DIGITAL GAMES AS INTERACTIVE NARRATIVE AND THEIR EVERSION:

THE ADVENT OF FUTURE NARRATIVE

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BY

DAEHYUN WON, B.A.

DENTON, TEXAS

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ABSTRACT

DAEHYUN WON

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In the field of studying digital mediums (hypertext, social media, digital games, electronic literature, et cetera), digital games' narrativity is lively being discussed by ludologists and narratologists, focusing on whether digital games have certain narrative or not. Ludologists mainly argue that digital games do not have a certain narrative structure. However, narratologists insist digital games are a new medium to convey narrative. To the narratologists, digital games' unique narrative structure is named interactive narrative. Interactive narrative is different from traditional narrative's linear time structure in that interactive narrative has non-linearity and conveys storytelling through players' intentions and interactions with digital games' various elements.

Also, through digital devices' technological and graphical developments, interactive narrative faces a great transformation, called eversion. In the age of eversion, digital games' cyberspaces and reality colonize each other, and players' body actions are directly altered to virtual actions in digital games. Thus, players can directly manipulate digital games' narrative. This transformation of the interactive narrative is called everted narrative.

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CHAPTER I

INTRODUCTION: LOADING…

Storytelling is an inherent instinct in human nature. Our life is full of stories, and people love stories containing both life's sadness and delightfulness. Despite this, there is still an indeterminable debate whether the appetite for storytelling is nurtured or naturally innate (Abbott 3). As Janine Utell says, "we are storytelling creatures…, a small child learns to tell a story even before she learns how to read" (2). We fundamentally have an ability and internal desire to represent our stories in order to be linked with others and share our life experiences.[1] Thus, the invention of printed storytelling mediums was derived from humankind's basic desire to possess effective storytelling tools to tell and share stories.

One might think the digital revolution and new media declares the deaths of paper-based printed mediums and traditional storytelling methods;[2] however, as Janet

[1] Bakhtin and Ricoeur explain the essentiality of communicational storytelling mediums and literary texts for human existence. Bakhtin says that to be a human being "is the deepest communion. To be means to communicate" and "looking inside himself, he looks into the eyes of another or with the eyes of another" (287). Ricoeur mentions, "writing opens up a which is much more comprehensive than the relationship of dialogue which remains locked up in the I-thou communication…, A text opens up an audience, which is unlimited…, everyone…, in order to give a new actuality" (442).

[2] The difference between traditional and digital storytelling methods is their forms. According to Miller's *Digital Storytelling: A Creator's Guide to Interactive Entertainment*, "the content of traditional narratives is in an *analog form*," and digital storytelling is in "a *digitalized* form" (4), and through the analog form, which is "bound" in printed "numbered pages" as *Hamlet on the Holodeck* explains (9), "a continual stream of information" is delivered (Miller 4). I would argue that traditional storytelling methods' continual stream of information is similar to the chronological and linear time-based narrative on printed mediums.

Murray says in *Hamlet on the Holodeck*, "the computer is not the enemy of the book. It is the child of print culture, a result of five centuries of organized, collective inquiry and invention that the printing press made possible" (9). The digital narrative delivered by digital mediums is an heir of the printing revolution and traditional storytelling methods. Therefore, digital narrative can also be regarded as a devised tool to fulfill the human instinct to deliver stories to each other. However, unlike traditional storytelling methods, digital mediums are not limited by the printed textual format on actual printed papers. Digital narrative is made of visual graphics, digitalized audio technology, digital images, moving pictures, and three-dimensional computer graphics (Murray 7). This is to say, today's digital narratives are not the death of printed narrative mediums but rather an extension of narrative methods.

However, the degree of narrativity of digital narratives (including interactive drama, interactive cinema, interactive fiction, hypertext literature, electronic literature, digital games' narrative, et cetera) is still a controversial issue. For scholars in diverse academic fields, the central point of a fierce debate is, in fact, digital games' narrativity.[3] Mainly, according to Jesper Juul's *The Clash Between Game and Narrative: A Thesis on*

[3] In terms of definition what is narrativity, Suzzanne Keen mentions that narrativity is "the set of qualities marking narrative" (qtd. in Abbott 25), and Abbott argues that narrativity is "a matter of degree" and the degree relys on "the feeling that now we are reading a story" (25). Much like Keen and Abbott's definitions, Neitzel says, if digital games have narrative elements (actions, events, characters, and a setting) that "are arranged in a story-like order," they "possess narrativity" in various degrees (Neitzel n.p.).

Computer Games and Interactive Fiction, this controversy is driven by the dispute over whether digital games have narrative or not (27).

Commonly and traditionally, narrative is regarded as having a linear structure formed by the time-sequence. In *The Cambridge Introduction to Narrative,* Abbott quotes Seymour Chatman, who describes the traditional view of narrative as, "chrono-logic," made of the external and internal time logics, which is called "doubly temporal logic" (qtd. in Abbott 16). The external movement through time is "the duration of the presentation of the novel, film, and play" as narrative discourse (qtd. in Abbott 16), and the internal movement through time is "the duration of the sequence of the events that constitute the plot" as story (qtd. in Abbott 16). On the contrary, if texts do not have chronological time structure, they are "non-narrative text-types" (qtd. in Abbott 16). In this point of view, Abbott argues that digital games cannot be considered as having a narrative because they do not have the chronological time sequence or a pre-existing story to make a linear time structure. That is to say, since digital games are similar to "life itself" and their non-linearity, they do not have narrative (36).

Much like Abbott, scholars who are called ludologists regard digital games as lacking narrative. They tend to focus on digital games' formal, systematic, and entertaining rules. They argue that digital games are only a systematic tool for entertainment, often, like *Tetris* and *Galaga,* without storytelling; while some digital games have subtle narrative elements, scholars consider these subtle elements are not enough to regard games as narrative mediums.

However, in “From Game-Story to Cyberdrama” in *First Person: New Media as Story*, *Performance, and Game,* Murray insists “games are always stories, even abstract games such as *Checkers* or *Tetris,* which are about winning and losing, cast the players as the opponent-battling or environment-battling here” (2). As she says, Digital games definitely have a unique narrative structure because all games are at least simple stories about winning and losing, which can be varied by players’ participation. Narratologists believe digital games should be considered as digital-storytelling tools that give a literary experience to players. This is to say, as Jenkins defines simply but clearly, ludologists want “to see the focus shift onto the mechanics of gameplay,” and narratologists “were interested in studying games alongside other storytelling media” (118).

In the storm of this fierce debates about whether digital games should be regarded as ludology or narratology, I agree with narratologists’ argument that digital games are an effective digital storytelling media and have unique narrative structure that is made of their distinct spatial setting (virtual space) and player agents’ interactions (by players’ participation) with the settings (at least in the case of the role-playing or adventure game genre). This unique narrative structure of digital games is named *interactive narrative.* I am convinced that proving interactive narrative’s narrativity will be the most powerful objection to ludologists' argument. Eventually, this thesis will focus on proving digital games as narrative and be based on studies in terms of interactive narrative and their transformation, *eversion,* in virtual reality that is facilitated by the highly developed visual technology.

In “Interactive Narrative: An Intelligent Systems Approach,” interactive narrative’s clear definition is provided. It is as follows:

> Interactive narrative is a form of digital interactive experience in which users create or influence a dramatic storyline through actions, either by assuming the role of a character in a fictional virtual world, issuing commands to computer-controlled characters, or directly manipulating the fictional world state. (Riedl and Bulitko 67)

Likewise, according to Norman’s foreword in *Computer as Theater* by Brenda Laurel, interactive narrative allows players to participate in digital games’ fictional worlds as actors, playwrights, and spectators in a performance play (Norman xiii). Also, interactive narrative allows players’ intervention in the path of stories (order of events) in the virtual settings by players’ actions. Similar to Riedl, Bulitko, and Norman’s foreword in *Computer as Theater* by Laurel, in “Player Agency in the Interactive Narrative: Audience, Actor & Author,” interactive narrative means “an experience in which the reader (player), through meaningful interaction, is able to change the events that occur in the narrative” (Hammond et al. n.p.).

In spite of those explanations of interactive narrative, some scholars argue that digital games cannot be narrative. One of those scholars, Ken Perlin, maintains digital games are not narrative because digital games and linear narrative form have different goals. According to him, the traditional linear narrative’s goal is to lead readers “a vicarious emotional journey,” while digital games’ goal is to give players “a succession of

active challenges to master" (qtd. in Utell 112). On the side of Ken Perlin, there are ludologists. More specifically than Ken Perlin's argument, like Juul's argument in *A Clash Between Game and Narrative: A Thesis on Computer Games and Interactive Fiction*, they think digital games are not narrative partly because interactivity of games and narrativity of linear stories cannot co-exist, and partly because digital games' non-linearity fails to immerse readers in a linear "vicarious emotional journey" (Juul 1-4; qtd. in Utell 112). This is to say, for ludologists, digital games' fundamental permission of players' interruptions to their non-linear stories and settings means digital games have no narrative. However, to oppose the ludologists' view and prove digital games' interactive "narrative," narratologists continually make efforts to adopt theoretical and rhetorical approaches; for example, some scholars apply Aristotle's *Poetics* to interactive narrative.

This Aristotelian interpretation is specifically called *Neo-Aristotelian Theory*. According to Mateas and Stern's "Interaction and Narrative" in *The Game Design Reader: A Rules of Play Anthology*, the neo-Aristotelian theory of interactive narrative is a modification of Aristotelian dramatic theory's view "to address the interactivity added by player agency… in the space of interactive narrative" (647), and "an extended thought experiment involving dramatic stories in which the player enters as a first-person protagonist" (646). Another rhetorical approach is *the Deictic Shift Theory*. This theory is still evolving, and yet, a small number of scholars adopt this theory to prove digital games' narrativity. While deictic shift theory is not created just to support digital

games' narrativity, through it, interactive narrative's "experiential storytelling" is more explainable. The deictic shift means that readers get "inside of stories and vicariously experience them" (Segal 15). This fictional experience, with readers getting "inside of stories and vicariously experience[ing] them," is similar to that which digital games can give to players. In digital games, players' cognitive interruptions or interactions with the fictional world become their intensive immersion and experience. This is to say, by this "storytelling experience," in interactive narrative, digital games' narrative is possible.

To add more detailed explanations on digital games' interactive narrative, there is a need to define the differences and similarities between interactive narrative and traditional narrative in terms of narrator, character, and player agents. For example, briefly, in the traditional narrative structure, the narrator is defined as, "who tells a story…, a devised tool by implied author, to narrate the story," and "a teller" who communicates "the sequence of events in a plot" (Abbott 238; Utell 24). But in digital games, distinctively, the definition of narrator is both similar to and different from these traditional definitions. According to Gaudreault, a narrator is defined as "the teller" or "the monstrator," who "shows events in immediacy" (qtd. in Arsenault 52). Picucci suggests that the narrator as a game designer who "weaves the story and the order of its events into the fabric of the game world" (Picucci n.p.). In addition, Joyce defines a narrator in digital games as player agents. Joyce's player agents have a combined role of narrator agents and character agents. In digital games, narrator agents perform the role of traditional narrator as "meditating the stories for audience," while a character

agent's role is "making choices within the developing story itself" and interacting with game elements simultaneously (36). Much like these various definitions of narrator in digital games, other traditional elements of narrative can be variously defined in interactive narrative as well.

The most remarkable feature of interactive narrative is the players' interactions with the virtual space, where "the spatiotemporal circumstances in which the events of a narrative occur" (Prince 88); in other words, the virtual space is equal to the narrative setting. This space allows the player agents' explorational experiences in the virtual world as an author, actor, and spectator at the same time. In *Hamlet on the Holodeck,* interactive narrative's spatiality is described as "the navigational space of the computer which also makes it particularly suitable for journey stories, which are related to mazes but offer additional opportunities for exercising agency" (Murray 131). More specifically, the players have abilities to manipulate the fictional and virtual world. These manipulations (identical to interventions or interactions) to the virtual world can be facilitated by the player agent, or "avatar."

Moreover, in the role-playing game genre, this interactive narrative's uniqueness is strengthened greatly. This genre commonly possesses fantasy storylines and virtually rendered spaces in the well-built fictional worldviews which are the most adequate for addressing interactive narrative. Thus, the avatars in role-playing games enable engagements in and with the world of interactive narrative. The backdrop stories in role-playing games, based on a linear time sequence (like traditional narratives), allow

players' immersive participation. This immersion into role-playing games is like the feeling we get when reading imaginative fictions. In addition, exploring role-playing games' digital virtual spaces gives us the opportunity to interact and to intervene in the outcomes of game events. Eventually, through this interaction with virtual spaces, the player agents can become authors who can write, make, and convey their own stories, readers who enjoy the backdrop and their own stories, and actors and spectators in their own settings. Uniquely, this process is facilitated by the fictional visualized virtual worlds made by the highly developed computer graphics technology (Mateas and Stern 644).

In most open-world games, players can explore the virtual world freely and choose the order of events rather than being confined to the linear structure of the traditional narrative (Gabbiadini et al. 2462). The freely selectable order of events is one of the remarkable features of interactive narrative. Other than the order of events, players' deep exploration of the spatiality, players' free moves in realistic virtual worlds, and imaginative background stories for players' immersion and literary experience are indispensable conditions to convey interactive narrative. Many open-world games fulfill these essential conditions, but open-world single role-playing games are the most suitable genre.

