



UPPSALA
UNIVERSITET

The Psycho Mantis Effect

Redefining Immersion in Conjunction with the Fourth Wall

Faculty of Arts

Department of Game Design

Authors: Nora Ekeblad, Thérèse Lundqvist

Bachelor Thesis in Game Design, 15 hp

Program: Game Design and Project Management

Supervisor: Josephine Baird

Examiner: Rainforest Scully-Blaker

May, 2023

Abstract

This thesis broadens the discussion surrounding the fourth wall and immersion in games; the hypothesis being that there are more ways to manipulate the fourth wall other than breaking it, and that manipulation of the fourth wall does not necessarily break immersion. Four types of fourth wall manipulation have been labeled in this body of work: breaking, expansion, contraction, and grazing. Expansion and contraction derive from Simon Conway (2010), with minor augmentations to the contraction category having been made by this thesis. The term breaking has been narrowed down and specified while grazing was invented for this particular study. The aim is to update terminology surrounding the fourth wall to introduce it as a narrative tool for game designers, where the tool can be used in different ways that underline the narrative experience that designers want to convey. The study was done by a close reading of the games Metal Gear Solid and NieR: Automata, but references other games relevant to the different types of manipulation. The results show that the identified instances of fourth wall manipulation within the two focus games can all fit in the proposed updated terminology, with some instances elevating the play experience.

Keywords: Diegesis, fourth wall manipulation, immersion, ludonarratology, Metal Gear Solid, NieR: Automata, the Magic Circle, video game

Table of Contents

| | |
|---|-----------|
| ABSTRACT | 1 |
| 1 THE PSYCHO MANTIS EFFECT | 3 |
| 2 BACKGROUND | 5 |
| 3 METHODOLOGY | 15 |
| 4 RESULTS AND DISCUSSION | 19 |
| 5 CONCLUSION | 43 |
| 6 ACKNOWLEDGEMENTS | 45 |
| 7 REFERENCES | 46 |
| 7.1 LUDOGRAPHY | 49 |
| 7.2 FILMOGRAPHY | 50 |

1 The Psycho Mantis Effect

Fourth wall manipulation has been present within literature, theater, and film for hundreds of years, and in later days the narrative phenomenon has been found more and more within digital games. This thesis aims to investigate and define the unique ways fourth wall manipulation is used in the video game medium, specifically done by a close reading of the games *Metal Gear Solid* (1998) and *NieR: Automata* (2017). While these two games are the focus of this study, certain findings will be strengthened by examples from other video games. The term fourth wall manipulation comes from Alex Bräysy and Axel Arkö (2017) and their bachelor thesis concerning fourth wall manipulation's impact on the gameplay experience and has been chosen over the more familiar *fourth wall break* to encompass the multiple facets of using the fourth wall as a narrative tool.

As the fourth wall traditionally acts as a border to contain the diegesis, narratology has been chosen as the main theoretical framework of which to discuss the concept further in this body of work. However, as the definition of narratology, as well as the prevalence of narratives in games, are both disputed (Meister, 2011) this study will specifically look through the lens of *narrativity*, i.e., the frequency of narrative within a media (Neitzel, 2014), to be able to adapt the theoretical framework accordingly. The reasoning behind this is due to this thesis' determination that games as a medium cannot be labeled as narratives as they must be told through a narrator, but games can contain elements of narrativity, for example, dialogue or environmental storytelling. Furthermore, this usage of narrativity allows for the exploration of the intersection between narratology and ludology, henceforth known as *ludonarratology*.

Four types of fourth wall manipulation have been defined to aid this thesis' categorization and analysis of the two selected games:

1. Expanding the magic circle
2. Contracting the magic circle
3. Breaking the magic circle

4. Grazing the magic circle

Due to digital games being relatively new compared to television and theatre, there is no scientific consensus regarding definitions for fourth wall manipulation within games. Discussions regarding the subject have existed in online forums and in online publications for many years, meaning that the subject is not new, just that clear definitions have not been established within academic spaces yet. In order to build a solid foundation of literature from which one can draw conclusions regarding fourth wall manipulation as a narrative tool, this thesis considers its usage in other mediums such as literature, theater, and film in order to analyze the selected games properly.

This study aims to bring game designers and narrative theorists a thorough analysis of how different types of fourth wall manipulation have been successfully implemented into games. There is also an aim to establish the assertion that “breaking” the fourth wall can be done in more ways than one without disturbing the immersion, with the game medium building its own unique gestalt of the distinguished convention.

2 Background

The Fourth Wall

The act of acknowledging and interacting with the audience in theater has existed as long as the artform has (Carton, 2020), which predates the idea of a wall separating the diegesis from reality. *Pantomime* is a British form of participatory theater dating back to the 16th century where audience members are encouraged to speak directly with the characters and to sing along when the actors do (Reid-Walsh, 2006). Another, even older, example is the *Greek chorus* which has its roots in Ancient Greece: the chorus was a group of people that would collectively comment on and react to what was transpiring on stage, acting out the presumed thoughts, opinions, and reactions of the audience (Kitto, 1956). During Shakespearean times, soliloquies were used as a narrative device to inform the audience members of internal monologues (Carton, 2020).

The concept of a wall separating the play from its spectators has been attributed to the French philosopher and art critic Denis Diderot who in 1758 wrote in his critical works about theater:

"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." (ibid.)

These words were Diderot's own opinions, but they influenced how plays were conducted: it fell out of favor to break the fourth wall up until the birth of cinema when the phenomenon was popularized once again (ibid.).

Fourth wall breaks have also been frequently utilized in television and cinema, one of the earliest recognitions occurring in the 1918 silent film *Men Who Have Made Love to Me*, where the film's protagonist addressed the audience through title cards (Buck, 2013).

Other mediums like comic books have also produced fourth wall breaks, with characters such as She-Hulk and Deadpool being notorious for their comedic employment of the phenomenon (Stone, 2022).

As video games became popularized, fourth wall breaks quickly found their way into the medium and can be spotted in early arcade games such as *Adventure* (1979), where the game's programmer Warren Robinett added his own name into a hidden room within the game (Porges, 2017). This is an early example of a so-called "Easter Egg", which is a reference or game property that has been hidden away for the player to find and is unlockable by the player's actions (Pincus, n.d.). Breaking the fourth wall has since developed from hidden references to becoming part of the game's narrative and mechanics. An example of this can be found in the fighting game *Marvel vs. Capcom 3: Fate of Two Worlds* (2011) where the commonly fourth wall breaking Deadpool uses his own health bar to attack the enemy during his special move called "4th-Wall Crisis". This thesis will come to assert that fourth wall manipulations possess unique potential within the game medium and are utilized in ways that are unable to be reproduced in any of the prior mediums discussed in this section. This is because while experiencing a video game, the player assumes two roles; that of the active performer who is constantly receiving and outputting feedback; and that of the observer who is being subjected to entertainment throughout the game (Newman, 2002). This can be likened to the act of taking on the role of both actor and audience. Due to the player having these two roles, it means that though they have the possibility of becoming immersed as an audience member would, their critical thinking and role as performer allows them to constantly be aware of the fictional aspect of the game. While discussing the different types of fourth wall breaks that occur within games, this thesis will use terms such as expansion, contraction, breaking, and grazing of the fourth wall and magic circle in order to categorize them.

Fourth Wall Breaking and Relocation

In this thesis, the fourth wall in games is separated from the one referred to within theater or film, where it is usually associated with a physical element such as the TV screen or curtain. The main reason for this separation being that this thesis asserts that the fourth wall and the magic circle are inherently linked, with the fourth wall being the outermost part of the magic circle, acting as its barrier. This means that when the fourth wall is broken, the magic circle gets punctured along with it. This is because when the fourth wall is manipulated, it affects the dynamic between player and game, holding the possibility of influencing immersion. As a result of this, the magic circle and the fourth wall are discussed interchangeably in this study.

The concept of the magic circle is first found in Johan Huizinga's (1938) *Homo Ludens*, a work discussing the definition of human play. The term was further defined by Katie Salen Tekinbas and Eric Zimmerman (2003) to explain that play or a game does not need physical space to exist; to participate in a game is to enter the magic circle.

“In a very basic sense, the magic circle of a game is where the game takes place. To play a game means entering into a magic circle, or perhaps creating one as a game begins. The magic circle of a game might have a physical component, like the board of a board game or the playing field of an athletic contest. But many games have no physical boundaries—arm wrestling, for example, doesn't require much in the way of special spaces or material. The game simply begins when one or more players decide to play.” (ibid., p. 95)

As the latter definition is further developed with the authors continuously using it predominantly while discussing games instead of play, this study will adopt Salen Tekinbas and Zimmerman's usage of the term rather than Huizinga's.

Simon Conway (2010), Matthew Weise (2008) and Edward Castronova (2005) have separately used the term *membrane* to name the border between reality and the game universe; Conway defines the membrane as permeable; Weise describes it as an elastic threshold and Castronova explains it as being porous. All three authors argue that there can never be a true distinction between reality and fiction when it comes to games as the two affect one another. Rather than believing the notion that the wall is solid, and that breaking it automatically sabotages immersion, this study aligns itself with the premise that the wall is indeed flexible and can sustain immersion.

