

READING THE GAME:
EXPLORING NARRATIVES IN VIDEO GAMES AS LITERARY TEXTS

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Dedication

For every kind heart, wherein the spirit of adventure abides.

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Video games are increasingly recognized as powerful tools for learning in classrooms. However, they are widely neglected in the field of English, particularly as objects worthy of literary study. This project argues the place of video games as objects of literary study and criticism, combining the theories of Espen Aarseth, Ian Bogost, Henry Jenkins, and James Paul Gee. The author of this study presents an approach to literary criticism of video games that he names “player-generated narratives.” Through player-generated narratives, players as readers of video games create loci for interpretative strategies that lead to both decoding and critical inspection of game narratives. This project includes a case-study of the video game *Undertale* taught in multiple college literature classrooms over the course of a year. Results of the study show that a video game introduced as a work of literature to a classroom increases participation, activates disengaged students, and connects literary concepts across media through multimodal learning. The project concludes with a chapter discussing applications of video games as texts in literature classrooms, including addressing the practical concerns of migrating video games into an educational setting.

Megan Musgrave, PhD, Chair

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Introduction

This study explores the potential for video games to be examined in the same or similar fashion as traditional literary texts. Moreover, I argue that narrative video games are literary texts worthy of exploration, interpretation, and literary criticism. Responding to the ongoing debate between ludology and narratology that surrounds the question of video games as texts, I present my theory of player-generated narratives, which recognizes the design of narratives in games, their functionality, and how they begin to be interpreted. This project argues, through research and empirical data gathered through classroom experimentation, that video games are viable texts in literature classrooms. The narratives video games employ intersect with those of traditional texts and students are able to explore them in a similar fashion. Individual agency on behalf of the player/reader creates player-generated narratives from which the player/reader may formulate interpretations of the text. Moreover, video games explored as literary texts have the power to increase in-class participation and engage otherwise disengaged students.

When teaching narratives, educators may be overlooking a powerful medium in video games. Students are, to varying degrees, engaging with video game narratives as a form of literature. The problem for many of these students is that they do not recognize that they are “reading” and analyzing the games that they play. Moreover, these same students are failing to analyze these games critically. This is at once a failure on the part of the games’ players and on the part of educators who have, as a majority, passed over video games as a literary medium in favor of traditional texts. There is certainly nothing wrong with teaching the traditional literary canon and, as video games begin to edge their way into the classroom as an emerging genre of literary study, traditional texts will be more important than ever in generating understanding. After all, many of the narratives that video games employ are derivative of these texts (*Mario* and *The Legend of Zelda* franchises have been pushing a quest narrative to save their princesses

à la *Saint George and the Dragon* for more than thirty years now). But it begs the question that, if after decades film, television, graphic novels, manga, and comic books finally found their way into the literature classroom, why video games have not? Particularly given the power video games have to shape the ideas of individuals and the world around them. Bill Cope and Mary Kalantzis, theorizing about multimodality in pedagogy, recognize how much video games have permeated culture and identify the expectations that players and readers hold when engaging with their narratives:

In everyday family and community life, the narratives of gaming have become an even bigger business than Hollywood over the past decade. From the most impressionable of ages, children of the Nintendo, PlayStation and Xbox generation have become inured to the idea that they can be characters in narratives, capable of determining or, at the very least, influencing the story's end (Cope and Kalantzis 172-173).

Cope and Kalantzis follow that “They [players/readers of video games] are content with being no less than actors rather than audiences, players rather than spectators, agents rather than voyeurs and users rather than readers” (Cope and Kalantzis 173). If Cope, and Kalantzis are correct in their assessment of current and coming generations, then it behooves educators to experiment, discover, and innovate ways to incorporate video games as a medium into the literature classroom in order to reach students disengaged with traditional texts. Approaches to teaching similar to what I am proposing are becoming old-hat in education; video games as teaching tools and subjects of study are a multimodal pedagogy.

Video games allow students to engage with and switch between multiple senses. Students who “read” video games as texts shift between reading text, reacting to visual stimuli, listening, and tactile operation of the text in which they are participating over observing. The mode-switching that students experience is potentially kinesthetic learning as they react physically (game controls are tactile) and mentally (challenges and puzzles are dynamic) to the games’ stimuli. Due to the immersive nature of many narrative video games, the potential for

what Gee calls “situated, embodied learning” manifests as well. Many video games position players within the game through avatars. This positions players of games—and potentially students—as immersed and active participants, able to learn in a more hands-on way than ever possible with traditional literary texts. This is because the “situated, embodied” learning that occurs is directed and influenced by the player’s choices in the game (Gee, *What Video Games Have to Teach Us*, 83-84). What a player learns and how they learn it is often a combination of the game’s design and the player’s decisions within that design. For many narrative video games these choices affect the course of the story and its outcomes, exactly the interaction with a story that Cope, Kalantzis, Gee, and Aarseth claim these players want. In most narrative games, the narrative exists as a conversation between the game and the player, uncovered progressively, but always in communication with the narrative yet to be revealed and in conflict with the narrative paths not chosen by the player. As players navigate a game and make choices which uncover the game’s designed narrative, their agency can *generate* the narrative path with which they interact, revealing one narrative possibility among many alternatives. The agency-dependent narrative that a player encounters and shapes in a game is a *player-generated narrative*.

Player-generated narratives differ in their manifestations depending on the game. For instance, in a linear, Japanese Role-Playing Game (JRPG) with choices that affect the narrative outcome—a game like Toby Fox’s *Undertale*—the narrative variations are fixed and quantifiable: a player may only experience one narrative variation with each play-through of the game. The narrative outcomes are set in the game’s design. Player choice serves to guide and uncover the narrative based solely on the player’s agency interacting with the game. In a game like *Undertale*, players generate one of a fixed number of narrative outcomes based upon their choices. This has been the model for many narrative games leading up to the twenty-first

century. More direct examples of the operation of player-generated narratives exist in open-world “sandbox” games like *Witcher 3* or *Horizon: Zero Dawn*. Similar to JRPGs, players make choices that uncover designed, fixed narrative outcomes in the game’s story. However, open-world “sandbox” games have started to extend even more agency to players to allow them to shape the kind of character their avatar is. Choices that reflect the player’s personality, mental state, or approach to a game can now be manifested through game avatars which impacts how they are perceived by other characters in the game. For example, players of *Witcher 3* will finish the game with one of a set number of outcomes. However, how the game is played will differ depending on how players play their character. Being hostile or sympathetic to other characters in the game can have an effect on how other characters interact with the player’s character, and how the game ends. In this way, while the player is uncovering a narrative presented to them by the designer, they are also altering it and crafting their own narrative depending on how they conduct their avatar within the game’s framework. Players are, in effect, *generating* the narrative through their agency and through what Gee calls a “projective identity.” The causal relationship of the player-generated narrative becomes the locus of interpretation. The experience of the narrative is tailored to the individual player and so is the interpretation of the text. As players play the game again—or interact with other players who made different choices—more of the game’s narrative is simultaneously revealed by design and generated by new and/or different player choices made in the game. In a game like *Undertale*, a larger, more complete narrative is revealed. In an open-world game like *Witcher 3*, the same narrative is experienced in completely new ways. In both instances, the interrelation of narrative variations are represented and re-represented as players generate new and different experiences and—most importantly for looking at video games as literary texts—interpretations. When player interpretation is transferred to classroom discussion, the results look very similar to discussion

of a traditional text: every student brings their own interpretation of the text to the table. I will expand more upon this theory in the next chapter to demonstrate its foundation in critical theory and also discuss some examples of traditional and non-traditional printed texts where player-generated narratives are potentially enacted.

In creating a pedagogical approach to utilizing video games in literature classes, pairing traditional texts with narrative video games is demonstrated as a very effective tactic. In my case study, I paired *Undertale* with readings from several traditional texts across several classes. In one class, students commented on the ethical problems they encountered in *Undertale*, paralleling the ethical dilemmas in Orson Scott Card's *Ender's Game*. In other classes, students were often quick to relate characters from *Undertale* to characters in their many previous readings for the class. Recently, I connected the popular 2017 game *Night in the Woods* to themes of neurodiversity in John Green's *Turtles All the Way Down*, suggesting that the game and Green's novel pair well together. Themes and important topics of discussion are shown through representation in traditional textual forms as well as re-represented in multimodal forms through games. This provides more lenses through which to examine these topics in addition to more entry points for engagement from students.

The case for reading and interpreting video games as literary texts extends beyond the goals of literary studies and bridges both digital culture and the classroom in a reciprocal way. Through literary study of video games, an influential aspect of digital culture is brought in to the classroom and influences study by incorporating ideas and perspectives introduced by participants in this aspect of digital culture. Reciprocally, these same participants are acted on by the curriculum and convey new ideas back into their corners of digital culture. More and more students are engaging with video games as part of their day-to-day life, presumably dodging reading conventional texts in favor of participation with interactive, digital texts.

According to the Entertainment Software Association's 2017 annual report, 65% of households have at least one person who plays video games for three hours or more a week. While the average age of gamers today is 35, age groups ranging from under eighteen to over fifty are represented almost evenly in terms of percentage of the population who interact with games. And these gamers are not playing alone. 54% of gamers report that playing video games is a social activity that helps them to stay connected with friends and family ("2017 Sales, Demographic, and Usage Data" 4-7). Clearly, video games are a massively influential part of contemporary culture that are worthy of exploration. Additionally, there is evidence to suggest that students are already exploring video games as narrative, literary texts in mass. In 2017, narrative-driven RPGs were the third highest-selling video game genre. But if we group all video games together that possess some form of narrative or story, then the market share is closer to 80% ("2017 Sales, Demographic, and Usage Data" 12). The video game industry relies on narrative: 59% of gamers state that an "interesting story/premise" is a major factor in buying a game ("2017 Sales, Demographic, and Usage Data" 14). Together, these statistics suggest that students will be receptive to studying video games as literature and that educators have no shortage of texts from which to teach.

