

## GAMING AND GRAPHICS

### Games on the Verge of a Nervous Breakdown: Emotional Content in Computer Games

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**Paranoid Productions**

*Toy Story 2* was certainly a fabulous film, in my estimation quite a bit better than the original. I'm sure that nearly everyone likely to be reading this column is already well aware of this. Those who have somehow not seen it are encouraged to go find it on DVD as soon as possible: it's well worth the time and price. It is important to note that my adulation for the film does not come solely from the impressiveness of the computer graphics employed in the film, but from the overall strength of the work when compared with any type of film. It's not just a great piece of CGI work, it's a flat out great film.

Reflecting on the film, one of the aspects I find most impressive about *Toy Story 2* is the emotional response it generated in me, the most intense feeling I have ever had from watching a piece of computer-generated imagery. The song the female doll Jessie sings while she remembers her happy days with her owner and her subsequent abandonment is of such poignancy that I doubt I could watch it again without breaking into tears. The fact that the song was written by one of my least favorite musicians, Randy Newman, seems to have been overcome by the power of the message it shared and how that worked seamlessly with the film's story. To a perhaps still doubting Hollywood, *Toy Story 2* proves beyond a shadow of a doubt that computer-generated graphics are fully capable of provoking a broad range of honest emotional responses in audiences.

#### **More than a Feeling**

Of late, computer games have been trying to become more emotional. Of course all artists attempt to elicit strong emotional responses from their audiences, but lately game designers have been making an extra effort to branch games into new emotional territories, or at least talk about doing so. A good example of this is the naming of one of

the processors for Sony's recently released PlayStation2 console - a chip-set dubbed the "emotion engine." With such a name, one might think the chip set supports sophisticated artificial intelligence algorithms or behavioral modeling. In point of fact, however, it is a super fast graphics processor.

One might conclude that the people at Sony have equated increased graphics performance with increased emotional response in gamers. Is their conclusion correct? On the one hand, having graphics horsepower which allows for a finely detailed world does present some possibilities for expression and nuance that were impossible in the extremely under-powered 3D graphics of the original PlayStation. For instance, if a humanoid game character can now be 2,000 polygons instead of 200, some of those extra polygons can certainly be allocated to the character's head. Now the 2,000 poly character can have a face complete with eyes, nose and mouth made of geometry instead of the single textured polygon that had to be used for the 200 poly character. And that geometry in the face can be manipulated to have the character appear happy, mad, confused, surprised or whatever other expression the game's animator may have in mind. Certainly, having *Toy Story 2*'s Jessie emote through her face was an integral part of the emotional involvement audiences felt in that movie. Thus the increased polygon pushing power of the emotion engine empowers game developers to communicate character emotions in a way which was impossible before.

On the other hand, is an extra-detailed, hyper-realistic gameworld necessarily the only or even best way to communicate emotion to the player of a computer game? In his book *Understanding Comics*, Scott McCloud discusses "amplification through simplification." He suggests that as the representation of a character drifts from the realistic to the iconic, the audience's ability to emote with that character increases. This

explains why the few simple lines in Charlie Brown's face could perfectly capture any emotion Charles Schulz wanted his readers to experience. Would adding more lines to his face have made him more emotional? Hardly. More likely, it would have ruined the character's simplistic perfection. The argument could be made that the same holds true for computer graphics and computer games: the more realistic our computer models become, the less capable they are of provoking emotion in players. And of course, if one looks at *Toy Story 2* closely, though the characters are all incredibly high polygon (certainly by real-time computer game standards), they are still extremely cartoonish. Indeed, Pixar's choice of manufactured toys for their starring characters suggests that they understand the power of the cartoon all too well. If Pixar had instead opted to create a movie which revolved around human characters which were modeled to be as realistic as possible, the emotional impact of the film on the audience would have been significantly less.

