1. Introduction

What is a game?

In *Xenogears*, Squaresoft's classic RPG for the Playstation, throughout its perhaps 50-80 hour gaming experience, one occasionally sits through 15 to even 30 minute cut-scenes and conversations, essentially similar to anime or TV shows but provided as a means of story-telling within a game structure, paced in between exploration and fighting sequences. The game's end is fixed, its story points are triggered by set cues and its sense of dramatic development follows the traditional narrative arch.

In *God of War* II, an action adventure for PS2, the attention given to detail is stunning, almost overwhelming (sensory overload). The gigantic architecture of colossal pillars and temples is teeming with detail and, yes, life: critters, dust, dancing light particles and crackling walls. All this is accompanied by immersive sound effects and sonic spaces. Is it a movie or a game? The battle sequences, partially choreographed but largely free-roaming, provide ample space, too, for innovation, tactics and autonomy. It is a linear experience, yes, but one without a metronome or a conductor. Its action mechanics rely on reflexes and eye-hand coordination, yet its cut-scenes employ the cinematic imperative, demanding no additional input from the player. One sits it out.

In *Tetris*, there is no story, no purpose, no narration, and no conclusion (indeed, one can only ever 'die'). It is a game. It doesn't have narrative cut-scenes. Yet it has music and images. Is it multimedia? Is its opening scene a cinematic overture? Do its emotionally loaded national songs provide catharsis? This is a good point of departure for our discussion: *reductio ad absurdum* of the appeal to games-as-visual-poetics. Do we *always* benefit from cinematic metaphors?

What I have given as examples of the various gameplay elements of different genres serve to remind us that games operate under the principle of reciprocal duality: the gamer needs the game, and the game needs the gamer. One alone is not sufficient. Some games are more assertive: they demand attention and lure you in with riches, vices and wonders. These games are cinematic-narrative (what I call *immersive*). They stand afore as spectacles to behold. Yet without a certain leniency, they would not classify as games: they require an interactive component. All games fall somewhere between the two poles of 'openness' and 'closedness' (recall Eco's analysis of *Opera aperta*[1]). But what defines games is the necessity for (at least *minimal* – at most *total*) participation. Game 'collapses' back into a different form of art altogether if the interactive component is removed. In semiotic terms, the 'signified' of any given structural 'signifier' (within the game) is underdetermined by the game's objective reality: the player exceeds the code's phenomenological givenness. This goes *beyond* the narrative paradigm of "interpretative openness" as set out by Eco, Barthes et al.

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The Collapse and Reconstitution of the Cinematic Narrative: Interactivity vs. Immersion in Game Worlds

Otto Lehto

From the onset, I want to make my stance clear in relation to narrative texts. Games contain, almost by definition, an element that goes beyond the semiotics of interpretation. For a definite critique of the narrative paradigm in video game studies, see Jesper Juul's 2001 article, *Games Telling Stories?* Yes: the 'openness' emphasised by Eco, Barthes and others is always operational in the reception of any narrative structure. Any text, it is true, is constituted by this polarity of structure and openness. However, as Juul says, "[w]hile readers and viewers are clearly more active than some theories have previously assumed, they are active in a different way". This difference has to do with the fact that "[n]arratives are basically interpretative, whereas games are formal". In other words, narrative structures are open to different sorts of ruptures and interpretative liberties than games. Games are interpreted as they are *written*; books are interpreted as they are read. A book's (or film's) structure is closed on a formal (grammatical) level, while a game's structure is (or becomes) closed on an emergent level of interaction. A game is an "explorable dynamic system" where "the ideal sequence" of the implied or suggested narrative is completed by the player's free choices which, consequently, plot out a coherent and unique narrative. In other words, game experiences are not shareable in a same way that books or movies are. Some games are more 'cinematic' (receptive-interpretative) than others – but still *games* (where the player's role is, however minimally, constitutive[2] of the overall narrative structure itself).

