

Chapter 3

Breaking the Fourth Wall in Video Games: A New Terminology and Methodology



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3.1 Introduction

Videogame culture is not a foreigner to the narrative concepts and terms recruited from other mediums, such as plot, theme, setting, and many others. Furthermore, various visual and auditory techniques conventional in videogame design had already existed for several years in visual and performance arts. Due to having such a vast amount of aspects in common, the fourth wall break concept has also found its route to the existing videogame design terminology.

The emerging issue with this conception is that the interactive nature of the videogame medium does not offer the grounds on which the term aforementioned nestles without doubt. Even though there are various examples of traditional fourth wall breaks in video games, with a medium that is dependent on the input of the player, it is nonsensical to imagine a transparent wall that separates the player and the medium.

A qualitative study conducted on experienced and inexperienced players to test the idea of expanding and contracting magic circle by Conway, resulted that the non-traditional fourth wall breaks in video games can be applied as tools to immerse the player further in the gameplay instead of just being humorous encounters (Jesper 2016).

Though there are various design techniques of breaking the fourth wall for other mediums, fourth wall break techniques for videogames, do not have a proper

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framework. Given the interactive nature of the medium, even though there are many ways to make use of this technique, there is no collective study with different examples of how to implement them into the videogame experience, enhancing the experience further without disrupting the immersion of the player.

This study provides a concise definition of the fourth wall in accordance with the videogame medium, the classification of various techniques that have already been applied and an implementation guideline for the designers to utilize. Various examples of the technique from different games are offered classifying the type of the technique used, allowing the designers to have an understanding of the state of the final products featuring the techniques. The chosen examples not only feature the fine usage of the methods, but also the misuse or overuse of the technique leading to player frustration.

3.2 Literature Review

When you write or act, think no more of the audience than if it had never existed. Imagine a huge wall across the front of the stage, separating you from the audience, and behave exactly as if the curtain had never risen (Diderot 1758)

'Breaking the fourth wall' relates to any practice which seeks to dispel the illusion that the audience is watching a slice of 'real-life'. Coleridge (1817) first coined the term "suspension of disbelief" and described it as the cessation of judgement towards the questionable nature of the narrative, given the writer could infuse a "human interest and a semblance of truth" into a marvellous tale (Coleridge 2014). Therefore, breaking the fourth wall is essentially breaking the suspension of disbelief. The same expression is also used in relation to film and fiction to describe a text's acknowledgement of its artifice, which is usually achieved by a direct address to the audience.

Originally, the fourth wall is a theatrical term used by seventeenth-century French dramatist Molière, but the idea of such a division is attributed to French philosopher Denis Diderot. The term signifies the invisible 'wall' dividing the theatre audience from performance, especially that taking place in a three-walled box set of a proscenium theatre. Diderot believed that establishing such separation between the performance and the audience would assure faithful enactment of everyday reality. Therefore, the term is firmly associated with nineteenth-century realism in the European theatre (Cuddon et al. 2013).

The concept of a fourth transparent wall was widely criticized in the twentieth century due to its disruptiveness towards dramatic literary devices such as soliloquy, chorus, aside, etc. These devices would unify the audience and the performers in the same theatrical space. Correspondingly appeared the dramatic device "Breaking the fourth wall", a special technique of modernist theatre. Even though the method was used in theatre since antiquity, the appearance of the term would standardize the use of the device and the variety of the techniques to apply it (Davis 2015).

Bertolt Brecht is the playwright to attribute the development of the technique, even though he was not the first modernist to use it. Until his approach, the device had appeared to achieve a comedic effect in early twentieth century films of Chaplin and Keaton. Brecht was the first to seriously consider the social, political, and philosophical implications of the technique and made use of the device to transmit direct messages to the audience (Davis 2015). His technique *Verfremdungseffekt* – loosely translated as Alienation Effect – was deployed to disrupt the impulse towards realism. The effect was achieved through captions, songs, role reversals and artificial narrative interventions to maintain a critical detachment from the play rather than submitting to the staged illusion or easy emotional identification with character or situation. The purpose of the effect was to change the perception of the work as a dramatic illusion and construct. Via this distancing or estrangement, the work creates resistance to passive escapism and compels reflection on the characters as participants in broader historical, social and political processes (Cuddon et al. 2013).

