

# Vicarious Experience through Game Design

---

Robin Di Capua

Media Technology and Games, Design and Analysis

ITU Copenhagen

2007

## Contents

|                                   |    |
|-----------------------------------|----|
| Abstract.....                     | 3  |
| Vicarious Experience.....         | 3  |
| Empathic experience.....          | 5  |
| Experience through character..... | 7  |
| Conclusions.....                  | 11 |
| References.....                   | 12 |

## **Abstract**

This paper will analyze the design choices implemented in games like Ico (Sony, 2001) and Silent Hill 2 (Konami, 2001) that help providing vicarious experience as defined by Tim Marsh. The purpose of this research is to find practical examples of how some game designers enhanced a certain experience during the game and try to understand how this works from the player point of view. The paper will then try to relate those game design choices to particular emotions provided to the player in order to achieve the desired experience.

## **Vicarious Experience**

Vicarious experience (Marsh, 2005) is the expression that Tim Marsh uses to talk about player experience in videogames. “Vicarious” means “substitute” or “delegate” and Marsh argues that “the greater a player perceives him/herself to be vicariously in character acting in a digital game, the stronger the sense of belonging or connection between player and the gaming environment” (Marsh, 2005). Marsh’s definition can be applied to videogames where the player has to use a character to interact with the game but he doesn’t specify if his definition applies to videogames where the player can use more characters at the same time. That said, it’s important to notice that he use the word “character” and not “avatar”, which is an entity that has personality while an avatar is an “empty character” like a car in a racing game for example. This distinction is really important since the concept of vicarious experience can only be used for a character and not for an avatar. Since vicarious indicates a transfer of emotion through another person, being, or object (Marsh, 2003) it’s hard to see how it can be conveyed through an avatar that has no background or designed personality.

Besides, the overall idea of “vicarious” has been taken by Marsh from the book “Making Movies Work: Thinking Like a Filmmaker” written by J. Boorstin in 1995. Marsh took the term vicarious as a way to experience something through another person, being or object, for example, in the transfer of emotional information through behavior, gestures, dialog and facial expressions (Marsh, 2003). The fact that Marsh looked at film theories can give us an explanation on why he uses the term “character” since there are no things such avatars in movies. Something that Marsh doesn’t define clearly though is how vicarious experience is conveyed through objects in a virtual environment, but the fact that “character” is the word used in all his discussions let me suppose that he dropped the idea of having objects as a convey for emotions in a vicarious context.

Marsh suggests that the concept of vicarious experience should be an alternative to the concept of presence. Following Slater’s definition presence “is a “response” to a system of a certain level of immersion” (Slater, 2003) and he point out that “being interesting, emotionally captivating, beautiful, fantastic – these are about content, not about the form” (Slater, 2003). Presence can also be defined as a psychological state or subjective perception in which even though part or all of an individual’s current experience is generated by and/or filtered through human-made technology, part or all of the individual’s perception fails to accurately acknowledge the role of the technology in the experience (Lombard, 2000). Marsh also argues that presence presupposes that participants are absorbed in the illusion of interacting within the visual spaces created by media (Marsh & Wright, 2000).

With all that said I personally have a hard time to see why vicarious experience should be used as an alternative to presence since Marsh tries to find a link between vicarious experience and empathic experience. He also distinguishes two different kinds of empathy arguing that “cognitive empathy in IMEs occurs when players recognize how their own character should feel in certain situations and emotional empathy occurs when players feel these emotions as their own” (Marsh, 2005) (IMEs stands for “interactive mediated environment”). From that point of view it seems to me that Marsh heavily link vicarious experience to emotions and that’s exactly the opposite at Slater’s definition of presence, where emotions should be seen as something different. Because of his implication with emotions I argue that vicarious experience shouldn’t be used as an alternative to presence but as a different concept.

