

Games of Pain: Pain as Haptic Stimulation in Computer-Game-Based Media Art

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In recent years, several media-art projects have introduced pain as a form of interaction within the context of a two-player game. Some are experimental performances or student projects, while others have become so popular and successful at gaming events and media-art exhibitions that their creators have attempted to market them as entertainment products.

PainStation (2001–2003) and *LegShocker* (2002) by Tilman Reiff and Volker Morawe, *Tekken Torture* (2001) by C-Level and *Tazer Tag* (2005) by Randy Sarafan constitute some illustrative examples of what I describe as Games of Pain: games in which two players confront each other through a technologically mediated interface, sometimes the virtual ground of a computer game, inflicting and receiving pain in a peer-to-peer situation. Pain is in most cases produced by electroshocks of varying intensity, always below the level at which they could cause serious injuries. The purpose of these games is generally to enhance game play with haptic stimulation and to experiment with the reactions of the players. Pain thus becomes part of an entertaining experience, for it is important to point out that most users have fun while playing these games.

This text provides an overview of the implications of incorporating pain into a computer game and outlines the motivations that lead players to perceive a painful experience as being fun and addictive.

PAINSTATION

PainStation [1] was created in 2001 by Volker Morawe and Tilman Reiff, both former students of the Academy of Media Arts in Cologne, Germany. The artwork consists of a table console for two players. Each player holds a joystick with his or her right hand and places the other hand on a metallic panel, the Pain Execution Unit (PEU) (Fig. 1). As both players place their hands on their respective PEUs, an electronic circuit is closed and the game starts. On a screen located on the top of the console, the participants play the tennis game Pong against each other. When a player misses the ball, one of three types of pain is inflicted on the player's left hand by the PEU: heat, electroshocks of varying duration or the lash of a metallic

whip. The aim of the game is obviously to intercept the ball as many times as possible, but also to withstand the pain. If the player takes his or her hand off the PEU, the electronic circuit is interrupted and the game is over. The winner is, thus, the one who endures game play the longest.

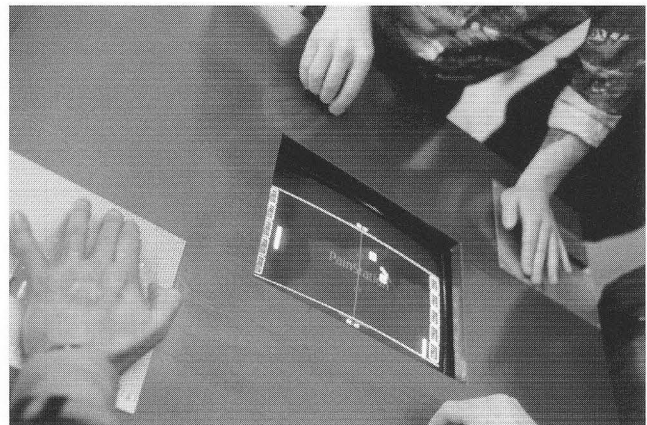
The artists describe the console as an “enhanced dueling artifact” [2], pointing out that, in computer games, the player is frequently isolated from any social interaction (even in multi-player games, each participant focuses only on his or her own monitor) and that this experience is mainly visual, excluding any kind of haptic stimulation.

The setting up of the *PainStation* at several game conferences and electronic art festivals has met with great success, with both male and female players becoming addicted to the game and displaying wounds with pride (Figs 2 and 3). The artists considered commercializing the console and designed a second version to meet the requirements of the gaming industry (Article Frontispiece). However, they finally dropped the idea in the face of the prospect of lawsuits being brought against them by injured players.

ABSTRACT

The text describes several media-art projects that introduce pain as a form of interaction within the context of a two-player game: *PainStation* (2001–2003) and *LegShocker* (2002) by Tilman Reiff and Volker Morawe, *Tekken Torture* (2001) by C-Level and *Tazer Tag* (2005) by Randy Sarafan. By presenting these examples and briefly analyzing the nature of pain and games, this text offers an overview of the implications of incorporating pain into a computer game and presents an approach to the motivations that lead players to perceive a painful experience as fun and addictive.

