hunt points to how fight scenes in the film were described by one critic as 'like "watching someone playing

the game badly rather than feeling as if you are in the game itself" (Felperin, 1995: 48), ... fight games refashion kung fu movies while simultaneously distinguishing themselves by their heightened *immersiveness* (being 'in the game itself')' (Hunt, 2002: 196, original emphasis). Yet if cinema is also considered immersive, how are we to understand this distinction between immersion in a game and immersion in a film?

In the film *Lara Croft: Tomb Raider* (2001) – based on the Tomb Raider series of digital games (Core/Eidos 1996–2003) – Lara's spectacular balletic athleticism is not dependent upon the skill and virtuosity of the player: it is not the players interpretation, manipulation and actions which determine the flow of events on the cinema screen. There is the opportunity to interrupt the sequence of events when choosing from the scene selection menu on a DVD version of the film but Lara's performance within the film *does not* depend on any action on the part of the viewer. The landscape is traversed for us, the obstacles are overcome without death, repetition or frustration on the part of the player. The enthusiast cannot develop a patch or a cheat that increases Lara's endurance or allows us to alter certain events and outcomes. For all the potential for identification with the screen protagonist and immersion in the film's events, Lara's successes and failures do not belong to or depend upon the viewer in the way that Lara's game successes depend upon our skill in using the game controls. The game signals its dependence on the player as (except during cut scenes) the avatar – in this case Lara – will not move without some action on the part of the player. Conventional cinema tends not to acknowledge the viewer and, when it does, risks interrupting the sense of immersion in the onscreen events. 'Whereas cinematic immersion involves denying our containment by a frame, the options offered by *Tomb Raider* centralise the issue of choice ... Interactivity makes a point of access, and thus the terms of access are never neutralised' (Carr, 2002: 173). It is the interdependency between the player and the game that signals a fundamental aspect of the specificity of games.

Simulation versus representation in The Sims

All digital games are computer programs and as such have been 'written'. Thinking of *Tomb Raider* or *The Sims* as textual serves to remind us that these games are still cultural products despite the sense they generate of alternative worlds or artificial life. Though they may initially look on screen like cinematic or televisual texts, these gameworlds may be more productively conceptualized (along with all other computer applications) as 'code' rather than 'text'. Digital games are computer software, constructed through a logical, procedural, mathematical set of parameters with which the player intervenes and responds.

This distinction between representation and simulation is highly significant and an implicit understanding of it is essential to play many, if not all, games. For example: watch someone who is unfamiliar with simulation games playing *The Sims* for the first time. Building houses and naming characters is straightforward enough, but as the characters go about their daily artificial lives the tendency is to treat them as if they were real people, or at least as fictional characters who behave according to established conventions of narrative, and try to intervene accordingly. However the game's dynamics are driven by algorithms which rarely map directly onto any sense of actual (or fictional) human behaviour. The mathematical or economic foundation of the gameplay is made clear in the game's instruction manual: the key to success lies in managing the characters' lives as an 'economy' rather than looking for the conventions of psychological depth and narrative coherence familiar from television or film drama. The manual advises that *time* is the player's most precious resource, and:

> can be converted to anything else in this game either directly or indirectly. The efficiency of the conversion will determine your success. Time can be converted into money through work … . Time can also be converted into hunger satisfaction: the efficiency in this case will depend on the furnishings of your kitchen, the layout of these furnishings, the cooking skill of your Sim as well as their energy level (they move slower when tired).

> So one path to increasing hunger satisfaction over time would be to first convert time into money (through work), then take some of that money and buy a better equipped kitchen … . This same idea applies to the social side of the game. As your Sims spend time developing better relationships in the game you will notice that they are able to fulfill their social needs

in less time. (Electronic Arts, 2000: 11)

Simulation
The word, 'simulation' has a number of meanings within the study of media and culture. Here we are using it to refer a particular kind of digital software, 'a mathematical or algorithmic model, combined with a set of initial conditions, that allows prediction and visualisation as time unfolds' (Prensky, 2001: 211). Computer simulations are used in many different contexts, for example by economists to predict market fluctuations and geographers to analyse demographic change. The processes of simulation are foregrounded in a popular series of games designed by Will Wright including SimCity and The Sims, though most digital games are simulations to some extent (Frasca, 2001).

The Sims is representational on one level: its onscreen images of houses, human figures and ornaments are familiar from the universe of popular media culture. But to play the game is to interact with a profoundly different kind of environment to that of a film or a television programme. The gameworld, its dynamics, relationships and processes, is mathematically structured and determined. The Sims adds a 'highly intuitive, fun interface' to a cultural form rooted in science and mathematics, and traditionally presented only as numbers on the screen (Prensky, 2001: 210). Moreover, thinking of digital games as simulations also returns us to the position of the player – the player is not only interacting with onscreen images and making choices from menus, but collaborating with the game, manipulating its system and parameters to bring virtual worlds and characters into being and action.

Playing the game: interactivity and/or immersion
The concepts outlined so far (interactivity, simulation, technological imaginary) will now be brought to bear on a discussion of the distinctiveness of digital game play as a media experience. Intense digital game play is often described in terms of a loss of a sense of time, place or self, of immersion. While a loss of sense of self is evident in a range of media consumption (being immersed in a film at a cinema for example), immersion in a game world is something different. Thrills and spectacle familiar from science fiction, action and horror films are experienced also as challenges and threats, a mode of experience that is distinct because of the player's intimate mental and physical engagement by, and a level of control of, the game and the game technology. The player has a level of agency in the game's world and events that is quite distinct from other popular screen media consumption. This sense of immersion or engagement within the game world may account for the ways in which sense of time and physical discomfort may recede as the player's skill develops. The state of consciousness achieved during this period can be related to Czikszentmihalyi's description of 'deep flow' – a total absorption in an activity which is both challenging and emotionally rewarding (Czikszentmihalyi, 1993, 1996, 1997). What is specific to digital games play, as opposed to other forms of popular media consumption, is the ways in which this engagement or absorption is brought about through interacting with digital media. As the player becomes increasingly proficient at working the controls and understanding the limitations of the software, the sense of the game or game character as separate to the player is suspended.