The wide variety of gaming mechanics, both within and across genre boundaries (themselves rather nebulous), necessitates making a critical caveat at this point. There can't be, and never will be, an all-encompassing formal theory of computer and video games. This does *not* mean that we shouldn't take seriously studies with aspirations to certain universality. After all, even the

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best of nets can only catch a good and representative sample of a given set of objects. And a formal theory is just that: a net, designed to 'freeze' and formalize a convincing story of lived experience, picturing a particular framework of interconnectedness in the field of video games. We should, I hark and plead, take into account all the individual differences that separate humans from each other even while binding them together under a common rubric of shared interests and values. Relativism is not a sin in the field of aesthetics (sensory-phenomenological evaluation); in fact, it may be a real virtue. Games, as both play (participation) and perception (witnessing), demand a double attentiveness to both structure and the existential viewpoint within that structure. It may be little more than a banality to state that the ultimate object of any human science (man *qua* man) shall elude even the keenest observer's grasp, as man's understanding reaches there its limits both in terms of self-understanding (how to be conscious of one's own cognitive processes?) and trans-personal communication (how to be aware of the subtleties of others' cognitive processes?); yet, however general such a point, it nonetheless needs to be made if we want to provide a theory of gaming from some scientific or "structurally concerned" perspective. We don't want to drown the ocean of depth of the human psyche in the tequila glass of our theoretical acuity. Nor, for that matter, do we want to revert to a normative or 'imperialistic' mode or attitude, our eyes gleaming with the intent to conquer and subdue a virgin domain, set up a flag and claim it our own.

Such imposing concerns, after all, have beset many earlier and ongoing attempts at approaching (computer and video) games from a cultural-theoretical standpoint: "the majority of studies of games produced in previous decades have been from sociological or psychological perspectives", (King & Krzywinska 2002, p.2) which, according to the text's author, directly reflects "the relative underdevelopment of videogames as a field for close formal or textual analysis" (*ibidem*)[3].

In fact, much of the best literature on video games is journalistic and popular in nature. To be sure, even in non-academic books such as Steven Poole's *Trigger Happy* (2000), many interesting theoretical and historical insights are gained, but to leave it to freelance journalists to define the broad outlines of gaming theory has been to the shame of the academia who indeed have only themselves to blame[4]. But of course it is never too late to start amending the situation and that is why we should embrace all attempts to develop a 'ludology' worthy of the name[5]. Here, semiotic insights can be vastly useful. Indeed, even though I want to go *beyond* the narrative and cinematic paradigms, this quest is a logical follow-up to the work started by Barthes and others (who, as writers of their time, had not encountered video games yet), complemented by a phenomenological and existential analysis of the Player-Game relationship as a kind of fractal mapping of structure (ground) and freedom (playground). As the reader may surmise, such a theory links to the tradition of structuralism and post-structuralism[6].

Now, having earlier focused only on the negative aspects (and oracular skills) of Loftus & Loftus, I will nonetheless admit that their understanding of the cognitive challenges and skills associated with playing video games was fair and precocious, as was their appreciation of its fun-factor. What they call the "ultra-motivating character" (1983, p.149) of video games is precisely the subject of my analysis, reckoned with from the point of view of the dialectic of immersivity and interactivity, understood as the battle for dominion, within video games, between the two aesthetics of the Cinematic and the Ludic. The former represents the mood, structure, style and text of audio-visual narration (such as of movies and animation) while the latter represents the opening of a new space of experiential realities and tonalities proper only to games-as-games[7]. I reject the 'comparative' mode of *ScreenPlay*, which concerns itself with the hypertextuality and interpenetration of Cinema and Games into each other. Instead, I will look at the phenomenological necessities and underlying fractal geometries which determine the emergence of the Player as the Master of the Code – caught between the Lure and Beauty of Cinematic Immersion and the Freedom of Ludic Inter-Actoriality.

2. Beyond the Intertextual Paradigm

A few cautionary words on the Cinematic. I have already hinted at that the assumption, shared by many game writers[8] that the Cinematic universe provides either a legitimation for, or the best entry into, the world of video games is mistaken. Why then, you might ask, is the word 'Cinematic' in the title of my essay? Because it represents indeed a paradigm, well understood and well studied, of late 20th Century post-modern, cross-cultural, multi-modal and hypermediated arts space. As Ndalianis writes:

> "In its combination of narrative, image and sound, the cinema remains paradigmatic and [...] much of the best analysis of new media emerges from cinema studies." (2004, p.6)

My arguments are not *against* the Cinematic, but rather transcending its limiting aesthetic framework. We need to provide the best possible analytical definition of what makes a 'game', and to do this, we have to stand on secure, autonomous ground.