The exigence that presses educators to explore this literary medium moves beyond study of the text and into study of culture itself. For all of the good video games can bring, from being hubs of socializing and digital citizenship to didactic storytelling machines, video games can also breed division and toxicity. Chief among this toxicity is consistent reports of sexism, racism, and homophobia in circles of gaming culture. Gamergate¹ serves as substantial evidence

¹ Gamergate began on social media as a call from gamers for greater accuracy and accountability in gaming journalism. These gamers accused gaming journalism of creating vapid critiques of games and engaging in unfair practices. Among accusations of unfair practices, the spurious claim of a female game developer exchanging sexual favors for a positive review of her game emerged, which eventually led to Gamergate progressively devolving into endless argumentation on social media and the eventual doxing

of the extent to which these manifestations of toxicity can promulgate. The causes for this behavior are many: institutional racism, patriarchy, and alpha-male machismo, to name but a few—and we are a long way from ridding the world of these ills. However, studying video games as literature may mitigate some of the toxicity that plagues gaming culture. A common assertion from the field of literary study is that vicarious experience gleaned from reading cultivates critical thinking and empathy. Perhaps this cultivation is what is missing in video games. If video games are texts worthy of literary study, then they are texts that education has neglected, left to the masses to do with what they please. For most, I think, these texts are positive, powerful, and enriching. For some, they represent violence and intolerance. Video games are so versatile and complex in their execution and interpretation that it is reasonable that they can equally serve as echo-chambers, reifying intolerant beliefs with no countering point of view. Yet, as Gee and many others espouse, video games can be powerful educational tools. But for any real in-depth, didactic exploration to take place—to cultivate the values of literary studies such as critical thinking, interpretation, avid reading, and empathy—video games must stop being positioned as accessories or rewards in our curricula, which is often the case, and become a more direct focus of study.

Video Games as Literary Texts

In Chapter One, I make the case that video games are literature and can be examined in a similar fashion as traditional literary texts. I begin with the comparatively simple question of: “what is literature?” informed by Terry Eagleton’s explanation in *Literary Theory: An Introduction*, an influential text for educators and theorists. Combining my own years of experience with video games and literature with research and theories presented by notable authorities on gaming and literary study such as Espen Aarseth, Ian Bogost, Henry Jenkins, and

of many vocal women game developers and threats of violence against them. Historically, Gamergate represents one of the most prominent instances of toxicity in gaming acting in force online.

James Paul Gee, I argue the case that video games can be read as literary texts. Part of this argument addresses the debate between ludologists and narratologists surrounding video games functioning as narrative texts or distinct, designed, entities. In an attempt to add my own voice to this debate, I present my theory of player-generated narratives which serves to bridge this debate by recognizing both design and textual elements of narrative video games. The player-generated narrative is the locus of interpretation of video games as texts. In presenting this theory, I argue with Espen Aarseth's *Cybertext*, which remains an influential text in the debate surrounding video games as literary texts versus codex (conventional paper-bound or straightforward digital) texts. Additionally, I examine Ian Bogost's *Unit Operations* and offer an example of literary criticism applied to the video game *Horizon: Zero Dawn*. I also look at Henry Jenkins's contentious essay "Game Design as Narrative Architecture" and attempt to add player-generated narratives as an angle that he overlooked. While Jenkins successfully maps narrative formations in game spaces, he neglects the function of the reader on the text. Interpretation, being located through player-generated narratives, provides a segue to argue the utilization of narrative video games as literary texts in the classroom.

Undertale in Literature Classrooms: A Case Study

In Chapter Two, I present the experiment and case study that I conducted in literature classrooms at IUPUI from the Spring 2017 to the Spring 2018 semesters. The sample size for the study was 101 students across six classes which ranged from 100 to 300-level undergraduate courses. The findings of this case study are very promising, despite some challenges. For the majority of the sample, participation in the experiment was minimal to moderate. A majority of students either played the game or watched a YouTube video walkthrough of the game. A very small minority of students did not participate at all. Promising findings in the study include observations of increased class-wide participation in discussion, occasional increases in class

attendance, and consistent increases in participation from otherwise disengaged students. In fact, in every class, at least one disengaged student became notably more engaged in the class or, in some cases, dominated discussion. Student writing in both online discussion boards and in written assignments provides evidence that students made connections to literature, either through examining literary elements of *Undertale* itself, or connecting *Undertale* to other readings. In many cases, students wrote that they recognized *Undertale* as a literary text, despite major resistance to the idea at the start. The results of this case study demonstrate that video games can be read, interpreted, and discussed as literary texts readily by students in literature classes and suggest that low-participatory, hard-to-reach students can engage literature through alternative media that resonates with their interests. Moreover, disengaged students' interests (such as video games, in this case) can be harnessed as a portal of entry into thought about and discussion of literature.

Video Games in the Classroom

In Chapter Three I examine video games as educational tools in greater depth. I revisit work by James Paul Gee, including his many theories about the educational benefits of video games and some of his learning principles for good video games. I address the lack of video games as learning tools in higher education by pointing to several examples of middle and high-school level educators using video games as teaching tools and texts. Chapter Three recognizes some potential approaches to using video games as texts in literature classrooms and identifies that pairing codex texts with video games is consistently effective. The examples provided also affirm my observations in Chapter Two that video games reach disengaged students and give them a voice in the classroom and alternative avenues for displaying both their skillful literacy with video games and their ability to perform well when their out-of-class interests are allowed into the educational space.

Conclusion

I synthesize the material of the preceding chapters into a coherent case for the use of narrative video games as texts in literature classrooms. Combining multimodal approaches to pedagogy, theories of video games as learning tools, narrative theory, player-generated narratives, results from my case study, and studies from educators in the field, I present a concise argument for the use of video games in literature curricula. My intent is to harness knowledge and pedagogies that already exist to shine a light on video games as valuable and unexplored texts and to broadcast that narrative video games can productively engage students who increasingly spend their free time reading digital environments and narratives rather than traditional texts.

Chapter One: Video Games as Literary Texts

Positioning video games as literary texts has, historically, been a difficult and contentious effort. For one, the debate between ludologists and narratologists as to the role narratives play in video games is ongoing, and neither school of thought has managed to parse out a singular theoretical approach. Secondly, video games are not widely explored or even welcome in the world of literary criticism. This is partly because video games are simultaneously more and less complex than codex texts. On the one hand, the narratives of video games—what we would consider the *literary* text, the story to really dig into—are often perceived as overly simplistic, trite, or altogether devoid of any meaningful literary substance. On the other, beneath a perceived simplistic story lies a vast interweaving net of game design: rules, code, and loathsome math—aspects that seem to have no place in literary study— that can make viewing a video game as a text seem daunting when trying to unpack and decode it in similar fashion to a codex text. For scholars of literature, video games are at once beneath us and over our heads. Despite these perceptions, some compelling criticism has emerged over the last thirty years that has begun the task of positioning video games within the realm of literary criticism. In 1997, Espen Aarseth published his influential work *Cybertext* which examines codex and hypertexts, pin-pointing instances of what Aarseth calls *ergodic* literature to identify cybertexts, particularly in electronic adventure games. Aarseth’s term “ergodic” is the combination of *ergon* and *hodos*, meaning “work” and “path.” (1) So in ergodic literature, the work is intrinsically tied to a path. In 2006, Ian Bogost’s work, *Unit Operations*, expanded on some of Aarseth’s theories to propose his own theory of *unit operations* that connects digital and video games to more conventional literary criticism by examining the function of individual units of operation in games and other media in a way that resembles—and yet moves beyond—the semiotic arguments of structuralists and poststructuralists. Both of these books are still considered important texts in

positioning video games in the realm of criticism today. Between the two books, noted games scholar Henry Jenkins published his controversial essay “Game Design as Narrative Architecture” in 2004. The essay aimed to illustrate that the design choices of many game spaces intrinsically build in opportunities for narratives to exist. Jenkins identifies four narrative consequences of game design: *evoked* narratives, *enacted* narratives, *embedded* narratives, and *emergent* narratives. Aarseth provides a foundation for literary criticism of video games, establishing them as their own, distinct cybertexts separate from codex and hypertexts. Bogost goes further by establishing unit operations as an approach to bridging literary and video game criticism, but fails to examine as deeply as necessary the role of a player’s agency in interacting with a video game as a text. Jenkins attempts to bridge literary and video game criticism through his discussion of game narratives, but he privileges the function of the text over the role of the reader in his analysis. Building primarily upon the work of these three authors in this chapter, I posit a theory of *player-generated narratives* that privileges the reader’s interaction with the texts of video games over the operation of the games themselves. Through this critical approach, I establish that the reader of a narrative video game as a text is locked through play into a continuous, reciprocal relationship between playing/reading the text and their mental decoding of the text. In this relationship, the reader becomes a quasi-co-author of the text in the space of their own experience. This is not unlike the experience of reading a more conventional codex text but, in the case of video games, the player is positioned less as voyeur and more as active participant within the story. It is through the relationship of the coded, narrative text of a game and the player’s ability to influence and even generate narrative within and beyond a game space that critical interpretation of a game as a text takes place. This is certainly not the only locus of interpretation for readers of video games as texts, nor is it the point of deepest critical examination. Rather, player-generated narratives are an important

entry-point for critical thought for interpreting video games as texts, the role of the player as reader, and the relationship between the reader and designer as author. The concept of player-generated narratives gives literary criticism another lens through which to view video games as texts and perceive them as works of literature, not mere entertainment.

To begin, it is necessary that I define my own terminology before unpacking Aarseth, Bogost, and Jenkins, explaining their terminology and explicating their theories. First, I think it prudent to establish what I mean by “video games are literature” or “literary texts” by first establishing what Literature (with a capital L) is, for its meaning is by-and-large just as contentious and amorphous as attempts to place video games in any particular artistic or cultural category. Terry Eagleton says, aptly, in his attempt to define literature:

One can think of literature less as some inherent quality or set of qualities displayed by certain kinds of writing all the way from *Beowulf* to Virginia Woolf, than as a number of ways in which people *relate themselves* to writing. It would not be easy to isolate, from all that has been variously called ‘literature’, some constant set of inherent features. In fact it would be as impossible as trying to identify the single distinguishing feature which all games have in common. (Eagleton 8).