The already mentioned concepts of expansion and contraction of the magic circle have been borrowed from Conway's (2010) discussion of *fourth wall relocation*, which argues that the term fourth wall break is not always an accurate description of the way the fourth wall is handled in certain situations. While Conway discusses three types of fourth wall relocation: expansion, contraction, and breaking of the magic circle, this thesis proposes grazing of the magic circle as a fourth category as discussed below.

Expansion

Conway asserted that expansion of the magic circle occurs when the digital world of the game expands beyond its previous boundaries into other software or hardware or utilizes physical objects such as the controller, game manual, or console itself as part of the gameplay experience. This means that even computer resources such as the browser or email client can become part of the diegesis. An example of a computer resource, more specifically a computer file being included as part of the gameplay occurs in *Doki Doki Literature Club!* (2017) where the player must navigate through their computer's local files to locate and delete the character Monika's game file, causing her to be removed from the game and resulting in the game's true ending.

Contraction

The second category, contraction, is described by Conway (2010) as when the border of the magic circle narrows behind the display, for example when Sonic taps his knuckles on the screen when the player takes too long, or when the game takes control of itself and away from the player. This thesis disagrees with the example of Sonic tapping the screen as a contraction, as it hints toward the existence of a player or observer.

Contraction will therefore be redefined in accordance with this study's beliefs to instances where the player loses control of the game. An example is the character Flowey from Undertale (2015) who will deliberately crash the game, regardless of player actions.

Breaking

The third category defined in this study is the more traditional term of fourth wall break. Due to the term "breaking the fourth wall" having few definitions and commonly being used as an umbrella term when it comes to manipulation of the fourth wall, as well as Conway not defining the term; this thesis has asserted its own definition of breaking based on its usage within other mediums. An example of this usage is defined by Collin's Dictionary:

"Esp of a character in a television programme, film or play) to refer to, acknowledge or address the audience, usually for comedic effect or as an avante-garde technique" (Collins Dictionary, n.d.)

Though Collin's dictionary strictly mentions the acknowledgment of an audience, this study further defines that fourth wall breaking occurs when a game displays self-awareness by referring to or implying itself as a game or to the player as a player, regardless of if it is done directly or indirectly. Though he does not fully define it,

Conway (2010) describes breaking the fourth wall as “shattering the suspension of disbelief”. This study challenges Conway’s statement and argues that a complete suspension of disbelief cannot truly be achieved as the player is always aware of the fictional aspects within a game. Immersion, however, can remain intact despite the game’s self-awareness or acknowledgment of the player, which will be discussed further in the following sections.

Grazing

This thesis proposes the addition of a fourth category, grazing, which encapsulates the occurrence of a game referencing objects or concepts from outside of the game world, such as other works, people, or players. These include more subtle references that don’t completely break the fourth wall but imply its existence only to players who understand the references. An example of this occurs in *The Witcher 3: Wild Hunt – Blood and Wine* (2016) where the player can find a note about a man named “Sir Leeroy” who died during a one-man raid against monsters. The note references a viral clip of a *World of Warcraft* (2004) player character by the same name, without specifically mentioning that the character is heavily inspired by someone from outside the game universe. A player without prior knowledge of the viral clip would not perceive this as a fourth wall break due to the existence of Sir Leeroy fitting into the diegesis. A player that knows about the clip however would likely acknowledge the friction it causes in regard to the fourth wall, thus categorizing the event as grazing.

The terms expansion, contraction, breaking, and grazing have in accordance with the discussion above been augmented and defined in conformity with this thesis’ understanding of fourth wall manipulation. These definitions will be argued for and applied to the focus games *Metal Gear Solid* and *NieR: Automata* as well as other digital games.

As mentioned previously, fourth wall manipulation and its subcategories have different impacts relating to immersion. In the following section, immersion will be defined in order to identify when it is strengthened or weakened in accordance with the aforementioned categories.

Immersion

The word immersion is defined by Cambridge Dictionary as “the fact of becoming completely involved in something” (Cambridge Dictionary, n.d.). Ernest Adams (2004) has defined three types of immersion: tactical immersion, strategic immersion, and narrative immersion. Tactical immersion is when the gameplay flows seamlessly, and the player can rely more on muscle memory than on active thinking. Strategic immersion is mentally stimulating; it is about finding the most optimal solution. While being strategically immersed, the player finds themselves constantly calculating their next move and the moves to come without anything disrupting their concentration.

The third and final type is narrative immersion where the player cares about the story, its contents, and its characters. A narratively immersed player longs to know what will happen next and will be disrupted from this state if anything within the fiction comes across as illogical or out of place. While henceforth discussing immersion, it is mainly the narrative definition that is being referred to as this study is conducted through a ludonarratological lens that claims that all aspects of a game can tell a story.

As mentioned earlier, this thesis will stay away from using the term “suspension of disbelief” as it believes that a complete suspension of one’s disbelief is not truly achievable since separating oneself from one’s critical thinking skills is not possible. Complete immersion is however achievable and does not require the player’s suspension of disbelief, since shattering the player’s alleged suspension of disbelief would not shatter immersion. As both the participant and observer, the player is aware that their own

involvement in the game is what upholds the experience and thus partly controls how immersed they can become. This body of work asserts that immersion is not inherently hindered by the manipulation of the fourth wall and that it can be both ruined and strengthened by it. For example, breaking the fourth wall does not necessarily break immersion as long as it can be explained within the diegesis.

Ludonarratology

Since fourth wall manipulation is used as an interactive way of telling the story of a game, looking at the game narrative is equally important as looking at its mechanical elements. The lens through which this study will be conducted is that of ludology and narratology, sometimes referred to as ludonarratology and is first discussed when Clint Hocking coined the term *ludonarrative dissonance* (Hocking, 2007). The use of ludonarratology is motivated by this study's claim that fourth wall manipulation is a narrative tool that can be achieved through the collaboration of mechanics and narrative. Hocking declares that a game can suffer from ludonarrative dissonance when a game's story and its gameplay are misaligned (ibid.). While explaining the term, Hocking uses BioShock (2007) as an example: he claims that the gameplay incentivizes the player to seek power and focus on self-interest to be able to progress, but that the presented narrative is in stark contrast to that as the story encourages the player to help others to progress (Hocking, 2007). In other words, the game rewards you for being selfish, but to progress through the story you must prioritize the wants and needs of others. Steve Wilcox (2013) touches upon a similar topic and calls this process *procedural diegesis*:

“In this case, narration refers to a game's story, as told by the writers *and* the game engine. When there is discord between narrators, the story suffers, and when there is harmony, the narrative is more persuasive. Let's call this element of storytelling

‘procedural diegesis,’ knowing that it involves treating algorithmic and authorial processes as co-authors of a narrative.”

Both Hocking (2007) and Wilcox (2013) argue that a game’s story and all its procedural elements must align to present a cohesive experience, meaning that if all elements of a game can help tell a story, then those same elements can also break or shape the diegesis. This thesis asserts that going against a procedural diegesis results in ludonarrative dissonance which can harm immersion.

This study aims to further the discussion regarding the usage of the fourth wall within games in order to lessen the research gap. To achieve this, the supporting literature covers ludonarrative dissonance and harmony, traditional fourth wall-breaking elements, the procedural aspects of games as a narrative tool, and the flexibility of the magic circle. These terms will also be utilized in order to analyze this thesis’ chosen focus games, Metal Gear Solid and NieR: Automata.

Metal Gear Solid and NieR: Automata

Metal Gear Solid is a video game of the action-adventure stealth genre with Hideo Kojima as its primary creator and developer. The game features Solid Snake as its protagonist: a soldier who must infiltrate a facility to stop the terrorist group FOXHOUND from launching a nuclear attack. The game is heavily cited in discussions regarding fourth wall breaks in games, with the encounter against the character Psycho Mantis often charting high on lists regarding fourth wall breaks or memorable boss encounters, as well as frequently being discussed for its then groundbreaking application of fourth wall manipulation (Kelly, 2022; Pursey, 2021).

NieR: Automata is an open-world action role-playing game directed by Yoko Taro and developed by Platinum Games. The game follows three android characters over

multiple playthroughs of the game's storyline: 2B, 9S, and A2. The game's story follows the war between androids and machines while exploring thematic elements such as the meaning of life and the reasons why people fight. The game uniquely attempts to place the player within its narrative in idiosyncratic ways such as including the act of changing the game's settings into the story. This, along with other occurrences of fourth wall manipulation interweaved into the game's narrative made NieR: Automata especially interesting to examine as part of this study. Much like Metal Gear Solid, NieR: Automata also has a particularly discussed instance of fourth wall manipulation known as "Ending E" (Ducharme, 2021; Fahey 2017) which further strengthens the game's relevancy for this study.

Metal Gear Solid was released in 1998 and NieR: Automata in 2017, meaning that the latter game could utilize almost 20 years of technological development that the former game did not have access to. Since the release of Metal Gear Solid, new laws surrounding player privacy have also come into play which newer games have had to take into consideration (Jerome, 2014). The difference in technological advancements as well as Hideo Kojima and Yoko Taro both often being regarded as eclectic and unusual in their game design approaches (Corliss, 2021) enables the games to provide relevant material and discussion for this study.