Working with the limitations of technology, game developers can often derive more emotional pay-off than if they have all of the polygons in the world to play with. Polygon limitations can force developers to go with stylized and iconic characters with which players can easily emote. So it seems that calling the PlayStation2's enhanced graphics chip-set the emotion engine is most likely a buzzword some clever person in the marketing department dreamed up rather than anything an intelligent game developer would use to describe such technology. As I reflected on some of the most emotional experiences I have had with artistic works, beside *Toy Story 2* and the *Charlie Brown* comic strips, a few key works popped into my mind: Isao Takahata's cell animation cartoon *Grave of the Fireflies*, Neil Gaiman's comic series *The Sandman* and Truman Capote's novel *In Cold Blood*. Indeed, my last example is told in a medium completely

lacking in graphics horsepower all together. Despite the increasing dominance of the moving image over the last century, novels remain capable of eliciting emotional responses that no other medium can, without using a single graphical element. So do games really just need a super-charged graphics processor to be more emotional? No, the challenge is significantly more complex than that.

### Can a Computer Game Make You Cry?

Computer games have been attempting to increase their emotional impact far longer than the beginning of Sony's marketing campaign for the PlayStation2. One game which did have a remarkable emotional effect on its players, an effect almost unique in computer games, was Steve Meretzky's text adventure *Planetfall*, released in 1983. In the game, the player is accompanied by a friendly robot called Floyd, a character Meretzky created to be humorous and likable to computer game audiences. Then, at one point in the game, Floyd sacrifices himself in order to allow the player to complete an important puzzle. In an interview I did with Meretzky recently, he said his goal in having Floyd die was to create a truly emotional moment. He also had ulterior motive, however:

"Also – and this is a relatively minor influence on the decision, but still worth mentioning – at the time Electronic Arts was just getting started. They were running a series of ads meant to establish their stable of game designers as artists. One of the ads quoted one of their designers as saying something like 'I want to create a computer game that will make people cry.' There was a little touch of a budding rivalry there, and I just wanted to head them off at the pass."

And Meretzky succeeded quite well, with Floyd's demise being one of the most remembered and talked about moments in computer gaming history. Readers should bear in mind that *Planetfall*, as a text adventure, had no graphics at all. Could the moment have been made any more poignant with Sony's emotion engine to assist it? Not likely.

In a counterpoint to the gaming industry's attempts to inject emotion into its games, in a recent article in *Game Developer* magazine, game designer Greg Costikyan argued the following:

"It is a mistake to assume that the value of a work of art lies solely in the emotions it engenders. Music can move us, but is emotion per se truly what we find appealing about music? Personally, I'd argue that emotion in music is tantamount to schmalz. The classical work I prize most highly has instead a clean, almost mathematical inevitability about it."

I would argue to the contrary, however, that art is all about emotion. People turn to art, not because it provides any tangible benefit to their lives, but because it evokes certain emotions in them. I assert that Costikyan values the music he does because of the mathematical precision he wants to hear in it, a type of emotion in itself. Emotion need not be intense love, sorrow, disgust or rage; it can be altogether subtler than that. Indeed many of the most prized works of art are valued because of their subtlety, not by the "schmalz" way they try to hammer their emotions into their audience. Schmalz is an overdose of emotion, but one need not have a complete absence of emotion to avoid it. What is important to note about music is that the emotions it provokes in its audience are altogether different from what people derive from films, novels, comics or games.

A good example of the way music can evoke emotion is the song *The Ghost of Tom Joad* as recorded both by Bruce Springsteen and the group Rage Against the Machine (RATM). The renditions of the songs both have identical lyrical content, lyrics which combine the words of the Tom Joad character from John Steinbeck's novel *The Grapes of Wrath*, whilst questioning where the ideals of that book and the New Deal exist in today's America. To listen to Springsteen's brooding musical rendition of the song, one feels a certain quiet despair over the condition of those left behind by modern American prosperity. Springsteen's song is, if anything, an emotionally depressing work. RATM's version of *The Ghost of Tom Joad* has completely different music accompanying

Springsteen's words. To hear their version, one feels fury and anger, enraged at what has happened and is filled with a desire to do something about it. Despite the identical lyrical content of the two songs, the emotions they evoke are completely different from each other.