As a trademark of post-modernist literature, the technique manifests itself as metafiction, a term coined in 1970 by William H. Gass to define the so-called anti-novels. In the opening chapter of her book *Metafiction*, Patricia Waugh explains the term ‘metalanguage’ developed by linguist L. Hjelmslev in 1961 as the root of the term metafiction. According to Hjelmslev “a metalanguage is a language which, instead of referring to non-linguistic events, situations or objects in the world, refers to another language: it is a language which takes another language as its object”. Waugh also quotes from Goffman “in novelistic practice, this results in writing which consistently displays its conventionality, which explicitly and overtly lays bare its condition of artifice, and which thereby explores the problematic relationship between life and fiction – both the fact that ‘all the world is not, of course, a stage’ and ‘the crucial ways in which it isn’t” (Jefferson and Waugh 1984).

Throughout the history of the video game medium, about the instances in which the medium consciously oversteps the boundaries between the game world and the real world, the terms that have been applied to the technique are breaking the fourth wall or metafiction, the literary devices that are primarily defined for theatre or literature. The metafiction may be regarded as more of an umbrella term; still, the videogame medium has its unique status as an interactive medium; therefore, it requires its own terminology. Videogames do not automatically provide the player a new fictional and immersive world where he/she may enter and experience. Instead, it requires the active participation of the player (Keogh 2014). In her book *Hamlet on the Holodeck*, Janet Murray (1997) notes:

When we enter a fictional world, we do not merely “suspend” a critical faculty; we also exercise a creative faculty. We do not suspend disbelief so much as we actively create belief. Because of our desire to experience immersion, we focus our attention on the enveloping world, and we use our intelligence to reinforce rather than to question the reality of the experience. (Murray 1997, p. 121)

Attempting a new conception of the fourth wall in game terminology, Steven Conway revisits the magic circle concept attributed to Huizinga and defines the

technique according to the videogame medium as expansions and contractions of the magic circle. According to Conway, when the make-believe world of videogames expands to the real world surrounding the technological apparatus of the medium or paratexts packaged with the game, the expansion of the magic circle occurs. The contractions, however, happen when the magic circle excludes the player by shrinking behind the display, e.g. Sonic tapping his foot on the floor, annoyedly looking at the screen or the game crashing.

In his study, Conway also affirms the convenience of using the traditional fourth wall break concept in the following cases:

- A character directly talking to the player,
- A display of self-awareness by the product to its status as a videogame,
- Referring to an artefact, event or person that is obviously outside the fictional world of the game.

As put forward by Conway (2010), instead of labelling these instances as fourth wall breaks, we need a new terminology that is applicable to the videogame medium.

3.3 Towards a Conclusive Terminology and Framework

All play moves and has its being within a playground marked off beforehand either materially or ideally, deliberately or as a matter of course. Just as there is no formal difference between play and ritual, so the “consecrated spot” cannot be formally distinguished from the playground. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function playgrounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart (Huizinga 1949)

Attributed to Dutch historian Johan Huizinga (1949), the magic circle is a term condemned continuously by academics for defining game worlds as formal structures that precisely separates the game experience from the ordinary life. Ongoing debates feature various definitions that limit or delimit, open or close, shape-shift the concept that it is impossible to use the term without choosing from one of the definitions and adjusting it according to the context of the study subject.

In his study, Jaakko Stenros (2014) interprets various definitions of the concept magic circle and argues that the reason for the term to be debated as such, the implications of a border that delimits an instance of playing resonates as if it creates an enclosed and separate space for the play to happen. Furthermore, the description of the magic circle by Salen and Zimmerman (2003) happens to coincide with this type of definition of the concept, even though it was a tool for the designers that should be evaluated based on its utility. Providing a collection of descriptions that classifies the boundaries of the magic circle as social, mental and cultural, Stenros creates a pathway for the academics to use the term according to the context of their study.