Game player as cybernetic organism
The analysis of digital games needs to take into account the interdependency of player and game. Games, from Minesweeper to Halo, come into existence through a feedback loop between hardware, software, screen and player. Terms such as 'feedback loop' derive, like simulation, from the language of computing, and suggest that we might think of the relationship between player and digital game as not only 'interactive' but also 'cybernetic'.

Cybernetics
The term cybernetics and in particular the prefix 'cyber-' from which it springs, are often used loosely to dramatize all things technological and computer-related (particularly when referring to human–machine relationships). The term's particular history and meaning is relevant here though: according to Norbert Wiener (1962 [1948]), cybernetics is the science of 'control and communication in the

animal and the machine'. So, although the 'cybernetic' is most frequently used to refer to cyborgs ('cybernetic organisms'), it also refers to any kind of complex system (including political, economic, animal nervous systems) in terms of information and its regulation. A useful (though not very futuristic) example is the 'negative feedback' that thermostats use to control temperature – feedback is the process by which a system is changed by its own results. Digital games, like most computer applications, work through feedback between user and software.

This notion of digital game playing as cybernetic takes us beyond notions of the interactive and has far-reaching consequences. In these terms interactivity can be seen as players choosing pathways or objects via interfaces and menus, perhaps not so far removed from other forms of media consumption. To describe digital gameplay as cybernetic though is to suggest a much more intense and intimate relationship between the human and the machine, and a relationship in which neither partner is dominant: player and software become part of the same circuit, they become a cyborg (see Haraway [1990] and Gray [1995] on theorizing the cyborg, Hayles [1999] on cybernetics, culture and subjectivity and Lahti [2003] on the video game player as cyborg). The term cyborg is most often used to refer to human beings with mechanical or electronic prostheses (from fictional characters such as Robocop to actual examples such as people with heart pacemakers.

On the one hand this idea of the cybernetic loop seems to account for the sense players have of being 'lost' in a 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. (Friedman, 1999)

While on the other we might argue that digital gameplay is paradigmatic of the relationships between people, computers and a computerized world:

> [Digital] games offer a singular opportunity to think through what it means to be a cyborg. [They] aestheticize our cybernetic connection to technology. They turn it into a source of enjoyment and an object for contemplation. They give us a chance to luxuriate in the unfamiliar pleasures of rote computation and depersonalized perspective, and grasp the emotional contours of this worldview. … Through the language of play, they teach you what it feels like to be a cyborg. (Friedman, 1999)

However, the digital game as interactive artefact and play practice cannot be reduced to this circuit of screen images, algorithms and players' reflexes. These 'passional circuits' need to be understood as themselves nodes in the larger circuits of games and game cultures.

Online games and cyborg subjectivity

Quake (and its sequels) is an enduringly popular example of the 3D first – person shooter genre (FPS) that like many others has multiplayer capabilities and can also be played online. Online players and their communities make visible new relationships between subjects and media technologies (Taylor, 1999). Wright et al. (2002) argue that:

> When you play a multiplayer FPS video game, like *Counter-Strike*, you enter a complex social world, a subculture, bringing together all of the problems and possibilities of power relationships dominant in the nonvirtual world. Understanding these innovations requires examining player in-game behavior, specifically the types of *textual* (in-game chats) and *nonverbal* (including logo design, avatar design and movement, map making) actions.

As we have seen, *Quake* allows players to choose from a range of different avatars so there is already a degree of flexibility around how the player chooses to express their subjectivity within the game. Skinning extends this malleability. The online capability of these games has allowed for the emergence of 'clans' (teams of players who compete against other teams in tournaments) who may also develop their own particular clan 'skins'. This process of skinning and playing with your own skin

further destabilizes the sense of boundary between player and game and exemplifies what Friedman describes as the aesthetization of our cyborg embodiment.

A number of communities have formed through these play practices – some are clan specific others are more open. (Planet Quake, http://www.planetquake.com, is perhaps the most important example of the latter.) Playing as a clan in multiplayer mode with shared skins developed to provide a collective in-game identity is a compelling example of the 'passional circuit' described above. The complexity of this human – machine circuit is startling; the individual players respond to each other's actions within the game and the process of feedback through which play advances. During the game itself there is no separation of individuals and machines, only a collective process of engagement where action and reaction flow in a circuit of technologized bodies and their pleasures.

Conclusion

Digital games have brought computer forms such as simulation, artificial intelligence and interactivity into homes through popular entertainment. They are virtual reality and cyberspace in the here-and-now and the everyday. Colliding with established media forms and cultural economies they have generated new forms, new modes of consumption, muddying commonly accepted boundaries between media consumers and producers, between the subjects and objects of new media. The study of digital games illuminates not only the specific forms, practices and cybernetic pleasures of digital game play, but also offers a unique insight into the nature of contemporary media culture and subjectivity more generally, asking profound questions about the material, political and libidinal relationships between the human and the technological.

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Buzzcut: Critical Videogame Theory http://www.buzzcut.com
Skins by Milla http://www.chiq.net
Lev Manovich http://www.manovich.net
Ludology.org: Videogame Theory http://www.ludology.org
Planet Quake http://www.planetquake.com
Television Without Pity http://www.televisionwithoutpity.com
The Matrix Trilogy http://www.whatisthematrix.com
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