## **Empathic experience**

To capture vicarious experience in a videogame Marsh developed some methods to measure the empathy between a player and its character (Marsh, 2005). One of the methods consist in creating something Marsh calls “emphatic matrix” where the players are asked to fill some questionnaires where they have to describe what kind of emotion they think their character felt in a certain situation and afterwards which were their own emotions as players. By Marsh’s own admission the questionnaire based method has its own limits. It may fail in finding an accurate overview of the emotions felt by the player because the answers given in the questionnaire can be biased by the fact that some people don’t want to admit they feel scared or weak. Questionnaires items might also not have accurately reflected some player’s role playing encounters within the emphatic matrix (Marsh, 2005).

Another approach to try to understand player experience was tried by a research group lead by Marsh where they tried to develop some methodologies to detect detection of breaks in player experience in three-dimensional environments (Marsh, et al., 2005). Breaks are defined by Marsh as “un-stimulating experience or disruptive interaction” (Marsh, et al., 2005) meaning that because of design problems players may feel at some point so uninterested in the medium that he or she will lose the focus on the three-dimensional environment.

The method consists in analyzing data gathered from the “Immersidata System” (Marsh, Yang, & Shahabi, 2006) to detect such breaks. The Immersidata System consists in a software architecture where information like player position, events and view points are stored in a database. The analysis of such data follows the following hypothesis:

*We hypothesized that if a user does not move or/and there are no interactions between a user and the environment for a certain period of time (determined*

*through experimentation), then an interruption or break in user experience may have occurred, potentially highlighting a design problem. (Marsh, et al., 2005)*

---

It's important to notice that it's stated that a break "may have occurred", meaning that we can't say for sure that a break happens only because the player is not interacting with the environment. This is actually something that is argued also by Gordon Calleja when he says that "in discussing game involvement an indicator of game activity is not simply the direct input of the player or the display of such an action on the screen, but the potential and readiness to act" (Calleja, 2007).

Marsh's Immersidata System is really interesting because it can be used not only to detect design issues but I would argue that it can also be used to understand the relationship between player and character and also to see if some design choices work or not. I think that the way the player looks around and the actions he or she perform in the environment can tell something about the way they are experiencing it.

What I tried to show until now is that even though the concept of vicarious experience may not be the best solution to replace the terms presence or immersion, it's still worth to study for those kinds of videogames where the relationship between player and character is important for the designers. In my opinion vicarious experience is a more narrowed approach to player experience as a whole, useful for certain types of game and then requiring a different approach in design.

One last aspect that deserves to be pointed out in Marsh theory is that he tried to move away to the concept of "being there" to the concept of "staying there":

*Although the idea of "perceptual illusion of non-mediation" is similar to "staying there", like other terms that refer to the concept of presence it restricts descriptions of experience to those that occur "instant by instant", "moment by moment", or in a "continuous (real time)" moment. This makes it difficult, if not impossible, to describe unfolding events, episodes, the "big pictures" of a scenario, and the aftereffects/affects/consequences of a mediated encounter with technology. (Marsh, 2003)*

---

This is particularly relevant when applied to videogames where the overall experience takes place and shape itself over a certain period of time rather than moment by moment.

### **Experience through character**

In this section I will discuss some examples of design choices that I found relevant to enhance vicarious experience in two particular games: Ico and Silent Hill 2. These design choices may have been designed consciously by the developers or not.

In both games the player controls a male character with an initial goal and a series of events that he has to accomplish in order to reach the end of the story. In the case of Ico a young boy manage to escape a sarcophagus in which he was imprisoned and has to find a way out of a castle, while in Silent Hill 2 the main character James Sunderland receives a letter from his dead wife Mary telling him to meet her in a town called Silent Hill.