3 Methodology

This thesis takes a closer look at how fourth wall manipulation functions in the game medium by using preexisting games as concrete examples in order to categorize instances of fourth wall manipulation. A close reading will be done of the games *Metal Gear Solid* and *NieR: Automata* with the aim of focusing on the instances where the fourth wall is being manipulated. These instances will be documented and then analyzed with the intention of classifying them into the four sub-categories of fourth wall manipulation. The aforementioned games were chosen because of their prominence within cultural discussions regarding the manipulation of the fourth wall in games.

The close reading technique originally emerged from literature studies and is a highly interpretative process even when reading non-digital mediums (Tannenbaum & Bizzocchi, 2011). When perceiving digital media such as video games the close reading process becomes increasingly complex due to their interactive nature and size. Despite these factors, close reading can be considered an effective tool in order to carefully examine all aspects of a digital game, bringing its bare bones to light. Close reading requires the researchers to immerse themselves in the gameplay experience, relying on subjective insights and experiences. The advantage of using close reading in the context of this thesis lies in the technique's ability to define the central point of the medium: the gameplay experience. This aligns itself with observing multiple layers of the game and will be beneficial when analyzing instances of fourth wall manipulation. The aim of this close reading is to view the selected games from a critical standpoint through the performed player as well as an authentic standpoint through the naïve reader, using the two stances in conjunction.

Two different reading techniques have been presented by Tannenbaum and Bizzocchi (*ibid.*): the naïve reader and the performed player stereotype. The standpoint of the naïve reader, while more scientifically valid, views the game from the perspective of

an inexperienced player in the context of the chosen game and allows for a surface-level point of view. It replicates an authentic and less partial gameplay experience, gaining valuable insight and comprehensive exposition of the game. This standpoint embraces immersion and situates itself close to a role-playing process whilst laying importance on remaining unbiased. The performed player standpoint leans away from a place of neutrality, instead focusing on the perspective of player stereotypes and acting in accordance with them. While this process also features role-playing elements, it is more focused on a particular bias, for example, straying away from how the developers intended the game to be experienced.

The perspectives of both the naïve reader and the performed player stereotype will be utilized as one of the authors had no prior experience of the games while the other had previous experience of both, allowing the insights gained from close reading to cover all aspects of the gameplay experience. As the intent is to study a specific aspect of these games, close reading is the most suitable research method because it allows for in-depth analyses of the assemblage that makes the fourth wall manipulation occur. Playthroughs of relevant portions within both games will be conducted while taking notes on aspects of the game that feature fourth wall manipulation. Within these select portions of the games, this study looks at the story, sound, player interactivity, mechanics, and rules to understand how all these elements are combined to manipulate the fourth wall. To properly analyze the findings, pre-existing literature is consolidated.

Four categories have been listed in order to be used as a tool for managing close reading, three of which have been identified by Conway (2010) and have been augmented:

Expanding the magic circle

In accordance with Conway's (2010) definition; expansion of the magic circle includes the act of physical objects or computer resources becoming part of the gameplay experience.

Contracting the magic circle

Contraction of the magic circle has been borrowed from Conway and has been redefined in accordance with this thesis' beliefs. This study states that contraction occurs when the game takes control of itself and away from the player.

Breaking the magic circle

Because breaking the fourth wall has been used as a non-defined umbrella term for fourth wall manipulation, this thesis has stated its own definition. The magic circle and fourth wall are broken when the game directly or indirectly acknowledges the player or becomes self-aware of itself as being a game.

Grazing the magic circle

This thesis has invented grazing as its own category in relation to fourth wall manipulation. Grazing of the magic circle is achieved by the game including subtle references to concepts stemming from outside the game universe and requires the player to have preexisting knowledge of the referenced concept for the grazing to successfully transpire.

While conducting playthroughs, notable fourth wall manipulating moments such as the ones below are studied:

- An item, event, or person from outside the fictional game world is referenced within the game.
- A physical or non-traditional digital element becomes part of the game world/gameplay.
- The game takes control of itself and away from the player.
- The game or a character displays self-awareness.
- The game or a character indirectly or directly acknowledges the player.

Normally, the existence of user interface would be considered a constant fourth wall break as it acknowledges the existence of a player, however, since it is such a prevalent fourth wall break it is not considered noteworthy for this study unless utilized outside of its ordinary format. If other fourth wall manipulations that fall outside of the aforementioned categories are encountered, they will still be considered relevant to the study. While this thesis is centered around two games that are famously well-received by their target audience (Nelson, 1998; Sullivan 2017), the aim is to focus on how the fourth wall-breaking effect is achieved, not its impact on players.

4 Results and Discussion

As fourth wall manipulation becomes more and more prevalent within the video game medium, the lack of sufficient terminology and definitions regarding the narrative tool has become apparent. The goal of this thesis is to broaden the discussion regarding fourth wall manipulation while establishing subcategories that ease the implementation and utilization of the tool within game design and development. To lay the foundations of the different categories, the games *Metal Gear Solid* and *NieR: Automata* are used for the sake of recognizing and identifying the gestalts that make up each subcategory. The results show that the four categories established by this study cover all instances of fourth wall manipulation encountered within said games. In accordance with the previous statement, these instances have been recorded and categorized appropriately.

Expansion

Expansion occurs when a game moves beyond its digital boundaries; either by pulling non-traditional digital elements into the diegesis or by including physical objects in the fiction. During this phenomenon, the fourth wall is moved without necessarily acknowledging the existence of a game or a player, thereby not breaking the wall. Below follows examples of both physical expansion and digital expansion.

Physical Expansion

In *Metal Gear Solid*, Solid Snake (hereby occasionally simply referred to as “Snake”) can interact with several people via his CODEC, an implanted communications device, as long as he knows their frequency. Snake is advised to contact Colonel Roy Campbell’s niece, Meryl Silverburgh, and is told that her frequency “should be on the back of the CD case”. CD cases exist within the diegesis, and Snake can have them in his inventory, but the CD case that is being referred to is the actual, physical case of the game (which Snake cannot have in the

game) meaning that players needed to inspect a physical object to find the frequency, thus expanding the magic circle and the fourth wall into physical space, as well as breaking it through referencing a non-game object.

As Metal Gear Solid initially was developed for PlayStation and thus intended to be displayed on a television screen, there are parts of the game's design that cater to this particular platform: While Solid Snake is up on a rooftop battling Liquid Snake who is piloting a helicopter, Solid Snake will via CODEC receive advice to use the stereo speakers to track the helicopter while off-screen. Evidently, Snake himself is nowhere near any stereo speakers but the player might be, which breaks the fourth wall. However, as the player is able to utilize their speakers in a nonconventional way where sound in physical space becomes a narrative tool, this particular occurrence could therefore also be labeled under the category of expansion as it incentivizes strategic immersion, even though it does break the fourth wall. It also clearly illustrates how both the player and Snake are performing the same action, i.e. listening to the helicopter, thereby blurring the line between fiction and reality.

One of the earliest examples and arguably one of the most mentioned when it comes to fourth wall manipulation is the Psycho Mantis boss fight in Metal Gear Solid. While the Psycho Mantis encounter utilizes three types of manipulation, it is mainly its usage of expansion that has been highlighted as revolutionary. Psycho Mantis is a member of FOXHOUND with strong psychic abilities such as levitation, telepathy, and telekinesis. While playing on the PlayStation, Mantis tells Snake that he will read his mind and then proceeds to comment on the way the player has played the game up until that point, like calling them "somewhat reckless" if they have saved less than three times. He then proceeds to scan the player's memory card for other Konami games and comments on them if they exist. If not, he says "Your memory is completely clean".

Fig. 1. *Psycho Mantis scans and mentions a game from the player's memory card*

(Metal Gear Solid, 1998)



If using a DualShock controller, Mantis instructs the player to place it down and performs gestures in-game that match with the vibrations of the controller, making it move. If playing the PC version, all of the above is omitted.

During the actual fight, Mantis can counter all the player's attacks as he can "read minds". If the player presses the button for first-person perspective, the perspective will instead shift to that of Psycho Mantis himself. If playing the PlayStation or GameCube version, Mantis will shift the screen to a "blackout screen" with the text "HIDEO" in white in the top right corner. This part is once again omitted in the PC version.

After not being able to get any hits on Mantis as he counters all attacks, Snake receives a CODEC message from Colonel Campbell telling him to switch the controller port. Doing this breaks Mantis' mind-reading abilities and he can no longer anticipate the incoming attacks. To achieve this effect when playing with a controller on a PC, the player must revert

to using the keyboard. If already playing on a keyboard, Mantis' mind-reading powers will never come into play and he can be attacked from the very beginning.

While discussing instances of fourth wall manipulation in Metal Gear Solid, the encounter with Psycho Mantis could be considered the epitome. Mantis acknowledges the player by commenting on their playstyle and previously played Konami games, thus breaking the fourth wall. Mantis also includes the memory card, controller, and controller ports in the encounter, leading to an expansion of the magic circle. However, this statement that Psycho Mantis is the epitome of fourth wall manipulation within Metal Gear Solid is largely dependent on the platform used; the PlayStation offers a more varied experience than the PC.