In this study, the magic circle is treated as a playground defined by Huizinga, a temporary world with permeable boundaries within the ordinary world, dedicated to the performance of an act apart dependent on rules, where the player finds himself/herself in an Apterian psychological bubble in a paratelic state. Paratelic is a playful mindset characterized by freedom and is voluntary. Apter describes this space as a small and manageable private realm that may be shared, and temporarily the outside world problems cannot intrude. Even if the real world permeates this virtual world, it would be transformed in the process, not being able to harm (Kerr and Apter 1990).

This psychological bubble encompasses all aspects of videogames from the virtual game world to its paratexts. In videogames, the player enters the magic circle by “plugging himself into a cybernetic circuit” (Giddings 2005). During videogame play, the body of the player becomes hybridized, incorporating body, hardware and virtual aspect of the game world. This circuit requires the player to become cyborgian, that cannot be separated from the videogame play (Hayles 1999).

3.4 Magic Circle Manipulation as an Umbrella Term

As formerly stated, to create a framework for the so-called fourth wall breaks in digital games, this study will utilize Conway’s idea of referring to the fourth wall as the magic circle since it is a fictional world that the player enters while playing a game. It is a temporary world with permeable boundaries, dependent on rules, dedicated to an act apart and the player enters this world voluntarily with a paratelic state of mind. Conway’s study (2010) on magic circle’s expansions and contractions refers to the player as if he/she was a passive observer that could be included in or excluded from the magic circle when the design decisions reach out to the non-diegetic elements of the game or when the game decides to shut the player out for misbehaving. This approach disregards the player’s condition in the circuit, where both the player and the game share an active agency when they each provide, decipher and resolve the actions of the other, and this creates a hybrid of the player and the game (Keogh 2014). Activity and passivity are fluctuations in videogame play, not complete opposites (Kennedy and Giddings 2008, p. 30). Therefore, it is impossible to consider the player as a separate part of the videogame, that is continuously in or out of the magic circle.

When the designer decides that the game AI will be able to alter the rules, include the paratexts, or reach out to the non-diegetic elements, the aim is not to pacify the player or to contract the magic circle. One of the goals is to create a power battle between the player and the game, which forces them to be creative to overcome the challenges presented. Not only this creativity may manifest itself as the player opening the console in *Max Payne* (Remedy Entertainment 2001) and writing `GetAllWeapons` to obtain all the weapons not deserved, but also Monica erasing all the other club members from the game files to make the player fall in love with her in *Doki Doki Literature Club* (Team Salvato 2017). This power

battle makes the player feel more challenged since the characters they come across behaves as if they were humans and just like the player, they also try to beat the game to go on with the next challenge. Indeed, creating a power battle is not the only aim to manipulate the magic circle. Also, utilizing the techniques, the designer may aim to navigate the player or evoke certain feelings. When Psycho Mantis in *Metal Gear Solid* (Konami Computer Entertainment Japan 1998) activates the in-built rumble function of the controller of PSX to move it sideways, the goal is to intimidate the player and inform him/her that the villain he/she came across is not an ordinary character. When Sam in *Death Stranding* (Kojima Productions 2019) winks at the player, he intends to create a solidarity and encourages the player to bear with him the exhausting missions that the game offers. When he shouts “I’m Sam” towards the wilderness and receives an unexpected answer; “Hey, my name is Sam, too!”, it gives the player an escape from the loneliness of the post-apocalyptic world and a feeling of hope and joy.

The next part of this study will provide magic circle manipulation techniques classifying manifestations from various video games. The umbrella term that will encapsulate all the methods is Magic Circle Manipulation, and it encompasses two subgroups as magic circle deformation and magic circle perforation. While magic circle deformation consists of techniques that previously referred to as expansions and contractions, magic circle perforation will classify the traditional fourth wall break techniques according to the videogame terminology. Also, the implementation methods to the dramatic elements of the game will be introduced with examples. Conclusively, the aims of the methods will be covered from the player experience perspective.