Eagleton goes on to say that “literature, in the meaning of the word we have inherited, *is* an ideology” (Eagleton 19). “That is, a system of specific class beliefs, images, values, and practices that functions to reproduce the dominant social order” (Leitch 2243).² Eagleton compares literature to religion marking that both work “primarily by emotion and experience.” Comparing literary studies to that of science and philosophy, he notes that “students of literature occupy the more prized territory of feeling and experience” (Eagleton 22). Experience relates closely to literature for Eagleton. In fact, the two seem inseparable as Eagleton connects ideology to the subjective experience of literature. “For ‘experience’ is not only the homeland of ideology, the place where it takes root most effectively; it is also in its literary form a kind of vicarious self-

² This quote is a footnote taken from the *Norton Anthology of Theory and Criticism* (2001) that accompanies the entry that excerpts Eagleton’s *Literary Theory: An Introduction*.

fulfillment” (Eagleton 23). Eagleton follows reader-response theory by privileging the experience of the reader above the function of the text. Such an approach to defining Literature complements arguments for the literariness of video games for, as texts, they are also highly experiential and reader-centered. Eagleton cautions though that while literature may be seen as a subjective experience, what is deemed literature is no whimsical matter. Literature, being deeply tied to ideology is also a product of the systems of power in a society (Eagleton 14). Systems of societal power are necessarily concerned with the production of signs in everything from discourse to advertising and those signs become experiential as well. Roland Barthes was aware of this in his discussion of signs in advertising in *Mythologies*. In his semiotic exploration “Soap-powders and Detergents,” Barthes says of the signs employed in advertising that “they chiefly reveal [the product’s] mode of action; in doing so, they involve the consumer in a kind of direct experience of the substance” (Barthes, “Soap,” 1462). While Barthes’s observation has great implications for video games as products, for now it suffices to note that Barthes saw the use of signs (the building-blocks of language and writing, its “code,” perhaps) as experiential.

Even at one of language’s most fundamental levels, the relationships between signs, the *word*, printed, spoken, or gestured, is rooted in the mind. Saussure noted in his discussion of semiotics that:

Terms involved in the linguistic sign are psychological and are united in the brain by an associative bond. . . . The linguistic sign unites, not a thing and a name, but a concept and a sound-image. The latter is not the material sound, a purely physical thing, but the psychological imprint of the sound, the impression that it makes on the senses. (Saussure 963).

For Saussure, language takes place in the mind. If language, then, is the well-spring of literature, then it, too, is centered in the mind of the individual, whether author, reader, or some other specter. But I think it critical to understand literature as it relates to language and its relationship with the mind, its function as an ideology and societal construct, and, above all, its

relationship with the *reader*. Literature is all of these things, but it is most importantly an experience, subjective, dependent, and a constant, even reciprocal dialectic struggle between the text and the reader that manifests as an experience of the text. If Literature has a “Golden Rule”—both in its existence as a conceptual object and as a physical object of study— it is that it must be read. More deeply, it must be *experienced*. Reader-Response theory correctly grants us this understanding and, as video games are explored further in curricula, privileging the experience of the reader is no less critical. Chiefly, perhaps, if we are to argue for video games as literature is to recognize literature as an individual and subjective textual experience. For on this plane, one may observe unquestionably that literature defined as such is present in both codex texts and video games as texts.

For the purposes of this work, “video games” is an all-encompassing term. Though distinction exists between video games and digital games, for the sake of simplicity, I group all games played in digital and video formats under the umbrella term “video games.” While some games, such as RPGs, are better suited for literary study than others, I avoid discussions of genres in this chapter and revisit the topic on Chapter Three. Next, when speaking of video games as texts, the video game *player* is often viewed here as the *reader*. For my purposes, these terms are somewhat interchangeable, but I endeavor to create a distinction between a player of a game as someone who passively consumes a game and a reader as someone who actively interacts with the narrative of the text. In short, a player is engaged with mundane forms of non-textual play—passive consumption of the text—and a reader is engaged with interaction—active inspection of the text. The same interchangeability applies to game *designer* and *author*. Often designers of video games are not considered their authors. Some exceptions arguably exist as single “authors” are sometimes tied to large game titles such as Sid Meier’s *Civilization* games or Will Wright for *The Sims*. However, the authorial influence over video games

as texts exerted by these “authors” is closer to *auteur* film directors. In the case of authorship of a video game title, these “authors” are credited as the lead of the collaborative writing project that is the game. Regardless, most authors of video games—the collaborative team of writers—try to leave as little of themselves detectable in the game for the reader. For the sake of viewing video games as texts, these groups of writers may be referred to as a singular author, for the video game as a text is often, by the nature of its very presentation, experienced as a singular work of collaborative writing, its many creators and their considerable efforts encompassed under the term “designer” or “developer.” When I refer to a video game as a text having an “author,” I refer to the collective authorship of the collaborative writing effort that produces the narrative text of the game. Finally, I want to offer a distinction between my use of the terminology *player-generated narratives* versus the vernacular understanding of the term.

At the end of Jenkins’s essay “Game Design as Narrative Architecture,” he alludes to player-generated narratives as they relate to the four narrative consequences of video game design (Jenkins 129). But Jenkins does not elaborate on this term any further. One is left wondering if *all* of the narrative consequences of game design are in some way player-generated narratives, or if this term is something apart from his discussion. Player-generated narratives as they are understood in the vernacular—in gaming communities and among developers and some theorists—often relate to the narratives created by players of games outside and, in some cases, inside game spaces. For example, Blizzard Entertainment’s massively multiplayer online role-playing game (MMORPG) *World of Warcraft* has spawned a number of fanfiction forums, where players of the game craft narrative stories about the in-game and even imagined experiences of their characters (fanfiction.net). In other instances, game developers publish printed works based off their games such as Christie Golden’s many books that explicate the lore of the *World of Warcraft* universe. In these instances, however, it is questionable if the

author is indeed a player or not. One of the best known instances of player-generated narratives surrounds the game *Five Nights at Freddy's*, released by Scott Cawthon in 2014. What began as a very simplistic “jump-scare” game, evolved into a series of five sequels, each explicating a sinister story that was developed, in part, through the game’s fan’s reactions to and theories about the game. *Five Nights at Freddy's* later spawned a book series and its own fanfiction as well. As fanfiction becomes an increasingly studied genre of literature, player-generated narratives—in their vernacular sense—will become an increasingly interesting phenomenon for investigating the source material for fan-made narratives.

Player-generated narratives as I discuss them here refer to a more poststructuralist approach to video games as texts. Player-generated narratives (PGNs) as a theoretical approach to narrative formation in and out of game spaces more closely relate to the interaction between the player as reader of a video game as a text. At the same time, PGNs allow for the development of narratives in a game space that can otherwise be resistant to narrative formation through interaction with the reader. Narrative formation in PGNs occurs mostly in a mental space in interaction with the text, filling in gaps or enacting and embodying in virtual space an agent of influence on the narrative’s formation. This is to say that, in some instances, the reader constructs the narrative in interaction with the text rather than merely uncovering the narrative by reading the game as a text or playing in accordance with its rules. This is both subversive of narrative structural formation in codex texts as well as the agency-binding, narrative resistant design of rule dependent gameplay. In short, PGNs in video games as texts are discovered and created through the play of what Derrida calls *différance*, though, perhaps, on a more dualistic and macroscopic scale as gaps in textual meaning are filtered through near infinite referents in the reader’s mind while the game’s design references back upon itself with every act of agency exerted by the player. In discussing player-generated narratives going

forward, I refer to my critical approach. Any reference to the vernacular meaning will be made clear. For now, in order to establish the function of narratives in video games as something literary, I turn to the foremost conversations on video games as texts.

Aarseth and the Poets of the Metal Flowers

Espen Aarseth is perhaps the best entry point for exploring video games as texts. His 1997 work *Cybertext* argues differences between codex texts and hypertexts and posits the new terms *ergodic literature* and *cybertexts*. Aarseth is also considered the originator of the field of ludology, which studies the workings and designs of games. For Aarseth, there are categorically distinct differences between codex texts, hypertexts, and cybertexts. Narrative functions within all of these texts act differently, but also overlap.

For Aarseth, a codex text simply means printed texts including e-texts that can be read in a straightforward manner, absent of the mechanical intertextual linkages that help define hypertexts. But he is careful to observe in his comparison and contrast of codex texts to digital texts like hypertexts and cybertexts that “most literary theorists take their object medium as a given, in spite of the blatant historical differences between, for instance, oral and written language. The written, or rather the printed text, has been the privileged form” (Aarseth 15). So while Aarseth’s definition of a codex text is pragmatically simplistic, the implications of the existence and privileging of codex texts in literary theory is always in the background of his discussion of hypertexts and cybertexts. In contrast, a “hypertext is often understood as a medium of a text, as an alternative to . . . the codex format found in books . . . it is often described as a mechanical (computerized) system of reading and writing, in which the text is organized into a network of fragments and the connections between them” (Aarseth 76). A hypertext, then, is mechanical and deceptively disjointed, but also linked as a singular text or even a multiplicity of interacting texts. A simple example of a hypertext is a webpage or a text

on an e-reader. Hypertexts are different from the works of modernist writers like William Faulkner whose novel *The Sound and the Fury*, though challenging the construct of the narrative parabola with a fractal story structure, is still connected in linear fashion through the arrangement of its medium's very pages. Hypertext, in contrast, is non-linear, or rather, it carries the illusion of being nonlinear. For though a hypertext's structure may appear to flow through fragmented linkages of chunks of text, the narrative follows a linear structure in most all cases. Narratives are regarded by some as labyrinthine structures, but, as Aarseth points out, they are all linear; they are headed somewhere. Lastly, Aarseth describes cybertexts as "[machines] for the production of variety of expression" (Aarseth 3). This is a dubiously simple definition. For cybertexts are complex and seem to chiefly subvert the traditional notions of the function of narratives, bumping up directly against narrative function in a way that positions the reader as more active agent in cybertexts than in codex texts. An example of a cybertext is a video game or any text that requires significant effort on the part of the reader to assemble or navigate the structure or narrative of the text. Aarseth compares and contrasts the function of narratives in codex and hypertexts with those of cybertexts:

A reader, however strongly engaged in the unfolding of a narrative, is powerless. . . . He cannot have the player's pleasure of influence: "Let's see what happens when I do *this*." The reader's pleasure is the pleasure of the voyeur. Safe, but impotent. . . . The cybertext puts the would-be reader at risk: the risk of rejection. . . . The tensions at work in a cybertext, while not incompatible with those of narrative desire, are also something more: a struggle not merely for interpretive insight but also for narrative control: "I want this text to tell *my* story; the story that *could not be* without me." (Aarseth 4)

A cybertext, then, is a text that differs from codex texts and hypertexts by the increased onus on the reader to be an active participant and influencer on the text. Reading a codex text is not a completely passive task and reading a hypertext even less so as readers must actively bridge linkages within the hypertext. Cybertexts, alternately, seem to place a great deal of extra work upon the reader. "The 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” (Aarseth 4). If the reader of a codex text is an impotent voyeur, then the reader of a cybertext is an active participant. Moreover, the reader of a cybertext seems to struggle with agential power over the text, battling the author (or the specter of the author) for narrative control. What distinguishes a cybertext from a codex or hypertext is the very real *work* that the text places upon the reader. This non-trivial work that defines the cybertext Aarseth calls *ergodic* and he places it in its own literary category as *ergodic literature*.