The evolutionary history of the cross-cultural dissemination of hypertext and multimedia whereby the technologies and sensory modalities of the new technologies have emerged is a process accompanied by the rise of the Cinematic as a paradigmatic emblem for hip urban perception and reception. The self-consciousness of this fact is rampant: The statement by King &

Krzywinska (2002, p.2) that "displacement by literary theory by film theory might seem inevitable" (in studies of narrativity and structure) is representative of a wider seismic shift felt even in the field of semiotics, where the literary models of Barthes, Propp and Greimas[9] have been (slyly) supplanted, if not replaced, by various communicative, post-structuralist and multimodal theories. For a proof of this, see any list of courses offered by literature and semiotics departments today. All this is predictable. There is a movement away from the fixed page of the linear text (literary narration) towards multi-sensory titillation in the form of cinematized, televised, WWW'ed or billboarded cues, signals and signs[10]. Video games, in common perception, fall somewhere under this umbrella of hyper-sensory events; this is what I mean by *immersion*, and what King & Krzywinska call 'immediacy':

> "Immediacy is based on the creation of an impression of 'liveliness' or 'presence' [...]. A sense of presence can be defined in terms of 'inhabiting' or exploring a digitally produced landscape that produces some of the characteristics of cinema." (*ivi*, p.4)

Already here we have the basic problem: the 'presence' of 'immediacy' is defined in terms of 'exploring' a landscape. But this exploration cannot just be "a guided tour", pre-planned and pre-canned. One can do unexpected things in games. Roam freely. Or kill oneself – for fun. This is the opposite of teleological narrative. So even if admit a continuity of mediated and hypermediated spaces between film and games, we must take a step back – or rather: forward – and admit the next phase: the movement *beyond* the Cinematic paradigm.

We are facing a displacement of film theory by theories of interactive hyperspace (game theory). This movement is as much a side-step as it is an evolutionary leap; we can never "improve upon" cinema by adding to it a layer of malleability and interactivity (by turning a film into a game): 'interactivity', as Geoff King writes in Screenplay, "is sometimes a bar to contemplative enjoyment of spectacle" (King & Krzywinska 2002, p. 61). Spectacle is a loaded word (one thinks of Michael Bay or Jerry Bruckheimer): I would rather speak of 'immersion' or "contemplative witnessing". This receptive-perceptive spectatorship of a spectacle (any film) is not just 'passive' in some naïve sense: It "involves a range of cognitive and other processes in the act of interpretation" (*ivi*, p.22). But video games – as I stated earlier in terms of literary texts – take this act of interpretation to a whole different level, beyond the claims of film and media studies. That is because the dialectic of activity and passivity is foundational in video games; foundational to its structure as code. Hence my 'analytical' aim is to rebuff direct horizontal comparisons to movies, MTV, commercial television, billboards and other forms of the new media. If, indeed, there are structural differences between 'cinematic' and 'ludic' media, the surrounding debate cannot be homogenized.

My historical outlook (tentatively) proposes the following evolution of semiotic paradigms:

Thesis 1: Text → Cinema → Games

This corresponds to the threefold arc:

Textual *narrative* → Cinematic *immersion* → Ludic *interaction*.

My weaker (ahistorical) thesis is the following:

Thesis 2: Text ≠ Cinema ≠ Games

I will now argue in favour of the latter thesis, focusing on what is 'unique' in the ludic domain. There is a need to make a clean break with the earlier paradigms of text and cinema. As Juul (2001) states: "Using other media as starting points, we may learn many things about the construction of fictive worlds, characters ... but relying too heavily on existing theories will make us forget what makes games games: Such as rules, goals, player activity, the projection of the player's actions into the game world, the way the game defines the possible actions of the player. It is the unique parts that we need to study now."

3. Gameplay: The Indeterminacy of Binary Code

A game *succeeds* (at least *prima facie*) – and this is not an aesthetic judgment but a phenomenological account – when it provides the perfect meeting ground of the player (subject) and the game (object), and in fact thereby establishes a rapport, a locus of interaction. The element of immersivity provides the backdrop (lit. graphics and the game universe), or structure, within which freedom, creativity and self-mastery may roam, expand and as it were 'surf' the surface of the structure. The player is immersed only *down to a certain comfortable depth*. Floating; flowing; transcending[11].