Two famous open-world games, the *Grand Theft Auto* series (an open-world action adventure game) and *World of Warcraft* (a massively multiplayer online role-playing game), show why the open-world single role-playing game genre is the most

appropriate for this thesis. Firstly, *Grand Theft Auto* is different from fantasy role-playing game genre inspired by the world myths or fantasy literary works (e.g., J.R.R. Tolkien's *The Lord of the Rings*) as Martin suggests in "The Pastoral and the Sublime in *The Elder Scrolls IV: Oblivion*" (Martin n.p.), which enforces players' literary (epic, mythic, heroic, and folkloric) experiences. *Grand Theft Auto*'s background story is based on fictional contemporary cities as modernist constructions. These modern settings allow players to have modern dystopian experiences, "emphasizing the modernist themes" (Ruch 345), not epic, mythic, heroic, and folkloric elements.

World of Warcraft is the most successful MMORPG game (Massively Multiplayer Online Role-playing Game). This game uses the open-world gaming style and has various epic, mythic, heroic, and folkloric fantasy elements. However, because this game's interactive narrative commonly focuses on interactions with other playable characters more than the interactions with the virtual space, I would argue the single-player open-world role-playing game genre is the most appropriate in which to begin our consideration of how interactive narrative works in digital games. In this thesis, then, I explore the beautifully rendered virtual world of *The Elder Scrolls V: Skyrim.*

The Elder Scrolls V: Skyrim has an outstanding storyline which is filled with mythic (mainly Norse mythology), epic, folkloric, and massive literary elements. The magnificent story begins with a sudden invasion of Skyrim by Alduin the World-Eater. The ultimate goal of the game is to defeat the prime evil, Alduin, and bring peace to Skyrim, which is similar to heroic poetry. The storyline is elaborated by its distinct

mythic and folkloric elements. There are Nine Divines as good gods, who pursue righteousness, mortality, love, justice, mercy, and honor. The Daedric Princes are seventeen evil deities who govern the Oblivion regions like hellish regions. They compel all kinds of evil deeds in the protagonist, Dragonborn. These kinds of deities' good or evil demands strengthen the literary storytelling elements and allow players free choices between good and evil. In addition, the incredible size of the world and its diverse interactive elements and activities (such as building a house, fishing, marriage, cooking, swimming, et cetera) fulfill the condition of interactive narrative which allows various interactions with the virtual space. Thus, players' selections among a number of choices and unconstrained actions in the exceptional spatial setting become the elaborate composing of their own stories and timelines. In addition, players can interactively participate in some virtual historical events, such as the Civil War between *Stormcloaks* and *Imperial Legion* and the assassination of the emperor. In conclusion, because of these literary elements, *The Elder Scrolls V: Skyrim* with its vividly visualized virtual space will be the best option to explore digital games' interactive narrative, which allows players to interact with the space to make their own unique story as authors, actors, and spectators.

Through the current revolution of digital narrative, the development of realistic 3D computer graphics, and virtual reality technology, the avatar in interactive narrative faces a marvelous change. According to Steven E. Jones' *The Emergence of the Digital Humanities,* people face the advent of *eversion*, which means blending of the virtual

reality and reality and a blurring of the borderline between them, as if they are one. Eversion means that the digital cyberspace subverts both physical and digital dimensions and cyberspace's colonization of the physical reality (18). Through eversion, the avatar of an interactive narrative inevitably turns virtual narrative space and reality inside out (and outside in) the virtual narrative space and real. For example, the epic single-player role-playing game, *The Elder Scrolls V: Skyrim*, is made up of the beautifully and realistically illustrated virtual world, and surprisingly, this virtual world map's usage methods and "look, data, and topography" are very similar to Google Map (Jones 110). Jones also defines the key aspect of eversion of the cyberspace turning inside out and outside in as "fundamental duality" that means "a bodily awareness of physical reality combined with mental and sensory experience of an imagined world" (111). With advances in technology, eversion will allow us to transfer our bodies directly to the avatar in digital games. This means our bodies permeate the virtual reality; thus, the avatar will no longer be needed. This is already beginning, as the "bodily awareness of physical reality" is directly altered to virtual actions by using Virtual Reality (VR) and Augmented Reality (AR) devices, not through the specific in-game player agents (Jones 137). Thus, rather than relying on the avatar's interactive actions, the virtual worlds are everted 'digital (virtual) to physical (real)' and 'physical (real) to digital (virtual)' at the same time (Jones 35).

Direct actions from players' actual bodies become direct responses of digital elements of the virtual space and direct interactions with the virtual spaces without the

avatar will be increasingly possible by embracing highly developed virtual reality technologies such as Virtual Reality (VR) and Augment Reality (AR) devices.

These future developments in narrativity through eversion are near. I would argue that interactive narrative's transformation in the age of eversion is *everted narrative*. Through this new form of narrative, players can directly participate in digital games' interactive narrative and convey their unique mode of storytelling.

In this thesis, I seek to answer the following questions:

1. Who are ludologists and narratologists? According to their debates, do digital games can convey narrative or not? Which of their research methods can be applicable to explore digital games' narrativity?
2. Digital games' narrative is called interactive narrative. What is the crucial difference between traditional narrative and interactive narrative?
    a. How do interactivity and narrativity coexist in interactive narrative?
    b. Can non-linear story structures convey narrative?
3. Why is the role-playing game's "literariness" important in interactive narrative?
    a. Why is *Skyrim* the most suitable for exploring interactive narrative?
    b. What is Neo-Aristotelian and deictic shift theories? How can these theories can reinforce the digital games' narrativity?
    c. What are the definitions of narrator, prayer agents, and setting (space) and how they function in interactive narrative?

d. Which game genre is the most suitable to explain interactive narrative?

4. What is eversion? How will interactive narrative transform to everted narrative?

a. What changes can we expect in the age of eversion and everted narrative?

All chapters of this thesis are composed to answer those above questions.

In Chapter 1, I sought to provide an introduction, exploring various scholarly views on digital games' narrativity. I provided, briefly, information about ludologists' negative opinion that digital games are not narrative, narratologists' view of digital games as an innovative narrative medium, and interactive narrative. Also, I concisely introduced two rhetorical approaches, neo-Aristotelian and deictic shift theories, and eversion.

Chapter 2 mainly explores the debates between ludologists and narratologists and their different methodologies to study digital games' narrative. Also, I propose a terminological definition of digital games.

In Chapter 3, I examine the symbiotic relationship between interactivity and narrativity in digital games, and cognitive meaning-effect theory to fill out narrative gaps in interactive narrative. I propose interactive narrative's non-linear story structure, and avatar as a narrator, to prove digital games as narrative.

Chapter 4 suggests role-playing games as the most suitable genre for interactive narrative through the analysis of neo-Aristotelian theory, deictic shift theory, and avatar

as narrator, and space, in one of the famous single role-playing games, *The Elder Scrolls V: Skyrim*. Furthermore, I suggest digital games' eversion according to the present digital development and everted narrative as a digitally evolved form of interactive narrative by examining *Skyrim'*s VR version.

In Chapter 5, my conclusion, I consider what may happen next, as technologies, and these theories, continue to evolve. I expect the advent of the age of eversion and the everted narrative will become a powerful future narrative form. I suggest various games such as *Pokémon GO* and *The Elder Scrolls V: Skyrim* VR version will become models of the everted narrative, and our life itself can be regarded as narrative with everted narrative.

As I mentioned above, the invention of digital games and their interactive narrative comes from the "storytelling instinct." In the near future, in the pinnacle of the technology revolution, I am convinced that people will enjoy everted narrative as a dominant form of interactive narrative through becoming authors, actors, and spectators in the freely modifiable virtual settings to convey their stories.

CHAPTER II

DEFINITIONS AND DISCUSSIONS ON DIGITAL GAMES

What Are Digital Games?

Before beginning a journey to the world of digital games' narrativity, it is essential to define what digital games are in a terminological sense. There are many common terms defining games, such as "digital games," "computer games," "video games," "mobile games," and "electronic games." Except for digital games, other terms are generally distinguished by their software and hardware platforms; for instance, the term electronic games is mainly used for board games with "electronic circuity, some slot machines, and electronic toys" (Sageng et al. 4). Likewise, mobile games are designed for playing on smartphones, tablets, or other mobile devices having mobile operating systems, such as Android and iOS ("Mobile Games" n.p.).

Some specific terms, however, like "computer games" and "video games" contain the features of their platforms and broad terminological uniqueness. For example, computer games mainly indicate games that are playable on a personal computer. This type of game is hardly played on other platforms, such as video gaming consoles, tablets, and smartphones (Lowood). At the same time, though, just as the general term "computer," computer games can be defined as games played with "the primary aid of computing power" (Sageng et al. 4).

Much like computer games, the term video games has two different meanings at the same time. The common understanding is that games are played on some video gaming console platforms, such as Xbox, PlayStation, and Nintendo Wii (Sageng et al. 4).[4] Another meaning is that the term video games connotes all game types on all the varied platforms made of moving pictures including "pre-digital games like Tennis for Two (1958) and analog arcade games of the 1960s and 1970s" (Freyermuth 12) and "games played on personal computers and handheld devices as well" (Sageng et al. 4). More broadly, in Videogames of The Oppressed: Videogames as a Means for Critical Thinking and Debate by Frasca, video games are defined as "any forms of computer-based entertainment software, either textual or image-base" (4).

The characteristics of the term digital games are more distinctive than that of computer and video games. Digital games are not bound by particular platforms as mobile and electronic games are. Also, this term shares the terminological feature with "video" and "computer" games. Digital games represent the entirety of digital mediums, which have historically developed through the revolution of digital technology. More obviously, digital games mean "the games with a basis in digital technology" (Freyermuth 12). Ultimately, in order to discuss and prove the narrativity of games

[4] The most recent and popular video gaming consoles of those platforms in 2019 are Xbox One X by Microsoft, PlayStation 4 Pro by Sony, and Nintendo Switch by Nintendo. PlayStation 4 Pro and Xbox One X provide realistic "visual enhancement to games" by adopting highly developed GPU (Graphics Processor Unit) technologies, including 4K resolutions (3840x2160 pixels as doubled as 1920x1080 (Full High Definition) resolutions) and HDR (High Dynamic Range). Also, as a successor of Nintendo Wii, Nintendo Switch provides the most advanced Augmented Reality gaming experience by its unique controllers even though this console doesn't have powerful GPU (Felicia n.p.).

made by “digitally developed” computer graphic visualization and technology using hardware and software not bound by certain platforms, “digital games” is the most appropriate term for this thesis.

But somewhat inevitably, some scholars do not agree with that digital games have the representativity of most games. Sageng, Fossheim, and Larsen argue that “digital games exclude analog computing games like *Tennis for Two”* (4); thus, both video and computer games would be more suitable to discuss the features of modern games than digital games. They suggest the term “computer games” as the best word to determine the representativity of modern games, because it emphasizes the trait of computer games as “games played with ‘the primary aid of computing power’” (Sageng et al. 4). Additionally, they say, for academic purposes, “‘computer game’ is more adequate, since it more accurately indicates the range of phenomena at issue, by highlighting a feature basic to the explanation of the characteristics to be considered” (Sageng et al. 4). Also, in *Videogames of The Oppressed: Videogames as a Means for Critical Thinking and Debate,* Gonzalo Frasca supports Sageng, Fossheim, and Larsen’s thoughts about the term computer games, stating that computer games “use any electronic platform such as personal computers or consoles and involve one or multiple players in a physical or networked environment” (4).

At a glance, like Sageng, Fossheim, Larsen, and Frasca’s arguments, computer or video games would seem to be the more adequate terms for the academic approach for

modern games because of its broadness. But again, in spite of computer and video games' meaningful wideness and representativeness for all games, including analog computing games through modern games, due to the fact that my thesis is mainly focused on discussing and proving digital games' narrativity; having realistic virtual worlds faciliated by digitally developed visual technology as if settings in literary dramas, this thesis will stick to use the term, "digital games" not containing analog computing games like *Tennis for Two* (1958) and *Pong* (1972), instead of "video, computer," or other terms.

A Brief History of "Game Studies"

Figuring out a scholarly definition of "what digital games are" is more complicated than the obvious terminological process of determining the representative term, digital games. This is due to the complexities of the academic environment surrounding the study of a new field, *game studies*, which has less than two decades' history. Even though digital games have had continuous commercial success, and growing public interest since the early 1980s, "The Golden Age of Arcade Games,"[5] before the 2000s, the number of academic articles concerning digital games had not been abundant. This "scarcity of scholars" was caused by the academic tendency

[5] In the early 1980s, the period "from the appearance of *Space Invaders* in 1978 to The Great Video Game Crash of 1983" is called "The Golden Age of Video Games." In that time, "coin-operated" 8-bit arcade games appeared, and the home video gaming console system, *Atari 2600*, and its competitors began to make serial commercial successes ("Useful Notes / The Golden Age of Video Games" n.p.).

towards not taking the digital games seriously “as a cultural object worthy of attention” (Wolf and Perron 1).

Newman argues that the scholarly depreciation of digital games, which considers digital games as “a children’s medium or mere trifles,” has hindered the quantitative growth of academic research (qtd.in Bryce and Rutter 1). In spite of the hardships stemming from the short history and academic depreciations of studying digital games in the 1990s, in the early 2000s, scholarly attention towards digital games has greatly increased along with “developments in new areas of technological innovation that have game relevance such as digital television and mobile telecommunications” (Bryce and Rutter 3). With these technological developments, the number of scholarly journals and articles markedly increased from 2003 to 2004 (Bryce and Rutter 3).

This remarkable growth had been promoted by the crucial declaration of game studies as a new academic area in 2001. According to “Need for Perspective: Introducing the Special Issue ’Reflecting and Evaluating Game Studies’,” game studies was first coined in 2001 by a ludologist, Espen Aarseth, and after that, it gradually expanded by establishing institutions and journals, such as *Game Studies* in 2001, Digital Games Research Association (DiGRA) in 2003, and *Game and Culture* in 2006 (Mäyrä and Sotamma 495).

