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Emotional Design of Computer Games and Fiction Films

Doris C. Rusch

Introduction

The majority of computer games share certain traits with fiction films. Both media often cover common ground in terms of genre, themes, settings, the aesthetics of audiovisual representation and cultural references. Thus, comparing them seems the obvious thing to do in order to learn more about their similarities and differences.¹ But until now, such intermedial analyses have focused mainly on the structural characteristics of games and films (Juul, 2001b), with the result that games appeared to be so different from films that it was easy to conclude that nothing could possibly be learnt from the older medium for the further development of the newer one. This article focuses on the emotional experience of games and films. According to Tan (1996, p. 46), emotion is defined as 'a change in action readiness as a result of the subject's appraisal of the situation or event'. The fiction film evokes emotional experiences by appealing to certain source concerns of the audience, such as security, love and freedom, which are endangered in the course of the narrative. The wish to restore the desirable states that result from the fulfilment of the source concerns promotes action readiness. This is basically true for computer games also. But in addition to the source concerns addressed on the level of narrative, games also appeal to game-specific source concerns such as agency and the feeling of sensorimotor or cognitive competency. Combining these two kinds of source concerns in a computer game potentially elicits a much more complex emotional experience than that elicited by watching a fiction film.

In the following, I will introduce four key pleasures that constitute the emotional experience of both film-viewing and game-playing. These key pleasures shall be referred to as the *visceral eye*, the *vicarious eye*, the

knowing eye and the *voyeuristic eye*. My hypothesis is that games and films provide their audiences with the same range of pleasures; the differences in the emotional experiences they allow for are a result of the extent to which particular pleasures are provided and of the means with which they are evoked in different media, rather than a matter of principle.

Also, in the following a model of emotional design will be introduced that cross-medially investigates the interrelationships between the aforementioned pleasures on the various levels on which games and films operate. This model has been developed with single-player games in mind. Though it basically still works for multiplayer games, it does not account for the factor of social interaction. The model therefore cannot be expected to exhaustively explain the emotional experiences provided by multiplayer games.

The model of emotional design

This model considers only those medial elements that constitute the emotional experience of the viewers/players. For a more encompassing understanding of how games and films elicit emotions in their users, the media experience and sociopsychological predispositions of these users would have to be taken into account, but this exceeds the range of this article. The model of emotional design:

1. Allows comparison between computer games and fiction films without compromising the uniqueness of either medium or reducing it to only one operational level (like the story or the game play).
2. Clarifies the similarities and differences between computer games and fiction films from an experiential perspective.
3. Helps to identify potential for development in computer games concerning the emotional range and depth of play experiences.
4. Contributes to a better understanding of the nature of computer games and serves as an instrument for the critical analysis of computer games.

Three levels and four pleasures

Starting with the hypothesis that the range and depth of a film's emotional experiences are created by four key pleasures and that these key pleasures can also be provided by computer games (although they are differently emphasized due to medial characteristics), I aim to understand how they work in films and how they can be integrated into games. As Torben Grodal points out in his essay about the pleasures of control,

simply transferring a situation that has a certain effect in a film into a game, hoping to achieve the same effect, will not work:

When viewing a film the labelling of the emotions felt is determined by the viewer's passive appreciation of the film character's coping potentials. But when the situation is part of a video game, it is the player's assessment of his own coping potentials that determines the emotional experience (Grodal, 2000, p. 201).

However, that does not mean that certain kinds of experiences are restricted to a certain medium. They just afford different medial strategies. This is due to the fact that film creates its various pleasures on only two levels – the level of narrative and the level of the interface – whereas the computer game additionally has to account for the essential level of the rule system.² Adapting a filmic pleasure strategy for a computer game always has to acknowledge the affordances of the interactive medium. This means that if you want the player to experience something emotionally, staking only on the level of narrative will not suffice. You have to make use of the rule system to support the narrative message you want to convey with the game-play.

The operational levels of games and films

The level of narrative. Being concerned with the experiential rather than structural aspects of games and films, the primary question relates to what function the level of narrative serves in both media. Basically it provides the players/protagonists with goals, conflict and an element of uncertainty. From these narrative cornerstones arises dramatic tension, an experience that is sought and encountered in computer games as well as fiction films. The main difference is that the most dominant basic paradigm of narrative³ in films is *character*, meaning that the goals and conflicts are shaped by the protagonists' psychological struggles, whereas in games the most dominant basic paradigm is *space*, so the goals and conflicts are strongly related to the narrative architecture of a computer game (Jenkins, 2004).