What is especially important to note is that the effect from both Springsteen and RATM is entirely different than the emotional response one gets from Steinbeck's novel. I suggest that this is in part due to the different artistic agendas of each of the creators involved, but also due to the mediums in which they were working. Steinbeck could never have evoked the same emotions as Springsteen or RATM could, because he was writing a novel and they were writing music. Needless to say, the emotional effect of John Ford's 1940 film of the novel is just as unique in its emotional response, because he was working in yet another medium. Each form has its own way of affecting an audience, and the best creators are able to use that form to their advantage. If there is ever a computer game centering around the world of *The Grapes of Wrath*, it too will necessarily have an entirely unique emotional impact on its audience.

### Games Under the Influence

I recently had the good fortune to rewatch Krzysztof Kieslowski's amazing *Dekalog*, a series of 10 hour-long films about the lives of people in a Polish housing development, each story loosely based around one of the 10 commandments. Viewed as a whole, the films run the entire range of human emotion, addressing a complex series of moral quan-

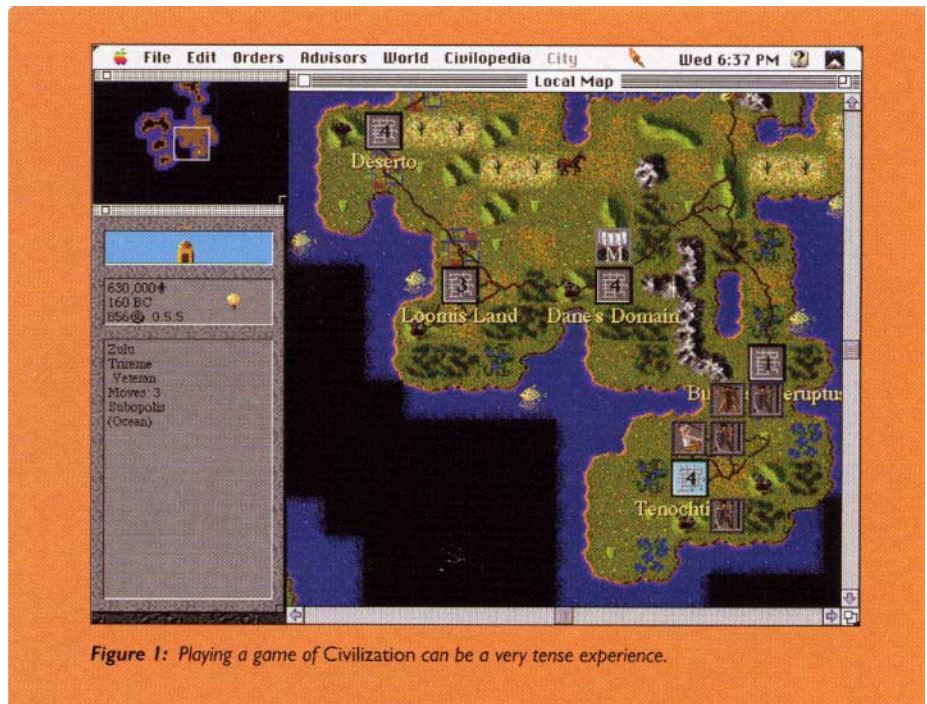


Figure 1: Playing a game of Civilization can be a very tense experience.





Figure 2: The Sims allows the player to create and control a family of suburbanites. Many players become quite fond of these "sims."

daries in a way no other film has. As I watched the films it struck me that my games, whatever their strengths may be, have never come close to achieving the kind of emotional effects found in these films. As I thought about it some more, I realized that my games would never be able to achieve these emotional effects, regardless of what I did to them. Games are a unique medium, and as a result what they can do to their audience is just as unique.