Ergodic literature differs from conventional literature in that “nontrivial effort is required to allow the reader to traverse the text” (Aarseth 1). By “nontrivial effort,” Aarseth refers to more effort exerted by the reader than “eye movement and the periodic or arbitrary turning of pages” (Aarseth 2). Though many literary scholars would argue against the existence of “trivial effort” in close, meaningful reading, Aarseth merely means that ergodic literature demands more tactility from the reader. The *I Ching* is an example of both ergodic literature and a cybertext from antiquity. The *I Ching* is a text that dates back to 1122-770 B.C. and is comprised of “sixty-four symbols, or hexagrams, which are binary combinations of six whole or broken . . . lines” (Aarseth 9). By manipulating coins or yarrow stalks along a randomizing principle, “the texts of two hexagrams are combined, producing one out of 4096 possible texts” (Aarseth 10). Raymond Queneau’s *Cent Mille Millions de Poèmes* (A Hundred Thousand Billion Poems) is another example of a historical cybertext. *Cent Mille Millions de Poèmes* “is a sonnet machine book of 10 x 14 lines, capable of producing 10¹⁴ sonnets” (Aarseth 10). In both examples, these works require nontrivial work to assemble their textual structures before or during the reading process. As such, they are both cybertexts and ergodic literature. They are cybertexts, because the agential power of the reader is inseparable from the construction of the text; they are definitively texts that “could not be” without the influence of the reader.

Moreover, there are rules to their construction, offering a clear game structure that Aarseth attributes to the “game-worlds” or “world-games” that are cybertexts. These texts are also ergodic literature due to the non-trivial work of the very assembly of the texts. Many video games, as well, are examples of ergodic literature because interaction with them is necessarily multimodal in most cases and highly kinetic compared to reading codex texts. This kind of work tied to pre-reading and reading moves beyond the near-sedentary operations of eye movement, page turning, and now in an age of increased digital reading, page-turning via mouse-click or scrolling. As mentioned above, the work path of ergodic literature is often found in negotiating the narrative. To put it plainly, then, cybertexts and ergodic literature are one in the same. If what defines a cybertext is the relationship between the text and the reader’s tactile and, perhaps most importantly, agential work upon the text, then that influence is necessarily non-trivial. Conversely, if the text requires non-trivial work in order to be constructed and/or read, then the agential power of the reader is inseparable from the work.

The nature of cybertexts creates an interesting perspective by which literature and cybertexts as ergodic literature may be read and criticized. Cybertexts as ergodic literature present new textual objects for study, objects that function differently from codex and hypertexts and that have powerful implications for the role of the reader in literature as cybertexts allow readers to exert rarely-encountered levels of influence upon a text. The temptation to explore cybertexts through lenses of established literary criticism is very present and irresistible. However, Aarseth cautions against the “colonization” of cybertext objects by traditional literary criticism, proposing that such efforts would be fruitless and complicated.

The field of literary study is in a state of permanent civil war with regard to what constitutes its valid objects. What right have we to export this war to foreign continents? Even if important insights can be gained from the study of extraliterary phenomena with the instruments of literary theory (used cautiously), it does not follow that these phenomena are literature and should be judged with literary criteria or that the field of literature should be expanded

to include them. In my view, there is nothing to be gained from this sort of theoretical imperialism, but much to lose: discussions of “literariness” of this or that verbal medium are ever in danger of deteriorating into a battle of apologetic claims and chauvinistic counterclaims. (Aarseth 15-16)

Aarseth’s reductionist argument (which even he seems to circumvent later) against imperialist literary critics colonizing the lands of cybertexts and video games—making these distinct texts subalterns of our textual and theoretical regimes—was a valid concern twenty years ago. Today this may no longer be the case. For as we seem to have heeded Aarseth’s warning and stayed confined to our familiar soil, video games have set to colonizing our shores.

In *Cybertext*, Aarseth explores the topic of video games, but mainly focuses on the 1976 role-playing game *Adventure* and several text-based internet MUDs (Multi-User Dungeons). There is merit in Aarseth’s approach to arguing for video games as cybertexts in focusing on foundational works like *Adventure*. But by 1997, video games had moved far beyond text-based graphics and the relative simplicity of *Adventure*. By then, video games had become a multi-billion dollar industry. Before 1997, many RPG video games lauded for their story elements such as several *Legend of Zelda* installments, the bulk of the *Final Fantasy* franchise, *Chrono Trigger* and others had begun to change the perception of video games as entertainment into art. *Cybertext* embodies another problem in theorizing video games as literary texts: we are always behind and always trying to catch up. But this problem is not so divorced from the history of literary study as a whole. Much of what is studied today as literature has faced resistance before finding its place in the academy. The novel, for instance, was widely regarded as just that: “novel” in the eighteenth century, something beneath serious critical inspection. Media such as film, television, comic books, graphic novels, and manga have all been resisted and since found a place in literary study. There has always been a dichotomy between what Aarseth calls “apologetics” and “trivialization” in the space of literary theory and criticism and the same exists for video games perceived as literary:

Two of the most common approaches to adventure games seem to be apologetics and trivialization. Both generally fail to grasp the intrinsic qualities of the genre, because they both privilege the aesthetic ideals of another genre, that of narrative literature, typically the novel. For the apologists, adventure games may one day—when their Cervantes or Dickens comes along—reach their true potential, produce works of literary value that rival the current narrative masterpieces, and claim their place in the canon. For the trivialists, this will never happen; adventure games are games—they cannot possibly be taken seriously as literature nor attain the level of sophistication of a good novel. . . . And while the apologists certainly are wrong, in that the games will never be considered good novels, they are right in insisting that the genre may improve and eventually turn out something rich and wonderful. (Aarseth 106-107)

Ultimately, discussions of including video games as a genre in the realm of the literary are arguments of gatekeeping. I will not delve into those arguments here, as history has shown that time ultimately serves to erode any and all gates. Rather, I think that Aarseth, while correct in his assessment of the dichotomy between “apologists” and “trivialists,” gets ahead of himself in suggesting video games as a literary genre. Indeed video games are among genres in their classifications in art, entertainment, and technology, but they have yet to be recognized as a genre in the literary sense. In order to place them as such into whatever genre one may care to create for them in literature—I find such homemaking unimportant and ultimately convoluted at this stage—one must first identify their textuality and then sort through the multiplicity of variations. This sorting is not our task, but remains for those who will come after us. Instead, literary scholars today are charged with locating the textual, the *literary*, in video games that they may, in some fashion, become widely recognized as objects for our serious critical inspection—a quest that would fill many careers worth of research agendas.

It is undeniable that many video games possess textuality in one manifestation or another, whether that be reflected in the text of the game’s dialogue, lore, codex texts, or its very code itself. But it is only recently that video games have begun to integrate textual elements into their design in such a way that mimics the artistic expression of the codex texts to

which we are used. This has been managed in varying degrees of success and failure in several games. For instance, CD Projekt Red's 2015 RPG *The Witcher 3: Wild Hunt* has the player collecting and reading immense quantities of tomes that explicate the lore of the game world and offer information on how to kill various monsters. In the case of *The Witcher 3*, text has been integrated into the game in such a way that the act of reading—taken even perhaps to a laborious extent—complements the gameplay. An example of an opposite extreme is Hello Games's 2016 game *No Man's Sky* which was lauded for its immense and completely explorable procedurally generated universe of over 18 quintillion planets and stars, but faced considerable criticism for its lack of story. Though textual story exists in *No Man's Sky*, it is only ever explicated to the reader in disjointed fragments as they are discovered by the player as s/he explores the universe's planets. *No Man's Sky* resembles a hypertext in its narrative construction, offering fragmented vignettes of story as players randomly uncover them while simultaneously guiding players along its linear narrative path to the center of the galaxy where, supposedly, more story will be explicated. But for both of these games' successes and failures in their use of textuality, neither comes close to mimicking or employing any strong elements of the literary. One recent game does, however, seem to bridge authenticating voices from classical literature and its own narrative to subtly signal its literary merit: *Horizon: Zero Dawn*.

In 2017, Guerilla Games released its open-world RPG *Horizon: Zero Dawn* to much acclaim. *Horizon* is set in a dystopian future, thousands of years after the fall of human civilization after it was overrun by artificial intelligence and driven to extinction. The player embodies the role of Aloy, a young woman who was raised as an outcast from her tribe and who eventually becomes their emissary to the world beyond their borders. Through Aloy, the player discovers the truth about humanity's past, how it came to ruin, and how to prevent history from repeating itself. Along the way, the player discovers the remnants of project "Zero Dawn," a

global effort to preserve humanity and its collective knowledge. Unfortunately, after thousands of years, most of the data that housed human knowledge was lost. Fragmented and disjointed, the knowledge of humanity, including some of its literature, is slowly rediscovered by the player as they explore the game's narrative.