3.4.1 Magic Circle Deformation

When the synthetic game world expands beyond the screen and invites the technological apparatus or the paratexts packaged with the game into the gameplay experience, the magic circle expands to immerse the player further. The contractions occur when the magic circle shrinks behind the display (Conway 2010). The definition provided by Conway falls short of mentioning the simultaneous shape-shifting phenomena that may occur with the combined use of the techniques. While this deformation occurs, the player is an element of the game that is continuously allowed or denied the control. While the immersive nature of the game stays intact, the challenge for the player is to keep up with the game’s new dynamics that emerge with the use of the methods. Even though the player becomes a passive onlooker, his immersed state continues, and the player looks for alternative solutions to gain power to advance in the game. Therefore, he/she is still a part of the magic circle, but the circle commences to behave unconventionally, shattering player expectations. The reason for renaming it as deformation, the playground that the player is a part of is now a twisted place, deforming its previous state as a rulebound and separate place for the videogame experience.

3.4.1.1 Non-diegetic Play

When the non-diegetic elements of the videogame such as the user interface, HUD, character subtitles, loading screens, game menu or on-screen buttons are accessed by the game's characters or the game itself and used unconventionally, the magic circle deforms, and this leads to an alteration in player's expectations of the game. This type of deformation is prevalent; thus, there are many examples throughout videogame history.

Undertale (2015) Created by indie developer Toby Fox (2015), *Undertale* is a game that uses various techniques to manipulate the magic circle. Normally, the game offers a pacifist mode, where the player can use the mercy button to continue without killing. When the boss Asgore appears, he destroys the mercy button, leaving the player no choice but to fight him until the end. The accessibility of a UI element by a game character is an evident deformation that delimits the player's options creating a power battle.

3.4.1.2 Medium Play

When the game commences behaving unexpectedly, accessing and altering the platform-specific hardware or software of the videogame, the deformation occurs. The method may incorporate various elements of the system, such as console buttons, controllers, memory card, game code, online gaming platforms, and others. The effect may manifest itself as glitches, errors, unconventional use of the system elements, etc.

Pony Island (2016) Asmodeus, one of the boss demons of the arcade hell *Pony Island* (Daniel Mullins Games 2016) asks the player basic questions, and his primary demand is not to lose focus. First, he asks the player his own name, since it is written directly under his avatar, he lowers the player's expectations towards difficulty. And then he asks the player to write down something disgusting. After the player writes whatever comes to his mind, Steam messages start to appear on their usual place on the screen. Distracted by the ongoing messages that appear to be coming from player's friend including the disgusting word previously entered, the player loses focus and cannot catch the next thing Asmodeus asks him/her to write. Only after being defeated, the player realizes that the game has been creating the messages through Steam interface.

3.4.1.3 Real-World Play

When the game includes paratexts, internet searches or use of information or objects specific to the real world, the magic circle deforms. The game's manual, its website, real-world objects may be incorporated into the gameplay to achieve the deformation and change the player's preconception of the game.

StarTropics (1990) Soaking the game's paratexts – a letter in this case - in water may sound extreme, but this is precisely what the player must do to advance in *Startropics* (Nintendo R&D3 and Locomotive Corporation 1990). Mike, the main protagonist of the game, needs to use his uncle's submarine, and it does not operate without two codes. He learns the first code from his uncle's assistant, but the second one is nowhere to be found. When the assistant reveals the first code appearing to be possessed, he also tells Mike to dip the letter in water. The player may search all the depths of the game world; it does not exist in the game. It may be evil or genius, dipping the letter that comes with the packaging of the game in water reveals the code to operate the submarine.

3.4.2 *Magic Circle Perforation*

Perforating the magic circle is the equivalent of traditional fourth wall breaks in other mediums. When the game addresses the player directly using his/her identity in the real world or as the player; when the game openly lays bare its artifice admitting to being a game; when it displays awareness of anything or anyone that does not belong to its fictional world (Conway 2010), the game perforates the magic circle, as if it creates a window to the real world.

3.4.2.1 *Direct Address*

This method refers to the instances when the game-world characters, the narrator or any element of the game-world acknowledges the existence of the player, referring to him/her as the player or 'you', or looking at the screen of the medium gesturing to the player. As a result, the game perforates the magic circle creating a window to the real-world.