Fig. 1. Volker Morawe and Tilman Reiff, *PainStation 1*, 2001. (Photo © //fur//) Players hold a controller with the right hand while placing the left hand on a panel that administers electroshocks, heat and the lash of a whip.



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Article Frontispiece. Volker Morawe and Tilman Reiff, *PainStation 2.5*, 2004. (Photo © //fur//) Special edition for etoy.ARTCOLLECTION.



Fig. 2. Volker Morawe and Tilman Reiff, *PainStation 2*, 2003. (Photo © ////////////fur//////) Women playing during a gaming event.

LEGSHOCKER

Another game by Reiff and Morawe, *LegShocker* (2002) [3], features an enhanced PlayStation2 controller attached to the leg while one plays EA Games's FIFA 2002, a computer football game (Color Plate C and Fig. 4). Two players equipped with these devices compete; a foul in the game is translated into the painful experience of a small metallic button hammering the shin of the player fouled. *LegShocker* is less complex than *PainStation* in the fact that it is basically an addition to a previously existing game, but like its predecessor, it establishes a mediated interface for producing and receiving physical punishment within the context of a game. Winning in this case is not directly related to enduring pain, but the threat of pain makes playing this virtual football game much more exciting, because it involves real consequences for the player's body.

TEKKEN TORTURE

The artists' collective C-Level developed one of the first media-art projects to combine computer games and pain-inflicting devices. In *Tekken Torture* (2001) [4], two players confront each other in the PlayStation martial arts game Tekken Tournament, their right arms connected to a set of electrodes that deliver electric shocks every time one's character is hit. Here again, virtual game play entails physical consequences, although in *Tek-*

ken the relationship with physical punishment is much more evident. Players engage in a dueling situation in which pain is a stimulus that identifies them with their avatars. Furthermore, the electric shocks temporarily limit the participant's use of his or her right hand, so that fighting back is more difficult. The purpose of the game is to beat the opponent's character, whose endurance is determined by the program, and therefore the player's own ability to withstand pain is not an essential part of game play. As

Tekken's context is that of a street fight, aggressiveness plays a key role and is augmented by the pain being suffered by the participants. As in *LegShocker*, the main objective in this project is to create a connection between the virtual and the real.

TAZER TAG

Randy Sarafan presented *Tazer Tag* (2005) [5] as his thesis project in the Design and Technology Department of the Parsons School of Design. This is a multiplayer game in which pain and the physical space are the main coordinates. Each participant wears a headband, connected to an armband that is equipped with electrodes and a locating device. Once they are within 30 feet of each other, by pressing a button in their headband, they can send a signal that will cause the other players to receive an electroshock on the arm of between 80 and 120 volts (Fig. 5). The intensity varies according to the distance between the players: the closer they are, the stronger the pain. Thus the only way to reduce or avoid this unpleasant sensation is to run away. As any participant can shock the others, players can decide to approach each other and test their ability to withstand the pain. The purpose of the game is to endure the attacks of others and to control the surrounding space, so that no other player dares to get close. No points are scored and no screens are necessary: There is no virtual world to refer to in this case, the actual location being the ground for a fight that is only understood and experienced by the players.

Fig. 3. Hardcore players show off their wounds after playing *PainStation*, DETOX Festival, Kirkenes, Norway, 2004. (Photo © ////////////fur//////)





Fig. 4. Legshocker, detail view of the device. (Photo © ///////////////fur////) A metallic button is hammered on the shin of a player being fouled.

WHAT IS PAIN?

The media-art projects described above take the user to the experience of pain in an unlikely environment, that is, game play and entertainment, and this unpleasant sensation unexpectedly turns out to be, for most players, “fun.” Therefore, it is necessary to review the definition of pain in order to find out how this sensation can be perceived differently according to the context and the motivation with which it is met.

Pain is not simply the end product of a linear sensory system. It accompanies nociception, the neurophysiological activity that originates in the nociceptive tissue and transmits an unpleasant signal (such as that body tissues are being or have been injured). This information is then interpreted by the brain, and it is at this stage that pain intervenes as a subjective experience. As Ronald Melzack points out, pain has an important motivational and affective dimension: It demands immediate attention, forcing the subject to change behavior and thought. As such, it becomes highly personal as the person develops his or her own experience of pain, mediated by cultural aspects, the significance of each situation and other cognitive and psychological variables [6].