While *Horizon* contains an immersive and compelling narrative told mainly through the actors who voice the game's characters, one of its most profound literary qualities seems to have a complementary connection to the broader narrative of the game. The player is granted free-reign of the game's large world map, allowed to traverse where s/he pleases and explore and discover areas of the world and their contents. In order to "beat" the game, the player must eventually play through its narrative, but is not incentivized to be in any hurry. There are many side-quests, hunts, and explorative activities the player may choose to undertake or ignore at their leisure. One such activity is the gathering of collectible metal flowers. Interspersed throughout the game map are thirty metal flowers that the player may find and collect and then trade for equipment. Upon collecting a metal flower, the player may access the menu to check the item, whereupon it is revealed to him or her that the item contains lines of poetry. The poems contained in the metal flowers range from the haikus of Yosa Buson to excerpts from Thoreau, Longfellow, Keats and many others culminating into a list of poets representative of almost every region and ethnicity on Earth across a broad range of time. Keeping with the theme of the game's narrative—or perhaps further explicating it—the poems all allude to man's relation to nature.

The positioning of the poems in the greater narrative of the game and in the game's design is very important to the role of the poems as literary artifacts in *Horizon*. Like a hypertext, the poems are presented as chunks of text that seem disconnected and even random upon first inspection. Neither does *Horizon* title the poems or credit their authors. Instead, the poetry is

avatar or controlled character (Gee, *What Video Games Have to Teach Us*, 65). The projective identity has great potential for embodied learning, and also factors importantly in the production and function of player-generated narratives. For now, I return to the poetry in *Horizon* and its place as a textual artifact.

The link between the poetry encountered in *Horizon* and hypertext extends extratextually beyond the reader. Like many video games, *Horizon* extends its hypertextual function beyond the text of the game itself and links externally through the reader to secondary sources of information. In the case of the poetry in *Horizon*, in order for the reader to grasp the context of the text, s/he must consult an outside source, such as a “wiki” page devoted to the game. It is from this extratextual source that the player may then connect Rūmī to the poem from the flower. At the same time, the poetry links simultaneously back to the narrative and gameplay design of *Horizon*. The excerpt of Rūmī’s poem reminds the reader of the world they inhabit. Through Aloy, the reader needs not look far to see the “dust of ruined cities” or to see the evolution of life all around them. Evolution has taken on a new form as humans, animals, plants, and machine wildlife alike are engineered by ancient, automated factories that connect Rūmī’s mineral-plant-animal-human chain of development in a powerfully manifested way. Most all of the poetry in *Horizon* connects directly to its central narrative in a similar way. For instance, the following poem by Basho Matsuo reminds the player of the strangely desolate but alive world of the game and the hopeless past that created that world:

```
[function: true]
{{Summer grasses:}}
{{all that remains}}
{{of soldiers’ dreams.}}
[function: true] (Matsuo, qtd. in Horizon)
```

Matsuo is commenting on the fleetingness of war and of humanity itself in his haiku. Both of these themes are powerfully present in *Horizon*. Both war and humanity are indeed fleeting in

Horizon as both have gone extinct in the past and have been reengineered by machines in time for the reader to experience their rise once more. Moreover, it comes as little surprise that, once humanity has been rendered extinct, that war soon after went extinct as well. For thousands of years in *Horizon*, all that remains after humanity's fall is lonely, silent, and apathetic nature. The theme of nature's disregard for man's wants and dreams—a classic Man versus Nature conflict—is found continually in both the poetry in *Horizon* and its very gameplay. The chief adversaries in the game are machines, devoid of reason and empathy, bent on the renewed destruction of humanity. Moreover, nature itself has little regard for Aloy and the reader's desires as it may rain at inopportune times, change from day to night, and herbs and food may be scarce. But refrains of death and the power of nature over humankind are but one grouping of poems within the metal flowers that the reader may find. Three groups in all, the poems of the metal flowers seem to follow a progression of death, rebirth, and the proliferation of life. Matsuo is found in the first grouping and Rūmī in the second. The third grouping of poems centers on Western writers such as Thoreau, Wordsworth, and Keats to name but a few. Keats offers an excellent sampling of the themes of the poems from the third grouping:

```
[function: true]
{{Season of mists and mellow fruitfulness,}}
{{Close bosom-friend of the maturing sun;}}
{{Conspiring with him how to load and bless}}
{{With fruit the vines that round the thatch-eves run;}}
{{To bend with apples the moss'd cottage-trees,}}
{{And fill all fruit with ripeness to the core;}}
{{To swell the gourd, and plump the hazel shells}}
{{With a sweet kernel; to set budding more,}}
{{And still more, later flowers for the bees,}}
{{Until they think warm days will never cease...}}
[function: true] (Keats, qtd. in Horizon)
```

Keats offers a hopeful tone in his poem that resonates with the hope the reader experiences in *Horizon*. Like many video games, the path to victory is perilous and, should the player fail as Aloy, humanity will become *permanently* extinct. However, this sampling from Keats seems to

almost allude to the game's ending where Aloy (and symbiotically the reader) prevails and machines are defeated. What happens after the conclusion of the game's narrative is left up to the reader, to an extent. Granted, Guerilla Games leaves the reader with an "after credits" scene that sets up a villain for the sequel, but with the defeat of the machines, it seems that life and abundance naturally follow. Yet Keats's poem is not without its bleakness which serves to root it within the context of the naturalistic gothic decline of humanity found in *Horizon*. Warm days may "never cease," but this is understood as an illusion brought upon by the abundance of summer. Notice, the thatch-eaves are infested with vines and that the cottage-trees are mossed, signifying age. Keats paints a picture of naturalistic splendor that is undercut by the decline of man or man's influence. So too does *Horizon*, as the environment itself is a constant juxtaposition of naturalistic beauty and the decrepit ruins of humanity's past. Taken together, the poems of the metal flowers do more than simply remind the reader of the world they inhabit, they explicate the themes of the game, urging its very literariness upon the reader and hoping that the reader, like Aloy herself, will uncover its hidden depths and richness.

The dynamic linking between the text and the reader, the reader and extratextual material, and the reader and the core narrative seems to embody, in ergodic fashion, Barthes' idea of tmesis, or the "skimming or skipping" of the text at the reader's pleasure (Barthes, *Pleasure*, 11). Additionally, intertextual and extratextual linking functions similarly to extratextual allusion found in many classic texts that authenticate authorial voice. Though *Horizon* appears in some ways to be a hypertext, it is in its relation to the reader a cybertext. It is through *Horizon's* function as a cybertext that tropes of authentication—both in regards to art and literature—position the poetry in the game as literary artifacts.

The narrative structure of *Horizon* is similar to that found in more traditional codex texts. There is a linear story that is traversed by the player to an eventual conclusion. Though

the narrative of the game may seem rather literally labyrinthine as the player weaves his or her way around the central story and more ancillary tasks, the player eventually finds the end. This central narrative core of the game is what Aarseth would call its “event plane, where the narration of events takes place.” The event plane is also complemented by the “progression plane, which is the unfolding of the events as they are received by an implied reader.” Lastly, in a cybertext such as *Horizon*, there exists the “negotiation plane, where the intriguee confronts the intrigue to achieve a desirable unfolding of events” (Aarseth 125). In the case of *Horizon*, the player/reader is the intriguee—the one coaxed to follow the flow of the text—and the “author,” or perhaps more closely, the narrative itself functions as the intrigue. In a cybertext like *Horizon*, the reader is always free to navigate any combination of these planes or to neglect all three in favor of free exploration and adventure seemingly untied to the core narrative of the game. Once again, an ergodic performance of tmesis is observed. But the disconnect between the reader’s perceived freedom of play is subverted by the author when encountering the poetry of the metal flowers. They serve as a reminder of a civilization that once was, and remind the reader that, regardless of their free-roaming play on the outskirts of the narrative, that they are still within the story. This reifying of the narrative through allusions that become extratextual is similar in practice to authenticating voices added to controversial and subversive texts in historical literature. Take for example Ann Radcliffe and Mary Ann Evans (George Eliot) who, as women writers whose texts struggled for a place as published works in their eras, authenticated the literary merit of their writing with extratextual allusions to authors who came before them (Milton and Sedley, respectively, among many more). See also writers of slave narratives like Frederick Douglass and Solomon Northup who both quoted the Bible as simultaneously a means by which to denounce the immorality of the slave trade and to authenticate their own voices as lettered men. Douglass, in particular, was interested in the crafting of narratives both

autobiographical and fictive and alluded to works of other authors and poets like Whittier often in his work to add credence to the “literariness” of his text (Douglass 37). This is not to compare the struggle of historically marginalized groups to the striving for the literary for video games. There is no comparison in culture as video games are texts, not individuals who have suffered systemic injustice. But the tradition of the authenticating trope remains and can be noted in *Horizon* as plainly as in the works of the poets of the metal flowers themselves—even Thoreau began *Walden* by quoting Sir Walter Raleigh (Thoreau 5). The positioning of the poetry in the metal flowers as something apart from the core narrative yet interspersed as reminders of the reader’s position within the narrative is also similar to positioning of allusive text in traditional literary works. The poetry *interrupts* the text while also enhancing it and authenticating the authorial voice. The poems of the metal flowers intersperse the narrative of free-play the reader constructs in the same form and function of extratextual allusion as authenticating voices in the long tradition of Western literature.

Horizon is unquestionably an ergodic cybertext. The many narratives that can play out are all connected to the central narrative of the game through a variety of linkages, whether they be found in locations, in characters, or in collectible items. The poetry found in the metal flowers being considered a chief textual artifact in *Horizon* serves to highlight the ergodic nature of the text more fully. Obtaining the flowers in order to read the poetry takes no small effort. Most of the time, the player must direct Aloy to climb treacherous peaks or battle numerous machines in order to secure the flowers. Only then may the player read the poetry contained within. Equally, collecting the flowers is positioned aside the game’s narrative as a challenge, something extra for the player to do in order to complete the game fully. Though the task of collecting the flowers seems detached from Aarseth’s three narrative planes—and with it, the text itself—the poetry of the flowers reconnects the reader to the narrative, reminding them of

the story of the greater civilized world that was lost. At the same time, the poetry serves as an authenticating voice that seems to be an attempt by the author to position *Horizon* as something more than a game, something hinting at the literary in the tradition of Western literature. When Aarseth speaks of video games waiting for their “Cervantes or Dickens to come along” in order to enter into the literary, it may very well be Cervantes or Dickens themselves, or rather their digital ghosts, who hold open the door. That is, if *Horizon* is an indicator of things to come in the development of video games as texts and literary objects.