Likewise, the year 2001 is the most crucial moment for the field of game studies. Before the declaration of game studies, when the study of digital games had still gently attracted academia’s interests, and when there wasn’t still a specific title for the study

of digital games in academia, Espen Aarseth titled the field, "computer game studies." In his article, "Computer Game Studies, Year One," he says, "2001 can be seen as the Year One of Computer Game Studies as an emerging, viable, international, academic field" (Aarseth n.p.). After that, scholarly discussions "on the nature of video games" heated up (Wolf and Perron 12).

"The Great Debates:" Narratologists Versus Ludologists[6]

According to "Build It to Understand It: Ludology Meets Narratology in Game Desgin Space" by Mateas and Stern, the main goals of the newly emerging field of game studies are understanding the forms and structures of digital games, and answering the following questions: "what are the features of games, how are these features organized, in what ways do they combine to create different types of games" (Mateas and Stern n.p.). Many scholars have been trying to answer these questions by using various rhetorical approaches, including ludology, narratology, technology, economy, learning, and gender (Konzack 122). Among these approaches, especially with regard to the question of digital games' narrativity, narratology and ludology camps are engaged in a heated controversy focused on "whether or not games are a form of storytelling and they can be studied as narratives" (Miller 273). Both camps are striving to find answers to how digital games work as narrative and how digital games work as play and games

[6] I borrow this subheading title, "The Great Debates," which is from *Chapter 13, Video Games* of *Video Games* of *Digital Storytelling: A Creator's Guide to Interactive Entertainment* by Carolyn Handler Miller (273).

by using each rhetorical (narratological and ludological) method to answer the questions and to analyze digital games' forms and structures (Mateas and Stern n.p.).

Narratologists support the idea that digital games are a form of storytelling and believe narrativity in digital games is certainly possible. They also trying to understand how digital games convey "narrative and "the story-like aspect" of text in digital games" by adopting "traditional literary criticism" (Henton 67). Furthermore, narratologists share two perspectives on "new media" and "storytelling" in digital games.

Firstly, in a large category, they consider that digital games as one of the innovative new medias, having identical features with following elements of new media, different from traditional media:

Traditional Media: 1. The effect of technology are socially determeined
2. active audience 3.interpretation 4. spectatorship
5.representation 6. centralized media 7.consumer 8. work.

New Media: 1. The nature of society is technologically determined,
2. interactive users 3. experience 4. immersion 5 simulation,
6. Ubiquitous media 7. Participant/co-creator 8. play.
(Dovey and Kennedy 3)

For example, in the category of representation and simulation, digital games offers simulation, made by "dynamic rule-based systems made up from millions of lines of computer code which create worlds that audiences clearly find compelling and immersive" (Dovey and Kennedy 12), rather than *mimetic* representation through

traditional media as if "the Renaissance and the nineteenth-century novel" (Dovey and Kennedy 11).

Some scholars positively evaluate digital games' innovative roles as new media. In *The Meaning of Video Games: Gaming and Textual Strategies*, Steven E. Jones says, "pervasive and significant form of expression in today's culture… worthy of scholarly attention" (Jones 1), and in *Hamlet on the Holodeck*, Murray maintains that digital games hold "the potential for more powerful moments of revelation than they currently make us of" (61) and "the technical and economic cultivation of this fertile new medium of communication has led to several new varieties of narrative entertainment" (34).

Secondly, narratologists believe the fact that "storytelling is a basic human need;" as Dan Schwarz argues, "humans are defined in part by an urge for narratives that give shape and form to their experience" (qtd. in Miller 4). Thus, narratologists regard digital games as a successor of traditional printed storytelling methods, invented in order to convey important information and experience from generations to generations, and based on human nature (Miller 3). This is to say, according to Dominic Arsenault, narratologists see digital games as a new mode of storytelling "to express and respond to the 'desire for fiction' that inhabits humanity," having narrative potential to be developed, and narratologists mainly adopt literary and filmic analytical tools to study digital games' interactive narrative (5). Based on the above premises that "digital games as an innovative new media" and "digital games [are] an invention [that] fulfill[s] [a] human need for conveying stories from generations to generations," many

narratologists have been making efforts to demonstrate digital games' narrativity both theoretically and rhetorically. In "Simulation versus Narrative: Introduction to Ludology" by Frasca in *The Video Game Theory Reader*, he introduces Brenda Laurel's *Computer as Theater* theory and her efforts to prove "interactive stories' feasibility" (Frasca 229). Furthermore, in Montfort's introduction of Laurel's "Two Selections by Brenda Laurel: The Six Elements and the Causal Relations Among Them and *Star Raiders:* Dramatic Interaction in a Small World" in *The New Media Reader*, he explains that Laurel suggests Aristotelian drama theory, *Poetics*, as an essential text to demonstrate "interactive fantasy systems" as a prototype of interactive narrative and to study the dramatic model of human-computer interaction (563).[7] Also, according to Montfort's quotation of *Comupter as Theater* by Laurel, she indirectly proposes the idea that digital games are a new form of drama, and suggests that only narratologists in humanities can interpret this new form:

> Technologies offer new opportunities for creative, interactive experiences, and in particular, for new forms of drama. But these new opportunities will come to pass only if control of the technology is taken away from the technologist and given to those who understand human beings, human interaction, communication, pleasure and pain. (Laurel xi qtd. in Montfort 563)

[7] In her book, *Utopian Entrepreneur,* Laurel evaluates interactive narrative's potentiality, saying that interactive storytelling is "a hypothetical beast in the mythology of computing, an elusive unicorn we can imagine but have yet to capture" (72).

In Frasca's thesis, *Videogames of the Oppressed: Videogames as a Means for Critical Thinking and Debate*, Janet Murray, a popular narratologist, is introduced. According to Frasca, Murray suggests that digital games are a "new medium" for "the old practice of storytelling" (Frasca 18). In her book, *Hamlet on the Holodeck*, Murray borrows the concept of the *Holodeck*, the fictional holographic virtual entertainment system from the TV series *Star Trek*, which allows players to enter virtual story worlds including *Jane Eyre*'s London streets and "the tribal manor house of the Old English *Beowulf* saga" in order to "participate in stories that change around them in response their actions" (Murray 17). Moreover, according *Hamlet on the Holodeck*, the holodeck's cyberspaces are equal to digital games' virtual spaces, where players' avatars can elaborate on their own storytelling. Also, she suggests *Cyberdrama* as the next level of the holodeck; this term refers to the digital reinvention of traditional storytelling forms and "encompasses many different formats and styles like the novel or the movie" in digital games (Murray 334). Likewise, narratologists are convinced that digital games are storytelling mediums and will develop as futuristic literary forms, just as Barry Atkins insists, "It would not take too much of a leap of the imagination to see the computer game develop into something like a new form of soap opera or action movie. one day, perhaps, the computer game will even produce its *À la recherche du temps perdu* (*In Search of Lost Time)* or *Ulysses*, its *Casablanca* or its *Citizen Kane*" (24).

In opposition to narratology, there is ludology.[8] Etymologically, ludology is originated from a Latin word, *Ludus*, which means for "game" ("Ludology in Game Studies" n.p.). More comprehensively, according to *The Meaning of Video Games: Gaming and Textual Strategies* by Jones, the term includes the meanings of "playing," "rules," and "constraints" as well (3). In *Videogames of the Oppressed: Videogames as a Means for Critical Thinking and Debate*, Frasca explains Ludologists as, they object to the view of digital games as narrative, and they fundamentally follow Espen Aarseth's *Ergodic Literature* instead of interactive narrative (Frasca 20). *Ergodic* means that "nontrivial effort is required to allow the reader to traverse the text" and is originated from Greek words *ergon* as "work" and *hodos* as "path" (Aarseth 1). The text means *cybertext*, as a part of ergodic literature, which is not limited by "computer-driven (or electronic) textuality" (1).

The cybertext of Ergodic literature includes non-linear traditional texts, which are not the same as linear-traditional storytelling methods, such as *Night of January 16th* by Ayn Rand (1936), S. Johnson's *The Unfortunates* (1969), Milorad Pavic's *Landscape Painted with Tea* (1990), hypertexts, digital games, and et cetera. In addition, according to Frasca's *Videogames of the Oppressed: Videogames as a Means for Critical Thinking and Debate,* Aarseth also argues that cybertext consists of non-linear active

[8] In particular, even if Aarseth initially built ludologists' idea, he never mentioned the term, "ludology." After publishing Aarseth's book, *Cybertext: Perspectives on Ergodic Literature,* Frasca coined and introduced this term in 1999 in "Ludology Meets Narratology: Similitude and Differences Between (Video) Games and Narrative" (Frasca n.p.).

participation like “clicking or typing” by users rather than traditional actions like “turning pages” by readers, “which does not modify the shape of the text itself” (Frasca 20). Eventually, because of the non-linearity of cybertext, digital games are not seen as a traditional narrative medium, which has linear storytelling structures. To sum up, digital games as cybertext are ergodic literature not narrative.

Furthermore, according to Frasca’s “Ludology Meets Narratology,” ludologists “focus on game mechanics” and “reject any room in the field for analyzing games as narrative” (Frasca n.p.). For ludologists, story and digital games are like water and oil. Costikyan’s article explains this negative aspect to digital games narrativity as follows:

> Story is the antithesis of game. The best way to tell a story is in linear form. The best way to create a game is to provide a structure within which the player has freedom of action. Creating a "storytelling game" (or a story with game elements) is attempting to square the circle, trying to invent a synthesis between the antithesis of game and story. (Costikyan n.p.)

Ludologists think, because of the impossibility of the coexistence of interactivity and story, that digital games’ narrativity cannot be tangible. Even though Arsenault’s inclination is close to narratologists, in his *Narration in the Video Game,* this aspect of the impossibility of digital games’ narrativity is well-summarized. According to him, digital games are “not essentially narrative, because they are essentially interactive…

but many do not try to communicate stories" and, in fact, "digital games do not possess the necessary tools to put forth a narration by itself" (6).

Ludology's Academic Independency and Narratological Interdisciplinarity

Ludologists' important attribute is their efforts to keep academic independency. Aarseth regards applying traditional theoretical approaches to digital games as existing fields' attempts to colonize game studies. In "Computer Game Studies, Year one," Aarseth says that the making of a "new field usually means reducing the resources of the existing ones, and the existing fields will also often respond by trying to contain the new area as a subfield" (Aarseth n.p.). He therefore argues that these evil efforts from traditional disciplines constitutes academic colonialism meant to conquer game studies, which will not stop until they fulfill their desire to make game studies a subordinate; thus, for studying digital games independently, it is essential to build game studies as "clearly self-sustained academic field" (Aarseth n.p.).

In the same article, Aarseth also argues that digital games cannot be explainable by already existing theoretical structures, and that their fundamental aspects and meanings can only be explainable through game studies, and not by other disciplines. This is partly because digital games are a playable medium, which is not identical to readable texts and listenable music, and partly because of unpredictable results in digital games due to players' "creative involvements," which is made of "players' luck, skill, and creativity" (Aarseth n.p.).

In contrast to Aarseth's argument of independency of game studies,[9] many scholars, including Mäyrä, insist that a successful understanding of digital games depends on intertwined and connected studies of various academic fields. Recently, a number of researches, journals, and articles based in diverse fields, such as education, humanities, computer science, psychology, narratology, and other disciplines, have been conducted and written in the interdisciplinary ways (Martin n.p.).

According Martin's "The Intellectual Structure of Game Research," Mäyrä insists interdisciplinarity should be adopted as "a fundamental necessity" for understanding digital games, especially in order to successfully carry out "the cultural analysis of games" (qtd. in Martin n.p.). Like Mäyrä, many scholars in the various academic fields want to take advantage of interdisciplinary studies of digital games according to their interests. They regard the interdisciplinary mixture of game studies as a tool which allows exploring the vague and vast world of digital games. For instance, the author of *The Emergence of the Digital Humanities*, Steven E. Jones, adopts an interdisciplinary approach in his another book, *The Meaning of Video Games*, in order to contribute "to the study of video games by point of view of textual studies" and "to enrich textual

[9] Aarseth and Mäyrä don't directly mention these terms, "the independency of game studies" and "fundamental interdisciplinarity." Nonetheless, in contexts of Aarseth's "Computer Game Studies, Year one" and Martin's quotation of Mäyrä in "The Intellectual Structure of Game Research," each of them "emphasizes the necessity for independent studies from other existing disciplines" and for various academic fields' interdisciplinary studies (Aarseth n.p.; qtd. in Martin n.p.). Hence, I devise this term, "the independency of game studies" and "fundamental interdisciplinarity" in order to provide terminological simplicity, and I will use these terms for the thesis.

studies with an exploration of the nature of" digital games. For him, the interdisciplinary digital studies are not only "in approach but in spirit, a double, diplomatic effort" (1).

However, some scholars have doubts about Mäyrä's fundamental interdisciplinarity. In the early part of "The Intellectual Structure of Game Research," Martin rejects Mäyrä's thought and argues that "interdisciplinarity is hardly achieved by a number of scholars having different thoughts and interests" (Martin). This is to say, many scholars' complicated and uncountable interests in the interdisciplinary studies on digital games hinder precise understandings in terms of academic characteristics of digital games, and, instead, they alienate digital games from themselves by their interests.

In *Rules of Play: Game Design Fundamentals,* Sutton (much like Martin) explains in detail about the various interests of scholars weighing down on game studies. He says, "each person defines games in his own way-the anthropologists and folklorists in terms of historical origins; the military men, businessmen, and educators in terms of usages; the social scientists in terms of psychological and social functions" (qtd. in Salen and Zimmerman 1). According to Sutton, many academic disciplines' scholars project their desires to force or excavate specific meanings and functions being fitted to their aims from digital games instead of approaching game studies as the "self-sustained newly appeared field" as the same as Aarseth argues in "Computer Game Studies, Year One" (qtd. In Salen and Zimmerman 1; Aarseth n.p.).