As mentioned previously, Metal Gear Solid's success is hugely thanks to the innovation that was Psycho Mantis. At the time, having an in-game character seemingly control the game and the console to that extent was unheard of. Nowadays, the actions of Psycho Mantis would be more difficult to achieve due to development in technology and privacy laws. Today, it is not uncommon to be asked to consent to sharing one's data or information; had Psycho Mantis asked permission to scan the player's memory card, it would have broken immersion as it spoils what is about to happen (Jerome, 2014). Developments within technology are even referenced in a later game in the series; Metal Gear Solid 4: Guns of the Patriots (2008). When encountering Psycho Mantis in the game, he introduces himself similarly to his debut in Metal Gear Solid, proclaiming that he will read Snake's personality and past. After a moment Mantis yells annoyedly, questioning where Snake's data is saved, proclaiming that he cannot locate a memory card. Mantis then tells Snake that his skills have improved, or rather, his hardware. He still proceeds to cause the player's controller to vibrate, the same way he did in the first Metal Gear Solid. This small nod to technology's advancement is relevant in the bigger picture of how fourth wall manipulation in games has

evolved along with more advanced consoles and systems, causing limitations but also possibility for advancement within fourth wall manipulation.

While physical expansion was a major part of Psycho Mantis's encounter, there are barely any physical expansions taking place in NieR: Automata. NieR instead utilized another form of expansion which included digital elements rather than physical ones.

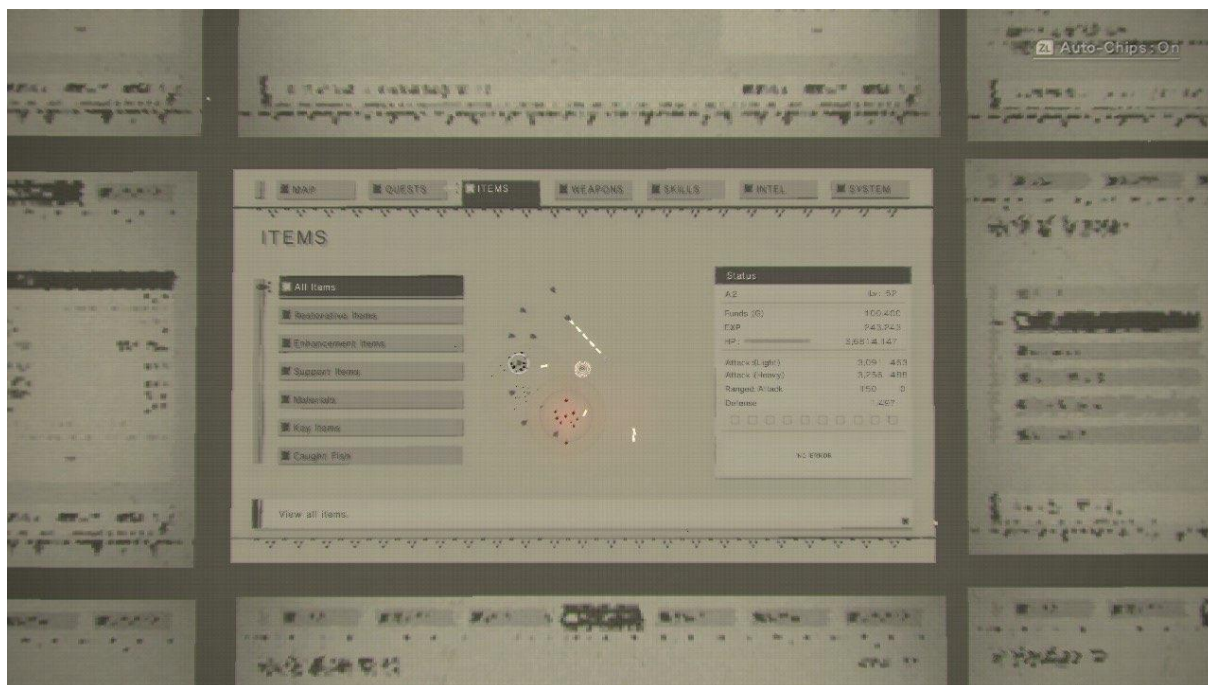
Digital Expansion

When Conway (2010) discusses expansion, he describes it as the game grouping together actors and audience, player and game, and fiction and non-fiction. Instead of dividing them, the game thins the veil between fiction and reality, rendering them as a whole. Castronova (2005) and Weise (2008) both also made this claim that the membrane separating fiction and reality is a porous one; enabling the possibility for the two worlds to blend. This becomes especially true in NieR: Automata, where the instances of expansion are contained within the digital space: at the beginning of the game, 9S tells 2B (and in doing so the player) how to adjust the brightness of the game. The player is prompted to adjust their brightness settings as if they are 2B changing her own settings. These brightness settings are found within the rest of the game's settings such as "language", "sound" and "game" settings, some of which contextually do not make sense for 2B to have access to. There is also a "self-destruct" button that can be found in the game settings that causes the player character to explode, further combining the settings with gameplay. 9S also comments on 2B's (and thus the player's) actions while they are changing other settings, such as the sound level and controller vibration. This is the first of many instances where NieR displays this unique way of manipulating the fourth wall. Rather than separating the act of adjusting the game's settings from the actual game, it incorporates the act into the gameplay, pulling the player into and making them part of the diegesis. While the game's settings are normally not considered a

part of the game, the act of blending the two together expands the magic circle beyond its usual borders within the software.

In one of NieR: Automata's endings, 9S can attempt to hack into the android A2, prompting the familiar hacking minigame that the player must complete several times throughout the game. The minigame mimics a shoot 'em up, alternating between a top-down view as well as having the camera situated directly behind the controlled character, 9S. This time, however, toward the end of the hacking, the view switches to a top-down view and zooms out, revealing the space in which the player has been shooting to be inside of the UI, within the familiar screen where the player can navigate their in-game items. The screen displays A2's stats, including level, XP, and current funds, once again expanding the magic circle beyond its normal limitations within the game software by combining the gameplay with parts of the UI that are normally kept separate from the diegesis.

Fig. 2. *Minigame within UI* (NieR: Automata, 2017)



An established part of NieR: Automata is the “plug-in chips”, a form of implant designed to customize the skills and abilities of androids. Which chips the player chooses to

have equipped or unequipped can have consequences for not just the androids, but for the player as well. It is possible for the player to unequip chips related to elements of the HUD (heads-up display), such as the health bar and the mini-map. Removing these limit the accessibility of the game, resulting in the player having to rely on less information than is regularly provided in most games. There is also the OS chip, which is an android's central system. The game specifically instructs that this chip must be equipped at all times, but if a player still chooses to remove it, the android dies. Customizing the HUD is not uncommon in games, but this action is usually done via the menu, away from the diegesis. NieR: Automata instead expands the magic circle, pulling non-traditional elements into the diegesis. NieR's tendency to utilize digital expansion over physical expansion might be due to the almost 20 years of technological advancement between the game's release and that of Metal Gear Solid.

While expansion includes elements that normally exist outside of the game, contraction does the opposite, manipulating the fourth wall from within the game's own boundaries by constraining the player's autonomy.

Contraction

Contraction of the magic circle occurs when the game takes control away from the player, no matter the input or action of the player. This type of fourth wall manipulation could be intentional since it disrupts the player's sense of security and familiarity with the game. Although some of these instances include traditional game elements changing, and thereby having the game indirectly acknowledge itself as a game, it does not inherently break immersion or the fourth wall if there is a diegetic explanation for this loss of control.

In the Psycho Mantis boss fight, the magic circle contracts through the occurrence of the previously mentioned blackout screen, the first-person view being shifted and Mantis countering all attacks. This further emphasizes Mantis' powers, enlarging them compared to the player and instilling in them a sense of weakness. Another game that utilizes contraction

in a similar way is *Doki Doki Literature Club!*, where the player is given the task of choosing which one of the romanceable girls to assist with a task. If the player hovers their mouse above the name of any girl other than Monika, they will temporarily lose control of the mouse as it slides down and hovers onto Monika's name. If the player manages to press one of the other girls' names despite this, the screen suddenly becomes eerily distorted, and all the available options change to have Monika's name on all of them. Contraction meant to emphasize a character's power can also be found in *Undertale* when the character Flowey crashes the game to highlight their superiority.

Contraction can also be utilized in a way that emphasizes how the player character might be feeling. In *NieR: Automata*, the game frequently features instances where the UI becomes disrupted. This happens on several occasions, having in common that the playable androids are shown as struggling or wounded at the time of the occurrence. When this happens, the usually small HP bar at the corner of the screen becomes disproportionate, stretching across the entirety of the screen, and beyond it. The UI shakes when taking damage, and if the player opens their settings during this time, they will find that the UI there is also disarranged, making it harder for the player to navigate. As this takes away from the player's normal control and familiar navigation within the game, causing disorientation and confusion, it is regarded as contraction of the magic circle. This type of contraction is possibly meant to put emphasis on what the player character might be experiencing at the time, thus heightening immersion. The way this narrative tool is used could be likened to the previously mentioned Greek chorus, whose role was to validate and thereby elevate the experience of the audience; this particular utilization highlights the effectiveness of narrative participation and the importance of player response and reaction.