In the first case the young boy Ico, controlled by the player right after his liberation from the sarcophagus, meets at the beginning of the game the princess of the castle Yorda, imprisoned in a cage. He frees her and continues to find a way out from the castle with her. It's interesting to notice that the game forces the player to free Yorda in order to continue the game. In fact, Yorda has the ability to open some doors with magic and this is something the player discovers only after freeing the girl. If the player will not help Yorda to escape from her cage he will never be able to progress further. Same happens if Yorda is captured by the dark shadows that haunt the castle, forcing Ico to always stay near Yorda and protect her. This choice makes the character of Yorda a crucial part of the game, no matter if the player likes it or not. The player has to free Yorda and protect her engaging a relationship between her and Ico if he or she wants to progress through the game. This choice of course takes away freedom to the player forcing him or her to play the role of

Ico, the good boy that will help the poor girl escaping from the castle. I argue that these choices concerning the character of Yorda transmit vicarious experience because they force the player to care about Yorda, no matter if it's because they really like her or because they just want to finish the game.

Another interesting mechanic of the game is the ability of Ico to hold Yorda's hands to take her somewhere or to help her climbing certain walls. This goes along with the ability of Ico to call Yorda by calling her by voice. In my opinion the holding hands mechanic is more powerful than the calling mechanic since it forces a physical contact between the guy and the girl in the game. From the player point of view this is of course a virtual physical contact but anyway it allows to control and guide Yorda almost directly, emphasizing the idea of "guiding" the girl outside the castle and therefore enforcing this relationship between the controlled character and the NPC (non playing character). The holding hands mechanic can be also seen as a very elegant way to solve breaking in continuous as defined by Marsh. As I said the game features also a mechanic to call Yorda by making Ico scream at her, but this can sometime end up in the girl being stuck while she tries to reach Ico. This can lead to frustration in the player since the problem is raised by the AI (artificial intelligence) of Yorda and not by a mistake of the player itself, and as we have seen in the previous section this can lead in a break in the continuum. By holding Yorda's hand, the player has much more control over the girl's movements and is able to guide her exactly where he or she wants, preventing such problems as having the girl stuck at some place.

Last but not least, the design of the castle and the attention to details make it a really beautiful place to explore. This should not be seen as something purely visual since it affects our affective system as well. Don Norman distinguishes affect and cognition as both information processing systems, but with different functions and parameters (Norman, 2002):

*The affective system is judgmental, assigning positive and negative valence to the environment rapidly and efficiently. The cognitive system interprets and makes sense of the world. Each system affects the other: some emotions - affective states - are driven by cognition, and cognition is influenced by affect. (Norman, 2002)*

---

The design of Ico's environment is then another important element that in my opinion, based on Norman's arguments, influence the experience for players that appreciate its beauty, giving him or her pleasure to explore it controlling Ico, thus emphasizing vicarious experience.

Silent Hill 2 on the other hand offers a very different environment that aims, being a survival horror game, to provoke fear and tension to the player. In the game the main character James has to go to Silent Hill to meet his wife. Silent Hill is a damned town that, following my personal interpretation, attracts people to expiate their sins. Its unpredictable nature, atmosphere and the fact that monsters lurk around makes it a very unpleasant place, to me at least. The player controls James, a man around his thirties that is not a cop or a marine like in many other videogames, he's a common man without any particular physical skill or power. I would argue that there are different expectations on player affordances for a character like James compared to a professional agent or marine present in other games like Biohazard (Capcom, 1996), since we don't tend to see James as being able to use a rocket launcher in the game or being able to perform martial arts to fight against the enemies. We can see here how a designed experience is a human attempt to structure an environment to create affordances for a human participant (Heeter, 2000), in my personal experience I feel more empowered when I control a marine or a cop than when I have to use a character without any particular skill in a game where I have to defeat enemies with weapons. This aspect is also emphasized by the weapons that the player can find in the game. James can use a gun or a shotgun and even a katana but the way he uses them is the way an inexperienced person would do more or less. Of course this aspect had to be balanced in the game in order to not become frustrating since the player has to be able to defeat the enemies.

James is also designed to not show any particular emotion during gameplay. Even though during some FMVs (full motion videos) we can perceive James as tried by life due to his facial expressions, during the in-game phase he never shows signs of fear by having some particular animations or voice expressions. This choice does not allow interference between what the player feels and what the character may feel to the given situation. As a player we incorporate the entire aura surrounding

James, bringing our own interpretations and reactions to it through the character movements and actions.