As mentioned above, there are many doubts about these interdisciplinary studies. Hence, at first glance, in order to explore the forms and structures of digital games and to examine digital games as storytelling methods by treating them as "a unique object" having "disciplinary purity" (Jones 4), it seems more appropriate that this thesis' argument should be on the basis of Aarseth's independency than choosing Mäyrä's fundamental interdisciplinarity, even though I personally consider both Aarseth's independency of game studies and Mäyrä's interdisciplinarity reasonable. Despite this, because ludologists reject digital games as narrative and refuse other disciplines' interventions to game studies, there is a paradoxical problem with applying Aarseth's academic independency only to explore and understand digital games' narratological aspects. Furthermore, conducting game studies by adopting narratology is definitely an interdisciplinary studying method; for example, to prove digital games narrativity, narratologists already adopt various fields' studies, such as film, literature criticism, philosophy, rhetoric, et cetera.

Therefore, game studies should embrace and be carried out in narratological and interdisciplinary ways. This narratological interdisciplinarity can include ludologists' views in order to make a converged universe of game studies and to shed light on complicated understandings of digital mediums, although Aarseth refuses other disciplines' interventions in game studies, criticizes narratological approaches to digital games, and accuses narratologists of "imperialism," "academic colonialism," and "story fetishism" (qtd. in Simons n.p.). For instance, to understand digitalized non-linear texts

and their narrativity, Aarseth's ergodic literature theory and his analyzation of players' roles in cybertext can be adopted by narratologists.[10]

An Eclectic Choice: To Begin a Journey Toward Digital Games Narrativity

Understanding "what digital games are" is very complicated and can be tremendous hardships for scholars, and game studies is surrounded by new media, new technology, new rhetoric, new theories, and other new things. Moreover, unlike the simple analog computer games, such as *Tennis for Two* or *Pong,* which require only low computing technology, modern digital games are the complicated outcomes of "technological complexity to allow for the convergence of immersion, to determine digital games' narrativity and non-narrativity, visuals, sound design, gameplay design, and storytelling" (Green 5) and a "contemporary avant-garde of a hybrid sub-category of multimodal cultural artifacts" (Coppock 263).

Thus, before pushing the start button to begin a journey towards digital games' narrativity and interactive narrative, and in order to navigate the complicated and vast virtual world, it is required to do selective applications of advantages of Aarseth's independency, having the view of narratological interdisciplinary studies in priority, as Mäyrä says:

[10] Ironically, in his book *Cybertext: Perspectives on Ergodic Literature*, Aarseth's point of view toward cybertext, which means not only "computer-driven textuality" but also "the mechanical organization of text" by "positing the intricacies of the medium as an integral part of the literary exchange" (1), can help narratologists' approaches to prove digital games as narrative. For example, much like meanings of interactive narrative's players and virtual worlds, Aarseth argues that "cybertext reader is a player, a gambler; the cybertext is a game-world or world-game; it is possible to explore, get lost, and discover secret paths in these texts…" (4).

Game studies can successfully be carried out within a highly competitive research environment. It is also possible to successfully make contributions to fundamental conceptual and theoretical discussions of games studies while engaged in various interdisciplinary and collaborative efforts (Mäyrä 327-328).

CHAPTER III

INTERACTIVE NARRATIVE: A JOURNEY TO PROVE THE POSSIBILITY OF DIGITAL GAMES' NARRATIVITY

What is "Interactive Narrative?:" The Relationship Between Interactivity and Narrativity in Digital games

Setting aside "the great debate" between ludologists and narratologists, in the middle of narratologists' camp, there is a small debate on whether all digital games have narrative, or whether only certain genres of digital games have narrative. In particular, on the basis of Flanagoan's concept that "liken[s] all human meaning making to a form of narration" (qtd. in Arjoranta 698), some radical narratologists argue that all games, including even simple arcade and abstract games, can have narrative. One of the radical narratologists, Murray insists that *Space Invaders* (1978) is "a narrative about aliens" and *Tetris* (1984) is "a portrayal of the overtasked lives of Americans in the 1990s" (qtd. in Arjoranta 698). However, her radical view that all games have narrative is frequently refuted. Arjoranta points out that neither does Murray's positive attitude toward all digital games having narrative seem to be "self-evident," nor does her point of view fit to traditional meaning of narrative as "the representation of a story (an event or series of events)" and "one or more real or fictive events communicated by one, two, or several narrators to one, two, or several narratees" (Abbott 237; Prince 58). Thus,

Eskelinen argues abstract games, which present simple visual or digital elements like a calculator, do not have narrative (Eskelinen n.p.).

If this is true, which kind(s) of digital games can have and convey narrative? Should we exclude abstract digital games to study digital games' narrative? Ironically, we can find a clue to answer the questions in Aarseth argument. In "A Narrative Theory of Games," Aarseth suggests a *ludonarrative* model of digital games to explore which kind of games can have narrativity, what narrative structure they can have, and how they convey narrative (Aarseth n.p.). In the same article, he regards this ludonarrative model as a combination of gameplay elements, such as "world, objects, agents, and events," and narrative elements as "linear story, nonlinear story, linear game, quest game, and pure game" (Aarseth n.p.). Through his effort to build the model, it becomes demonstrable that some digital games can have narrative structures by "combining narrative contents with gameplay" (Aarseth n.p.). This is to say, by players' interactions with gameplay elements, narrative levels of digital games, "linear story, nonlinear story, linear game, quest game, and pure game," are decided. In this respect, we can assume that digital games have interactive and narrative elements at the same time and can convey narrative through the combination of those elements. This narrative method that conveys storytelling through the combination of interactivity and narrativity of digital games could be called, interactive narrative.

However, partly because Aarseth's research in "A Narrative Theory of Games" is not created to support the fact that all games have narrative, and partly because the

research is “aimed to show that there is much to gain from a rigorous application of narratology to game studies,” he does not concentrate on proving narrativity of some abstract digital games and “pure games,” like *Tetris* and *Minecraft,* having intensive interactive gameplay elements, such as “open land space, inventable objects, no individual identity agents, and no kernels of events” (Aarseth n.p.). Even more, he excludes “pure games” and abstract digital games from narrative. Thus, for him, the approaches to prove such games’ narrativity, possessing interactive elements only, will be very likely to be futile efforts (Aarseth n.p.).

Unlike Aarseth’s ludonarrative, interactive narrative can contain both abstract games and pure games as narrative because the most crucial point of interactive narrative is delivering narrative through players’ interactions with every digital game’s playable elements. Moreover, Aarseth overlooks consecutive cognitive actions by players’ intentions and players’ ability that can manipulate the order of events. This is to say, players’ manipulation and re-organization of the order of events can compose “chronological time structure” (Abbott 16). Therefore, I would argue, all digital games through interactive narrative, including abstract digital games and pure games, can convey their storytelling through players’ interactions with digital games’ playable elements. Finally, interactive narrative, like its name, is a combination of digital games’ playable interactive and narrative elements in digital games, and the degree of interactive narrative depends on the players’ interactions with games are facilitated by players’ intentions and actions.

Furthermore, the combination of interactivity and narrativity of digital games can have a broader meaning than Thabet's argument that digital games as performative narrative (51). In particular, in Thabet's *Video Game Narrative and Criticism: Playing the story*, Thabet argues that digital games are performed narrative, and the same as plays, films, and operas (24). He considers digital games as *game fictions* which "belongs to performed narratives for two reasons: the performance involved in the storytelling and the substance of which game fiction is made" (40). Moreover, Thabet states that "we admit the character as a physical form with a set of psychological characteristics and as someone who performs a series of actions" (51). At first glance, Thabet's argument seems very reasonable because, as he claims, "the player is a performer in the story" (23); a player's performance seems like a protagonist's performance in a drama to deliver its storytelling. Despite this, understanding digital games' narrative through performative narrative is not enough to explore the combination of interactivity and narrativity.

In digital games, players can be characters as player agents, actors, or spectators based on their cognitive and intentional choices and reasons for their actions; thus, they are not only performers but also interactors and narrators. This is to say, Thabet's performative narrative is not sufficient for explaining the intensive interactivity of abstract digital and pure games that do not have narrative elements or literary settings. Furthermore, performative narrative cannot describe the combination of interactive and narrative elements of digital games because of the terminological limitation that does

not contain interactivity. Thus, interactive narrative should be the most suitable and justifiable approach to prove digital games as narrative. In conclusion, to prove interactive narrative as digital games' storytelling method, deeper understandings in terms of the relationship between interactivity and narrativity and their coexistence are needed.

Interactive Paradox

How do the two different parts, interactivity and narrativity equally coexist at the same time in the non-linear texts of digital games? More specifically, how do they become a narrative mixture to convey a story? Ludologists think digital games' interactivity and narrativity cannot coexist. In "Games Telling Stories?," ludologist Jesper Juul argues that, even though digital games have some narrative elements, such as video clips that players must watch as they already exist,[11] story time,[12] narrative time,[13] and players' reading and viewing time, if players interact with or intervene in the games during they are playing, all these linear-based narrative elements of digital games are shattered. Thus, he says, "it is impossible to influence something that has already happened. This means that you cannot have interactivity and narration at the same time" (Juul n.p.). In Marie-Laure Ryan's "From Narrative Games to Playable Stories: Toward a Poetics of Interactive Narrative," the impossibility of the coexistence of

[11] Watching video clip: cut scenes.
[12] Story time: "the sequence of events and the length of time that passes in the story" ("Time Analysis" n.p.).
[13] Narrative time: "covers the length of time that is taken up by the telling (or reading) of the story and the sequence of events as they are presented in discourse" ("Time Analysis" n.p.).

interactivity and narrativity is named as the "*interactive paradox* in interactive narrative" (Ryan 45). In this article, Ryan introduces Aylett and Louchart's clear definition of the interactive paradox as follows: "the author seeks control over the direction of a narrative in order to give it a satisfactory structure. On the other hand, a participating user demands the autonomy to act and react without explicit authorial constraint" (qtd. in Ryan 45). In other words, the interactive paradox may occur when players take action that interrupts "a sequence of events" which is designed by the author and an essential condition for digital games' narrative. Eventually, interactive paradox is an outcome of an equivalent collision of two different concepts, authors' "narrativity" and players' "interactivity," where each means "a type of meaning" and "a type of play" (Ryan 45).

To solve the interactive paradox, prove the co-existence of interactivity and narrativity in interactive narrative, and finally, demonstrate digital games as narrative, paradoxically, the interactivity and narrativity should be in a dependent relationship with one another. As Marie-Laure Ryan explains it:

> The *narrative game,* in which narrative meaning is subordinated to the player's actions, and the *playable story,* in which the player's actions are subordinated to narrative meaning…, in a narrative game, story is meant to enhance gameplay, while in a playable story, gameplay is meant to produce a story. (Ryan 45)

More specifically, according to Ryan's "From Narrative Games to Playable Stories: Toward a Poetics of Interactive Narrative," action-adventure, first or third-person

shooter, and open-world games having certain goals like *Half-Life* (first-person shooter)*, Max Payne, Tomb Raider* (action-adventure and or third-person shooter)*, and Grand Theft Auto* (open-world game having certain goals) are *narrative games*. They all have certain "goals," such as "saving the world from invaders and rescuing people in danger," and in narrative games, players' actions are bound in "narrative meaning through techniques like critical pathways" (Ryan 45; Wood 22). *Playable games* include sandbox games, a terms which stems from "a child's sandbox" where game play "is not bound by traditional structure and direction" like *Minecraft* (sandbox game), *The Sims* (sandbox-style life simulation), and *Façade* (artificial- intelligence-based interactive drama). In playable story games, there is not a goal, winning, or losing, and players are given almost unlimited choices to "build and create somethings in the game world" (Wood 22). Playable games also "induce a much more aesthetic pleasure than narrative games" (Ryan 46).

Furthermore, in "From Narrative Games to Playable Stories: Toward a Poetics of Interactive Narrative," Ryan suggests *ludus* and *paidia* concepts, originated from the French sociologist Roger Caillois. Ludus means pleasure from the "pre-existing" and "controlled" basic rules of games. Ludus obviously leads players to the predestined goals, wins, losses, or pre-determined ends, and emphasizes the enjoyment of the "thrill of competition and solving problems" to the end of games (46). Also, *ludus* can guide players to possess *Narrativization*, which stands for, "the transformation of what used to be abstract playfields (such a chess boards and football fields) into concrete fictional

worlds populated by recognizable objects and individuated characters" (46). More specifically, narrativization means a transformation from simple actions, such as "kicking [the] ball," "moving tokens," and firing guns, to players' pursuing and achieving certain goals, which are oriented and lured by game "stories." (46). Paidia stands for the pleasure "in the free play of the imagination" (Ryan 46). For example, all such acts (like disguising oneself as an alien or other exotic personalities, making virtual relationships, adventuring in the fictional world, building a house to be protected from threatening wolves) are gaming elements of paidia (Ryan 46). Eventually, as Ryan says in "From Narrative Games to Playable Stories: Toward a Poetics of Interactive Narrative," ludus inspires narrative games and paidia stirs playable stories (46). At first glance, it seems there is no theoretical issue to connect ludus and paidia to the definitions that digital games like action-adventure, first or third-person shooter, and open-world games, having certain goals and ends of stories as ludus, and sandbox games, not having ends or goals, as paidia.