As an example of a highly cinematic yet deeply player-responsive game, take *Call of Duty 4*, which was awarded multiple game-of-the-year awards in 2007[12]. Its success lies in a crafty mixture of immersive structure (backdrops, NPCs, events and triggers) and interactivity[13] (multi-faceted tactical warfare action under responsive mouse-and-keyboard controls). It is not simply "Saving Private Ryan" or "Black Hawk Down" (or any other "war movie") all over again; the foregrounding of its cinematic elements is actually quite discreet and sporadic, while focus is given on player response. The player is both *within* and *without* the game[14], as both the master and the servant to the code.

A 'photo-realist' game like GTA IV recreates downtown New York (under the name of Liberty City) as a space of combinatory multi-sensory interaction. On the surface it is pure structure, a gargantuan feat of programming. But one is free to do almost anything within the parameters set out by the game, in and aside from 'official' challenges and missions. The game incites the player by giving some feedback in the form of challenge and obstacles. For example, when one's runaway car is being tailed by a legion of law enforcement officials, one feels like one is "one step ahead" (or one *corner* ahead) of the judgment of the binary code's calculative reason. Of course, the main reason one survives more than a second in a game like GTA (or any other, for that matter) is that this survival (or at least *chance* of survival) is an in-built feature – an allowance, a privilege, a gift – of the game's interactive architecture. The level of difficulty is adjusted to confront the player with a *reasonable* challenge; nobody wants to play a game that is too difficult (or too easy). Some games offer multiple difficulty settings, which fact clearly reflects the arbitrary nature of the game's demands for and possibilities of survival in its world. Best challenges are winnable; they launch the player into dialectics of achievement and self-mastery[15].

So, structure is challenge. The mind demands obstacles precisely in order to overcome them. Our minds demand a framework of challenge which appears like an obstacle course at the end of which stands the prize. Interestingly, though, this sought-after prize may or may not have any utilitarian 'value' beyond the mere act of play as play: how many of us, for example, would say that we have played *Super Mario Bros in order to* free the princess? No; the prize is a phantasmagoric excuse, irrelevant in the same way that the 'story' is irrelevant (but necessary) in porno movies: structure is *excuse*.

Games, by their very definition, demand a layer of transparency and a domain of freedom (*i.e.* interactivity), but this freedom is established within the frame of the structural desire machine and/or narrative arch of the game world, as a freedom with a purpose, *i.e.* a goal-setting intentionality, even if the object of this intention forms only the vaguest backdrop of action. So, the hierarchical relation between structure (boundaries) and freedom (wilful mutability) in a video game, I claim, is one between a necessary illusion (excuse: plot, goal, rules, structure) and the gameplay itself (everything that happens within the set limits). The 'given' illusion, *i.e.* the structure, creates the boundaries of immersion, while the 'played' reality, *i.e.* the space of libertinism, provides the realm of interactivity. The Game *is* this unity of structure and rupture. In any game, there is an intentional commitment towards a fictive but *necessary* purpose (this includes not only the storyline but the physical laws of the game universe and so on). Paradoxically, a game must first define its boundaries and rules as necessary (if wholly arbitrary) and only then can it set out to destroy and overcome them. Why? Because exploring the boundaries of fictive rules under fictive identities becomes a choice taken with complete determination and dedication once the first step of immersion (into structure) is taken (from outside the structure and outside the game). Playing is volitional make-belief. The player's intentional devotion is to the understanding and following of rules. Only then does freedom (play) become possible. Structural demarcation outlines/grounds liberty's domain as an opening or a fissure within that very structure.

Game, like life, is dedication to (certain) structure, by itself wholly value-free and arbitrary. Life's existential commitment to a given structure (as a domain of freedom) is analogous to the gamer's (self-)commandment: "Let us play (… by the rules)"[16]. Entertainment and art (the two definitions of video games) certainly imitate reality, but only to the extent that reality itself imitates art's capacity for self-creation, *i.e.* is a reflection of play on a fundamental level. That is why it becomes possible to vindicate the 'uselessness' of games and other arts, since no intentional commitment is (pedagogically) worthless, and no mastered and subdued structural framework of integrity (such as a game space or a canvas) is without merit: setting goals and rules for oneself is a useful creative-interpretative semiotic exercise of problem-solving and establishing or deciphering connections and relationships.

