Proceedings of the 4th International Conference on Educational Innovation and Philosophical Inquiries
DOI: 10.54254/2753-7048/18/20231314

A Pilot Study on the Video Game Interface from the Perspective of the Human-Computer Interaction

---Taking Far: Lone Sails as an Example

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Abstract: The advancing IT industry gives rise to the video game industry, where more fancy and exquisite graphics can be generated. The property of video games based on human-computer interaction that associated the IT industry with art and design draws more and more attention from scholars. A genre called indie video games is less popular and less discussed. As a result, this paper is written to research the human-computer interaction applied in an indie video game, *Far: Lone Sails*. A pilot study will be conducted by reading and analyzing its official artbook, actual scenes during the process of the game, and relevant articles to answer the question, "How does an indie video game interface manage to engage the player based on human-computer interaction? After conducting the pilot study, it can be concluded that to engage players, *Far: Lone Sails* applies different forms of human-computer interactions to build moods, a bond with a non-human character, contrasts, guidance, and narration.

Keywords: video game, indie video game, interaction, *Far: Lone Sails*, gameplay

1. Introduction

The video game industry is surely a young one, with only approximately fifty years of history since it became mainstream. Nonetheless, people have witnessed the unique property of video games compared to other cultural products, where developers are able to fuse liberal arts with computers to freely construct miscellaneous pre-set interactions with players in attempts to entertain, inspire or deliver a message, leaving artistic, social and idealistic impacts. "Video games must be studied because they have become a financial and cultural force." [1] Such an industry has been drawing attention not only to the public players, but also to scholars.

In this industry, the genre of indie video games may have lower sales and clout, but they tend to be more engaging to the player, instead of weighing more on commercial value. Thus, according to Perez, indie video games tend to lack popularity within the game cultures [2]. Thus, the research on indie video game analysis should be valued and paid more attention, for the industry to better excavate to reveal the gameplay of this genre and further uncover the diversity and potential of the video game industry. So how do indie video game interfaces manage to engage players based on human-computer interaction? This paper focuses on this issue from several aspects by analyzing the case of "Voyage:

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Lone Sail". It aims to reveal the dedication and contribution of "Far From Away: Lone Sail" to the industry with its unique way of building games. This research could inspire more small video game studios to develop whimsical and rich games.

2. Overview of Far: Lone Sails

The game is a 2D side-scrolling adventure set in a post-apocalyptic world with a barren, stagnant and depressing atmosphere. During the expedition, the player drives a gigantic steampunk land yacht called *Okomotive* through the remains of industrial buildings.

The core gameplay is to collect flotsam that can be recycled as fuel along the journey to keep the engine functioning. To make your *Okomotive* fully functional, the player also has to put the recycled objects into special equipment, emit steam, and repair parts of the *Okomotive* if there is any malfunction. The player needs to accomplish these in one round after another.

During the process, the player will encounter various obstacles requiring user to resolve puzzles to continue the journey, and in the most of the obstacles, after the player manages to resolve them, a part of *Okomotive* will be upgraded to make it more well-equipped to proceed with the journey.

3. Moods Building

One highlight of this game is that it simultaneously coordinates multiple elements by applying human-computer interaction to effectively establish moods, which makes the game extremely emotionally engaging. "Representational signs take the form of verbal text, still and moving images, sound effects, and a soundscape."

Just like a journey in real life, miscellaneous and dynamic moods comprise a journey. Although the overall setting of the game is uniform, changes in the surrounding scene, hues, and music offer different interactions related to moods to players when passing through different stages of the journey.

The different stages of the journey that the player arrives at will change their moods. For example, as the player first sets off on *Okomotive* passing through a dried-out water area, the music starts to play, which uses ascending broken chords to serve the moods of departure, and the sky changes from the cloudy one to be full of vague water mist, serving the moods of straying without a purpose.

The player's pause of the player will stop the ongoing mood. Next to the stage of the game discussed in the paragraph above, when the player stops to collect flotsam for fuel and leaves *Okomotive*, the music will also immediately stop. It creates direct human-computer interaction as the little action of the player will be powerful enough to pause the background music of the game.

Other than these, as shown in the figures below, the moods of hope, desperation, etc., swell with multiple consistent interactions in this game as well. For example, when the scene in Figure 1 appears as the player drives to this certain area, the soundtrack will play a piece of melodious jazz.

If users take a general look at the walkthrough of this game, such mood changes and pauses take place for several times when the player stops to fix *Okomotive* to maintain functioning. It is also worth mentioning that the transitions between those mood changes are natural and not abrupt. All these human-computer interactions construct a varied and rich gaming experience with frequent human-computer interaction.

