

From Cosy Games to Metaverse: Deriving Positive Interaction Qualities through Netnography

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Abstract. The Metaverse has great potential to provide novel experiences that are not possible in the physical world, but there are still barriers for entry that make it less accessible for some users. To gain design guidelines for a more welcoming Metaverse experience, we examined cosy games, which offer a non-violent and relaxing experience. Using netnography we first observed 6 videos on how players express themselves in 5 different *cosy games*. We then applied thematic analysis to identify two main aspects of the positive user experience: *positive emotional experiences* and *anticipation experiences*. The findings will serve as the foundation for exploring the future potential and create design frameworks for creating more inclusive Metaverse applications.

Keywords: Cosy game, Netnography, Metaverse.

1 Introduction

Emerging networked immersive technologies, sometimes collectively referred to as the Metaverse, can be used to create new interactive and social experiences in gaming, performance, education, healthcare and many other sectors. Recent research also suggests that the Metaverse can promote more diverse, inclusive and equitable interactions between people [21]. However, the Metaverse currently has many barriers of entry, in particular related to user experience and usability [3].

To find design guidelines for a more inclusive Metaverse, we decided to study interaction in a popular game genre, *cosy games*. Players consider this type of games as a refuge from the strains of the real world. Cosy games have a light design, soothing sound, and low mental load when playing [7]. They can be characterised by safety, richness, and softness [22]. Therefore, we believe they could provide a set of positive qualities that can be translated to the Metaverse.

We applied *netnography* as a method to observe players experience and investigate the positive human interaction in cosy games. Our study provided data on digital footprints, focused entirely on the player experience. We believe that the results from this study can form the basis for integrating the highly social experiences from cosy games to improve the Metaverse experience.

2 Related work

Since the emergence of cosy games, they have ushered in a wave of soothing gaming experiences, gradually evolving into a digital haven for a diverse range of gamers [19], [9], [10]. Cosy games have received increasing attention, and developers have created more realistic experiences, allowing players to fully immerse themselves in digital life [27], [14]. The comfortable, relaxing, and immersive experience of cosy games inspires us to shape interactive experiences, foster positive emotions, and make interactions in hybrid spaces more enjoyable and meaningful [18].

However, some studies have shown that previous studies did not provide specific rules or concepts that shape players' enjoyment, interaction, and presence in games [1], [2]. Capturing diverse and unexpected emotions throughout the gaming process is a positive aspect of using psychological flow to study gaming experiences [26].

Netnography was born through online interaction, shaping the contemporary world [4]. This new term is a combination of the term "net" (Internet) with "ethnography" [12]. The term "netnography" refers to a research method that involves ethnography study in the context of technology and the internet.

As we extend interactions to the digital environment, we can use the netnography method to observe and realize that people are more easily achieve satisfaction. [8] Research has shown that when people extend their interactions to digital environments, have their avatars and customise them to their personal preferences, the higher the degree of similarity between their ideal self and their actual self, the more positively they affect their psychological well-being. Therefore, netnography is not merely about observing online interactions; instead, [13] point out that netnographers need to consider the human connection as a transformation and need to delve into human experiences in the digital context to apply social interactions.

Psychology has shown that individuals evaluate life by making decisions about the self, social partners, and the world, which they often express through media representations of life [20]. Despite the existence of the human self in individual psychology and its limited expression in social life [5], it plays a crucial role in expressing an individual identity. Self-discrepancy theory [11] explains how discrepancies between actual and ideal self can lead to psychological distress [16].

3 Method

This study used netnography to observe digital traces through six video tutorials uploaded after 2022, with 12 people observed in the recorded videos. We selected these videos because they showed both gameplay and players' facial expressions. The researchers recorded the observed data in three main categories: illustrative quotes, the players' emotions, and the player' gaming experience. On average, each session of the players lasted from 20 minutes to 1 hour. Two main themes emerged from the study: positive *emotional experiences* and *anticipation experiences*.

3.1 Cosy games used

We selected a set of cosy games with positive, bright colours and high levels of social interaction: Potion Craft [17], Tiny Glade [24] [25], Mail Time [15], Bokura [6], and The Sims 4 [23]. This choice aimed to focus the study on the players' social interaction experiences during cosy gameplay with friends or non-player characters.

3.2 Thematic Analysis Framework

We performed a thematic analysis of the data through the following steps:

Generate initial codes. Players can express their emotions and expectations through words, facial expressions, and actions. We manually coded and generated codes for each game, which were defined as illustrative quotes, emotions (first-order coding), and aspects of the game experience (second-order coding).