We know that, on the architectonic level, games are mathematics. But this truth is banal: even bananas are mathematics, to the extent the fruit (as a phenomenon) appears to us as a formalizable object of cognition. Mathematics (broadly defined as formalizable knowledge) is one possible response of a human mind to its intentional object - which very response leads to responsibility, that is to say, a commitment to its reality: say, a commitment to the structural reality of the banana as an object of cognition (as a sign of its matrix of mathematical properties). So, mathematics is neither devoid of reality nor devoid of consequence; and games, as applied mathematics, as wilful operations on binary code whereby a system of representations comes to appear to our senses as interactively immersive, are applied phenomenology of pure (re)presentation. With the hope of not appearing too abstract, let me remind the reader that game code is universally transparent (at least if we discount trade secrets and copyrighted code) and thus a universalizable set of rules, operations and conditions, objectively defined, yet with an ingrained dimension of unpredictability or freedom which comes into play after an experiencer, the player, is introduced into the equation. This very 'lack' (of defined *telos* and certainty) is the *sine qua non* for any game (code). Thus, those who accuse game worlds of being wholly transparent surfaces of 'only' virtual possibilities seem to miss the point: True, games are objectively defined as a set of mathematical conditions and operations, but the introduction of the player into the system destabilizes this deterministic universe and reintroduces, as a domain of freedom, the sought-after "missing component", whether it be called 'reality', *das Ding an sich*, the uncertainty principle, the interpretant (in the Peircean triad[17]) or the element of (creative) chaos. Yes, freedom provides the missing link, and freedom is always productive, that is to say, conducive to semiotic enrichment of human life. Thus, mathematics is not only a set of conditions, but simultaneously a framework of unconditional libertinism[18] and, from the perspective of the player, a key card into the realm of pure possibility as code.

So, immersion into the code is but the first step, just as immersion into a good movie or into a Rembrandt is only the first step: what follows is equally crucial. With the game or the movie screen or the canvas presented in front of us (as a re-presentative structure of integral cohesion), we turn inward and internalize the structure as sensory frame in order to discover and dislocate its system of inherent possibilities as a field of operable freedom. This has been called "reader response" theory in various arts. In the ludic realm, we may analogously speak of "player response" theory, with the qualification that the video gamer responds *not only* to the 'latent' interactive 'potential' of the represented object (as with

film or painting) but rather 'fills' a necessary 'gap' in the game – even from an onlooker's perspective. The gamer is (objectively) part of the game to anybody watching. Anybody who is present (but not playing) will witness the objective combination of game + player, translated into a purely immersive – yes, 'cinematic' – experience to those who are just passively watching. The "written text" (co-authored by the game programmer *and* the game player) then becomes "readable text" (for anybody watching, observing, commenting).

1. Games, as formally incomplete, are missing text;
2. Gamers complete the text, *i.e.* the game code, by playing (Player-Response);
3. The completed game-text is only *now*, once it's 'written', comparable to a movie or a book;
4. The game must still be interpreted in terms of its completed narrative structures (Reader-Response).

So, there are *two* responses, which *may* coincide (in the same person, place and time) but *need not* (if the played game is interpreted by non-players). Both responses have their own limitations and freedoms.
So, to recapitulate, "player response," as mathematically coded and mediated through an audio-visual-tactile matrix, provides the dedication to structure needed to complete the semiotic system of the game, whose structure is otherwise lacking of the interpreter, whose presence alone provides the element of 'reality' or 'depth' to the barren code. The player endows the game with structural (or formal) cohesion by actualizing the possibilities inherent in it[19]. In fact, this depth of chaotic creation alone elevates games to the level of something new, a new form of art and entertainment beyond cinematic narration. Playing is 'inter-actoriality': art as interaction, interaction as art.

4. Conclusion

We have seen that the difference between games and more traditional narrative models is on the structural level. The game narrative needs to be 'written' (played) before it can be 'read' (interpreted).
Games provide fluidity of *interactive immersion*: the interface as the place of the merger between the player and the game. A connection, without delay, is established between the movement of the player's hands and the virtual movement across virtual space-times of the virtual characters/events on the screen. The connection is cybernetic, of course, and real. The actuality of the virtual is established as the action of the finger movements of the player. It is not a matter of opposing Films and Games *per se*: All inter-forms are possible. Yet games, as games, require signs of 'gameliness'. During *God of War II*'s crucial boss sequences, for example, one witnesses a narratively linear tapestry of visions, a revelry of action and sights, yet one is prompted amidst these 'cut-scenes' to occasionally press X or Circle – just to remind the player that it's still a game, and that the player is still (nominally) in charge. Minimal interaction - but interaction.
Indeed: the minimal remainder is never deleted or negated. The player has a role as the master of the code, as the last string of code attached to complete the sequence.
Such is the definition of the Cinematic under the formal demands of the Ludic: the defining-delimiting-restricting background which nonetheless, by its very (fixed) presence, provides the nurturing ground for the appearance and presence of (fluid) malleability as the 'gap' or 'lack' in the structure to be filled – in whatever manner – by the player in the act of his or her (world-constitutive) existential engagement.