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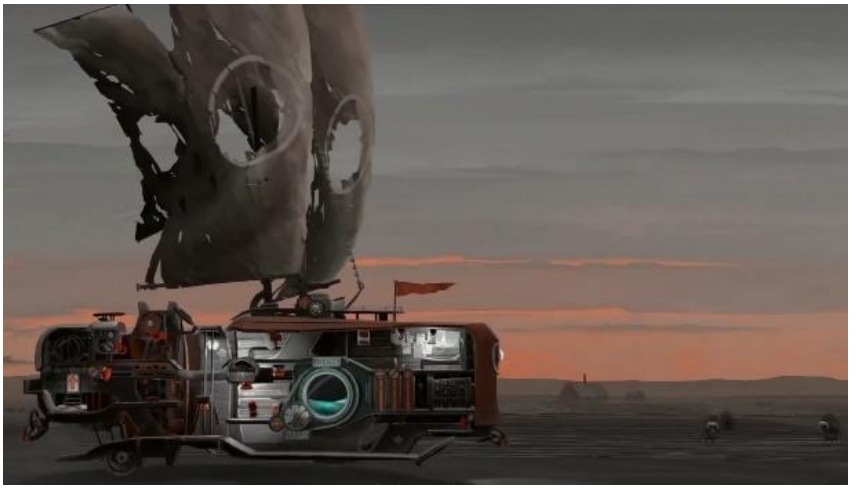

Figure 1: Mood of hope.

4. A Bond with a Non-human Character

Vehicles in video games, like in real life, are more often considered consumable tools.

"The vehicle was meant to combine characteristics of a machine and some kind of beast." ------ *extracted from the official artbook.*

Consequently, *Far: Lone Sails* provides a way to rebuild the common and traditional relationship between a vehicle and the player, treating the vehicle like a character (or a living creature) instead of a tool and setting particular scenarios to even enhance the bond.

To make the player feel more soothing and secure, the art design of *Okomotive* is set accordingly. According to the official artbook, *Okomotive* is exquisitely designed as a huge moving fortress, with a comfortable and private crew cabin. The image of this vehicle, considering the brutal and depressing atmosphere, will resemble an RV touring in the wild that will accompany you for a long time. The bond between the player and *Okomotive* is created at a very early stage of the game.

Then, then the player gradually become involved in the gameplay, which emphasizes that *Okomotive* is imperative across the whole walkthrough, where the only goal is to maintain its functionality. Simply speaking, without *Okomotive*, the game cannot proceed, at all. Without any subjective feelings towards *Okomotive*, the player is bonded with it.

By applying a small adjustment to the game window, such a bond is even enhanced. Figure 2 illustrates how the game camera zooms out when the player has to get off *Okomotive*. After the player leave *Okomotive*, the camera will zoom out to assure that both will always appear on the screen simultaneously. Despite a complex design, it was an effective one to build the bond.

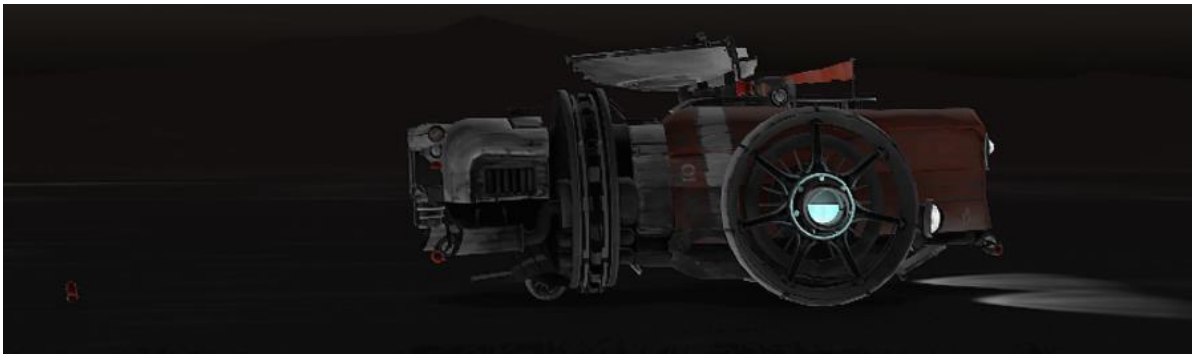

Figure 2: The camera zooms out.

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There are also particular scenarios that arouse certain kinds of emotions in the player towards *Okomotive*. Two of them will be analyzed here.

After the player solves the puzzle in the building, the open valve lets *Okomotive* slip away down the hill. Suddenly, the sound track plays an intense piece of music and the player is left behind and engaged to rush back to *Okomotive* as soon as possible. The game sets up an intense and threatening moment with *Okomotive* and then it ends up with no danger, which will reinforce the bond.

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The very last ending of *Okomotive* seems to be a separation. *Okomotive* becomes a wreckage after it successfully sends the player to the destination. *Okomotive* does not reach the very end with the player, which will leave a greater emotional lingering impact on the player. A similar technique is applied in one celebrated video game, *Portal*, where the player has to first emotionally bond with his or her companion cube and eventually kill it to continue the game.

The ending of the storyline of this game is a buzz of sirens that implies that the player character eventually meets other survivors of this post-apocalypse world. The sacrifice of *Okomotive* sent the player character to the coast, where he would meet other survivors. The bond is consequently enhanced considerably.

A connection to a non-human character doesn't always elicit emotions from the player, especially when it is a tool or a vehicle. But for the most part, human players still tend to bond with human NPCs, although the audience's range may be limited as a result.