The ergodic nature of *Horizon* as a text empowers tmesis in the reader as they interact with the text. But this relationship between text and reader complicates the location of another important function in the text as it relates to the narrative, the reader’s agency. Indeed, the ergodic interplay of text and reader has been identified as tmesis as has the authenticating voice of extratextual allusion—these are distinct artifacts and functions in literature. But this intersectionality between the text and the reader’s function within and without the text, systematizes the text itself. That is to say, it positions the text as a holistic entity, a system of interplay that overshadows the foundation of the reader’s function as participant and agent within the text. A reader’s agency lies at the core of the function of player-generated narratives. Therefore, it is critical to establish reader agency within the text as something distinct itself: a unit of operation.

Bogost and Play

In his 2006 work *Unit Operations*, Ian Bogost attempts “to explore the nature of relationships between computation, literature, and philosophy” (ix). Of chief concern here is Bogost’s connecting of computation to literature through his theory of unit operations. “Unit operations are modes of meaning-making that privilege discrete, disconnected actions over deterministic, progressive systems” (Bogost 3). Bogost says that “in essence, a unit operation is

a material element, a thing” (Bogost 5). However, Bogost’s definition of unit operations is deceptively simplistic, as unit operations may “encompass the material manifestations of complex, abstract, or conceptual structures such as jealousy, racial tension, and political advocacy” (Bogost 5). The major distinction of unit operations is that they differ succinctly from systems. From a literary perspective, a book or even its narrative is a system, operating holistically to convey the message or impression of the text. A unit operation within a text can be a line of dialogue, onomatopoeia, or even Aarseth’s trivial work of turning a page. The system of a book or narrative is an “aggregate of [its] units,” each working distinctly and separately to create the system (Bogost 15). Textual, literary artifacts may be considered units as well. In the case of *Horizon: Zero Dawn*, I have already exposed a unit operation: that of the poetry of the metal flowers. The unit operation of the poetry of the metal flowers exposes further unit operations of allusive text and authentication. These textual artifacts, as unit operations, function together with even more unit operations within the text of *Horizon* to create the system of the video game or text itself. Though Bogost defines unit operations as discrete and disconnected, their function as individuated instances of action, explication, and/or representation are inevitably subsumed by the greater system. This is, of course, the natural order; without a system into which to integrate, the operational units begin to resemble randomness over distinctiveness. In a sense, the function of unit operations is a sort of Derridean deconstruction in reverse, coaxed out of entropy by the greater function of the system. Since—as Aarseth establishes and Bogost agrees—video games are distinct entities, separate from conventional codex texts, unit operations become loci of critical inspection that identify, in addition to textual artifacts, functions of the game and functions of the reader.

Bogost looks to Derrida to place the function of unit operations within poststructuralist theories and observes how unit operations both work alongside concepts like deconstruction and seem to subvert them as well.

Deconstruction consists of a variety of neologistic tools (*trace*, *différance*, etc.) that the critic can deploy in almost any program. These tactics appear to be highly unit operational; deconstruction musters an approach to reading that seeks to expose the internal inconsistencies that cause apparently stable systems to break down. Derrida is obsessed with dismantling totalizing systems. . . . However, taken as a whole, deconstruction can also be said to exhibit remarkable systematicity. While Derrida succeeds in upsetting the hierarchies of binary systems, in so doing, the process of deconstruction itself threatens to become a closed, static system. The certainty that all subjects of analysis are bound to destabilize could be construed as a new, alternate system of eternal return, a return to fundamental instability. It can only stand in suspension as a problematic or a question. In Mark Taylor's words, "What Derrida cannot imagine is *a nontotalizing system or structure that nonetheless acts as a whole*." The stability of fixed, totalizing meaning risks replacement by the ironic stability of play. (Bogost 24).

Here, Bogost identifies the neologistic tools of deconstruction to be unit operations. Notions like *trace*, *différance*, and *spoudē* and *paidia*³ figure as singular functions within a textual system that lead to its destabilization. Though, since deconstruction has become a widely recognized and employed means of critical analysis, Bogost cautions that it has become a system in and of itself: a system of destabilizing systems. Understanding Bogost's theory of unit operations certainly allows for this perspective. In and of itself, deconstruction would likely be seen by Derrida as something closer to a unit operation. Taken as "doctrinal, closed methods" of textual inquiry, Bogost is right in asserting that deconstruction becomes more systematic in the world of literary criticism (Bogost 24). Where I demur with Bogost is on his assertion that "the stability of fixed, totalizing meaning risks replacement by the ironic stability of play" (Bogost 24). In the

³ Seriousness and play. (Greek). See "Play: From the Pharmakon to the Letter and from Blindness to the Supplement" in *Dissemination*, Derrida, 1972.

Derrida's discussion of seriousness and play, their dichotomy, and the instability of play—both in its practical and textual functions—figures into the reader function of video games as texts. See also *Writing and Difference*, Derrida, 1978.

critical dogma of deconstruction that Bogost theorizes has become systematized by literary theorists, play finds some stability, but that stability is a totalizing system. As it exists in both print literature and video games, especially, the stability of play is an illusory system subject to the whims of author and reader alike.

Play and freeplay are important concepts for Derrida in his formulation of deconstruction and are thus important concepts for understanding the role of the reader as a unit operation in a cybertext. For Derrida, as for us, play exists within and without the text, implicating the text itself as well as the author and reader in its formation. Derrida says of play:

*Either play is nothing; either it can give place to no activity, to no discourse worthy of a name. . . . Or else play begins to be something and its very presence lays it open to some sort of dialectical confiscation. It takes on meaning and works in the service of seriousness, truth and ontology. Only *logoi peri ontōn*⁴ can be taken seriously. As soon as it comes into being and into language, play *erases itself* as such. Just as writing must erase itself as such before truth, etc. The point is that there *is no as such* where writing and play are concerned. Having no essence, introducing difference as the condition for the presence of essence, opening up the possibility of the double, the copy, the imitation, the simulacrum—the game and the *graphē*⁵ are constantly disappearing as they go along. They cannot, in classical affirmation, be affirmed without being negated. (Derrida, "Play," 1866).*

In Derrida's concept of play, we observe a dichotomy that either play is wholly nothing of serious inquiry or it negates itself as play by entering into a textual space where it may be taken seriously. At the same time, play becoming textual is then inseparable and indistinguishable from the textual which then draws the function of the textual into question. For if play may be regarded as the non-serious, text containing play runs the same risk. That there is no essence to either—"there is no center of the center in structuralism; the center is paradoxically inside and outside of the center"—means that play in the text is dependent to its action within the text and to its action outside of the text (Derrida, *Writing*, 279). To engage in what Aarseth would

⁴ Words about real things. (Greek).

⁵ Writings. (Greek).

identify as apologetic arguments about the essential function of play within or without the text is to then create an imitation of the text. As Derrida notes, the game and the text disappear as they go along (presumably as the reader reads along) and pinpointing the essence of play within the text becomes a grasping at the ethereal. Derrida says elsewhere about the concept of freeplay that:

Besides the tension of freeplay with history, there is also the tension of freeplay with presence. Freeplay is the disruption of presence. The presence of an element is always a signifying and substitutive reference inscribed in a system of differences and the movement of a chain. Freeplay is always an interplay of absence and presence, but if it is to be radically conceived, freeplay must be conceived of before the alternative of presence and absence; being must be conceived of as presence or absence beginning with the possibility of freeplay and not the other way around. (Derrida, *Writing*, 294).

Freeplay relates to play, then, in its relation to textual formation, or a text as a system. Textual and literary elements as we encounter them in literature are “signifying and substitutive references inscribed” in the text as a system and, in some cases, in narrative as the moving chain. As Bogost would argue, the elements are unit operations. Freeplay is how they behave and function upon the text as a holistic system. The interplay between freeplay, presence, and absence in a text is particularly interesting for video games as cybertexts. Derrida’s description of freeplay sounds very close to design and underlying operations of video games. Equally, Aarseth perhaps hints at the functions of play and freeplay in the description of one of the many functions of cybertexts:

When you read from a cybertext you are constantly reminded of inaccessible strategies and paths not taken, voices not heard. Each decision will make some parts of the text more, and others less, accessible, and you may never know the exact results of your choices; that is, exactly what you missed. (Aarseth 3).

Risking taking freeplay to a literal extent, the design of video games often begins with the player in mind. The player of a video game, and the reader of a cybertext, constantly and consistently navigates the text through a series of choices. One choice intrinsically creates a presence,

whether that presence be manifested as an object, a character, or narrative path. The creation of a presence will then necessitate the creation of an absence, another route that the reader may have taken. It is important to note that the elements of a text do not engage in freeplay by themselves; text is inert. Without an author, and especially a reader, elements in a text cannot manifest presence or absence; this takes place in the mind. Therefore, it is the reader who brings play to the text, engages in play with the text, allows the freeplay of elements within the text to manifest presence or create absence, and ultimately—and perhaps unfortunately—creates a simulacrum of the text that is reflective of the influence of their agency within the text as a system.

Returning briefly to *Horizon*, the metal flowers and their poetic contents are an optional task for the player. The player may seek them out and be rewarded both with poems and equipment, or ignore them altogether. As we have seen, the poems of the metal flowers explicate a portion of the narrative that would otherwise remain unknown to the player if they did not collect them. If the player decides to collect the flowers, then a new presence is created in the text and, as we have seen, a powerful textual and literary element manifests to complement *Horizon's* core narrative. If the player chooses to ignore the flowers, then an absence is created and, as Aarseth says, the player may never know what they missed. Alternatively, the player may seek out any combination of one or more of the flowers and read their contents. From there, the player could choose to bridge the extratextual gap and research the poems outside of the game, creating another textual presence and negating another absence. The combinations of ways in which the player may interact with or ignore the flowers is so great and varied that it approaches randomness. Freeplay manifests in *Horizon* textually through the variations of the interplay of its textual elements and literally through the *free play* of the reader's agency. Herein, we observe that reader agency, their decisions and the

presences and absences that those decisions create—the direct effect the reader has on the elements of the text—is a unit operation. This is a critical element of player generated narratives that we must take into account.