Notes

[1] See Eco 1967. Eco's reader-response theory was further developed in Eco 1979.

[2] The cinematic narrative is entirely "continuous" (Juul 2001). The immanence of experience of the fixed narrative timeline (with its structural cohesion) is opposed to the transcendence (rupture) of timelines in ludic interaction. In cinematic terms, the linearity of narration is complemented by the bifurcation of stories according to the protagonist's choices and decisions. In literary terms, the interpretative freedom (of the reader) is complemented by the constitutive freedom (of the writer). In ludic terms, the game's structural possibilities, and the implied narratives contained therein, are written down, and played out, through the gamer's interactive presence.

[3] Let me offer you an example in the form of Loftus & Loftus's 1983 work, *Mind at Play*, in which the early generation of video games was analyzed from the point of view of, for example, "Why Video Games Are Fun" (pp. 10-42): surely a perplexing question for many at that time. The general focus is on psycho-motorics, cognitive mapping and social psychology. Yet the normative dimension is barely under the surface, with chapters such as "Direct Educational Benefits" (pp. 141-143). Three normative political, ethical and pedagogical goals are even laid out (pp. 149-150) in a rather presumptuous (if well-intentional) manner: 1) develop teaching and learning tools "with the ultra-motivating character of arcade games"; 2) "somehow make arcade games more specifically educational"; 3) "persuade game makers to insert educationally beneficial elements into the popular arcade games" although this last goal is deemed "a potentially more difficult problem." The book, overall, purports to speak largely "from the point of view of educators and parents" (p. 150). The social sciences of the 1980's-90's were rife with even more overtly moralistic and patronizing positions.

[4] In fact, this missed chance was perfectly predicted by Loftus & Loftus (1983, p.152) at a time when the home entertainment revolution had barely begun: "[W]e have a "research window" of perhaps ten years. [...] In the near future, it will be impossible to find research subjects who are computer-naïve. That happened with TV. There was about a five-year period in the early 1950s when it would have been possible to match groups of TV-watching children and non-TV-watching children. [...] But this opportunity slipped away. Before the social scientists realized what had happened, the vast majority of homes in the U.S. had a television set, and the opportunity to do the research properly had vanished forever. We hope, along with [Mark] Lepper, that this missed opportunity will not repeat itself with computers…" Clearly, it did happen (again).

[5] I consider the semiotic analyses of the current volume as well as Juul's analysis (2001) and the collection of essays organized and edited by King & Krzywinska (2002) as contributing to this recent development.

[6] Barthes, again; also Kristeva, Saussure and Lotman; Peirce, too, was a structuralist avant la lettre.

[7] Certainly there is an aspect of games that has a history, a genealogy, in the various pre-electronic games of different cultures, including children's games, card games, board games, theatre, sports, singing, dance, performance arts, etc.

[8] The essays of ScreenPlay, for example, are written by fifteen authors coming from different fields. Another proof is that the current rating system of video games (ESRB = "Entertainment Software Rating Board"), based on a self-regulating body in the United States, is modelled on motion

picture ratings. This is the source of much headache. The violence level of games, as it happens, is not measurable in the same way that people can measure individually all the instances of a violent episode or swearing in a movie. Game's cut-scenes, of course, may be clear-cut in terms of content, but to measure and quantify player's choices during actual gameplay proves tricky. After all, the game's incomplete nature means that the gamers are able to fulfil their darkest fantasies - within the limits of permitted gameplay - without anybody 'forcing' them to do so. Other games, to be sure, do force the player into violence, but often this is optional. So, ethically, the cinematic paradigm can be misleading, and even lead to disastrous consequences (if, for example, a game is banned based on such 'cinematic' misconceptions).

[9] See Barthes 1973; Propp 1928; Greimas 1966.

[10] Barthes himself, in his Mythologies (1957), prefigured the current wide-ranging semiotic interest in films, TV, tabloid journals, billboard advertisements etc.