Narrative experience in games can take two forms. There is the embedded narrative that consists of the prescribed moments and structures that are relatively fixed in the game. But the true strength of games on the narrative level lies on the emergent narrative, the narrative that arises during play often in unexpected ways, as a result of the individual moment-to-moment game-play (Zimmerman and Salen, 2004, p. 383).

The level of interface. In films, the interface is the audiovisual representation of the narrative. Cinematic techniques shape style and tone and add connotative meaning. In games, the level of interface serves the additional function of communicating between game-system and player. It can convey information acoustically, visually and haptically, providing the player with a feedback to his or her actions and with clues about what to do. As Steven Poole (2000, p. 178) notes, 'the game screen is inscrutable when approached as simple representation; it demands to be read as a symbolic system'. System feedback plays an important role in the emotional engagement of the player; for example, seeing the health bar drop rapidly or feeling the controller rattle will evoke a change in action readiness. The type of interface (cluttered with status bars or devoid of them) has a huge influence on the emotional experience of playing.

The level of rule system. The level of rule system (in the sense of defining interaction) is unique to games. It determines the actual game-play and is in most computer games not directly accessible by the player but can only be deduced by interpreting the feedback the interface provides to the player's actions. The level of rule system is inseparable from the other two levels. It defines what system information has to be displayed on the level of interface, and the way it is intertwined with the level of narrative has a major influence on the emotional experience for players. If you want to get a narrative message across, couple it to the rule system. Here, the ways are defined in which a certain narrative element can be acted out until it is not only understood but felt by the player. Not only does the narrative give extra meaning to the rules (Zimmerman and Salen, 2004, p. 387), but the rules help to perceive the narrative. There will be examples of this later on.

Categories of pleasure in games and films

Jon Boorstin, whose observations about what makes movies work serve as the main source of inspiration here, uses the metaphor of the *visceral eye*, the *vicarious eye* and the *voyeur's eye* with which a recipient watches a movie, to categorize the pleasures a film provides to the viewer (Boorstin, 1995). In order to include the important joy of *thinking*, I added the category of the *knowing eye*. (For the sake of brevity, the 'eyes' will stand as representatives of the pleasures they provide for the viewers/players.)

As the emotional experience of watching a film or playing a game is a team effort of the various eyes, it is often hard to say which eye causes a particular emotional response from the viewer/player. But although the eyes need one another to create an emotionally satisfying experience,

one or two often dominate the others, depending on medium (game or film), genre (romance, horror) and particular medial realization (style and tone). This means that the categorizations cannot be as clear-cut as some might feel they should be. Also, it is not my intention to explain all aspects of the four eyes exhaustively, but rather to convey the idea about how they work on the various operational levels of games and films.

The knowing eye. This first pleasure category aims at getting the viewer/player involved in the film or game through intellectual stimulation. On the level of narrative, its task is to follow the plot in order to build hypotheses about what is going to happen next. One of the pleasures it provides is the pleasure of being right or – because a totally predictable plot easily becomes dull – being surprised with a clever twist in the narrative. The knowing eye is proud and does not like to be duped. It insists on plausibility and is incorruptible by overwhelming images or bombastic sounds. Even if some of the other eyes are completely overawed, if the knowing eye is ignored, it will spoil the fun and whisper, 'Nice, yes, but nonsense'.

The knowing eye also connects the content of a film or game to rest-of-life knowledge, contextualizing the media experience and drawing upon knowledge about a certain genre and its specific rules, using this knowledge to build more accurate hypotheses about the course of events. Postmodern films often challenge this knowledge and the pleasures they generate are mostly pleasures of the knowing eye, because before you can appreciate creative rule-bending you have to know the rules.

On the level of interface, the knowing eye derives pleasure from interpreting connotations established by the cinematic codes. If it becomes too dominant, it blinds the other eyes, making watching a movie a purely intellectual experience. That is not necessarily bad, but not what film – at least the classical Hollywood fiction film – is all about.

In current games, there is not much for the knowing eye on the narrative level. Even if a game has a back-story, it rarely provides the player with enough narrative information to build hypotheses about what is going to happen next, story-wise. One exception is the innovative game *Fahrenheit* (2005) that works more like an interactive movie than a computer game. Another one is the Sony PlayStation game *Ico* (2001),⁴ because here the narrative is tied to the dominant basic paradigm of games: space. The game is about the escape of Ico and Yorda from a gigantic castle. That the player can only travel in one direction is a prerequisite for the dramatic design of the narrative architecture. Early in the game, Ico and Yorda arrive at the main gates of the castle only to find them closing when they advance. This establishes a long-term goal of the game. As the player

progresses, the castle's architecture becomes more and more transparent, allowing for hypothesis-building about the course of the journey. Seeing the drawbridges that cannot be reached at the moment but will have to be let down later, and being able to speculate where they might lead, has a dramatic pull effect that gets stronger the closer one gets to the end.'