Contraction can be summarized as removing the player's control over the game. This often happens when facing powerful enemies or when the player character is submitted to extreme situations. This thesis believes that contraction is mostly limited to these kinds of

situations, as taking control away from the player too often could be considered disruptive, which could be why there are few instances of it found in the focus games. In the next section, this thesis discusses breaking, which can be found in a wider variety of situations.

Breaking

When it comes to manipulation of the fourth wall, the term “fourth wall break” is arguably the most commonly used phrase heard in discussions surrounding the subject. It has been used as a vague umbrella term for instances of fourth wall manipulation without a clear identification of what the fourth wall breaking really entails. The need for a clear explanation of what breaking the fourth wall means has especially become necessary when discussing digital games, as the medium has opened endless possibilities for the narrative tool. This essay states that breaking of the fourth wall occurs when a game expresses self-awareness, or when it directly addresses or implies the existence of the player. It also states that breaking the fourth wall does not inherently lead to ruining immersion, and instead has the possibility to strengthen it. The balance between immersion and breaking the fourth wall will be further explained in the following section.

Balancing immersion and the fourth wall

“A direct acknowledgment of the player by the game is a clear fourth wall break in the most conventional sense” (Conway, 2010, p. 5). A straightforward example of this occurs in *NieR: Automata*, where the player can talk to an NPC called “Strange Resistance Woman” who will ask the player character if they are worried about something. Some of the dialogue options the player is presented with mimic questions that a player would have regarding the game, such as “How do I save”, “What should I do if I die” and “I feel motion sick.” But the NPC consults the questions in a way that remains within the diegesis. Since the game developers came up with ways that explain saving the game, or respawning after death in

regard to the narrative, these questions, though strange, do not manipulate the fourth wall. However, one option does; “This game is too difficult.” Upon selecting this option, the resistance woman tells the player character how to change their game difficulty. She continues to explain what the different difficulty levels entail, even referring to very hard mode as suitable for “more daring players.” As Conway describes it, “A display of self-awareness by the product to its own status as a videogame” (Conway, 2011, p. 5), along with the mention of players makes it an apparent fourth wall break that most likely disrupts immersion.

The strange resistance woman also explains to the player which button to press to activate auto chips, a tool that can be used to aid players on lower difficulties of the game. This also occurs in Metal Gear Solid, when Snake receives instructions from Colonel Roy Campbell via his CODEC. Campbell for example tells Snake that to be able to climb ladders, he must stand next to one and “press the Action Button”. As this pulls the controller’s physical buttons into the game, it could count as expansion. However, as the in-game character specifically addresses the player character and tells them to engage with something that does not exist within the game, it carries the possibility of breaking immersion as the action does not fit within the story.

After the first boss fight with Sniper Wolf in Metal Gear Solid, one of Snake’s contacts, Mei Ling, will via CODEC express her concerns regarding what is about to come, and a prompt will appear giving the player the option to save their progress. If the player then, as Snake, continuously calls Mei Ling without saving she will become annoyed and tell Snake “Don’t call me for no reason”. Mei Ling is personally not the one asking the player to save, but as her concerns are translated into a menu prompt, it acknowledges the existence of the game and breaks the fourth wall. Another person Snake can contact via CODEC is Master Miller who gives instructions to Snake that seemingly are more relevant to the player than to

Snake, such as remembering to not play while tired or to not take too many bathroom breaks to not risk missing any cutscenes. These instructions have no diegetic meaning for Snake and therefore break the fourth wall as the instructions are intended for the player instead.

As players spend more time with games, they grow accustomed to the game telling them what to do in terms of tutorials, urging the player to save at critical moments, or even telling the player when they are going in the wrong direction. Even the act of the player character dying and respawning is not seen as immersion-breaking due to its frequent occurrence in most video games, despite it having no connection to the game's story. Most players will usually not think twice about this, meaning that it does not break the immersion of the player, though directly implying their existence and their act of playing the game in a way that does not connect to the game's narrative. This can be likened to the way researchers assume different stances and perspectives when performing close reading (Tannenbaum & Bizzocchi, 2011). Therefore, games can get away with breaking the fourth wall in ways such as the ones mentioned above without the players becoming frustrated by having their immersion ruined.

Despite most games being able to get away with things such as respawning and tutorials, the developers of NieR: Automata nearly created diegesis so solid that explanations exist for most occurrences that would break the fourth wall. As with most video games, being killed does not mean that the game permanently ends; instead, the player is welcome to try again from their latest save file. As discussed, this is such a common occurrence in games that it is regularly accepted as normal instead of breaking immersion or the fourth wall, even if it does not make sense to be able to try again without a diegetic explanation after being killed. In Metal Gear Solid, there is no diegetic explanation for why Solid Snake seemingly can be resurrected. However, as touched upon above, NieR: Automata goes to great lengths for the diegesis to remain intact in these instances. In NieR, the explanation for respawning is that the

characters are androids and upon death, their consciousness is simply uploaded into a new body, enabling the player to try again and proceed. Still, there are certain endings in NieR: Automata that follow the more common convention of in-game deaths, for example, if the player dies during the tutorial, they can simply restart it.

In more recent times, it is not unusual for a game to have several endings; there can be a good ending, a bad ending, and a “true” ending. NieR: Automata takes this to the extreme and has 26 different endings: one for each letter of the alphabet. Several of these endings have one thing in common, which is that they occur once the player distinctly goes against the instructions of the game. For example, there comes a point in the game where the character Pascal contacts the protagonists and pleads for them to come save their village which is under attack. If the player chooses to go in a completely different direction than that of Pascal’s village, the game will then display the following text:

“Fed up, 2B left the camp to its fate and decided to... go fishing? Yeah, that’s it!
Fishing! With a smile on her face, she packed up and headed for the coast...”

The short text is followed by the rolling of the game’s credits, and the player is informed that they have received ending [L]one Wolf. The player can then make another attempt from the latest save point, which as previously discussed does not make sense narratively. It can be speculated whether or not these types of humoristic endings featured in NieR that seem to poke fun at the arbitrary actions of the player are intended as contraction of the fourth wall, where the game takes away the player’s false sensibility of autonomy over their actions. Conway (2010) mentions this as playing with the common assumption of the player that the game has no personality or consciousness of its own. It can also be argued that these types of endings can be seen as a way to avoid ludonarrative dissonance as it prevents the gameplay from diverging from the narrative. This being said, though NieR: Automata

made attempts, the case can be made that there is no way for a game to maintain a completely unharmed diegesis, meaning that all games will at one point or another break the fourth wall.

When games address the players

Aside from the balance of immersion and fourth wall breaking, sometimes the developers intend for the breaking of the fourth wall in order to create captivating moments for the player. These moments can heighten the story without fully breaking the player's immersion, just as in the Psycho Mantis boss fight. These types of fourth wall breaks are intentional and can convey not only fear but a variety of emotional responses. Below are some examples of how fourth wall breaking has been utilized to evoke different kinds of emotions by acknowledging the player.

After Mei Ling prompts the player to save the game in Metal Gear Solid, Snake gets captured which initiates a torture sequence performed by FOXHOUND's Revolver Ocelot. Ocelot instructs that Snake must withstand torture or else "there are no continues". To withstand the torture, the player must for a certain amount of time spam the Action Button, or else Snake's life will be depleted. Ocelot says he will know if "autofire" is used, meaning that he will know if a player uses a way to cheat instead of manually spamming the Action Button. If Snake's life is depleted, the game ends, and the player is returned to the game's main menu. If the player starts up the game again, it begins at the latest save which is why Mei Ling's save prompts appear right before the torture sequence. In this scene, the fourth wall is broken by having to start up the game once again upon potential death and by Revolver Ocelot referencing autofire, and thus indirectly the player's possibility of using it. Much like in the Psycho Mantis encounter, the act of Ocelot telling the player not to cheat along with the punishment of having to restart from the main menu if you lose adds an extra layer of pressure for the player to perform.

While talking to Dr. Naomi Hunter via CODEC after surviving the torture, Snake will mention that his arm hurts, most likely referring to the fact that the player's arm is sore from continuously spamming a button just moments before. If using a DualShock controller, Naomi will instruct Snake to put the controller up against his arm. If a player chooses to follow these instructions, they will feel the vibrations of the controller mimic the sensation of a massage. While neither Snake nor Naomi directly mentions the existence of the player (or their arm) this instance implies Naomi's acknowledgment of the controller and the player's struggle during the previous scene, and in doing so breaks the fourth wall. Conway (2010) categorizes this exact instance as expansion and makes the argument that this moment does not shatter the "suspension of disbelief", but instead relocates the fourth wall in a way that enhances the player's sense of immersion. This thesis does not agree with that statement. While this example of fourth wall breaking does expand the magic circle by incorporating the controller as part of the gameplay, Snake does not possess any form of "controller" that Naomi is mentioning within the diegesis, which can break immersion and the fourth wall.