Search for topics. We conducted a detailed reading of the players' emotional experiences and provided insights into the observed experiences of the codes. This provided a data on emotional experiences and unexpected expectations that helped us understand the player's experience with cosy games.

Identify themes. Finally, the researchers identified the following themes were identified from the analysis:

- *Curiosity.* Cosy games evoke a sense of anticipation for the next experience.
- *Surprise:* Players convey astonishment at the captivating interactions and enchanting scenery.
- *Guilt:* Players are immersed and personify the character, experiencing remorse over wrong decisions.
- *Excitement:* Interesting experiences continuously appear and await, making players eager for the following events.
- *Satisfaction:* Visual and sensory experiences give players a good impression.
- *Relaxation:* Players engage with nature and connect with characters in cosy games, which promoted a deep relaxation experience.
- *Inspiration:* Every scene possesses an essence of artistry and high aesthetics, enhancing the experience for players.

4 Results

In contrast to action or strategy game genres that demand intense focus and significant challenge, cosy games focus on highly relaxing experiences for players. Cosy games investigated in this study have characteristic properties, such as a seamless connection between reality and virtuality and freedom in social interaction, creating potential themes for comfortable, interactive experiences in the Metaverse.

After identifying the themes, we grouped them in two categories, which we will discuss below:

- *Positive emotional experiences*: In contrast to other competitive and aggressive game genres, cosy games offer players affirmative emotional experiences that foster positive ties among participants.
- *Anticipation experiences*: Foreseeing subsequent encounters will be crucial in prolonging player engagement with a comfortable gaming experience.

4.1 Positive emotional experiences

Positive emotional experiences can be seen in the first seconds they played in all videos. This includes how players deal with new things, excitement, surprises, relaxation, and getting a sense of satisfaction throughout the interaction. From our thematic analysis those to emerge were:

Surprise. Notably, in the study, the first emotion that appeared in all players was the surprise at what happened in each cosy game they played. For instance, Tiny Glade affects the emotions by allowing them to explore every feature with a high level of aesthetics:

“This is an interesting concept. It is awesome. It creates itself like a river. If it is not a dead end and part of the castle, I like how things appear randomly”.
(Tiny Glade 1)

In Tiny Glade, even if players played alone or with their friends, the new updates surprised them to customise the experience to their liking. Players expressed surprise through their conversation and facial expressions:

“Love that game; it is amazing. We call it Little Glade. It is beautiful in its way; it is amazing”. (P2, Tiny Glade, 3:25)

Excitement. Cosy games show players’ enjoyment through simple interactions, actions and conversations, not just facial expressions, and express players’ interest. Many players also expected the cosy games they participated in to spark an interest in fun, creative ideas:

“I just tried Summer, and I am just trying to figure it out, and it is great that the developers have made it so creative and fun”. (Tiny Glade 1, 6:42)

Empowering the player to design their character is a key element in their emotional connection to the character they will be accompanying throughout the game. Mail Time gave the player an experience of empowerment and feeling like an integral part of the story, which significantly boosted her positive emotional immersion:

“My favourite hair colour is fine. I am in the mood for a unique hair colour; this shade of green appeals to me. Feel free to use it”. (Mail Time, 0:40)

Unlike the other games, Bokura provides players a completely different experience where two players can participate simultaneously and have two different interactive screens, but with the same goal. Therefore, when player P2 looked at player P1’s screen, she was surprised by what was happening on that screen. This shows that Bokura provides players the environment to interact socially and connect their experience with emotions while playing, a prerequisite that connects real players and gives them a memorable experience together during the cosy game process. Bokura indicated that cosy games are a game genre for all genders of players, not just for female players.

The Sims on the other hand has a realistic user experience design in every little detail to illustrate a human's normal life. Players meticulously attend to every detail in the game. Their interest in the characters shows that the player paid attention to even the smallest events and elements that appears in the game.

Satisfaction. Satisfaction appears when players feel comfortable throughout the cosy game, as they reach relaxation and have a rich experience with the game. Satisfaction in the interactive experience is reflected in players' confidence.

In Bokura, the rhythm and flexibility of the situation gave players the confidence to control the problem. This is drawn from the observation results that show that the smooth movement of the characters and the level of realism that Bokura conveyed have given players a highly immersive experience in the entire experience. With The Sims, players can easily enjoy themselves in a digital life because the life simulation features are realistic, and users feel they are living the game. The results empowered players to manage their experience and eliminates the need for excessive effort to build the social life they desire.