[11] The concept of 'transcendence' is important for any phenomenology, from Kant and Hegel through to Husserl, Heidegger and Sartre. Through it, one engages epistemology from an existential perspective. More recently (2000), Eero Tarasti has reintroduced transcendental themes into semiotics with his book *Existential Semiotics*.

[12] It won, for example, the Academy of Interactive Arts and Sciences Game of the Year award of 2007: See http://interactive.org/content/pdf/11th_Annual_IAA_Winners.pdf.

[13] The online multiplayer of FPS games would deserve an article of its own, because it provides a heightened layer of interactivity and immediacy of engagement where cinematic comparisons are woefully inadequate.

[14] Juul (2001) used this exact metaphor: "the player inhabits a twilight zone where he/she is both an empirical subject outside the game and undertakes a role inside the game."

[15] Even in the board classics, from Chess to Go, the fun-level is measured precisely by the equalness of one's skill level with that of one's opponent; that is why we have rankings in games.

[16] To "play by the rules" does not mean that players don't break the rules. On the contrary, knowing the rules means knowing how to bend the rules and to master the game universe as a set of rules with multiple "weak spots", such as cheat or exploit mechanisms, and multiple avenues for exploration, creativity and novelty generation.

[17] C.S. Peirce's classic semiotic triad consists of the sign, the object and the interpretant. His triadic sign theory was first introduced in an early work called *On a New List of Categories* (1867).

[18] Mathematical expression is unlimited, because we can say either "5+6=11" or "22/2=11" or "11+0=11" or, broadly, "f(x)=11". Likewise, in a game, in the player's interaction with and against the 'cinematic' expression of a particular string of code, the player's field of responses is unlimited precisely in the sense of being under-determined by any pre-given structural necessity aside from the bare necessity to follow the laws of the game universe, and the laws of logic and common mathematics. The player defines – simply by being a player – the shape and function of his virtual life-curve.

[19] See Tarasti's Existential Semiotics (2000) for more detailed analysis of "existential-narrative" actorial models.

Bibliography

Barthes, R., 1957, *Mythologies*, Paris, Seuil; En. tr. *Mythologies*, London, Cape, 1972.

Barthes, R., 1973, *Le plaisir du texte*, Paris, Seuil; En. tr. *The pleasure of the text*, New York, Hill and Wang, 1975.

Eco, U., 1967 [1962], *Opera Aperta. Forma e indeterminazione nelle poetiche contemporanee*, Milano, Bompiani; En. tr. *The Open work*, Cambridge (MA), Harvard University Press, 1989.

Eco, U., 1979, *Lector in fabula. La cooperazione interpretativa nei testi narrativi*, Milano, Bompiani; En. tr. *The role of the reader*, Bloomington (IN), Indiana University Press, 1979.

Greimas, A.J., 1966, *Sémantique structurale*, Paris, Larousse; En. tr. *Structural Semantics*, Lincoln, University of Nebraska Press, 1984.

Juul, J., 2001, "Games Telling Stories? A Brief Note on Games and Narratives", in *Game studies*, vol. 1, n. 1, available: http://www.gamestudies.org/0101/juul-gts/.

King, G. & Krzywinska, T., eds., 2002, *ScreenPlay: Cinema/Videogames/Interfaces*, London & New York, Wallflower Press.

Loftus, G. & Loftus, E., 1983, *Mind at Play: The Psychology of Video Games*, New York, Basic Books.

Ndalianis, A., 2004, *Neo-Baroque Aesthetics and Contemporary Entertainment*, Cambridge (MA) & London, MIT Press.

Poole, S., 2000, *Trigger Happy*, New York, Arcade Publishing, available: http://stevenpoole.net/blog/trigger-happier/

Propp, W., 1968 [1928], *Morfologija skazki*, Leningrad, Nauka; En. tr. *Morphology of the Folktale*, Bloomington (IN), Indiana University Press, 1958.

Tarasti, E., 2000, *Existential Semiotics*, Bloomington (IN), Indiana University Press.

Computer games

Xenogears, by Squaresoft, 1998, Square.

God of War II, by SCE Studio Santa Monica, 2007, Sony.

Tetris, by Pajitnov, A., 1985.

Call of Duty 4, by Infinity Ward, 2007, Activision.

Grand Theft Auto IV, by Rockstar North, 2008, Rockstar games.

Super Mario Bros., by Miyamoto S. *et alter*, 1985, Nintendo.

section two
Which Role for Narrativity in Computer Games?