But ironically, as Wood points out, "Ryan's false separation of narrative games and playable stories has echoes of the historic ludology vs narratology debate over what a game is and how to study them" (24); her arguments about playable stories and narrative games faces fundamental erroneous results, because ludus and paidia's meanings do not directly match to the definitions of narrative games and playable stories as Ryan suggested. By ludus, narrative games should have controlled and guided basic rules, winning, losing, and goals that proposed by game stories, which have

predestined narrative structures. Thus, players' freedom of actions should be limited by the author, to some degree, in order to guide players. Eventually, in narrative games, predestined narrative meaning governs and limits players actions to drive players to game stories' ultimate results and ends.

Furthermore, there is a risk in narrative games. If narrative games' game structure fails to limit players freedom of actions, narrativization fails as well. This is to say, players actions would become meaningless when they cannot reach certain goals in narrative games. Hence, because narrative meaning is more important than players actions in narrative games, it would be required to change the definitions from "the *narrative game*, in which narrative meaning is subordinated to the players' actions," and "story is meant to enhance gameplay" to:

In narrative games, players' actions are subordinated to narrative meaning.

In narrative games, players' actions are meant to enhance narrativity of games. Much like the paradox problem of ludus and Ryan's definition of narrative games, paidia and playable stories have an similar issue. In playable stories, players' should have the freedom to interact with game elements to actualize players' imaginations to "build and create somethings in the game world" (Wood 22). Thus, Ryan's definition of playable stories, "the *playable story,* in which the player's actions are subordinated to narrative meaning," is needed to be modified to:

In playable stories, narrative meaning is subordinated to players actions.

From these new definitions, Ryan's last definition of playable stories, "gameplay… meant to produce a story" (45), becomes more reasonable and acceptable, because sandbox games' "gameplay" satisfies paidia's freedom of players' actions by actualizing their imaginations. Therefore, in playable story, players produce their own storytelling as a whole new and freely organized by their free actions.

Even though neither playable stories nor narrative games can have a perfectly balanced coexistence of interactivity and narrativity, they both provide an unbalanced mixture comprised interactivity and narrativity. Hence, the most important point is players' preference between two different games:

Narrative games = interactivity < narrative meaning

Playable stories = interactivity > narrative meaning

For example, if players love to play digital games that have predestined narrative goals limiting players actions, narrative games will be suitable, but if players desire to play freely in the virtual world without predetermined endings of stories and want to produce stories like spontaneous life itself, playable stories will be more enjoyable. Furthermore, many developers of modern games eagerly seek to make a balanced model between narrative meaning and players' interactions in open-world games. The outcomes of such efforts are open-world games like *The Elder Scrolls V: Skyrim* and *Red Dead Redemption*.

In conclusion, both playable stories and narrative games can solve the interactive paradox, because each provides unbalanced narrative mixtures made of interactivity

and narrativity regardless of which one is prime in a digital game's system. The only thing players and designers need to do to avoid the interactive paradox is, as I mentioned above, to make a decision where they are weighing on between interactivity and narrativity when they are choosing, playing, and developing digital games. Hence, interestingly, to produce narrative meaning in both narrative games and playable stories of digital games, players' interactions by choosable actions should be considered as an essential element.

From Players' Choices to "Meaning-Effects" Experiences

Before exploring the relationship between players' choices and *meaning-effects* experiences, it is required to adopt Murray's view of radical narratologists toward abstract games as "games are always stories," as written in "From Game-Story to Cyberdrama" in *First Person: New Media as Story, Performance, and Game* (2) and to examine abstract games' *meaningful choices* which are produced by players actions and are transferred to the sequence of events, although some ludologists argue that abstract games' interactivity cannot be narrative. To trace the process of altering digital games' interactive meaning to narrative meanings, the following conceptions of narrativity should be adopted as a basic premise:

1. Narratives can exist in any medium but vary in realization.
2. Narrativity exists in degrees.
3. Games can be combined with stories in different ways.

4. Not all that happens in a game is narrative, but most events have a narrative aspect to them. (Arjoranta 698-699)

Importantly, from this framework, abstract games' narrativity or narrative aspects can be supported because, as I mentioned above, players actions are transferred to the sequence of events that can "have a narrative aspect" (Arjoranta 699). This is to say, even though abstract digital games are designed to present human-computer interactions only, the human-computer interactions can have narrative aspect by players' cognitive interpretations and reactions.

In interactive narrative, the interactions with digital games' interactive elements are more essential than other narrative mediums. This is because digital games must be "played" by or "interacted" with players, and these interactions are the results of players' cognitive choices. Salen and Zimmerman insist that "to create instances of meaningful play, [players'] experience has to incorporate not just explicit interactivity, but meaningful choice" (61). Thus, through the meaningful choices of players, meaningful play can be conducted. Meaningful play emerges "from the relationship between player action and system outcome" (34) and means that "the result of players taking actions in the course of play" (41).

In the middle of the process to generate meanings, the interpretations of *signs* are required. This is to say, all those acts concerning with producing meanings are based on signs' interpretations (42). Salen and Zimmerman adopt an semiotical explanation in terms of sign. According to them, "people use signs to designate objects or idea because

a sign represents something other than itself, we take the representation as the meaning of the sign" (42). More concisely, the understanding of signs means the progress of "something to somebody." For example, in *Final Fantasy III,* the characters' jobs (such as knight, warrior, white mage, black mage, and thief) represent four different players' characters in the game (Salen and Zimmerman 42; "Final Fantasy III" n.p.).

Furthermore, according to Charles S. Peirce's definition, signs are "something that stands for something, to somebody, in some respect or capacity" (qtd. in Salen and Zimmerman 42). From this definition, Salen and Zimmerman suggest four key concepts of signs as "a sign represents something other than itself, signs are interpreted, meaning results when a sign is interpreted, and context shapes interpretation" (42). In the level of "a sign represents something other than itself," signs are used in a game system "to denote the elements of the game world" (43), and when the signs are interpreted by players as who are "active interpreters of a game's sign system" (44), meanings are generated from "relationships between elements of a system"; after then, from meanings, games' *context* and *structure* emerge in the last step. Context means that "the environment of a sign that affects interpretation," and structure is a set of rules or guidelines that prescribe how signs can be combined" (47). Crucially, both context and structure shape players' interpretations (47).

Moreover, these signs are concerned with the digital games' gameplay progressions. From players' meaningful choices to make actions from interpretable

signs, the interactions' outcomes and meaningful plays are determinable, and players' various cognitive interpretations follow. Finally, from those interpretations, meaning effects are generated and affect players' interpretation of signs and meaningful choices as re-starting the rotation of gameplay.

Also, I would argue that signs are systematic and computational *states* of digital games as denotations from digital games' elements. Juul's explanation helps to understand what states are:

> A game is actually what computer science describes as a state machine. It is a system that can be indifferent states. It contains input and output functions, as well as definitions of what state and what input will lead to what following state. When you play a game, you are interacting with the state machine that is the game. In a board game, this state is stored in the position of the pieces on the board, in computer games the state is stored as variables, and then represented on the screen. (qtd. in Salen and Zimmerman 64)

Even simple digital arcade and abstract games like *Tetris* and *Asteroids* can have representable signs "on the screen" that can be interpretable by players.

For instance, *Asteroids* has one small spaceship-like player agent, a space-like setting, and five small buttons to input players' actions; each button provides various reactions on the screen, so that "pushing right and left rotation, thrust, firing, and hyperspace buttons" generate simple outcomes, such as "spaceship rotations, acceleration, fire projection, and spaceship's disappearing and reappearing" (Salen and

Zimmerman 62). All those games' elements are signs (equal to states) and affect players' meaningful choices to input their actions. After inputting a simple action, an outcome entails, and again, the responded states encompass a small spaceship which is identical to a player agent and a players' choices are demanded. Eventually, from states to meaningful choices, which demands players' "new moment of choice" and "which is the result of a previous string of action>outcome units," players can have seamless fun in playing (63). Also, players can interpret states as "the hundreds of choices" or "excitement inside the game" and choose whether to re-participate and replay (or not) in *Asteroids* (63). More specifically, in terms of the relationship between players' choices and states as signs, Salen and Zimmerman suggest *anatomy of choice*, in order to explain players' meaningful choices in digital games into five categorical questions. *Asteroids* can be examined by these categories as well. Among them, question number three, four, and five are important because they provide specific clues for meaningful choice to meaningful plays. The questions are as follows:

1. What happened before the player was given the choice?

   Answer: represented by the current positions and trajectories of the game elements.

2. How is the possibility of choice conveyed to the player?

   Answer: the possible actions are conveyed through the persistent button controls as well as the state of the screen, as it displays the relationships of the game elements.

3. How did the player make the choice?

Answer: the player makes a choice by pressing one of the five buttons.

4. What is the result of the choice? How will it affect future choices?

Answer: Each button press affects the system in a different way, such as the position or orientation of the player's ship.

5. How is the result of the choice conveyed to the player?

Answer: The result of the choice is then represented to player via screen graphics and audio. (Salen and Zimmerman 65)

The third question concerns with the transformation of sign to players' meaningful choices to input body actions, and the question four related to the progress from games' simple outcomes to responded states. The fifth question means re-representation states and the anticipatable players' cognitive interpretations from games' outcomes. Thus, players make choices whether participating in and interact with games again and again or not after having cognitive responses and outcomes.

Meaning-effects contains the whole process to generate meanings in digital games from signs and meaningful choices to meaningful plays. According to Arjoranta, when players are playing video games (regardless of whether they are abstract or modern games), the meaning-effects are generated at a player's cognitive level just as when readers read literary works (699). This is to say, as Bundgaard argues, meaning-effects means "a cognitive response to a textual stimulus," "cover[s] the whole spectrum going from purely emotional responses to highly elaborate interpretations,"

and is “subjective” (qtd. in Arjoranta 699; 66). Namely, meaning-effects occur in player’s internally status and at their individual cognitive level, affected by “personal history, mental set, sensibility, idiosyncrasies, et cetera”; therefore, “the experience of meaningfulness” relies on a given player’s “cognitive capacities” (Bundgaard 66).

Generating meaning-effects in players’ mind is not limited by characters of mediums. The boundless meaning-effects influences on players’ both cognitive and physical level, likewise:

> Meaning-effects not limited to textual stimulus but understood amorously as something that is caused by a stimulus from a video game. This stimulus may be, for example, textual or something like spoken language or haptic feedback from a controller. (Arjoranta 699)

Furthermore, game designers, regardless of which game they make, whether a classic abstract or a modern digital game, can reflect their intentions in their games to give intended and purposeful meaning-effects to players; remarkably, though, the designers are not the solitary rulers of digital games and players’ meaning-effects. Both players’ interpretations and the following contexts of game playing can produce the meaning-effects as well; therefore, the meaning-effects’ “final result is necessarily a combination of authorial intent and player agency” (Arjoranta 699).

From those definitions and descriptions in terms of meaning-effects, I would argue, through players’ interpretations as cognitive responses from meaningful plays, even though signs in abstract digital games are not made of narrative elements but

made of interactive elements only, narrative meanings can be generated in players' internal status from meaning-effects as a result of players' cognitive contexts and interpretations, like Arjoranta's suggested concepts on narrativity of digital games. Moreover, meaning-effects governs the rotating process from players' seamless meaningful choices and actions to meaningful plays, which can make the sequence of events, as follows:

The seamless rotating process for narrative meanings

1. game's signs (states)

↓

2. meaning-effects [meaningful plays (meaningful choices + meaningful actions) + context and structure + players' interpretations]

↓

3. narrative cognition

↓

4. game's signs (states)

Finally, again, every digital game can have each unique narrative level. Additionally, from meaning-effects, Aarseth's definition of "games" as cybertexts, which means games (all the computer games) are ergodic literature, limited as "computer-driven (or electronic) textuality" (1) becomes rejectable. Digital games do not consist of cyber-textual stimulus only similar to this definition stating that "a meaning-effect is not limited to a textual stimulus" (Arjoranta 699). In digital games, the cyber-textual

stimulus and player's every experience make meanings. More specifically, players' *narrative cognition*, which means "how humans reason" and "make sense of their experiences," can create "personal or natural narratives from the events of our lives which become a resource for future knowledge, beliefs, and goal reasoning" and shapes a *meta-narrative* in interactive narrative as a part of cognitive narrative, not only for "the development of a life story or narrative identity" but also for "broad understanding of situations that draw upon constellations of narrative over time" as King suggests (Anderson n.p.; qtd. in Anderson n.p.). Eventually, from players' perceptions, interpretations, and responses to those meanings, narrative is formed, such as "linking events or sense-making (generating a new event model)" (Anderson n.p.).

More simply, during this circling process of meaning-effects, through experiencing the chain of events, narrative cognition is generated internally in players. Through narrative cognition, or "the way the narrative is told and the point of view the narrative is told from" in players' mind (Arjoranta 700), a "mode of narration" occurs. As a result, players' mind will be crushed on cognitive narrative, which means the players' internal process as interpreters or narrators, who "make sense of the narrative worlds (or "storyworlds") evoked by narrative representations or artifacts" and "the cognitive states and dispositions of characters in those storyworlds" (Herman n.p.). Additionally, I would argue, even though abstract digital games have their own narrative levels, the narrative levels in interactive narrative can be varied or reinforced to some degree if some digital games provide strong, heuristic narrative elements like some recent games

possessing well-organized story, character, setting, backstory, cutscenes, and some in-game artifacts to players (Dansky 2-4).

Only players' interactions from cognitive choices can intervene in digital games' time and narrative structures in interactive narrative. Thus, to make successful digital games focusing on the interactivity of interactive narrative, like playable stories, it is important to give massive authorial free choices to players. Moreover, digital games based on highly developed visual and user interface technology with various interactive and narrative elements would guarantee more diversified choices to players and deepening pleasure of narrative because interactive narrative is "combining interactive entertainment with high-quality storytelling" (Arjoranta 714).