Stanley Parable (2013) The game was released as a free mod for *Half-Life 2* and re-released as a standalone remake under the Galactic Cafe studio (2013). *Stanley Parable* is another metagame that continuously plays with the magic circle. The game has multiple endings, and direct address technique is especially outstanding in one of them. This ending is assumed to be the real ending to the Stanley Parable since it is the only one in which the player sees the credits roll. Also, it is the most complex of all endings.

The game features a Narrator that pre-narrates all the decisions that the player character Stanley should make. If the player continuously chooses not to, he/she prompts the Narrator to realize that he is not actually Stanley. After understanding that a real person is controlling Stanley, the Narrator perforates the magic circle to blame the player for being so insensitive with Stanley's fate, and for failing to respect the narrative of the game. As the game world continues to fall apart, the

connection of the player to Stanley becomes more and more fragile until the player floats away from him, forced to watch his frozen body stand helpless in the empty office.

This ending is reached through a mistake that the Narrator made designing the game. There is a voice-controlled device, but Stanley does not have a voice. Forgetting the inability of his creation, the Narrator rants to the player for ruining his work. Even at this point, all the problem is caused by the mistake of the Narrator; therefore, the imperfection of the story causes the mission to fail. The entire story is useless and irrelevant if there is no player that can make decisions. The player and the creator need a symbiotic relationship for the game to exist. The completeness or perfection of a story does not make any difference if there is no player input that carries the story further. The protagonist, Stanley, was created to be controlled by an active consciousness; without it, Stanley is just an empty shell of a character. As a result, both the player and the Narrator are left with no game to play. It is possible for the player to move around, but there is nothing to be done. Also, the Narrator is left with no story to narrate. In the end, they both are aimless, and all the Narrator has the regret of not letting the player explore different options in his story. At that point, he is ready to cooperate and let the player explore, but it is too late.

Since the commentary on the symbiotic relationship of the player and the player character is parallel with the topic of this study, it is appropriate to include an extended reading of *Stanley Parable*; also, it is an excellent example of the usage of the technique where it is not used solely for its comedic effect.

3.4.2.2 Self-Awareness

When the videogame becomes aware of its artifice and admits being a game, whether mentioning the production process or complaining about the designers, etc., the magic circle perforates.

Max Payne (2001) An example from Conway's study, *Max Payne* (Remedy Entertainment 2001) has a demonstration of this method. The game is a third-person shooter which features comic-book cutscenes. After being drugged with Valkyr, Max enters a nightmare level where his family home from the first level appears to be ruined by drug addicts that murdered his daughter and wife. Looking for a way out, he comes across a letter from his late wife that ruptures the magic circle. The note reveals in a comic book style cutscene that Max is in a computer game. This leads to Max's memorable monologue:

The truth was a burning green crack through my brain. Weapon statistics hanging in the air, glimpsed out of the corner of my eye. Endless repetition of the act of shooting, time slowing down to show off my moves. The paranoid feeling of someone controlling my every step. I was in a computer game. Funny as hell, it was the most horrible thing I could think of. *Max Payne* (Remedy Entertainment 2001)

3.4.2.3 Awareness of the Real-World

This method is realized when any instance that refers to a realm other than the game world happens in the game world. This technique may manifest as easter eggs, in-jokes & references about the real world, other videogames, real people or objects, and many others.

Watch Dogs II (2016) Recent developments in the game industry made many companies multibillion-dollar enterprises that are subject to constant examination of weak points. Therefore, appeared the leaks - screenshots, builds, plot details of games that are under development unveil before the critical eyes of the players. Ubisoft was one of those companies that suffered from leaks that even led them to publish a buggy release of *Assassin's Creed: Unity*. Since it would become a horrendous and futile pursuit to find the suspects and sue them, Ubisoft chose a different approach, to embrace the fault and make fun of it.

Watch Dogs II is an action-adventure game published by Ubisoft for PS4, Xbox One and PC (2016). The player takes role of the free-running hacker Marcus Holloway and teams up with DeadSec – Anonymous inspired community – to attack a massive corporation that controls the city.