Jenkins and Narrative

Henry Jenkins's 2004 essay "Game Design as Narrative Architecture," is an attempt to mediate the ongoing debate between ludologists and narratologists by positioning video games as spaces in which environmental storytelling could give rise to possible narrative formations. Though responses to Jenkins's essay range from strongly opposed to strongly in favor of his views, "Game Design as Narrative Architecture" remains a formative work in understanding the role narratives play in video games as texts and how narratives may form within them. Jenkins begins by addressing the split between narratologists and ludologists, suggesting that:

A discussion of the narrative potentials of games need not imply a privileging of storytelling over all the other possible things games can do, even if we might suggest that if game designers are going to tell stories, they should tell them well. In order to do that, game designers, who are most often schooled in computer science or graphic design, need to be retooled in the basic vocabulary of narrative theory. (Jenkins 120)

Jenkins is not wrong. Indeed, though some video games do exist that tell compelling, cerebral stories, narrative as it is located in video games for the purposes of this exploration exists as a subsystem of the whole textual system. Therefore, I do not propose to further Jenkins's arguments on storytelling, but rather add his perspective here to identify narrative formation as it exists in video games as texts. That being said, Jenkins's call for game designers as authors to "tell stories well" rests in his recognition of games as spaces wherein narrative can develop.

The design-space of a video game is arguably its textual body. Like codex texts, the body of a game text is layered with numerous complex design elements that make up its world. But these design elements differ in their manifestations from codex texts, appearing as mathematical code and various game engines. These design elements, often rendered through

physics and graphics engines, help to build the world in which a narrative may form. This world building in video games differs from that of codex text in that the world is often constructed visually with images rather than with words. It is the embodiment of the old writers' adage "show; don't tell." Yet the world-building of video games owes much of its conceptual design to world-crafting in literary texts that came before. As Jenkins notes: "games fit within a much older tradition of spatial stories, which have often taken the form of hero's odysseys, quest myths, or travel narratives." He lists Tolkien, Verne, Homer, Baum, and London as some examples of these kinds of spatial stories that are often criticized for being "preoccupied with world-making at the expense of character psychology or plot development" (Jenkins 122). Indeed, much of the story-building of video games relies on the reader's inferential knowledge of the story being told—a realization that has escaped Aarseth and Bogost. As Jenkins notes:

The most compelling amusement park attractions build upon stories or genre traditions already well-known to visitors, allowing them to enter physically into spaces they have visited many times before in their fantasies. These attractions may either remediate a preexisting story . . . or draw upon a broadly shared genre tradition. . . . Such works do not so much tell self-contained stories as draw upon our previously existing narrative competencies. They can paint their worlds in fairly broad outlines and count on the visitor/player to do the rest. Something similar might be said of many games. (Jenkins 123)

Video games—à la Joseph Campbell—have been building worlds with inferential stories from some of the greatest and time-tested tropes in all of literary history. *Mario* and *Zelda* have been rescuing the damsel in distress for decades now—both adventuring to "slay" their respective "dragons" before liberating their love-interests. Many games, from first-person shooters like *Call of Duty* to RPGs like *Final Fantasy*, place players in "good" versus "evil" scenarios, with RPGs often most closely mimicking the Tolkienesque. Still, other games are more cerebral and philosophical, like the *BioShock* series and *Nier Automata*, which confront the player with existential conflicts. This realization serves to illustrate four key understandings of narratives in video games. One, the storytelling game space of video games is easily and necessarily—with

few exceptions— filled in with narratives. Two, these narratives are often tropological structures that rely on the reader’s inferential knowledge of time-trod stories in order for the narrative to appeal to the reader and be identified and understood. Three, the reader is the central focus of the narrative in a game space, for the reader’s inferential knowledge of the story both activates the story and allows for its guided manipulation by the reader. Four, because most video game narratives rely on the reader’s narrative competencies, gaps in narrative are filled in or even crafted by the reader. Understanding how narratives function in this way in video games adds a caveat that we must bear in mind when examining Jenkins’s four narrative structures in video games.

What I have described above roughly encompasses Jenkin’s concept of an *evoked* narrative, with the exception that the four key understandings of narratives in video games are my own assertion. In evoked narratives, the game space allows a player to insert themselves into a well-known story or trope, playing out the player’s pleasure, as Aarseth phrases it: “Let’s see what happens when I do *this*” (Aarseth 4). Evoked narratives depend on inferential knowledge of the story that extends extratextually beyond the game space, or text. As we have observed, the extratextual linkage is to inferential knowledge in the reader’s mind and dependent on situating that inferential knowledge in a space that evokes the trope or narrative.

Enacted narratives deal with story entering into a game space on a localized level, or what Jenkins calls micronarratives. Jenkins describes micronarratives as intensifying emotional engagement with large-scale storytelling through series of short narrative units (Jenkins 125). The micronarratives of enacted narratives can take the form of vignettes of story, asides that expose portions of the narrative or characters, or as cut-scenes in video games. In enacted narratives in video games, the story plays out more closely to a movie or a novel, with the author offering exposition over the player making choices to drive the narrative. The *Final*

Fantasy RPG franchise is famous for its expository cut-scenes, but in more recent years has slowly integrated opportunities for players to make decisions during exposition that move the narrative in one direction or another. For now, though, the standard manifestation of enacted narratives usually appear in video games as bits of story *told* or *shown* to the reader.

An *embedded* narrative is—just as it says—embedded into the game space or textual space. Embedded narratives, asserts Jenkins, work similarly to detective novels where the reader must piece together a story that simultaneously explicates the investigation itself and the story of the crime being investigated (Jenkins 126). Jenkins says of embedded narratives that:

One can imagine the game designer as developing two kinds of narratives—one relatively unstructured and controlled by the player as they explore the game space and unlock its secrets; the other prestructured but embedded within the *mise-en-scene* awaiting discovery. The game world becomes a kind of information space, a memory palace. (Jenkins 126)

Jenkins notes the presence of melodrama in embedded narratives that also serves to tie the narrative to memory palaces in the story that allude to narrative progression through interaction with objects and locations. “Consider, for example, the moment in *Doctor Zhivago* when the characters return to the mansion, now completely deserted and encased in ice, or when Scarlett O’Hara travels across the scorched remains of her family estate in *Gone With the Wind*” (Jenkins 127). In both instances, the viewer/reader does not see the events that take place that alter the landscape of each setting. Rather, the changes to the setting act as a clue to the reader that something happened, something integral to the narrative. Once again, we observe a link to and even a dependency on the reader to activate the formation of the narrative. The “mental maps,” as Jenkins calls them, of narrative development that the reader pieces together act to construct the narrative, not directly in a setting or locale, but in the reader’s mind foremost.

Lastly, *emergent* narratives manifest chiefly in simulations or in video games that allow for tremendous freedom on the part of the reader. Jenkins describes emergent narratives as “not prestructured or preprogrammed, taking shape through the gameplay, yet they are not as unstructured, chaotic, and frustrating as life itself” (Jenkins 128). Jenkins offers the popular life-simulation game *The Sims* as an example of emergent narratives. In *The Sims*, the player is allowed a great deal of freedom to direct their Sims, shape their homes and neighborhoods, and forge relationships. The simulation game space of *The Sims* creates a sort of blank canvas for the player, an authoring space within to “write” the stories of their Sims. Within this quasi-authorial space, narratives emerge that are imagined by the player. But the player is still constricted in many ways by the design of the game. For instance, in order to increase a Sim’s intellect, the player must direct their player to read by clicking on a bookshelf. In contrast, in real life, one might also read books to increase one’s intellect, but that reading might also be accompanied by guided tutelage through a university system or a trip to the local library. In comparison, the latter pathway to fostering intelligence presents more opportunities for narrative construction than simply reading from a bookshelf confined to one’s home. *The Sims* chief designer, Will Wright, seems aware of these limitations on narrative formation, however, and has released multiple expansions for *The Sims* that place the simulated characters of the game in scenarios that range from going to college to dating in the city. Herein, players are offered even more game spaces within which emergent narratives may appear.

Emergent narratives intersect with the vernacular usage of player-generated narratives as well. Particularly regarding *The Sims*, emergent narratives located by readers within the game are often expanded upon and transformed into textual fanfiction which is then published on forums online. As has been noted above, player-generated narratives exist in this way for many games ranging from simulations like *The Sims* to the vast online communities of MMORPG’s like

World of WarCraft. It is also worthy of note that player-generated narratives appear on YouTube in video format in addition to their textual manifestations on forums. Yet despite the interesting phenomenon of player-generated narratives building off of emergent narratives, for Jenkins, emergent narratives privilege the function of the text over the function of the reader. Jenkins remarks about *The Sims*:

Characters are given desires, urges, and needs, which can come into conflict with each other, and thus produce dramatically compelling encounters. Characters respond emotionally to events in their environment, as when characters mourn the loss of a loved one. Our choices have consequences as when we spend all of our money and have nothing left to buy them food. The gibberish language and flashing symbols allow us to map our own meaning onto the conversations, yet the tone of voice and body language can powerfully express specific emotional states, which encourage us to understand those interactions within familiar plot situations. The designers have made choices about what kinds of actions are and are not possible in this world. (Jenkins 128-129)

Here, we see that the authorial function of the emergent narrative remains in the hands of the game's designers, or rather, the game's design itself. Note how Jenkins focuses his examples of emergent narratives in action in *The Sims* by positioning the reader in relation to the game's characters. The reader definitely has some control over the narrative that emerges from the simulation, but that control is limited by the design of the game and its elements within the game space. For instance, the reader may construct a narrative of a happy family of Sims, but has no power stop a Sim from mourning the death of grandpa. (Maybe grandpa was a real jerk in the reader's narrative). But this is perhaps the way of text. Very few texts grant the reader complete and total agency within the text. Some readers, like Dorothea of *Middlemarch*, may think Casaubon a bearable match and promising scholar at first. But their initial impression of Casaubon has no bearing on the character Evans eventually reveals him to be. However, if they felt misguided enough to argue in favor of Casaubon, they might, if they hold such an interpretation of the text. Herein lies the disconnect between textual criticism of video games

and the three theorists I have explored above: the text is privileged above the reader; reader-response theory has been utterly ignored. Aarseth positions cybertexts as a new medium from which we may read, but the structure and function of the text itself supersedes the reader's position in relation to the text. Bogost's theory of unit operations frames the discrete, individual textual operations of cybertexts as a site of critical inspection, but neglects the reader who would carry out the inspecting. Jenkins identifies narrative constructs that may appear in game design and actually involves the reader in their formation, but centers narrative formation within game design to an extent that overshadows the reader's agency. While there may exist room in these theories to extrapolate interpretative strategies, I feel that the role of the reader is seriously overlooked. In response, I offer an interpretative strategy of my own.