5. Use of Contrast

Contrast is common in design, literature, and video games. In this game, contracts are frequently and effectively applied, which helps to offer an easy-to-use and appealing gameplay.

One feature coexisting in almost every figure of the games is that the color red is marked on certain entities in the game. In a scene with a dark hue, coloring the player character with noticeable red makes it easy for the player to locate himself and attain a feeling of concentration, which are both easy-accessible human-computer interactions. Additionally, key triggers and buttons are marked red as well, no matter whether they are in *Okomotive* or during the process of resolving puzzles. By doing this, the player will avoid being lost even if there is no guide in the form of text. Not ruining the holistic atmospheric scene, the developers use contrast colors to achieve the purpose of guiding players.

Except for colors, contrast is also used to emphasize the significant size difference between the player character, the vehicles and the scenario. According to the official artbook, the player will operate two vehicles in the game: *Okomotive*, which appears throughout the process, and Landcruiser, which appears at the end of the game. Even more gigantic than a bus, *Okomotive* is designed to be like a moving fortress compared to the player character. Such contrast can emphasize the security and power offered by *Okomotive* in the harsh scenario and even enhance the aforementioned bond. The even more distinct contract of Landcruiser, on the other hand, is used to remind the player that the information given now is key, where the murals explicitly reveal the setting of the game.

Lastly, as mentioned above, different scenes are set to stimulate the player's emotions. In terms of contrast, in the process of the game, there are multiple changes of scenes where the consecutive two scenes are juxtaposed, for example, from a depressing one to a hopeful one. Such a flow of mood with contrast built by scenes makes the game even more intriguing.

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6. Way to Guide and Narrate

Common video games are likely to use conversations among characters and in-game guides in the form of tests to guide the player and construct the storyline. However, one quaint feature of this game is that, expect for the game menu, it is totally text free, which means the player will get zero texts for specifying the target, the storyline and the setting.

By applying inductive method, the study can "find overarching concepts that allow us to understand a wider range of games" [3]. The method of guiding players can be inducted as an implicit tutorial. The benefit of an implicit tutorial is stated and proven, as the quotation goes, "Implicit tutorials can be especially beneficial for players with profound experience in gaming." [4] The implicit tutorial is present throughout the whole game. The aforementioned use of contrast in terms of gameplay can be considered an implicit tutorial as it guides the player simply by contrasts commonly seen in real life, like colors, instead of popping up in-game text guidelines. In addition, as shown in Figure 3, the very first scene applies a classic layout that was once used in the first level of *Super Mario Bros.*, to construct the opening of a 2D side-scrolling game. To be specific, lay the player character on the left side of the scene to implicitly guide the direction. One design that even further implicitly guides the player is to put a tree whose branches extend to block the opposite direction, as shown in Figure 3. There is a classic level design in Super Mario Brothers in Figure 4 in 1985. The layouts of the first level resemble each other. Complex mechanic tends to magnify the flaw of the implicit tutorial as it is stated that "The implicit tutorial's defect of being vague is especially significant when the mechanic it teaches is complex the implicit tutorial's defect of being vague is especially significant when the mechanic it teaches is complex" [4]. These two games both apply implicit tutorial with minimal defects, as they both have simple mechanism.

Figure 3: The very first scene.

Figure 4: The first level of Super Mario Bros.

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In a text-free game, the narration part of this game applies embedded design defined by Geoff Kaufman, "interweaving an intended message or theme within a game's content, mechanics, or context of play – rather than making that message or theme an overt and explicit focal point", which guides a player from an internal first-person perspective with implicit goal to leverage its feature [5]. Such a technique is aimed at presenting information through the player character's perspective, which is limited by what is given to this character during the game.

In the traditional way of narration in a video game, the player will either read texts, watch a video as a prelude that articulates a specific setting, or listen to a depiction of the setting from an NPC. While in *Far: lone Sails*, the setting is hidden from the player character's perspective, and meanwhile, as a little girl, the player character, just like the player, is stray and unfamiliar with the setting and sets off on a seemingly aimless journey. Both *the Legend of Zelda: Breath of the Wild* and *Far: Lone Sails* set the player character as an in-game character that "only through exploration can the veil surrounding the known world be rolled back bit by bit." [6] The drive to explore and the fact that the player gradually explores the scene, as the player character actually does. The setting of the game can only be revealed as the human-computer interaction is ongoing, like come murals in the scene.

7. Conclusion

This paper conducted a pilot study of Far: Lone Sails related to the human-computer reaction. As an indie video game, Far: Lone Sails interface manages to engage the player based on human-computer interaction in four aspects. First, the game coordinates different in-game elements that interact with the player to create varying moods. Next, the game developers design *Okomotive* in certain ways and set certain scenarios to build and enhance a bond between the player and a non-human character. Moreover, the game effectively uses in-game contrasts to arouse the player's intuitive reactions and feelings. Last but not least, the game practices implicit guide with text-free feature to guidance with the player and reveal the setting.

This study is limited due to the lack of interviews with players who have actually played Far: Lone Sails, and the fact that only one game is analyzed. The future study on such a topic should include this aspect, and be more concentrated to deeply excavate and analyze the players' human-computer interaction experience of a series of indie games, rather than only one.

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