The mission “Ubistolen” features the company’s headquarters in which the player is supposed to intercept the communication between game developers. The conversations cover everything from the *Assassin's Creed* leaks to prevention of the upcoming leaks. While this is what the company is busy with, Marcus hacks a trailer of an upcoming game and his team makes fun of the fact that the players will comment on viciously, even if it was just an unfinished trailer. This is a fine manifestation of the technique, allowing the designers to comment on the real-world issues that the company is facing.

3.5 Magic Circle Manipulation: Player Experience

The three engage-ability pillars for game user experience is presented as motivation, emotion and game flow in the book *The Gamer's Brain* (Hodent 2017). Player inputs in the cybernetic circuit are results of a combination of emotion and motivation. While the game flow offers the player a dynamic experience, the feelings evoked by the gameplay and the resulting motivated state are processes that are resulted from the human brain. Since the designer should aim the player to have an engaging videogame experience, he/she should provide the player reasons to be motivated and should evoke emotional responses.

Defining emotion is an arduous task. The two-factor theory of emotion explains that two elements of emotion are physical arousal and a cognitive label (Schachter and Singer 1962). This means that the emotional experience starts with a physiological response to the stimulus leading to the cognition of the mind. For example,

when Psycho Mantis reveals his knowledge of the player's taste in games (the stimulus), it is followed by the physical arousal (eyebrows raised, pupil dilation, dropped jaw, increase in heartbeat, startle response). The process continues with the cognitive labelling (association of physical reactions to surprise and fear) followed by the cognitive experience of the emotion (surprise, fear). The surprise factor, combined with fear, will alter the preconceptions of the player about the game world, motivating him/her to be more alert towards the boss he/she came across. It is impossible to generalize the emotional state of all players since many factors would affect the emotional responses of individuals. Still, when the designer desires to affect a portion of his/her audience's emotional state, he/she should investigate the psychological predisposition of the target audience.

3.5.1 Implementation of Magic Circle Manipulation

Being highly subjective, the quantification of emotions may be impossible, but the stimulation of a wide array of emotions through design is the most deliverable requirement. In their study on emotional requirements in video games, Callele et al. (2006) explain that the emotional requirements can be expressed in two segments: emotional outcome intent of the designer and the process of inducing the target emotional state utilizing spatial and temporal qualifiers when necessary. The following analysis of three video games reveals that using the study mentioned above, it is possible to include magic circle manipulation in the game design document for further explaining the purpose of applying it.

Doki Doki Literature Club! (2017) Disguised as a cute dating simulator, *Doki Doki Literature Club* (Team Salvato 2017) is an example that becomes a metagame that interferes with the players' decisions to make them fall in love with Monica, the club president. She takes over the game and forces the player to select her through a series of tricks that deforms and perforates the magic circle towards the game files. Simultaneously it deauthorizes the player and allows the game to recognize that it is a game: the mouse moves in the direction of Monika's name, her image locks on the screen and prevents the other characters from interacting with the player, she conspires against other characters and reveals that she wants to get rid of them to be with the player. At some point, the game becomes a power battle through continuous deformations and perforations of the magic circle. She even deletes the character files resulting in the on-screen suicide of them. The technique appears to such extent that the game becomes an interactive psychological horror experience.

The intuitive implementation of the techniques would only include the technical details of the UI manipulation and the character description sheet for Monica. Utilizing the following method, the designer may benefit from communicating his/her ideas better towards the expected emotional and motivational outcomes.

Example Case

After the player character decides to join the *Doki Doki Literature Club*, Monika starts giving writing tips. One of the tips goes “Sometimes you’ll find yourself facing a difficult decision . . . When that happens, don’t forget to save your game!”. This is the first magic circle manipulation to appear in the game, and it directly indicates that something is going to change. There is a compilation video that shows the player reactions to Monica asking the player to save the game. Almost all the players respond by pausing and immediately saving their games (ReadyPlayerReact 2017).

Since this is part of a dialogue, the narrative designer’s implementation according to the technique of Callele et al. would be as follows:

The intent of the designer:

I want the player to feel a combination of confusion and anxiety when he/she reads Monica telling the player to save the game. As a result, the player will immediately pause the game and save it.

The means by which the designer expects to induce the target emotional state, the narrative context:

The player will feel confused and anxious since until this point in the game there has not been any perforation of the magic circle.