To try to create this scary environment the designers came up with several choices to enhance a sense of fear and tension in the player. One of the most noticeable is the sound. Silent Hill 2 features a series of environmental sounds that aim at provoking a sense of tension in the player (as we can see in the documentary included in the European version of the game). Sound and music in the game don't affect James by any mean, their presence is exclusively for the player. All the movements that James does in game are the result of player actions. This can sound pretty obvious but it's not the case for every videogame. In Eternal Darkness: Sanity's Requiem (Silicon Knights, Nintendo, 2002) the characters in the game can get scared, tired and can have hallucinations that affect the gameplay. It is difficult to say if that choice enhance more vicarious experience compared to a game like Eternal Darkness and perhaps it can be different from player to player, but I would argue that this choice has been made on purpose in order to let the player feeling its own emotions through a character that don't interfere showing his own designed one. The designers have of course tried not only use sound but also gruesome textures, dark corners and aggressive enemies to enhance a vicarious experience leading the player to feel some kind of emotions. We have to remember that the players have spent their lives collecting a deep pool of strong emotional memories that is just waiting for game designers to tap into with the appropriate game design (Cook, 2007). It's not surprising that a game like Silent Hill 2 focuses a lot on darkness and weird noises that are something related to the inner human fears (fear of the dark, fear of the death and so on).

It could be interesting to use Marsh's Immersidata System during the production and testing of a game like Silent Hill 2 to get some help on understanding if emotions like tension or fear arise in the player in a particular desired place thanks to an analysis of events, view direction, heartbeat, facial expressions and so on.

## **Conclusions**

During the last years concepts like presence have animated quite a few research discussions in the field of videogames studies. This research has analyzed Tim Marsh concept of vicarious experience that tries to replace presence as a possible approach to analyze player relation with virtual environments. The paper argued that vicarious experience is too narrowed and focus to replace the concept of presence, but it's still an interesting approach of studying game experience in videogames featuring the use of a character. The relationship between player and character arise in some cases emphatic emotion where the player feels some kind of emotion through the interaction with his or her character. Marsh argues that emphatic emotion can be analyzed through methods like Immersidata System in order to measure vicarious experience. Specific design choices can affect and enhance vicarious experience and an analysis of some of these choices were described in the last section for the games Ico and Silent Hill 2.

## References

- Calleja, G. (2007). Digital Game Involvement: A Conceptual Model.
- Cook, D. (2007). *Constructing Artificial Emotions: A Design Experiment*. Retrieved November 11, 2007, from Gamasutra.
- Heeter, C. (2000). Interactivity in the Context of Designed Experience. *Journal of Interactive Advertising* , 75-89.
- Lombard, M. (2000). *The Concept of Presence: Explication Statement*. Retrieved November 11, 2007, from International Society for Presence Research: <http://ispr.info/>
- Marsh, T. (2003). Presence as Experience: Film Informing Ways of Staying There. *Presence Vol. 12* , 538-549.
- Marsh, T. (2005). Vicarious Experience: Staying There Connected With and Through Our Own and Other Characters. In S. H. P.J. Williams, *Gaming as Culture: Social Reality, Identity and Experience in Role-Playing, Collectible, and Computer Games* (pp. 196-213). Jefferson, NC: McFarland.
- Marsh, T., & Wright, P. (2000). Maintaining the Illusion of Interacting Within a 3D Virtual Space. *Presence* .
- Marsh, T., Yang, K., & Shahabi, C. (2006). Game development for experience through staying there. *ACM* .
- Marsh, T., Yang, K., Shahabi, C., Wong, W. L., Nocera, L., Carriazo, E., et al. (2005). Automating the detection of breaks in continuous user experience with computer games. *ACM* .
- Norman, D. A. (2002). Emotion & Attractive. *ACM* , 36-42.
- Slater, M. (2003). A note on Presence terminology.