I fear that many game developers fail to realize that trying to emulate films does not necessarily lead to the best emotional experiences for players. I cringe every time someone tells me that games should be more "cinematic," a disturbingly common occurrence. Twenty years of computer games have shown us that games are good at generating a wide variety of emotions in their players, and designers will find the best success trying to stimulate those emotions in players, rather than trying to emulate what is best accomplished by other media. For those who feel that games do not provoke enough honest feelings, it is useful to review what emotions games are extremely good at engendering in players.

Tension is one of the emotions many people will think of first in regards to computer games. This is evident in almost every game from a fast-paced arcade title like *Asteroids* or *Quake*, to a complex strategy game like *Balance of Power* or *Civilization*. At key points in these games the player is afraid that his next move will be his last, that if he does not pick his moves carefully his game will be over. This tension is more palpable than in any non-interactive media, since a wrong move will actually end the game. A film, novel or play has never abruptly ended in the middle when its main character made the wrong decision.

A sense of accomplishment is another emotional response that is generated by almost all games. If players make it through the tense periods of gameplay, the payoff is success in the game. If the player is clever and can figure out the right way to build up his troops and send them into battle in a strategy title like *StarCraft*, the reward is the player's knowledge of a job well done. This is made even more powerful if the player first fails at a given challenge a number of times, since this failure proves that the chal-

lenge was real, and the player had to improve in order to succeed. This feeling of success is much more powerful than in other media, since the player's correct decisions have led directly to the accomplishment. The player has not merely been told of the impressive actions of someone else, but has pulled them off himself.

Games can make players feel proud of something they have built, instilling a paternal feeling in a way no book or film ever can. Will Wright's series of "software toys" are a brilliant example of games that exploit this to its fullest. In his first such game, *SimCity*, Wright empowered the player to take a blank countryside and build a city there, to create a metropolis from nothing. His latest title, *The Sims*, allows the player to do the same thing but on a smaller scale, by creating and caring for a family of suburban dwellers known as "sims." Particularly in this latter game, the player comes to feel warmth and affection for these artificial people, and a sense of pride in the virtual lives they lead. And these are lives that, without the player's involvement, would never have existed. Of course the feeling of parenthood has been



exploited successfully in many other games and game-like toys, such as the *Creatures* artificial life titles and the various "virtual pets" products, such as the popular Tamagotchis. Surely players have never experienced this feeling of creation and ownership in other media.

Many games have exploited players' desires to transgress, to get away with something unfavorable or even illegal. This feeling of transgression is something that may be hard to define as an "emotional" feeling, yet I think the thrill it gives the player qualifies as one nonetheless. This is related to the feeling a player may have when watching a crime film such as *The Godfather* or *Reservoir Dogs* and rooting for the bad guys, yet in games it is far more intense since the player himself is doing the transgressing. Since their very beginning, computer games have used transgression as one of their hooks, with so many games allowing players to shoot everything that moves, using violence to solve problems in a way that modern civilized life does not allow. The arcade game *Rampage* casts the player as King Kong and Godzilla-like monsters and allows players to stomp through a city laying waste to the "puny" humans and their buildings. The PlayStation hit *Driver* allows players to pretend to be the "wheel-man" in a getaway from a bank robbery, with police in hot pursuit. A recent favorite of mine is *Jet Grind Radio* for the Sega Dreamcast, which casts players as roller-blading hipster teens who hurtle around realistic towns spray-painting or "tagging" different buildings in order to complete the level. (As an aside, graphics enthusiasts will love the game's beautiful use of a cartoon-renderer to create a truly unique looking gaming experience.) As the game progresses, police come out to chase the player, with tear gas being deployed as a last resort to stop the player's vandalism. In all of these games, players are allowed to break all the rules without the threat of real-world punishment. Despite these games providing a "safe" and therefore fake form of rebellion, the feeling of transgression is still strong while playing these games, which explains their continued popularity.