As a personal experience, pain becomes associated with knowledge: Ken-

neth D. Craig states that we are captivated by people who undergo pain because we learn from them [7]. Enduring pain is also perceived as a sign of “self-efficacy.” Craig states that a social model can determine the perception of pain as a test of self-control and persistence, so that

the individual tends to match the social model’s willingness to endure pain. This type of behavior is also explained by Drew Westen’s theory of affects [8]. According to Westen, affects determine the course of action depending on how a situation conflicts with an ideal state. In the case of the players of the above-mentioned games, the ideal state or the goal is to defeat the opponent(s). When the player experiences pain, but knows that this is necessary to achieve his or her goals, the player will not try to avoid it, because although it is unpleasant, the sensation is identified with the ideal state.

On the psychological level, pain has a close relationship to the body and to the body image. Issy Pilowsky defines body image as a set of mental representations of the body that are related to the ego. In this way, pain not only implies an attack on the body but also on the person’s ego, thus being associated with feelings of punishment and guilt [9].

Pain is thus a complex phenomenon in which physical, psychological, cultural and environmental aspects are intertwined, so that we cannot reach an exact definition of pain, nor simply label the non-avoidance of pain as masochistic behavior. As shown below, pain in the context of these games has a specific function and meaning, both as a threat and a disturbing stimulus that generates an intense physical and psychological response.

Fig. 5. Randy Sarafan, Tazer Tag, 2005. (Photo © R. Sarafan) Video stills of game play. Players attach bands equipped with electrodes to their arms and send electroshock generating signals to one another’s devices by pressing a button on the headband.



PAIN GAMING

In his influential work *Homo Ludens*, Johan Huizinga states that all games have a meaning [10] and that games are not just entertainment but an essential part of human culture. When playing *PainStation*, *LegShocker*, *Tekken Torture* or *Tazer Tag*, participants engage in a collaborative activity of their own free will, agreeing to follow a set of specific rules and playing a particular role. Rules ensure control, so that participants can play their roles knowing that (at least in theory) all consequences of game play will stay within the game. This enables a space for confrontation and the expression of aggressiveness in which serious consequences are (or should be) avoided. A painful experience can thus become "fun" within game play, for it is not perceived as a real threat, but several other psychological and social factors also intervene. Players will be motivated to prove to themselves and to others (their opponents and the audience) their ability to overcome pain as a sign of their self-efficacy. The game evolves not only in a virtual environment and in the abstract value of scored points but in the bodies of the participants and with the outcome of a real physical experience (in some cases, even bleeding hands and legs). The technological interface acts a mediator that levels the players' abilities, so that the confrontation is perceived as one in which all participants are equal and no real harm will be done. Finally, the sharing of such a deeply personal experience as pain creates a group consciousness in the participants, so that by playing these games they will feel that they belong to a community, which is in turn a common and very powerful motivation for recreational activities.

CONCLUSIONS

Projects such as *PainStation*, *Leg Shocker*, *Tekken Tournament* and *Tazer Tag* raise multiple questions about gaming, interaction, identity and the body. What many players find in these games of pain is what many people in Western society are looking for in more or less sublimated forms: an engaging experience that involves both body and mind, a way to release aggressiveness in a harmless manner, a social intercourse, a chance to demonstrate one's self-efficacy before others, a different form of competition. It is generally accepted that games have a particular role in society as a representational model of "real life" within an environment controlled by rules. Computer games have this same function, but allow players to depart even further from reality by providing immersive virtual worlds in which they can perform actions beyond their physical abilities. Users are detached from their bodies as they project their ego images onto virtual characters, and it is interesting that these same computer game fans are excited about a sort of interaction that puts them back in touch with their bodies. On the other hand, pain is present here not just as a punishment, but especially as a threat. It is the threat of experiencing pain that puts the player in a state of alert, and being in this state is felt to be exciting and fun. In summary, it can be concluded that computer game-based projects like these go beyond simple entertainment and provide insights into understanding the role of the body in our interaction with technology, by using play as a field of experimentation.

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