The reason why following the narrative of a game is often tedious is that in most games it is completely separated from the game-play and conveyed mostly through cutscenes. A solution to this problem would be to relate more strongly the narrative level to the level of the rule system, thus focusing more on emergent than embedded narrative (see above). This is done in *Ico*, where the narrative is inseparable from the player's actions. Having to protect and rescue Princess Yorda is not just an abstract goal of the narrative, it is what the player does. For example, you cannot leave Yorda alone for too long or the shadow demons will get her, then the world freezes and the game is over. The rule system turns the romantic metaphor of two people being unable to live without each other into cold game-play reality.

But *Ico* is an exception in many respects. In most games, the knowing eye is more focused on the level of interface, where it deciphers the game world and interprets its signs as clues for the player on how to act. The level of interface is where the knowing eye accesses the level of rule system. Thus, the hermeneutic process that takes place on the level of interface in games is different from that in films. Steven Poole (2000, p. 185) subdivides it into two parts: 'Imagining into' and 'imagining how'. 'Imagining how' because at every moment this operation precedes the dynamic challenge of being able to predict how one's actions will affect the system, and therefore what course of action is optimal; 'imagining into' because one needs to understand the rules of the semiotic system presented, and act as if those rules, and not the rules of the real world, applied to oneself. The requirement is to project the active (rather than just the spectating) consciousness into the semiotic realm. The video-game player is absorbed by the system: for the duration of the game, he lives among signs (another way of describing the dissolution of self-consciousness in the video-game experience).

Deciphering the rules of highly complex games such as *EverQuest 2* (2004) can be one of the key pleasures of playing. A highlight for the knowing eye on the level of rule system is to find the gaps in the system that allow the player to solve problems in a way not anticipated by the designers.

The vicarious eye. Following Boorstin (1995, p. 66), 'the vicarious eye puts our heart in the actor's body: we feel what the actor feels, but we judge

it for ourselves. The voyeuristic experience may be grand or clever, but the vicarious experience can be profoundly moving'. The key word here is empathy. To feel it, you have to care for the protagonists, be sympathetic to their goals and conflicts and establish a positive disposition towards them. All this is achieved on the level of narrative. Personal information about the characters allows the audience cognitively and emotionally to approach the character's position, in order to understand his or her feelings. Seeing characters you care for struggle in conflict leads to suspense, and suspense is experienced as entertaining (Vorderer and Knobloch, 2000, p. 62). To create suspense, the vicarious eye has to cooperate with the knowing eye, because how can you fear for a character if you are not aware of any danger?

Because most games do not give information that makes the characters psychologically more interesting, the vicarious eye is somewhat neglected in games. Non-player characters (NPCs) are mostly reduced to their functional roles in the game. Therefore, you do not really care about their fates. Again, an exception can be found in *Ico*, where a strong bond between Yorda and the player is established during the game, until rescuing her becomes much more than just the game's objective, but a real motivation to keep playing. You not only want to know how it ends, you want to save her and when you think you have failed, it hurts. The emotional bond that is established between the player and Yorda during the game is – again – due to the pervasive coupling of narrative and game-play. The affectionate gesture of holding Yorda's hand makes you stronger when you have to fight demons. Also, having to pull her out of the portals into which she is dragged by enemies has a much stronger emotional impact than would simply calling for her. On the level of interface, controller behaviour further enhances the vicarious experience. Holding Yorda's hand makes the controller vibrate, suggesting that the player can feel her pulse.

The key to creating a vicarious experience in games is making the player care about the characters. To achieve this goal, one must not concentrate on the level of narrative alone, but find a way to make character traits and relationships between characters meaningful for the game-play,⁵ and to use emotionally engaging metaphors to display the relationships between characters on the level of interface.

The visceral eye. In the realm of the visceral, film and game come closest to each other. Experiencing something first-hand is the pleasure the visceral eye provides and this does not need any characters.

When we watch a rollercoaster sequence in a movie, how much of the thrill comes from seeing the riders appearing scared and sharing their

emotions, and how much comes from experiencing the ride ourselves? Which would be more effective, shots only of the screaming riders or only point-of-view shots of the rails rushing up at us as we dive and twist and turn? The riders aren't characters in the empathic sense, they are cheerleaders for *our* rollercoaster ride, there to intensify our thrill of motion, but more likely than not they just get in the way (Boorstin, 1995, p. 110).