While the same could be argued for the Psycho Mantis boss fight, there is one thing that divides the two different scenarios. While both instances are categorized as breaking, the encounter with Psycho Mantis upholds immersion due to Mantis being established as all-knowing through his psychic powers. The fact that the player senses Mantis' knowledge of their presence becomes one of the driving factors in why the encounter holds great potential of captivating the player, and in doing so heightening immersion. Naomi on the other hand has no diegetic explanation for having knowledge of a player or their controller, which leads to the player's immersion potentially being shattered in this moment.

In NieR: Automata, if the player at any point in the game attempts to lower the third-person view camera to look under the skirt of 2B, she will gesture annoyedly toward the camera as if attempting to swat it away. If the player repeats this action 10 times, they receive an achievement called "What are you doing?". This easter egg breaks the fourth wall in two

ways, the first one being 2B acknowledging that someone, in this case the player, is watching her in an inappropriate way and gesturing toward the exact position of the camera. While Conway (ibid.) would consider this a contraction that also breaks the fourth wall, this instance will be categorized in accordance with this thesis's beliefs that the implication of a player only warrants a fourth wall break. The second way this occurrence breaks the fourth wall is the game speaking directly to the player through an achievement pop-up, asking [the player] what they are doing. Most players are probably not used to the game questioning the way they are controlling their camera, and what they choose to look at. This fourth wall break turns the observer into the observed; possibly intended to make the player feel uncomfortable or embarrassed. Conway regards these types of fourth wall breaks as "rewards for exploration or experimentation by the dedicated player" (ibid., p. 15). Stating that they situate the player in the shoes of the knowing bricoleur. A knowing bricoleur is someone who gains pleasure from player agency and being able to recognize things that strive from traditional systems or rules (Collins, 2009). In these instances, the developers and players acknowledge each other in mutual understanding. Conway also features a discussion regarding whether these types of immersion-breaking instances are "a slap in the face" as expressed by Adams (2004) and agrees that they indeed are but without the negative connotation.

"...there is an enjoyment to be had in such breaks, a thrill in the unexpected autonomy of the technology, like the child who dreams of her toys living their own secret lives when she is not watching" (Conway, 2010, p. 8)

In the DLC "NieR: Automata - 3C3C1D119440927" the player has access to a battle arena, in which they can fight various types of enemies. After defeating the rank S challenge in the arena, the player can talk to a resistance member, giving them the option to ask to fight "you-know-who." The resistance member will ask if the player is sure they want to do this, as it can result in breaking the [player's] sense of immersion. Two men will introduce

themselves and fight the player: The CEO and president of Square Enix, Yosuke Matsuda, and the CEO and president of Platinum Games, Kenichi Sato. This easter egg is the ultimate fourth wall break, bringing not only real-life characters into the game - but the developers themselves. The developers ensure that Matsuda and Sato are recognized even by players who might not recognize their names by having them address their full titles and names of the game development companies. This scene serves as a special reward to players who completed all challenges of the arena, which also breaks the fourth wall in a humoristic and bizarre fashion. A similar easter egg exists in *God of War (2005)* where the game's protagonist engages with the creative director of the studio that produced the game, which is discussed and described by Conway as a humoristic way of breaking the fourth wall through a direct reference of a "person that is obviously outside of the fictional world of the game" (Conway, 2010, p. 5.).

In *NieR: Automata*, the ultimate form of addressing players is utilized in Ending E, which takes place after the credits have started rolling following Ending C or D. During the credit sequence, text prompts are displayed at the bottom of the screen, displaying a conversation between Pod 153 and Pod 042. The pods are flying robots that accompany the player characters throughout the game, assisting them in navigation and combat. During the conversation between the pods, the screen glitches and Pod 153 requests the rolling of credits to be paused, which the player can accept or deny. After accepting, the conversation ensues with Pod 153 requesting to delete all of A2, 2B, and 9S's data, which Pod 042 denies; attempting to instead salvage the data. The player is then placed within a minigame similar to the hacking minigames, where they must shoot and destroy words appearing on the screen. The words are the game's credits and the names of the game's many developers. The minigame becomes progressively harder, seemingly never-ending. Every time the player inevitably fails the minigame, a question appears on the screen, such as:

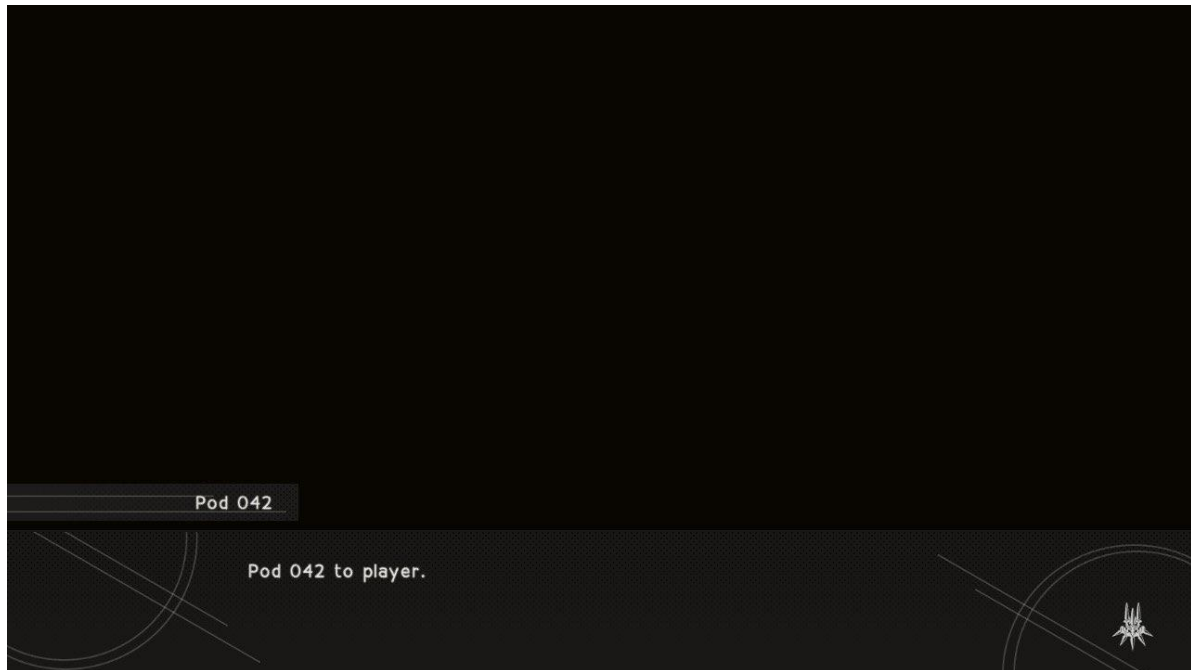
“Do you admit defeat?” “Is it all pointless?”

“Do you think games are silly little things?”

“Do you admit there is no meaning to this world?”

When the player answers no to the questions, several messages will gradually start appearing on the screen from other players who have completed the game, listing their IGN's (in-game names) and countries of origin. Following a certain number of failed attempts, the player receives a “rescue offer” from another player. After accepting the offer, the minigame becomes much easier with multiple shooters joining in, and each time the player is hit in a way where they would lose the minigame, the game tells the player that another player's data has been lost. With the help of the rescue offer, the player is able to complete the minigame. After the final cutscene, the player is asked by Pod 153 if there is something they would like to say to players who are suffering because they cannot finish NieR: Automata. The player may then forge their own message to be displayed to other players. The player is then asked if they are willing to give up their saved data in order to save another player. Ending E is the climax of fourth wall manipulation in NieR: Automata: manipulating the fourth wall in minor ways such as the credits glitching and pausing, and completely shattering it by other players' messages being displayed on the screen. It further breaks the fourth wall by the player being directly addressed by the game, and the game acknowledging itself as a game.

Fig. 3. *Pod 042 addressing the player* (NieR: Automata, 2017)



Expansion is also utilized during ending E, since the narrative takes part within the end credit sequence which is typically kept separate from the diegesis. It can even be questioned if the act of other players becoming forever encapsulated within the game and becoming part of its narrative and story counts as expansion. Without these players choosing to sacrifice their saves and becoming part of another player's gameplay experience, the never-ending chain that is Ending E ceases to exist. Therefore, Ending E, often regarded as the "true" ending of NieR: Automata, solely functions because it is built upon the digital graves of the players, made possible by manipulation of the fourth wall.

If the player chooses to give up their save data in order to help another player', the game will display the act of their in-game items, weapons, and save files being deleted one by one. After this, Pod 153 and Pod 042 address all players who have spent time with the game, thanking them for playing. Here, the fourth wall is being manipulated in several ways: the wall is broken as the game is directly addressing the player as a player, but the wall is also expanded as the save files, which have not been addressed before, enter the diegesis as being the ultimate sacrifice. In one way, it is as close to committing in-game suicide as one can

possibly get. One could also argue that contraction is occurring as well, as the player loses all control of the game, even if they do so willingly. While the player gives up their save files and can never access them again, the player and their sacrifice will still appear in another person's game, creating a shared space that can never be erased. In a sense, this ensures that the magic circle will always exist. Even though the game acknowledges itself as a game and the player as a player, the immersion is not broken as the acknowledgment is inserted effectively into the narrative with plausible explanations and outcomes. The sacrifice also results in helping another player beat the credits minigame, thus saving 2B, 9S, and A2 in another person's playthrough. One could argue that this is the ultimate form of "caring about the characters", a criterion of narrative immersion, as the survival of the characters in another playthrough is something the player making the sacrifice will never get to see.