Nier (2010) Published by Square Enix, *Nier* (Cavia 2010) is an action role-playing video game that is a spin-off from the Drakengard series and follows the fifth ending of the first game. The player controls Nier through third-person perspective. The following deformation is a significant example of effectively inducing a vast range of intense emotions leading to a feeling of completion.

Example Case

There are four different endings to *Nier* and to be able to experience all the story, all endings should be completed. If the player reaches to endings C&D, an option to sacrifice himself/herself to save his/her friend Kaine appears. In case the player sacrifices himself/herself, *Nier* disappears along with all the save files and stored data. All items, quest information, exploration data disappears in front of the player’s eyes.

The game designer would implement this deformation as follows:

The intent of the designer.

I want the player to feel emphatic pain, anger and sadness but also a sense of relief and satisfaction when he/she loses all the saved data due to sacrificing his existence.

(continued)

The means by which the designer expects to induce the target emotional state, the narrative context.

The player will feel emphatic pain, anger and sadness but also a sense of relief and satisfaction because ordinarily, the choice of sacrificing himself/herself in a video game would not have any ramifications, but sacrificing 50+ hours of gameplay data will make the player feel as if he really is sacrificing his existence in the game world.

3.6 Conclusion and Future Research

Since videogames appeared much later than the other mediums, the predominant tendency is to use the preestablished concepts that appeared a long time ago. Instead of recruiting the terms explicitly defined for other mediums, it is essential to produce new concepts on which the appropriate terminology may continue to be applicable for the latest advancements.

This study presented a new terminology for fourth wall breaks utilizing magic circle concept of Huizinga. Inspired by the ideas of Conway, the name proposed for the fourth wall breaks is magic circle manipulation and it is divided into two subcategories: magic circle deformation and magic circle perforation. While magic circle manipulation refers to all instances where the game world reaches out to anywhere other than the diegetic, magic circle deformation presents three subcategories according to the deformation scope, non-diegetic play, medium play and real-world play. Moreover, the proposed term for the traditional fourth wall breaks in game terminology is magic circle perforation, revealing three subcategories; direct address, self-awareness and awareness of the real-world.

Furthermore, this study provides a method for implementing the magic circle manipulation techniques through affective design and requirements engineering technique, without overlooking the shared agency of the player and the game, contributing to design studies of video games. Various examples of the technique from different games are offered classifying the type of the technique used, allowing the designers to have an understanding of the state of the final products featuring the techniques. The chosen examples not only feature the fine usage of the methods, but also the misuse or overuse of the technique leading to player frustration.

Since this study overlooks the immersive technologies, such as augmented reality (AR), virtual reality (VR), mixed reality (MR), so on, the applicability of the magic circle manipulation techniques should also be assessed accordingly.