Relaxation. The relaxation element in Tiny Glade came from the fact that when players are given control over their interactions. On the other hand, the participants in the study also shared that the relaxation experience depends a lot on the actual space that the user is living in, the sound from the real environment, and a lot of disturbing factors that affect the user experience.

The player commented after experiencing Potion Craft as follows:

"We have so much more to go, but this was really interesting and just the chill break we needed". (P2, Potion Craft, 17:34)

The player felt the richness of the game; she quickly achieved a state of satisfaction after the experience. Furthermore, these experiences kept players for subsequent immersion in the upcoming experience. The sharing from the players showed that they have achieved satisfaction in many different aspects, from progress to relaxation.

4.2 Anticipation experiences

We observed details of the gestures, words, and facial expressions of all the players in this study. As the game approached its finish, they all expressed appreciation for the storyline, graphics, and sound of the cosy game. The player expressed curiosity about the experience they would have in the upcoming experiences, and it was this curiosity that formed anticipation.

Curiosity. The study shows that players get used to new interactions and are navigated by that flow, which gives them creative freedom in their playstyle and allows them to explore a variety of nuanced interactions. The element of curiosity that often appears in the experience is because the player is empowered in interaction and can decide their every action.

More specifically, the Potion Craft game in this study fosters curiosity by giving them a novel, never-before-tested play experience and forcing them to learn the mechanics of play:

“There is a weird thing to that side, so how do we go there? I do not know what it is, but it looks fun”. (P1, 4:26)

Tiny Glade is considered to be a highly aesthetic and creative game. The curiosity in Tiny Glade is not in the plot but in arousing the player imagination:

“You can let your imagination run wild; this is a window to see how the animation performs its function. You can make them higher”. (Tiny 1, 07:18)

In most cosy games, analysing the player’s monologue often reveals personal concerns and a sense of curiosity about the character or environment before they even begin to play. The Sims player speculated by understanding the context of the character’s past story and deducing situations linked to the personality. This key factor connects players, characters, objects, and events in the virtual world.

Expectations. Cosy Game players’ observation data of Tiny Game showed that the players had a relaxing experience. Furthermore, players were more anticipatory about upcoming features they wanted to experience next time. These expectations are aimed at more positive improvements that align with the needs of the forthcoming experiences.

Inspiration. All the aesthetic elements, storylines, and real-time feedback of the cosy game genres in this study gave players inspiration in a virtual interactive experience. Tiny Glade provides players with a unique creative experience, with high aesthetics, a calm space and giving players an endless source of creative space, immersion, and design their world:

“It is wonderful that the developers have made it so creative and fun. I think I will pick Autumn because it is an autumn-themed vlog, and we are going to go for the fall vibes”. (Tiny Glade 1, 6:42)

5 Conclusion and Future Work

This study has provided a detailed perspective on users’ emotional experiences and expectations when playing cosy games. The findings have implications for encouraging more welcoming social experiences in the Metaverse:

- *Positive emotional experiences.* By designing for surprise, excitement, satisfaction and relaxation, the Metaverse could become a refuge from the real world, where social interaction can be supported.
- *Anticipation experiences.* Curiosity, expectations and inspiration can be included in the design of the Metaverse to hold players’ interest and make the experience more long-lasting and attractive over time.

In addition, cosy games focusing on illustrating real life can become the direction for the Metaverse to incorporate breakthrough social interaction elements. With the application of VR/AR and the potential to explore the unlimited virtual world, it will be the premise for anticipating experiences.

Our research provides some aspects to inform user experience (UX) design in the Metaverse:

- *Relaxing environment in the Metaverse*: A virtual interactive environment that provides a peaceful environment for users to relax and escape from daily stress easily.
- *Stress-free interaction in the Metaverse*: Provide users with intuitive, non-competitive interactions that encourage users to connect freely in the virtual environment.
- *Customisation in the Metaverse*: The more customisation users receive, the more personalised they feel.

This study specifically investigated the player experience in cosy games but it would be more beneficial to the construction of social identity in the Metaverse if future studies conducted research on observing the experience of social interaction in hybrid space. More diverse social interaction experiences lead to more favourable conditions for understanding and aiming for a more comprehensive Metaverse society experience.

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