Narrating Position in Abstract Games

One might pose questions that "although players can grasp narrative meaning and narrative cognition, there are no specific narrators in abstract games. Without narrator, narrative conveyance is impossible; thus, if all abstract games without narrator are included in digital games, they are not narrative. How do those digital games convey narrative without narrator? Does narrative conveyance rely on players' inward processes only?"

The answer is, even though abstract games do not have narrator, they can convey narrative because they have *narrating position*. To understand narrating position in abstract digital games, the definitions of Arsenault's *narrator* and *monstrator* are useful.

Arsenault does not directly suggest the term narrating position, nor does he use the terms narrator and monstrator to prove every digital game (including abstract digital games) is narrative; rather, he considers narrator and monstrator in the algorithm and database of games as digital games' specific narrator in modern games having graphical details (Arsenault 82). I would argue, however, that because his explanations of narrator and monstrator are basically constructed on understandings of digital games' material (physical system) and content levels,[14] which abstract digital games possess identically to modern games, narrator and monstrator can be a clue to prove all digital games containing abstract digital games as narrative. Therefore, I have decided to borrow his definitions of the processes of the database, monstrator, algorithm, and narrator; furthermore, I devise the term "narrating position" for this thesis.

Arsenault adopts film and literature studies' theoretical approaches to explain digital games' narrator. He introduces André Gaudreault's concept of narrator having two different identities, *narrator* and *monstrator.*[15] From this concept, narrator is defined as "translator or signifier," who "tells events" by "translating something (events, characters, etc.)" to another "system of signifiers," by "verbal or written language" or "images" (52). To the narrator, conveying story means translating something to others.

[14] The game system consists of two different levels, which are material and content levels (Arsenault 33). In the material level, there are "players, a computer processor, game cartridges, game consoles, and an input and output devices," and in the content level, "computer graphics, texts, animations, and story elements: characters, events and settings" (33).

[15] According to Arsenault, in French, monstrater is "the one who shows." which is coined by André Gaudreault. "It stems from monstration, "to show", and is opposite to narration, "to tell"" (52).

On the other hand, a monstrator is not a simple translator. This monstrator shows "events" without transporting them to "another system of signifier" in immediacy (52). Furthermore, monstrator is connected to the database, and the narrator is linked to the algorithm. The database is "the content itself (images, text, etc.)," and the algorithm is "a series of instructions and procedures executed by the computer processor and responsible for linking the different elements of the database" (Arsenault 54).

For example, in *Super Mario Bros,* the game cartridge, game contents, gaming console, graphics, objects, characters, and texts are compressed in the database level. Through monstrator, who decide "which film decides to stage," the compressed database is shown on the stage (as the same as setting or the virtual world). After that, through the algorithm, digital games become gaming experience. Over the first level of showed database on settings, "a second higher-level of structuring" is constructed by algorithm, including such as moving, firing, door opening, and enemies moving. Through the algorithm, players "enter the fiction" and play the game. Thus, algorithm is the "second ordering" as well as "second authority" (55). Consequently, in modern digital games, through the narrator, on algorithmic level, players notice "video game narrator" on a digital game screen like a filmic projection on a theater screen (55). Succinctly, it is as follows:

> Database level [game contents (graphics, objects, characters, texts, et cetera)]
>
> from material level of games' physical systems (game consoles or cartridges)
>
> ↓

Monstrator (unfolding and spreading database materials as viewable and playable on stages and virtual worlds)

↓

Algorithm level (second authority, including characters' moving, firing, door opening, and enemies moves, background and setting's transformations)

↓

Narrator (third or first-person perspectives camera screens displaying like filmic screens) (Arsenault 54)

Through the whole process, players experience narrativization, and the playing experience becomes narrative. Abstract games, however, have simple gaming screens only that cannot be narrator; thus, the monstrator assumes narrating position in abstract games, likewise:

1. Database (contents and information of games) from material level

→ 2. monstrator (narrating position, unfolding and spreading database materials as viewable and playable settings, game objects, images, and texts)

→ 3. players' actions and interactions in algorithm level

→ 4. players' interpretations of meanings from game screens resulting from players' sequence of actions in algorithm level

→ 5. generating contexts → 6. narrativization → 7. Narrative

In abstract games, players become narratees directly through narrating position "instead of transiting through an avatar and a fictional world" (32). Also, according to

Bal, the "narrator is not necessarily a human agent. It can be either an agent or a function" (qtd. in Wei 9), and the narrating position can assume the partial role of a concrete narrator even though the perception of narrative of abstract games still depends on players inward process. Finally, we see how all digital games can convey narrative.

The Road from Interactivity to Narrativity: Filling Narrative Gaps in Digital Games

Readers of traditional narrative and players of digital games share similar characteristics, but at the same time, they have differences as well. Readers of traditional narrative can be separated into two parts, *actual readers* and *implied readers.* The actual readers are "a decoder, decipherer, and interpreter of written texts" (Prince 81) and can presume different audiences of reading texts (Prince 43). The implied readers are distinguished to actual readers, and it is actual readers' "second self" (Schmid n.p.; Prince 43). More precisely, the implied reader is designated recipient of author' texts (Schmid n.p.).

In contrast, players of interactive narrative are variably defined. In "Whose Mind is the Signal? Focalization in Video Game Narratives," Allison defines players are equal to a user who "operates the controls" (4). Sloan regards players as assuming "the role of some entity (represented by an avatar), entering into some larger narrative and playing a part within the game world," and can "manipulate events throughout the games" (10-13). Moreover, in digital games, players can be spectators, witnesses, and character creators, drivers of derailing stories, and authors who "can define their own goals and

write their own stories" (Jenkins 124-129). Players' and readers' roles therefore seem very easy to distinguish from one another; however, both can fill narrative gaps to complete their stories.

Traditionally, in narrative, narrative gaps are "inevitable voids" (Abbott 234), as Wolfgang Iser says, "no tale can ever be told in its entirety" (qtd. in Gerrig 20), and narrative encourages readers to fill their gaps through their "experience or imagination" (Abbott 234). Thus, authors in traditional narrative lead readers "to use inference processes to bridge narrative gaps" (Gerrig 20). Particularly, according to Abbott's *The Cambridge Introduction to Narrative*, narrative provides directions to fill the gaps. For example, in *Paradise Lost,* a handful of text is given to readers regarding an evil creature:

> Then with expanded wings he steers his flight
>
> Aloft, incumbent on dusky Air
>
> That felt unusual weight (Milton 225-7 qtd. in Abbott 91)

As Abbott quotes, John Milton does not directly suggest the evil creature's demonic features. He gives us metaphors of "demonic hugeness of this creature" (92); thus, readers can use their imaginations to fill in the missing information.

In juxtaposition with traditional narrative, interactive media, regardless of whether it is classic or new, has gaps as well. According to Lev Manovich, every "classical, and even more modern art, was already 'interactive' in a number of ways. Ellipses in literary narration, missing details of objects in visual art and other

representational “shortcuts” required the user to fill-in the missing information” (qtd. in Arsenault 10). Much like Lev Manovich’s argument, in digital games as a part of new media, players are needed to interact with various elements of digital games “to fill-in the missing information” in order continue texts (qtd. in Arsenault 10).

Even though Aarseth refuses digital games’ narrative gaps, as written in *Cybertext: Perspectives on Ergodic Literature*, he introduces many scholars who consider that *adventure-game-as-story* has narrative gaps similar to traditional literary works, and players “participation” can bridge gaps “in the narrative provided by the text” (110). Similar to the view of *adventure-game-as-story*, in most digital games, players’ participation in and interactions with interactive and narrative elements through player actions are indispensable.

Therefore, proving interactive narrative and conveying narrative by filling narrative gaps depend on knowing what interactivity players can conduct. First of all, Zimmerman cites *Dictionary.com*’s definition of interactivity to get “an adequate common-sense definition” (qtd. in Zimmerman 158). According to this online dictionary, interactivity is “reciprocally active: acting upon or influencing each other: allowing a two-way flow of information between a device and a user, responding to the user’s input” (qtd. in Zimmerman 158). To some degree, this simple definition seems to properly represent interactivity in interactive narrative; however, Zimmerman suggests four modes of interactivities in both “games and stories.” They are *cognitive interactivity, functional interactivity, explicit interactivity,* and *meta-interactivity* (158).

The first one, cognitive interactivity is related to the occurrence of "level of interpretation" (Arsenault 10). It contains "the psychological, emotional, hermeneutic, and semiotic" readers' responses (158). Also, readers or players can fill narrative gaps and "construct meanings" by using provided information, contents, and contextual cues of texts (Arsenault 10; Zimmerman 158). The second is functional interactivity, which stands for "structural and functional interaction" with textual materials without any alterations. (Arsenault 10). The third interactivity, explicit interactivity, means players' "participation with designed choices and procedures in a text" (Zimmerman 158). More simply, this interactivity's objects are needed to be manipulated by the interactors, and the objects mean players' "choices, random events, dynamic simulations, and other procedures programmed into the interactive experience" (Arsenault 10; Zimmerman 158). The last interactivity is meta-interactivity. Remarkably, this interactivity is the most analogous to interactive narrative's interactivity. According to Zimmerman, this interactivity allows reader's manipulations to "create, deconstruct, reconstruct, and participate" into the texts in "propagating massive communal narrative worlds." Also, the reader can declare "ownership of the text" (Arsenault 11; Zimmerman 158). There are actual examples to add more details in terms of the four interactivities:

> Cognitive interactivity: readers (players) "re-read a book after several years have passed and readers find it's completely different than the book readers remember."

Functional interactivity: readers' (players') physical acts without changing texts themselves, such as "flipping pages," turning off movie screen, or re-reading a book focusing on book's physical materials.

Explicit interactivity: readers' (players') participation like "clicking the nonlinear links of a hypertext novel."

Meta-interactivity: readers (players) can "deconstruct" or "reconstruct" linear texts, and readers' (players') "participating in and propagating massive communal narrative worlds." (Arsenault 11; Zimmerman 158)

According to Zimmerman, however, these do not exist as four distinct items separately, or neatly; instead, they are mixed and overlap each other, existing "simultaneously" when readers (players) interact with texts (158-159). Therefore, all interactivities should be considered as parts of interactive narrative. Specifically, bridging narrative gaps to convey interactive narrative, cognitive interactivity and explicit interactivity are very crucial because they require readers' "interpretation" and "participation" to fill the gaps (Zimmerman 159). Therefore, after filling in gaps, interactive narratives' narrative structure becomes a linear-like structure or chrono-logical narrative structure; thus, digital games are narrative. Additionally, through meta-interactivity, players can possess authorial status when they interact with the texts. Therefore, meta-interactivity satisfies the definitions of interactive narrative as "users create or influence a dramatic storyline through actions, …issuing commands to computer-controlled characters, or directly manipulating the fictional world state" (Riedl and Bulitko 67).

Non-Linearity

As mentioned above, ludologists and some scholars, like Abbott, reject a view of digital games as narrative because of their non-linearity. Abbott says, "narrative… is something that always seems to come after, to be *re*-presentation…, neither life nor role-playing games qualify as narrative, since there is no pre-existing story" (36). Further, Espen Aarseth states that only linear texts are narrative, arguing that non-linear texts are "no longer narrative" and ergodic literature (qtd. in Backe 10). It is hard, however, to agree with Abbott and Aarseth because, many historical non-linear texts have already existed, from prehistoric periods to modern days, and they have been considered as conveying narrative.

The first non-linear literatures having their own "interactive narrative" are Greek, Egypt, and West African's participatory dramas. Their cultures had "myth-based" ritual performances for their deities, which could give a catharsis (emotional relief) to them, [16] and participants were involved in ceremonies with singing and dancing (Miller 6). Their performances developed into stage performances like "classic Greek drama, both tragedy and comedy" (Miller 7). Notably, this ancient Greek theater provided a chance to the participants to interact with the performance itself and other participants. More surprisingly, the participants, using their avatar as a form of role-playing, played out "scenes that can be highly dramatic and even have life and death significance"

[16] Catharsis is originated from "the Greek, *katharsis,* and means purgation, or purification" (Miller 6).

(Miller 9). This performance was very similar to "modern-day digital storytelling," such as digital role-playing games (Miller 8-9).

Furthermore, the number of non-linear fictions of Modernism and Post-modernism greatly increased in the Twentieth century. James Joyce's *Finnergans Wake* (1939) has non-linear plot construction, which "present[s] the reader with a discontinuous," and variable line of narrative discourse including radical changes between "focalizers, locations, and plot details" (Ensslin n.p.). The most digital game-like printed non-linear text is *Choose Your Own Adventure Books.* From the 1970s to the 1990s, this book series flourished, for these books give readers ludic-fictional experiences. Readers can make their own choices to drive "their own pathway" and make "multiple possible outcomes of an adventure." Also, they share interactive narrative' non-linearity with digital adventure and role-playing games (Ensslin n.p.).

Before the emergence of visualized digital games, interactive narrative's digitalized first born is *interactive fiction*. Interactive fiction covers both *Choose Your Own Adventure* stories and textual digital games territories, "where readers type text in order to interact with the textual environment" (Ostrin et al. 464). Remarkably, *Choose Your Own Adventure Books,* interactive fictions, and interactive narrative games share similar non-linear narrative structures. They all guarantee players' free choices.