References

- D. Callele, E. Neufeld, K. Schneider, Emotional requirements in video games, in *Proceedings of the IEEE International Conference on Requirements Engineering*, (IEEE, Minneapolis/St. Paul, MN, 2006), pp. 292–295. <https://doi.org/10.1109/RE.2006.19>
- Cavia, *Nier*. [Video game] (Square Enix, Tokyo, 2010)
- S. T. Coleridge, in *Biographia Literaria*, ed. by A. Roberts (Edinburgh University Press, Edinburgh, 2014). <http://www.jstor.org/stable/10.3366/j.ctt14brwk4>
- S. Conway, A circular wall? Reformulating the fourth wall for videogames. *J. Gaming Virtual Worlds* 2(2), 145–155 (2010). https://doi.org/10.1386/jgvw.2.2.145_1
- J.A. Cuddon, R. Habib, M. Birchwood, Alienation effect / fourth wall, in *A Dictionary of Literary Terms and Literary Theory*, (John Wiley & Sons Ltd, Hoboken, 2013). <https://doi.org/10.1002/9781118325988.ch6>
- Daniel Mullins Games, *Pony Island*. [Video game]. Daniel Mullins Games (2016)
- N. Davis, “Not a soul in sight!”: Beckett’s fourth wall. *J. Mod. Lit.* 38(2), 86–102 (2015). <https://doi.org/10.2979/jmodelite.38.2.86>. Indiana University Press
- Galactic Cafe, *The Stanley Parable*. [video game]. Galactic Cafe (2013)
- S. Giddings, Playing with non-humans: digital games as technocultural form, in *DiGRA '05 - Proceedings of the 2005 DiGRA International Conference: Changing Views: Worlds in Play* (2005)
- N.K. Hayles, How we became Posthuman: virtual bodies in cybernetics, literature, and informatics. *J. Artif. Soc. Soc. Simul.* vol. 4 (1999). University of Chicago Press. <http://www.amazon.com/dp/0226321460>. Accessed 9 Mar 2020
- C. Hodent, Engage-ability, in *The Gamer’s Brain: How Neuroscience and UX Can Impact Video Game Design*, (CRC Press, Baco Raton, 2017), pp. 135–172. <https://doi.org/10.1201/9781315154725-15>
- J. Huizinga, *Homo Ludens: A Study of Play-Element in Culture*. Routledge & Kegan Paul Ltd, London (1949). http://art.yale.edu/file_columns/0000/1474/homo_ludens_johan_huizinga_routledge_1949_.pdf. Accessed 9 Mar 2020
- A. Jefferson, P. Waugh, Metafiction: the theory and practice of self-conscious fiction. *Poetics Today* 7, 574–576 (1984). <https://doi.org/10.2307/1772516>
- O. Jesper, *Breaking Fiction: How Fiction Breaks Can Be Used to Enhance a Player’s Immersion in Video Games*. School of Informatics, University of Skövde (2016). Retrieved from <http://his.diva-portal.org/smash/get/diva2:932514/FULLTEXT01.pdf>
- H.W. Kennedy, S. Giddings, Little jesuses and fuck- off robots: on aesthetics, cybernetics, and not being very good at Lego star wars, in *Computer Gaming: Essays on Cultural History, Theory and Aesthetics*, (McFarland & Co, Jefferson, NC, 2008), pp. 13–32
- B. Keogh, Across worlds and bodies: criticism in the age of video games. *J. Games Crit.* 1(1), 1–35 (2014). <http://gamescriticism.org/articles/keogh-1-1>
- J.H. Kerr, M.J. Apter, *Adult Play: A Reversal Theory Approach* (Swets & Zeitlinger, Amsterdam, 1990)
- Kojima Productions, *Death Stranding*. [Video Game] (Sony Interactive Entertainment, Tokyo, 2019)
- Konami Computer Entertainment Japan, *Metal Gear Solid*. [Video Game] (Konami, Tokyo, 1998)
- J. Murray, *Hamlet on the Holodeck the Future of Narrative in Cyberspace* (The Free Press, New York, NY, 1997)
- Nintendo R&D3, & Locomotive Corporation, *StarTropics*. [Video Game] (Nintendo, Kyoto, 1990)
- ReadyPlayerReact, *Let’s Players Reaction To Monika Breaking the 4th Wall | Doki Doki Literature Club – YouTube* (2017). <https://www.youtube.com/watch?v=ek7-4XktKW8&t=6s>. Accessed 9 Mar 2020
- Remedy Entertainment, *Max Payne*. [Video Game] (Gathering of Developers, New York, 2001)
- K. Salen, E. Zimmerman, *Rules of Play: Game Design Fundamentals* (The MIT Press, Cambridge, MA, 2003)

- S. Schachter, J. Singer, Cognitive, social, and physiological determinants of emotional state. *Psychol. Rev.* **69**(5), 379–399 (1962). <https://doi.org/10.1037/h0046234>
- J. Stenros, In Defence of a magic circle: the social, mental and cultural boundaries of play. *Trans. Dig. Games Res. Assoc.* **1**(2), 147–185 (2014). <https://doi.org/10.26503/todigra.v1i2.10>
- Team Salvato, *Doki Doki Literature Club!* [Video Game]. Team Salvato (2017)
- Toby Fox, *Undertale*. [Video Game]. Toby Fox (2015)
- Ubisoft Montreal, *Watch Dogs II* (Ubisoft, Montreal, 2016)