I have listed four types of emotional responses that games excel at, but these by no means represent the limit of the emotional responses games can generate. I have not even discussed the despair that players will feel when they lose a game, especially with so many classic arcade games such as *Pac-Man*, *Robotron 2084* and even *Tetris* that are completely unwinnable for the player. So the breadth of emotional response games can generate is significant and undeniable.

Game developers who talk of adding emotions to their games may actually be

looking for absolute control over the emotions that players experience, to be the puppet-masters that film directors can be, tugging at audience "heart strings" or other emotional pulleys however they see fit. The central problem is that games, through their interactive nature, give players the power to make their own choices, decisions which effect which emotions they may feel immediately or later in the game. Game developers need to set up gameworlds that present the possibility for various emotional responses in players, without ever guaranteeing that the player will feel a particular emotion at a particular time. They need to recognize the strengths of the gaming medium, instead of attempting to imitate the strengths of other media. Suppose a film tried to evoke the same emotional response as a song, such as the previously mentioned *The Ghost of Tom Joad*. The film would be trying to do something to which it was not entirely suited and would come out weaker for it. The same holds true for games, which are certainly as different from films as films are from songs.

#### Emotional Wreckage

This past summer featured a cover story in *Newsweek* magazine about the then impending launch of the PlayStation2. The accompanying article discussed how all children will want one and how the games will be "better than ever." Most of the writing was the PR-department-driven drivel typical of the news magazines' reportage of enter-

tainment. One article, however, took Sony to task for naming their graphics chip the emotion engine. It compared the medieval Japanese combat game *Kessen* (which, by all accounts, is a visually impressive title lacking in much meaningful gameplay) unfavorably with Akira Kurosawa's *Ran* (which is widely regarded as a masterpiece of filmmaking). The article suggested that game developers are still far from capturing the emotional power of filmmakers, as demonstrated by his comparison between *Kessen* and *Ran*. Despite *Kessen* being an extremely bad choice of a game to use as any sort of a high-water mark for interactive entertainment, the fact remains that the author of that piece was comparing apples and oranges. He might as well have been comparing the relative merits of a musical composition with a novel. Of course games cannot do what movies do for audiences. But neither can films do what games do for players. I do not recall any film I have ever seen having the same emotional effect on me as *The Sims*.

The age of digital media has brought new life to Marshall McLuhan and his book *Understanding Media*. In that book, he is famous for asserting that "...the medium is the message. This is merely to say that the personal and social consequences of any medium... results from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology." I am certainly not an expert on McLuhan, and his writings can often be more than a little obtuse. However,



Figure 3: Jet Grind Radio is designed around letting the player engage in taboo behavior.

to my reading, McLuhan's argument is that, more than whatever personal content the artist puts into the work, it is the medium in which an artist works that governs what that artist will be capable of provoking in an audience. Computer games are indeed their own medium, distinct from all others, and the emotional responses that game developers will be able to engender will be strictly governed by the gaming medium itself. Furthermore, those emotions will be ones where the player and his interactive role in the work will be key to determining the emotions felt. What the game developer may lose in terms of control over the emotions the player experiences will be made up for by the fact that the player will feel those emotions that much more intensely. This heightened emotional experience is due to the fact that the player's involvement in the work is beyond what is possible in non-interactive media. And therein lies the true emotional power of games.

### About the Columnist

**Richard Rouse III** is a computer game designer, programmer and writer at Surreal Software, where he is currently lead designer on *Gunslinger*. His past design credits include *Centipede 3D*, *Odyssey - The Legend of Nemesis* and *Damage Incorporated*. The interview with Steve Meretzky mentioned in this article is contained in Rouse's book, *Game Design: Theory & Practice*, to be published in the first quarter of 2001 by Wordware Publishing, [www.wordware.com](http://www.wordware.com).

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