In terms of the non-linear literary structure, Derrida insists that "linear writing suppressed non-linear writing until the latter recurred in twentieth-century literature, thus reflecting the impossibility of documenting the modern human experience in a

linear fashion," and he concludes, "the end of linear writing is the end of the book" (qtd. in Ensslin n.p.). The end of linear writing means, I would argue, the paradigm-shifting from the traditional linear narrative structures to interactive narrative's non-linear narrative. Furthermore, as Ensslin argues, "readers of nonlinear writing might never read the same text twice but will alter their reading paths during and between reading sessions" (Ensslin n.p.), I am convinced that digital games' non-linear story structure can also provide multiplied diverse experiences to the players more than readers of non-linear texts have had from the past to present.

Narrators and Player Agents, Avatar in Modern Games

As I mentioned above, in traditional narrative, narrator is defined as "a teller," who delivers "the sequence of events in a plot" (Abbott 238). On the other hand, from the systematic definition of digital games, digital games' narrator is regarded as a game designer who writes "the story and the events order" (Picucci n.p.). However, in modern digital games possessing interactive narrative, both traditional and systematic definitions should be redefined partly because the traditional definition as "the sequence of events in a plot" is for the linear structure, not for non-linearity, and partly because, as Abbott quotes Barthes, "the material author of a narrative is in no way to be confused with the narrator of that narrative" (qtd. in Abbott 68), game designer as a writer (real author) cannot be a narrator.

According to Marie-Laure Ryan's "Interactive Narrative" in *the John Hopkins Guide to Digital Media,* interactive narratives' developers and researchers prefer the

concept of narrator as “virtual narrator” or “drama manager” who “exercises top-down control over the development of story” (Ryan n.p.). Additionally, the virtual narrator or drama manager have abilities to correct users’ derailment, returning back to the right path of stories (Ryan n.p.). This narrator’s intrusion on players seems similar to the definition in Szilas’ “Interactive Drama on Computer: Beyond Linear Narrative.” A researcher of interactive narrative, Szilas defines narrator as:

> The narrator decides which action(s) should be proposed to the user, filtering what is suggested by the narrative logic. Some of those actions are to be just executed, others are proposed to the user in a form of choice list, as in traditional adventure games. The narrator also "listen[s]" to what the user does, to modify the world of the story and decide to tell something (an action). (Szilas 153)

Ryan’s virtual narrator and drama manager and Szilas’ narrator show that all narrators limit players’ actions, even in interactive narrative. Fundamentally, they are like the traditional roles of narrator of the second person point of view, which narrows and limits readers’ understanding (Niederhoff n.p.). For example, according to “Focalization” by Niederhoff in *The Living Handbook of Narratology*, while “the first person point of view provides us with complete access to all the regions of the story world, including the characters’ minds, in the second person point of view the access is extremely limited and no inside views are possible” (Niederhoff n.p.). Therefore, for Ryan and Szilas’ the role of narrators is similar to the narrator with second person perspective who is set by

an author in traditional narrative, which forces limitations before players not to access the vast world of digital games freely.

Another definition of digital games' narrator is Lindsey Joyce's narrator agents and character agents. To understand her narrator agents and character agents, first of all, we need to understand what the player agents are. *Avatar,* the same as players agents, originates from the "Sanskrit *Avatara,*" the "descent," which is Hindu deity's incarnation "as an animal or human on Earth," and the modern meaning of avatar is "graphical representation of a user of a digital media product functioning as a focus for the user's agency within a virtual world" (Liboriussen n.p.). Furthermore, in digital games, avatar means "the embodied player agents" (Barrett 2). Barrett explains avatar as follows:

> The avatar contributes to this posthuman realization of narrative through the navigation of spatial attributes, the setting up of perspective in terms of Point of View (POV) in reading, and as character agents in the narrative architecture of the virtual world. (Barrett 2)

In Murray's *Hamlet on the Holodeck*, the avatar in digital games is more positively described. She regards player agents as having the capacity "to take meaningful action and see the result of our decisions and choices" (Murray 159). Also, she suggests the conditions necessary for the successful performance of an avatar. She says, "the experience of agency by the interactor…requires two kinds of scripting – coding the actions of the digital system, and cueing the actions of the interactor. When these two

scripts are well matched, the interactor feels the satisfaction of agency" (189). From all these definitions by Barrett, Murray, and Liboriussen, we can assume that player agents are a crucial element to explore the virtual world, and they exist to give storytelling pleasure to players. Without avatars, fundamental interactions cannot be performed.

For Lindsey Joyce, narrators are intertwined with the agency roles of the avatar, but uniquely, although both narrator agents and character agents are derived from player agents, their roles are different. According to her, narrator agents share their roles with the traditional narrator, "who delivers the narrative." (Joyce 24). For example, the traditional narrator "can become characters" with the "omniscient" perspectives, "trustworthy," or unreliable narrator (Joyce 24). Character agents are presented in the game story and can interact with game elements (Joyce 36). The purpose of character agents is "to make choices and overcome conflict, to bring about and experience story events" (Joyce 37).

Interestingly, because their origins are players agents, sometimes, they combine their roles as occupying the "joint roles of narrator and character" at the same time (Joyce 37). Thus, player agents, namely, can freely choose one of them when they choose their actions between narrativity or interactivity in digital games; likewise:

> Within digital interactive narratives, the player agent's intentionality shares two foci; as narrator agent, the player intentionally guides the production of the story by interacting with and mediating content that exists outside the story world,

> and as character agent, the player intentionally acts and reacts to objects, characters, environments, and events present within the story world. (Joyce 43)

Through the omnipresence of character agents and narrator agents which are originated from one player agents, the final condition of interactive narrative can be fulfilled. As I mentioned earlier, interactive narrative is the combination of interactivity and narrativity, and similarly, players' agents are made of player agents that are a combination of narrator agents as the narrator and character agents as the interactor. By player agents as the joint narrator in digital games, interactive narrative of digital games can convey their own storytelling.

CHAPTER IV

ANALYZING INTERACTIVE NARRATIVE IN ROLE-PLAYING GAMES: *THE ELDER SCROLLS V: SKYRIM* AND EVERTED NARRATIVE

The Journey is not the End: An Expected Journey to Role-Playing Games

Through the mixture or harmony of narrativity and interactivity, digital games can convey interactive narrative, and players can have narrative pleasure when they play digital games with their actions. The interpretation, participation, and all processes of players' interactions with digital games are up to players.

However, encouraging and motivating players' actions depend on in-game elements and game design. Namely, according to Ryan's *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media,* to enhance players' engagement and immersion and to evoke meaningful play "in games for the sake of pleasure," an "artistic quality" of game design is required (Ryan 309), including not only material contents of game design, containing "computer science, programming, graphic, and sound" but also "creative writing" and "plot" (Ryan 309; "What is Game Design" n.p.). Similarly but a bit differently, as Ryan emphasizes plot of digital games for players' narrative pleasure, Jenkins maintains spatial stories, which have "hero's odysseys, quest myths, or travel narrative" (122) are suitable to give "a much more immersive and compelling representation of their narrative worlds" to players through gaming genres

of “fantasy, adventure, science fiction, horror, and war,” imbued by “world-making and spatial storytelling” (122). According to Ryan and Jenkins, we can draw an assumption of what genre is the most suitable for players’ immersive pleasure in interactive narrative. This genre is role-playing games.

Why Role-Playing Games?

The world’s first non-digital role-playing game is *Dungeons & Dragons (D&D),* first published in 1974. Even though this game did not declare the genre’s name—role-playing game—it coined crucial elements of all role-playing games; therefore, there is no doubts that the game is the first ancestor of this genre (Mason 1-2). According to Caira and Tosca’s “Role-Playing Games” in *The Johns Hopkins Guide to Digital Media,* this game was built on a vast “medieval setting,” where players can embark an adventure to mysterious “dungeons” with their organized parties (Caira and Tosca n.p.). Also, it became a kind of template for medieval-style-fantasy role-playing games as well as others, such as “science fiction,” “gothic themes,” H.P. Lovecraft’s fictional dark universe, et cetera. Those kinds of games are named as *tabletop role-playing games* (Caira and Tosca n.p.).

Tabletop role-playing games share several rules, such as“distinct characters, classes,” and rolling dice to decide characters’ “basic attribute[s] like strength, dexterity, wisdom, constitution, intelligence, and charisma” (Caira and Tosca n.p.), which gives a uniqueness to players’ characters. Furthermore, within D&D rules, players have

guaranteed freedom of actions such as “combat,” hunting treasures, and slaying monsters, and “collecting points” (Caira and Tosca n.p.). The most distinctive features of tabletop role-playing games are “written materials,” including “rules, play aids, character descriptions,” and plots of fictional world from “literary and cinematic sources” like J. R. R. Tolkien’s *Lord of the Rings* or other epics (Mason 6; Hitchens and Drachen 9-10; Caira and Tosca n.p.).

In “The Many Faces of Role-Playing Games,” Hitchen and Drachen says, there have been tons of related genres, such as “*live-action role-playing, single player digital role-playing game, systemless, pervasive* and *ubiquitous games, massively multiplayer online*,” and et cetera, after the appearance of tabletop role-playing games (Hitchens and Drachen 9-12). Even though they have many sharing points with tabletop role-playing games, single-player digital role-playing games will be the most appropriate heritor of tabletop role-playing games because single-player digital games are “directly derived from the table-top form” by using “digitized versions of table tops rules” (Hitchens and Drachen 11). Some digital role-playing games, *“Baldur's Gate, Neverwinter Nights* and *Knights of the Old Republic,”* thoroughly follow D&D rules (Hitchens and Drachen 11).

The quest system is one of the distinctive characteristics of role-playing games. Most role-playing games contain quests as “numerous short linear actions lines,” and the quests are given to players by “Non-Player Characters (NPCs)” (Neitzel n.p.). NPCs are a part of the narrative elements in gaming worlds; therefore, players can interact

with them and be demanded to fulfill quests. In this process, the quests lead players to narrative structures as "a linear order to progress toward an end state" or "randomly in a network-like structure" (Neitzel n.p.). Also, related to mythological elements, the quests offer "multiple stories and story fragments" that add to "the narrativity" of digital games (Neitzel n.p.). Moreover, like tabletop role-playing games, digital single role-playing games possess the following features: 1. A freely explorable imaginary "game world," 2. players as "participants" who control "individual characters," 3. "characters," 4. "game master" who adjust the rule of games, 5. "dialogue and object" interactions through players' characters, and 6. "narrative" as "some sequence of events within the game world, which gives the game a narrative element" (Hitchens and Drachen 16).

In single-player open-world digital role-playing games,[17] all features are remarkably reinforced, and are similar to interactive narrative's essential components. For instance, players' free movement for exploring the fictional worlds, players' participation and interactions with in-game objects, various dialogues with NPCs, the mythological and narratological elements of quests, and D&D rules, are all features harmonized and maximized with modern single-player open-world digital role-playing games, and they allow player to dive into spatial stories to have narrative pleasure. In addition, open-world single-player digital role-playing games share the advantage of

[17] Open-world digital games "enable players to explore and pursue gameplay objectives within expansive virtual worlds" and "emphasis on player autonomy" as Squire insists (qtd. in Min et al 2590).

digital single role-playing games, which is given to players as “the mode of engagement between player and game can shift relatively freely between configurative and interpretive” (Hitchens and Drachen 16). Eventually, open-world single-player digital role-playing games are the most suitable genre for interactive narrative.

The Elder Scrolls V: Skyrim as Playable Stories or Narrative Games

The Elder Scrolls V: Skyrim is one of the remarkable successors of tabletop role-playing games; it follows the D&D rules and has literary plots, like an epic, as well as a splendid open-world single-player digital role-playing game system. Also, unlike other descendants of tabletop role-playing games, which are mostly goal-oriented, *Skyrim* emphasizes both the *ludus* of narrative games and the *paidia* of playable games at the same time. For example, *Skyrim* has the ultimate goal of slaying the prime evil, Alduin, but concurrently, this game gives players massive degrees of freedom to “interact with the game world in any way that their characters, as inhabitants of that world, are capable of and play can potentially roam through any part of the game world” (Hitchens and Drachen 10). For example, even though the ultimate goal is strongly suggested by the main quest system, players can choose to play subtle sub-quests or more subtle acts like building a house, fishing, marriage, cooking, swimming, et cetera. Likewise, *Skyrim* provides the freedom of choice to players between ludus and paidia.

Thus, as I mentioned above, if players love to play *Skyrim*’s goal-oriented quests, ludus elements in this game will be more enjoyable, but if players desire to play freely

and exist in *Skyrim*'s virtual world without aiming for the endings of stories, and instead want to produce stories spontaneously, as in life itself, playing paidia elements will give players more pleasure than does ludus. Likewise, *Skyrim* is a result of game designers' deep considerations to seek to make a balanced model between narrative meaning and players' freedom of interactions with its virtual space.

Narrators of *Skyrim:* Deictic Shift and Focalizations in *Skyrim*

Skyrim has an avatar as the narrator, which operates as a combination of the character agent and narrator agent, with the monstrator and narrator at work in the database and algorithm levels depicting stories on the screen, but *Skyrim*'s player agents are more unique than other games.

In *Skyrim,* players and their characters are treated as one (Joyce 163), or as Oliver Banham puts it, *Skyrim*'s characters are "the ultimate expression of" players' "play-style" (qtd. in Joyce 163). The character "is an empty canvas waiting to be filled by the player" (Joyce 163). Eventually, player agents assume the roles of narrator, avatar, character, and spectator at the same time. Thus, I would argue that *Skyrim*'s narrator can have another name, *deixis focalizers*, which operate as focalizers freely changeable by players. Deixis focalizers' basic trait stems from deictic shift theory's *deictic center*. Bühler, Fillmore, and Traugott define the term, *deictic* and *deictic center* as follows:

> Deictic terms include 'come' and 'go', 'now' and 'then', and 'I' and 'you'. When these words are used in face-to-face dialogues, their meanings depend, as Lyons

says, on ‘‘the spatio-temporal co-ordinates of the act of utterance.’’ These co-ordinates originate at a point we call the deictic center (DC), consisting of the ‘‘origin’’ of place (‘come’ and ‘go’), time (‘now’ and ‘then’), and person (‘I’ and ‘you’). (qtd. in Rapaport et al. 2)

“Deictic Centers and the Cognitive Structure of Narrative Comprehension” also provides the following crucial definitions: the “origin” of place is called “the WHERE,” the “origin” of time is called “the WHEN,” and the “origin” of person “the WHO” (Rapaport et al. 3).