While the aforementioned instance of fourth wall breaking is an obvious and intentional one. Less apparent fourth wall breaks exist and can be utilized in ways that could heighten player immersion in less direct manners.

Breaking the fourth wall to heighten immersion

As displayed in the previous section, developers sometimes intend for the fourth wall to be broken in order to construct captivating moments. Breaking of the fourth wall can also be utilized to heighten immersion, as will be discussed in this section. Upon exiting the weapons facility towards the end of Metal Gear Solid, the sun causes a lens flare as if the scene was being recorded by a camera, implicating the existence of a screen through which the scene is being observed. This type of fourth wall break, though very common, is just as tutorials and respawning rarely registered by the player as an actual break. Another example of this occurs when Snake is in the cell talking to Donald Anderson, the "camera" pans from the adjacent cell, through the wall back to Anderson's cell. While panning through the wall,

the conversation becomes muted and is heard clearly again after traversing through the wall. As this scenario mimics the sequence of filming a movie scene, it cements the fact that it is fictional and thus breaks the fourth wall. In *NieR: Automata*, the game features many events where the implication of the existence of a screen happens. For example, the screen glitching or having dark edges when the player character has low HP or during times when the characters are struggling. This goes to the extreme during the android's final fight against the machines; the view becomes dark and distorted, replicating a fisheye lens. Conway (2010) discusses these types of obvious fourth wall breaks interchangeably with contractions of the fourth wall, asserting a link between them. This study agrees with Conway's (ibid.) argument that though extremely common; the general video game audience has become so conditioned to this type of visual glitch through everyday media consumption that they are oblivious to its true meaning. While implying the existence of a screen and thus an observer, which should be considered unnatural, the lens flare or screen glitch is instead viewed as a display of realism and is therefore not likely seen by the player as immersion breaking.

As discussed, there are many ways in which the fourth wall can be broken. These vary from major plot points such as in *NieR: Automata*'s ending E, to hidden easter eggs such as the CEO bossfight in the *NieR: Automata* DLC. While easter eggs often break the fourth wall, they can also include less obvious references to things outside of the game world. These subtle references are regarded in this thesis as "grazing" of the fourth wall and will be discussed in the following section.

Grazing

Easter eggs commonly feature references or hints to things that exist outside of the game world. Sometimes this occurs directly, and in doing so breaks the fourth wall. Other times, this is done subtly, giving some players enough information to understand the hint

while still maintaining an intact diegesis. The latter is something that does not inherently break the fourth wall but instead grazes it for a select portion of players with preexisting knowledge of what is being referenced. This thesis saw a need for a category for this instance of fourth wall manipulation as it does not fall under fourth wall breaking. This is because it does not directly reference artifacts or people outside of the game but does so in ways that camouflage the reference within the diegesis of the game; and in doing so only tips off a select number of players to its true meaning. Below is a collection of occurrences in Metal Gear Solid and NieR: Automata where the magic circle is being grazed. This occurs only if the player has previous knowledge of what real-life artifact is being hinted at.

- At the end of Metal Gear Solid, Snake reveals that his real name is David. Snake's English voice actor is named David Hayter, but this is apparently simply just a coincidence (Singh, 2010). Still, a player who knows the voice actor's name could react, meaning that this instance could be categorized as grazing.
- Players who preordered NieR: Automata received a cosmetic item that looks nearly identical to the red Valve Corporation logo.

Fig. 4. *Valve Corporation accessory (NieR: Automata, 2017)*

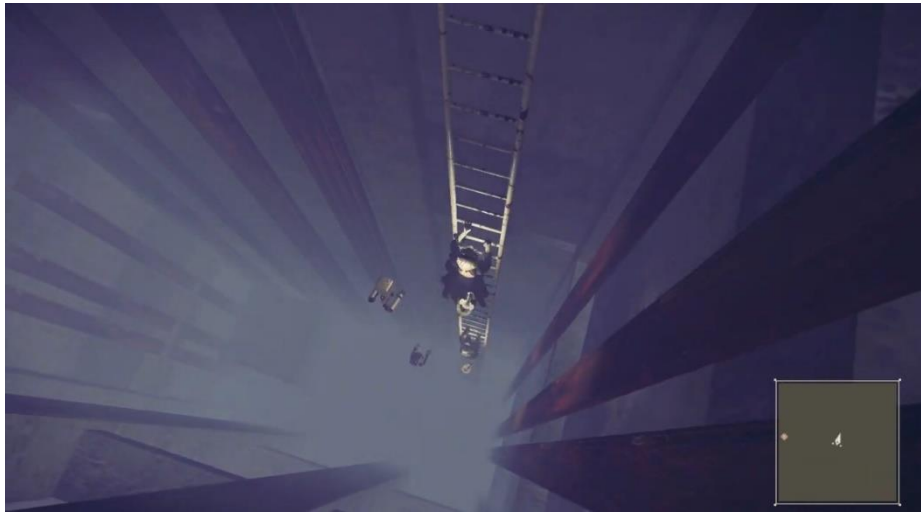


- ‘The Engine Blade’ is a weapon in NieR: Automata that is directly drawn from its design in Final Fantasy XV (2016), with even the weapon’s story referencing the original.
- One of the machine enemies in NieR: Automata resembles Godzilla, shooting a purple laser out of its mouth, paying homage to the movie Shin Godzilla (2016).
- In the DLC “NieR: Automata - 3C3C1D119440927” the player can speak to an NPC called “Maintenance Shop Owner.” The NPC has several voice lines that are directly copied from a merchant in the game Resident Evil 4 (2005). The character implies the homage further by saying that they “studied a relic of ancient civilization and apparently, this is how merchants communicate.”
- In one section of NieR: Automata, the player must climb a long ladder through a shaft. The climbing action as well as the perspective mimics that of the end scene of Metal Gear Solid 3: Snake Eater (2004), where Solid Snake ends the game by climbing a similarly situated ladder.

Fig. 5. *Solid Snake climbing a ladder* (Metal Gear Solid 3: Snake Eater, 2004)



Fig. 6. *2B climbing a ladder* (NieR: Automata, 2017)



While NieR frequently manipulates the fourth wall as part of its narrative, some discoveries were made that warrant a discussion regarding what is categorized as grazing. Throughout the game, several references are made to real-life famous philosophers, such as bosses being named after Karl Marx and Friedrich Engels, as well as an in-game character reading a book by Friedrich Nietzsche. It becomes apparent not only by this but from the game's overarching themes such as the meaning of life and death that the game is heavily influenced by philosophy.

Since the concept of humanity exists within the diegesis it would only make sense for these types of philosophers to also have existed, however, their prevalence and careful placement within the game's narrative is noteworthy, even if this does not inherently break the fourth wall. The same can be said for the various references and mentions of the bible and belief, having characters named after Adam and Eve, and the frequent mentions of gods and belief within the narrative. While there can be arguments for and against the fact that this could be categorized as grazing of the fourth wall, this thesis asserts that since the game exists in an alternate universe and therefore contains an alternate history, there is some friction that occurs in relation to the fourth wall.

To summarize, grazing of the fourth wall occurs when something outside of the game world is subtly referenced in a way that does not disrupt the diegesis. This way, only a select number of players with preexisting knowledge of the reference will see it as fourth wall manipulation.

5 Conclusion

This study commenced with the intent of updating the terminology surrounding the fourth wall to be able to more accurately describe how manipulation of the fourth wall was occurring. Though the phenomenon of fourth wall breaking has existed since the early stages of theatre, the need for expanding terminology surrounding it was not necessary until it began its implementation into digital games. The reason behind this being that games have a relationship with their players unlike any other medium, turning the participant into the audience member as well as the actor. This thesis also argues that manipulation, and particularly breaking, of the fourth wall does not inherently break immersion; instead, the potential breaking of immersion hangs largely on whether or not there is a diegetic explanation. Furthermore, manipulation of the fourth wall can be utilized in order to achieve the opposite effect and instead immerse the player further. To be able to give concrete examples of the updated terminology, originally presented by Conway (2010), a close reading was done of the games *Metal Gear Solid* and *NieR: Automata* due to their well-received applications of fourth wall manipulation.

Results show that all identified instances of fourth wall manipulation in said games can be labeled under expansion, contraction, breaking or grazing. There were distinct variations between the different instances, amplifying the need for specific terminology. This thesis' addition of the category "grazing" shows that there is room for further specification, meaning that there is a possibility that the subcategories of fourth wall manipulation are not finalized and that there is a probability that said narrative tool has more research potential.

It was identified that the prime examples of fourth wall manipulation in the chosen games, Psycho Mantis in *Metal Gear Solid* and Ending E in *NieR: Automata*, both made use of several types of manipulation, and both relied on this narrative tool to be able to convey the intended experience. Furthermore, results showcased that when diegetic explanation was given, narrative immersion was not broken.