The visceral eye responds to everything in a film that stirs the beast in the watcher: the appalling face of the mummy, the sensations provided by soft-core porn. In these moments we want the character to be us, we want to experience the moment directly (Boorstin, 1995, p. 111). So, by catering to the visceral eye, the fiction film gives a taste of what games are best at; letting you *be* the character and providing you with first-hand experiences. In games, the visceral joy of first-hand experiences is strongly related to the experience of agency. Even though the visceral and the knowing eye are incompatible, agency needs them both. To experience agency, it must be possible to build reliable hypotheses about action and reaction, but experiencing agency also means viscerally enjoying the outcome of a certain action, such as watching the monster you have just hit with a grenade explode into bits.

The most compelling aspect of the fighting game is the tight visceral match between the game controller and the screen action. A palpable click on the mouse or joystick results in an explosion. It requires very little imaginative effort to enter such a world because the sense of agency is so direct (Murray, 1997, p. 146).

The visceral pleasures happen on the level of interface. Even if in a game the rule system is needed to provide the player with something to experience first-hand in the first place, the fun part is watching (and hearing) the outcomes of the action, to feel the controller rattle in the heat of battle.

The voyeur's eye. This is the eye that looks at the world presented in a film or game from a safe distance. It is the visceral eye's cool brother. Like the knowing eye, it is not easily seduced. 'The voyeur's eye is the mind's eye, not the heart's, the dispassionate observer, watching out of a kind of generic human curiosity. It is not only sceptical, it is easily bored' (Boorstin, 1995, p. 13).

What the voyeur's eye needs can be found on the level of interface. There it takes its pleasure from a richly imagined special world, full of enticing things (Boorstin, 1995, p. 12). In films, this world is brought alive by careful mise-en-scène. In games, the world also needs a credible physique. Wading through water must feel different from walking on solid ground. Games are specialized at providing voyeuristic pleasures

due to the fact that their most important narrative paradigm is not character but space.

Conclusion

This article introduced a model of emotional design that identified four key pleasures provided by games and films and investigated how they relate to each other and to the various operational levels of the two media. In reference to Jon Boorstin's work I called those pleasures the *vicarious*, the *visceral* and the *voyeur's eye*, adding the *knowing eye* to include the joy of intellectual stimulation. Whereas films have two operational levels (the narrative and the interface), games possess the additional level of the rule system.

The model shows how the various eyes are differently emphasized in films and current games, revealing potentials for future development. The knowing eye in games is found to be rather 'short-sighted' on the narrative level, leaving potential for the regulation of player interest largely untapped. Instead, games focus on the pleasures of the visceral and voyeuristic eye, but neglect the vicarious eye that is most dominant in film. This corresponds to the different weighting of basic narrative paradigms in games and films that are due to the different modes of reception. Although the satisfaction of game-specific source concerns such as agency and sensorimotor competency (addressed by the visceral and the voyeuristic eye) will always be essential to the pleasure of playing, the emotional range and depth of games can be enhanced by looking more closely at the vicarious eye. The most effective way to do this is to couple narrative elements to the actual game-play. Potential for development in games can further be identified in regard to the knowing eye, because postmodernistic attempts are still very rare but could allow for completely new game concepts. For example, one could imagine a game that works like a Kafka novel, where the rules have to be constantly reinterpreted and the goals fade further away the closer one comes to achieving them. The motivation to keep playing would be the wish to finally grasp the logic of the game world and to beat the game. A broader range of narrative themes, a more elaborated symbolic interface language and a generally stronger interplay of the various operational levels of games are also desirable. Diversity rules!

Notes

1. For an interesting analysis of the relationships between computer games and fiction films, see Poole, 2000, pp. 65–89.
2. This relates to the term 'ergodic', which derives from the Greek words 'ergon' and 'hodos', meaning 'work' and 'path'. Espen Aarseth uses the term 'ergodic', to refer

to any text in which the activity of a 'reader' (partly) determines which signs appear on the surface of the medium. The text that is read from is produced by the recipient's 'work': 'In ergodic literature, nontrivial effort is required to allow the reader to traverse the text. If ergodic literature is to make sense as a concept, there must also be nonergodic literature, where the effort to traverse the text is trivial, with no extraneous responsibilities placed on the reader except (for example) eye movement and the periodic or arbitrary turning of pages' (Aarseth, 1997, p. 1–2).

3. For more information about the basic paradigms of narrative as *character*, *space*, *time* and *action*, see Mundt (1994, p. 52).
4. A review of *Ico* including a summary of the game's narrative can be found at <http://www.gamespot.com/ps2/adventure/ico/review.html>.
5. David Freeman (2004) has developed some useful techniques for player-character and NPC bonding.