Between the where, the when, and the who, the who is the most important elements for *Skyrim*. As one of the crucial “psychological entities” in a narrative, a part of the who, “the focalizing *WHO”* means “a subjective epistemological perspective expressed in terms of a character’s own ‘living of events,’” where the “living of events” is “perceptual, cognitive, kinesthetic”; thus, the text may represent “thoughts, feelings, sounds, sights, or unconscious desires as lived by the focalizing WHO” (Rapaport et al. 4). More interestingly, this focalizing who’s role is similar to internal focalization, which is one of Genette’s classified three perspectives: “zero focalization, external focalization, and internal focalization.” Zero focalization means stories are “not focalized into character but is told from outside.” Internal focalization offers permission to players to access the characters “thoughts, emotions, and mental landscape. External focalization is which “gives a behavioristic view on the characters” (Arjoranta 700).

Playing *Skyrim* in the first-person perspective means playing as the focalizing who and involves internal focalization. After entering the beautiful virtual world that is

the setting for this game, players as the focalizing who experience narrative and interactive elements and have subjective feelings and interpretations from the provided, visualized cybertext, and their own living of events. From this experience, players may feel that the virtual world invites player interventions by reflecting their thoughts, feelings, sounds, sights, or unconscious desires in the world directly; eventually, players can undergo perceptual, cognitive, and kinesthetic experience the same as they have in the real world. Also, *Skyrim*'s internal focalizer can deliver the protagonist's thoughts, feelings, desires to players instantly; thus, narrators (the focalizing WHO and internal focalizer) become players, and finally, players and narrators are united as one. However, when players change the avatar's point of view from first person to third person perspective, the narrator changes from the focalizing WHO and internal focalizer to external focalization and the role of player agents as narrator become stronger than the first-person perspective.

Analyzing *Skyrim* by Aristotelian and Neo-Aristotelian Theories

Skyrim can be analyzed by various rhetorical and analytical approaches as a paragon of interactive narrative because it exhibits reinforced narrative elements and interactivity simultaneously. The game designers of *Skyrim* provide various interactive and narrative elements to offer players' engagement and immersion through narrative pleasure; as Laurel's quotation of Aristotle's *Poetics* in her dissertation, *Toward the Design of a Computer-Based Interactive Fantasy System*, "the dramatic form functions to maximize the pleasurable experience of emotion on the part of the audience (or

"user")" (qtd. in Laurel 10). Those in-game elements can be interpretable by pre-existing analytical and rhetorical approaches which are composed to understand interactive mediums. First off, as one of the most visually splendid digital fantasy role-playing games, *Skyrim,* can be explained as an *interactive fantasy system*. According to *Toward the Design of a Computer-Based Interactive Fantasy System,* Interactive fantasy systems are system intended to "allow a human user to enter into imaginary world and to move through it as an active character, participating in an experience that is dramatic in nature" (Laurel 21). To make the system feasible, three elements are required, which are "create[ing] a world, making that world interactive, and making the user's experience of that world dramatic" (Laurel 21).

Both traditional tabletop fantasy role-playing games and "contemporary computer programs and video games" are "antecedents" of interactive fantasy systems (Laurel 14-18). Furthermore, interactive fantasy systems provide "dramatic elements in interactive contexts," that are account for Aristotle's concept of mimesis which means "imitating actions, things, and events that do or might occur" and *"poetics*" as "an art" having "its end cause the pleasurable expression of emotion" as the same as *catharsis* of Aristotle's tragedy (Laurel 17-19). This is to say, as parts of interactive fantasy system, *mimetic* and *poetic* interactive works invites the players "to partake of the vicarious experience of emotion and to delight in the imitation" (Laurel 19).

Skyrim follows the features of the interactive fantasy system thoroughly. When players click the start button in the main menu, they can immediately enter the "imaginary world" of *Skyrim*, and directly transfer their identities to player agents, and after the first opening event, player agents can move freely anywhere and experience anything that the game system allows whether or not this is in service of the larger story game designers have provided for players. Also, if players choose to first-person perspective interactions, players experience *Skyrim'*s realistic "mimetic world directly" and participate "in it as an agent," as described in *Toward the Design of a Computer-Based Interactive Fantasy System* by Laurel (87). Furthermore, players of *Skyrim* can feel the catharsis through their characters. In the last downloadable content, *Dragonborn*, the last Dragonborn protagonist as an epic hero kills the first Dragonborn, Miraak. After finishing the quest, by the former ruler of Miraak, the evil deity, Hermaeus Mora, the protagonist becomes his slave. This plot provides players with feelings of dramatic desperation and catharsis at the same time.

Laurel, in *Toward the Design of a Computer-Based Interactive Fantasy System*, also suggests the Aristotelian theory of drama as a way to analyze human-computer interaction (55-56). According to Mateas and Stern's "Interaction and Narrative" in *The Game Design Reader: A Rules of Play Anthology,* the Aristotelian theory follows Aristotle's division of plays into "six hierarchical categories," in which the categories are connected to "material cause and formal cause" (651), and the six hierarchical categories consist of "action (plot), character, thought, language (diction), pattern, and

enactment (spectacle)" (651). The formal cause means "the authorial view of the play," and the material cause is "the audience view of the play" (Mateas and Stern 651).

However, in New-Aristotelian theory of interactive narrative, players are added to this model and "player's intention become a new source of formal causation" (652). Thus, by players' actions, "players can infer a consistent model of the characters' thought," and their thoughts "become material for player action" (653). Thus, if players can understand characters' thoughts as "goals, motivations, and desires," those thoughts "become material resources for player actions" (653). Thus, as we move from players' intentions to characters' thoughts, through formal causation and material causation, player agents attain and occupy authorial and audience statuses concurrently. In *Skyrim,* the protagonist is the player; they are one and the same. In the third person perspective, there are no character's thoughts; players' thoughts become characters thoughts directly. Hence, in this neo-Aristotelian model, we see something different from Mateas and Stern's statement that "players actions are not completely free," as written in "Interactive and Narrative," in *The Game Design Reader: A Rules of Play Anthology* (652). In *Skyrim,* through players' intentions, players' actions are completely freely conducted.

Eversion of Space, Players' Actions, and Player Agents: Everted Narrative

Through developments in virtual reality, mixed reality, and augmented reality, "virtual images and information are overlaid on the physical world and vice versa"

(Cleland 30). This blending of "the natural and the artificial" and the permeation of cyberspace to real and real to cyberspace, is called *eversion.*

Skyrim can be clear evidence of the digital games' future in the age of eversion. I would argue that eversion will cause the advent of *everted narratives,* which will become a dominant form in the next stage of development in interactive narratives. Everted narratives will seem similar to interactive narratives, but several crucial features will be different. We can predict this future form of gaming by considering the differences between the original *Skyrim* and *Skyrim VR.* In this transition, we can already see that, *Skyrim'*s fictional and virtual space is altering to the physical and material real world. Shockingly, according to Jones' *The Emergence of the Digital Humanities,* a *Skyrim* fan-based website makes the fictional world's map by using Google API (Jones 109). Even though the Google Map-like *Skyrim* map is based on fictional data and topography, the map offers a user experience precisely identical to Google Maps. Players can use the synced real-time map with *Skyrim* as a real paper map in the physical world while they are playing *Skyrim* (Jones 109). Furthermore, when players play the *Skyrim VR* version, the perception of virtual space changes to a realistic perception and its world map becomes a real-world-like map supporting exploration of the dangerous world.

Avatar and players' actions are also everted in everted narratives. Basically, in the age of eversion, avatar and players' body actions are intensively connected to each other. This is because, as Velonaki argues, "physical embodiment of a virtual agent

contributes strongly to engaging interactions between a human and a "character" because the character physically inhabits the same space as the human, with all the implications that the co-inhabitation brings" (qtd. in Cleland 31). Through this co-inhabitation, players become avatar, character, narrator, visual narrator on screen, and character, all concurrently. For example, through VR devices, players' actual embodied actions in the real world are carried out promptly in the virtual world. This process does not have any delays, however slight, like those experienced when pushing a controller's buttons after players' cognitive choices; thus, players' interactions in virtual reality become a direct interaction, like life itself. In the age of eversion, there is no need for avatars. Players themselves directly become embedded in *Skyrim*'s virtual world and can experience intensive and immersive narrative pleasure.

CHAPTER V

CONCLUSION

The Future, the Age of Eversion, Is Nearly Here

Finally, the journey to prove digital games narrativity is reaching its destination. Even though the history of game studies is still much briefer than many other fields in academia, there are tons of studies, and a great deal of carefully conducted research. Already, ludologists and narratologists' fierce debates have become a historic event, with the pace of the conversation slowing, and in the storm of game studies, new rhetorical approaches are endlessly invented to understand what exactly digital games are; however, enlightening every element in terms of digital games is still impossible. I would argue, when we are in the chaotic and rapidly changing turbulence of digital developments, we need to have rhetorical thinking as one of the humanities' scholars like narratologists do. After that, we can push the restart button of game studies in interdisciplinary ways and depart our infinity adventures again.

This thesis is the result of making efforts to answer the questions that I proposed in Chapter One. Except for the first question regarding ludologists and narratologists, these are complicated questions to answer. Question number two is about the differences between traditional and interactive narrative, how interactivity and narrativity coexist in interactive narrative, and how non-linear story convey narrative. In response, I explain the differences between traditional narrative's linear and interactive

narrative's non-linear narrative structures and narrators, posit the possibility of coexistence of interactivity and narrativity in digital games, and describe many non-linear narrative forms. The third question is why the role-playing games are suitable for exploring the idea of interactive narrative. I propose the answer that this genre is most appropriate for delivering interactive narrative because they have unique features, such as epic and mythic elements, players' participation in spatial stories, tabletop role-playing games' interactive D&D rules, and the quests system that adds narrativity to games. Also, I suggest the open-world single-player digital role-playing game *Skyrim* is one of the most appropriate role-playing games for exploring interactive narrative because it is a descendant of tabletop role-playing games and has reinforced distinctive features of role-playing games. The last question relates to eversion and interactive narrative's transformation to everted narrative. For this question, I suggest interactive narrative digital games' spaces, player agents, and players' actions are everted.

As I mentioned above, digital MMORPG games are a part of interactive narrative; furthermore, lines between reality and virtual reality in these games are disappearing in the age of eversion. However, this thesis could not give much space to explaining MMOPRG's interactive narrative and its eversion because I wanted to focus more on player-to-computer interactions than player-to-player interactions. This might be one of the most noticeable limitations of my thesis. Another limitation is the shortage of evidence for eversion itself. It is because the theory is still in its infancy and growing. Therefore, future studies in this area could include interactions between players,

narrative, and eversion in other MMOPRGs like *World of Warcraft* or *The Elder Scrolls Online*, and more in-depth studies about eversion.

Nowadays, the most remarkable change in the humanities is the advent of digital humanities. As a part of digital humanities, the age of eversion, which means virtuality becomes reality and reality becomes virtuality, is coming. In *Hamlet on the Holodeck*, Murray explains that "as the virtual world takes on increasing expressiveness, we will slowly get used to living in a fantasy environment that now strikes us as frighteningly real" (335). Like she says, by the subversive virtuality, our reality of everyday life will be changed. Developed Augmented Reality (AR) and Virtual Reality (VR) devices will allow us to enter the virtual world freely, like Browne's poem, *You Can Enter the World*:

> ...You can enter a world of redefinition. You can enter a world with color and texture where you swim in projections of light. You can enter a world of secret agents. You can enter a world constructed only of fallacies, of confetti, of rain, of indeterminacy. You can enter a world of lucid dreaming, and then you can enter it again in the dark…You can enter a world of demons... You can enter a world of "welcome to the dark future." You can crawl into a world of your own making on hands and knees. You can enter a world where the world ends with you. You can enter a world asleep, dormant, a fixture. You can enter a World of Warcraft, click and enter… (Browne n.p.)

In addition, these developed devices will make us be hard to perceive the differences between virtuality and reality. This will continue to complicate our notions of narrative.

Therefore, traditional definitions of narrative will have to be changed. I expect that life itself may be considered a transformed narrative, as already people can be directly involved in digital games; for example, when playing an augmented reality game like *Pokémon GO*. Or, people can dive into the 3D virtual world directly and experience virtual reality just like their actual reality by playing VR games such as *The Elder Scroll V: Skyrim VR* and *Fallout 4 VR*. Digital games and interactive narratives are going to be fundamentally transformed into everted narratives as storytelling involves non-linear life itself. In both Virtual Reality (VR) and Augmented Reality (AR) games, avatars will not be needed. People will become players, avatars, game characters, writers, narrators, spectators, experiencers, and cybernauts simultaneously.[18]

I believe everted narratives will give us opportunities to broaden the frontiers of virtual reality as well as reality. Moreover, I would argue that interactive narrative's future will be our future life itself, with enormous living stories and narrative discourses. Therefore, in the everyday, we will be able to enter the digital games' world as our own realistic alternative world, and our real world will become a virtual playground. This future narrative is nearly here.

[18] Cybernaut: 1. "an expert or habitual user of the internet." 2. "a person who uses computer technology and sensory devices to experience virtual reality" ("Cybernaut" n.p.).

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