This study has shown that games also possess a unique way of handling the fourth wall due to their procedural and interactive nature where technological advancement continuously offers innovative approaches to the narrative tool that is fourth wall manipulation, meaning that the tool is a living, breathing thing that has not yet outlived its relevancy. The hope is that with the knowledge gained in this study, game designers and narrative theorists within games can intentionally implement or discuss the various nuances of the established categories and understand how they may impact the player's experience throughout the game. Another ambition is that this gained knowledge can provide context and encourage further studies of fourth wall manipulation based on the four categories established in this thesis. For instance, there is further research potential surrounding how each category and combinations of them impact players. The most important insight achieved by this thesis is that manipulating the fourth wall does not always result in the shattering of immersion but can also be used as a way of heightening it.

6 Acknowledgements

Thank you to everyone who has read and engaged with this study, it makes us feel like we are not operating within a vacuum. Thank you to Simon Conway for providing us with a handy framework that allows us to simply write about things we are interested in. Thank you to Hideo Kojima and Yoko Taro for providing game experiences that blur the lines between reality and fiction. But most of all: thank you to our amazing supervisor Josephine, the ultimate hype-woman that guided this essay to shore.

7 References

Adams, E. (2004, July 9). *Postmodernism and the Three Types of Immersion*. Gamasutra.

Online at:

http://designersnotebook.com/Columns/063_Postmodernism/063_postmodernism.htm

Arkö, A., & Bräysy, A. (2017). *Fourth Wall Manipulation in Digital Games and its Impact on the Gameplay Experience* [Bachelor's thesis, Södertörn University]. Södertörn University.

Online at: <https://www.diva-portal.org/smash/get/diva2:1089785/FULLTEXT01.pdf>

Bizzocchi, J., & Tanenbaum, T.J. (2011). Well Read: Applying Close Reading Techniques to Gameplay Experiences. In D. Davidson (Eds.), *Well Played 3.0: Video Games, Value and Meaning* (pp. 289-313). Carnegie Mellon University: ETC Press, Pittsburgh, PA.

Online at:

https://kilthub.cmu.edu/articles/journal_contribution/Well_Played_3_0_Video_Games_Value_and_Meaning/6687050

Buck, J. (2013). *Mary MacLane*. Women Film Pioneers Project.

Online at: <https://wfpp.columbia.edu/pioneer/ccp-mary-maclane/>

Cambridge Dictionary. (n.d.) Immersion. In *Cambridge Advanced Learner's Dictionary & Thesaurus*.

Online at: <https://dictionary.cambridge.org/dictionary/english/immersion>

Carton, H. V. (2020) *The Fourth Wall*. Institute for Advanced Architecture of Catalonia.

Online at: <https://www.iaacblog.com/programs/the-fourth-wall/>

Castronova, E. (2005). *Synthetic Worlds: The Business and Culture of Online Games*.

University of Chicago Press.

Collin's Dictionary. (n.d.). Break the Fourth Wall. In *Collins English Dictionary*.

Online at: <https://www.collinsdictionary.com/dictionary/english/break-the-fourth-wall>

- Collins, J. (2009). Genericity in the Nineties. In J. Storey (Ed.), *Cultural Theory and Popular Culture: A Reader*. Pearson Education, Harlow.
- Corliss, C. (2021, April 20). *Yoko Taro's New Project is a Mystery, But Proof Weird Games Are Worth Investing In*. Gamerant.
Online at: <https://gamerant.com/yoko-taros-new-project-mystery-proof-weird-games-worth-investing/>
- Conway, S. (2010). A Circular wall? Reformulating the Fourth Wall for Videogames. *Journal of Gaming & Virtual Worlds*, 2(2), 145-155.
Online at: http://dx.doi.org/10.1386/jgvw.2.2.145_1
- Ducharme, C. (2021, January 16). *The Second Impact of NieR: Automata's Ending E. With a Terrible Fate*.
Online at: <https://withaterriblefate.com/2021/01/16/the-second-impact-of-nier-automatas-ending-e/>
- Fahey, M. (2017, March 8). *There's a Difficult Decision at the End of NieR: Automata*. Kotaku.
Online at: <https://kotaku.com/theres-a-difficult-decision-at-the-end-of-nier-automat-1793071026>
- Hocking, C. (2007, October 7). *Ludonarrative Dissonance in Bioshock*. Click Nothing.
Online at: https://clicknothing.typepad.com/click_nothing/2007/10/ludonarrative-d.html
- Huizinga, J. (1938). *Homo Ludens*. Random House.
- Jerome, J. (2014, May 20). *Video Games and Privacy: It's All About Trust*. Game Developer.
Online at: <https://www.gamedeveloper.com/business/video-games-and-privacy-it-s-all-about-trust>

Kelly, A. (2022, July 1). *The Fourth Wall-Shattering Genius of Metal Gear Solid's Psycho Mantis Battle*. The Gamer.

Online at: <https://www.thegamer.com/metal-gear-solid-psycho-mantis-boss-battle/>

Kitto, H. D. F. (1956) The Greek Chorus. *Educational Theatre Journal*, 8(1), 1-8.

Online at: <https://www-jstor-org.ezproxy.its.uu.se/stable/3203909?sid=primo>

Meister, J. C. (2011, August 26). *Narratology*. The Living Handbook of Narratology.

Online at: <https://www-archiv.fdm.uni-hamburg.de/lhn/node/48.html>

Neitzel, B. (2014, March 11). *Narrativity of Computer Games*. The Living Handbook of Narratology.

Online at: <https://www-archiv.fdm.uni-hamburg.de/lhn/node/127.html>

Nelson, R. (1998, October 22). *Metal Gear Solid*. IGN.

Online at: <https://www.ign.com/articles/1998/10/22/metal-gear-solid-6>

Newman, J (2002) In search of the Videogame Player: The Lives of Mario. *Sage Journals*, 4(3), 407-425.

Online at: <https://doi.org/10.1177/146144480200400305>

Pincus, B. (n.d.). *The Cake is a Lie: Easter Eggs in Video Games*. Center for Games & Impact.

Online at: <https://gamesandimpact.org/uncategorized/the-cake-is-a-lie-easter-eggs-in-video-games/>

Porges, S. (2017, December 20). *The True Story Behind The Original Video Game 'Easter Egg' That Inspired 'Ready Player One'*. Forbes.

Online at: <https://www.forbes.com/sites/sethporges/2017/12/20/the-true-story-behind-the-original-video-game-easter-egg-that-inspired-ready-player-one/>

Pursey, J. (2021, August 7). *8 Best Fourth Wall Breaks in Video Games*. Gamerant.

Online at: <https://gamerant.com/games-best-fourth-wall-breaks/#batman-arkham-asylum---scarecrow-s-fear-gas>

Reid-Walsh, J. (2006). Pantomime. *The Oxford Encyclopedia of Children's Literature*.

Oxford University Press.

Online at: <https://www-oxfordreference-com.ezproxy.its.uu.se/display/10.1093/acref/9780195146561.001.0001/acref-9780195146561-e-2472>

Salen Tekinbas, K., & Zimmerman, E. (2003). *Rules of Play: Game Design Fundamentals*.

MIT Press.

Singh, R. (2010, September 27). *Myth: Solid Snake's Real Name is a Reference to David Hayter*. The Snake Soup.

Online at: <https://thesnakesoup.org/myth-articles/myth-solid-snakes-real-name-is-a-reference-to-david-hayter/>

Stone, S. (2022, August 21). *Marvel Characters Who Break the Fourth Wall*. Marvel.

Online at: <https://www.marvel.com/articles/comics/marvel-characters-who-break-fourth-wall-she-hulk-deadpool-more>

Sullivan, M. (2017, March 6). *Nier: Automata Review*. IGN.

Online at: <https://nordic.ign.com/nier-automata/1276/review/nier-automata-review>

Weise, M. (2008). *Press the 'Action' Button, Snake! The Art of Self Reference in Video Games*. Game Career Guide.

Online at:

http://gamecareerguide.com/features/652/press_the_action_button_snake_.php

Wilcox, S. (2013, February 13). *Procedural Diegesis*. First Person Scholar.

Online at: <http://www.firstpersonscholar.com/procedural-diegesis/>

7.1 Ludography

2K (2007) *BioShock*, digital game.

Atari (1979) *Adventure*, digital game.

Blizzard Entertainment (2004) *World of Warcraft*, digital game.

Capcom (2011) *Marvel vs. Capcom 3: Fate of Two Worlds*, digital game.

Capcom (2005) *Resident Evil 4*, digital game

CD Project RED (2016) *The Witcher 3: Wild Hunt – Blood and Wine*, digital game.

Konami (1998) *Metal Gear Solid*, digital game.

Konami (2004) *Metal Gear Solid 3: Snake Eater*, digital game.

Konami (2008) *Metal Gear Solid 4: Guns of the Patriots*, digital game.

Square Enix (2016) *Final Fantasy XV*, digital game

Square Enix (2017) *NieR: Automata*, digital game.

Team Salvato (2017) *Doki Doki Literature Club!*, digital game.

Toby Fox (2015) *Undertale*, digital game.

7.2 Filmography

Anno, H., Higuchi, S. (Directors). (2016). *Shin Godzilla* [film]. Toho Pictures, Cline Bazar.

Berthelet, A. (Director). (1918). *Men Who Have Made Love to Me* [film]. Perfection Pictures, Essanay Film Manufacturing Company.