Player-Generated Narratives

Privileging the text over the reader is not an uncommon occurrence in literary criticism outside of reader-response theory, let alone in ludological explorations. Text is the space of play, which I mean in both a literal and Derridean sense. Deciphering play in a text necessitates looking closely at the many different elements that comprise the text—its unit operations, as Bogost would say. But, as I have said before, text itself is inert. As Barthes says: “writing is the destruction of every voice, of every point of origin. Writing is that neutral, composite, oblique space where our subject slips away, the negative where all identity is lost, starting with the very identity of the body writing” (Barthes, “Death,” 1466). This is true for video games as texts as well. As I have mentioned, designers are not often credited as authors of video games. In fact, designers of video games often try to leave as little of themselves detectable in the games they produce in order to create as autonomous of a system as possible. What they leave in their place is a collection of various coded elements that drive the function of the game. Regularly, these elements are manifested collectively as game engines, which control various functions of

the game from its narrative outcomes to its physics. Often, these technical components are transferrable from game to game with the consequence that many games share common foundational structures. It is a wonder, then, that ludologists position these mechanical elements of game design as something inseparable from textual criticism of video games. The technical and developmental components of video games are indeed important units of a game's functionality and, consequently, are inseparable from a complete and *holistic* criticism of any given game. However, in the realm of literary criticism, these units are often, and rightly, ancillary to textual and narrative analysis of a game. Intrinsically, these units are no less important in and of themselves. This is not to say that a game engine has no influence on a game's narrative or textuality, but it is only relevant to textual criticism if it is a present and active force on the narrative. In other words, a game engine that regulates branching narrative outcomes based on player choice is of greater consideration in textual criticism of a game than a graphic engine that merely controls which way simulated plants blow in the virtual breeze. The latter is an aesthetic functional unit that can be analyzed along aesthetic arguments. The former is far more impactful for textual criticism in that the player participates with the engine to drive the text forward. The author of the video game as a text is dead, welded into its mechanisms and self-relegated to be an almost literal ghost in the machine. But if the text is the destruction of every identity, then the reader is no less spectral, projecting their identity onto a character or avatar that is then placed within the branching narrative arcs of the game. In this role, the player is reader of the game as text, indistinguishable from the role of reader in a codex text. Just as for the conventional reader, the text becomes something subjective and experiential for the reader of the game. In this very personal space, player-generated narratives may be formed that act as a locus of interpretation.

Player-generated narratives, as I describe them, function in much the same way as interpretative readings of conventional literary texts. The reader is placed into a subjective experience with the text by interacting with its elements. These elements can be the plot or narrative itself, enacted storytelling through the setting, or even vicarious experiences through the text's characters. As we understand, through Bogost, these textual elements are unit operations of the text as a holistic system. As Aarseth reminds us, in a codex text, the reader is a voyeur; in a cybertext, however, the reader is an active participant, navigating and interacting with the textual elements of a game in a far more integrated way than in a codex text. Such is the case for video games as cybertexts. Of equal importance, exploration of Bogost's theory of unit operations in games allows us to recognize the role of the reader's agency in a game as an additional unit operation. Bogost hints at the reader's agency acting as a unit operation when he discusses pattern recognition in computational code:

In the immense world of binary data, meaning emerges where authors or users create or recognize patterns. Pattern creation or recognition systems . . . usually take the form of unit operations that perform one kind of action on data, resulting in some judgement about its worthiness as a *particular* pattern. One person's signal is another's noise. (Bogost 29)

While pattern recognition plays an important role in both deciphering computational code and textuality alike, ultimately judgements about the literariness of a particular work are opinions formulated through experience of the text. The reader's agency in a cybertext like a video game figures critically in shaping their experience, judgements, and most importantly their interpretation of the text.

Player-generated narratives, then, are the point of interpretive formation in a cybertext. Discussions in literature classes provide ample evidence that rarely do two readers of a codex text interpret the text in the same way. This is especially the case for video games as cybertexts because it is unlikely that any two readers will *experience* the same text in the same way. This

experiential interplay of the text and the reader affects how the reader perceives the narrative that unfolds and how the reader interprets that narrative. In simple terms, video games do not tell one story or necessarily the same story for their readers. Often, when gaps in meaning and interpretation are located in the text, readers of video games fill in those gaps with information gleaned from extratextual referents (inferential storytelling) or by crafting the narrative themselves.

I offer as a foundational example James Paul Gee's imagining of story elements in *Tetris*, a game that is arguably devoid of narrative. Gee, taking on Aarsethian player's pleasure, describes a game of *Tetris* where meaning is assigned to the varying shapes that comprise the action of the puzzle game.

We could make the L shape stand for a king and the square for a queen (and other shapes for other sorts of medieval people). We could make one shape moving towards another mean a proposal of marriage. If the shapes lock together, this could mean the proposal is accepted, if they don't lock together, this could mean the proposal is rejected. Two shapes being locked together would mean they were married. (Gee, *Soul*, 16)

Gee expands on this hypothetical story of his own creation to assign additional meaning to additional *Tetris* pieces, and to assign further meaning to various moves in the game, all culminating in a simple, but present story. Gee remarks on his story-crafting that:

My new *Tetris* allows players to generate little story elements as they play the game. I have married rules and story elements in such a way that the rules now produce not just a myriad of problems to be solved (which *Tetris* already did), but simultaneously a myriad of story elements. I have—pretty cheaply—produced a story-element generator from *Tetris's* rule system. (Gee, *Soul*, 17)

Gee's playing at storytelling in *Tetris* is a very rudimentary example of the function of player-generated narratives. In a simple puzzle game like *Tetris*, there is no story; Gee crafted one himself. Arguably, even in Gee's example, there is not narrative either. Rather what emerge are simple components of storytelling. In order for narrative to be present, some kind of narration has to be occurring, which necessarily implies a narrator and some descriptive explication to be

narrated. Gee's storyboarded *Tetris* has neither of these qualities. But this is not to say that it *could* not have these qualities if Gee wanted to insert them. At their core, player-generated narratives are the reader telling stories—by either fashioning them in totality or filling in the gaps left by the game—to themselves. This is not unlike reader-response theorist Wolfgang Iser's idea of the reader's tendency to fill in gaps in the narrative (Iser 285).

These gaps have a different effect on the process of anticipation and retrospection, and thus on the "gestalt" of the virtual dimension, for they may be filled in different ways. For this reason, one text is potentially capable of several different realizations, and no reading can ever exhaust the full potential, for each individual reader will fill in the gaps in his own way, thereby excluding the various other possibilities; as he reads, he will make his own decision as to how the gap is to be filled. In this very act the dynamics of reading are revealed. By making his decision he implicitly acknowledges the inexhaustibility of the text; at the same time it is this very inexhaustibility that forces him to make his decision. With "traditional" texts this process was more or less unconscious, but modern texts frequently exploit it quite deliberately. (Iser 285)

In terms of reader interpretation of video games as texts, Iser is almost prophetic in his contrast of "traditional" texts and "modern" texts. The filling-in of narrative gaps by the reader is far more frequently and deliberately used in video games today than even in the "modern" texts of Iser's time, the 1970's and 80's. Aarseth takes issue with the assertion that players are quasi-co-authors of cybertext narratives simply because they mentally "fill in the gaps." He delineates two functions of the narrative gaps of games: "The openings, or keyholes, of the adventure game are . . . of two different functional kinds: those that advance the strategic position of the player and those that don't" (Aarseth 111). However, Aarseth's rebuttal to Iser is limited to adventure games before the turn of the millennium. Aarseth's argument fails to take into account advances in technology and video games other than adventure games such as simulation games. Equally, Aarseth seems presumptuous in stating *for* the reader the reader's relationship to the text.

In a Derridean sense, the kind of self-storytelling that Gee provides a rudimentary map for is the reader creating presences and absences within the text of the story through their agential influence. Indeed, what emerges is what Derrida calls the “double, the copy, the imitation, the simulacrum,” of the text, but is no less an *original* story for the reader. Moreover, since the reader is a participant with very influential agency in the text, the story they tell is very much *their* story, one imbued with their ownership and, perhaps, some degree of authorship. As Aarseth observes: “To make sense of the [cyber]text, the reader must produce a narrative version of it, but the ergodic experience marks this version with the reader’s signature” (Aarseth 95). In effect, the interpretive function of player-generated narratives becomes manifested through the reader’s very interaction with the text, as the text then becomes a version—a literary experience—that is distinctly that of the reader’s. I marked this experiential subjectivity when teaching Toby Fox’s 2015 RPG *Undertale*.

To briefly summarize, *Undertale* is a role-playing game that takes place in a fictional underworld full of monsters. The player is placed into the labyrinthine structure of the game and made to navigate their way out. This is accomplished by solving puzzles and encountering monsters. However, *Undertale* subverts the violent bent in most video games by granted the player the choice to negotiate their way out of fights with monsters by befriending them instead. The player always has a choice as to whether or not to kill a monster, but *Undertale* allows for more than one choice to be made. How the player approaches the game will determine its narrative arc. A “Genocide Route,” where the player kills every monster, will present the player with a story that is reflective of their violent approach to the game. A “Pacifist Route,” where the player kills no monsters, will provide a different narrative path. The same design follows for a “Neutral Route,” where the player may only kill a few monsters and spare others. The “True Pacifist Route” requires the player to befriend monsters as well as

sparing them in order to reveal the “true” narrative path of the game and unlock its “true” ending.

Undertale presents many varying narrative paths and many opportunities for the player to diverge from them, with few exceptions. All of the possible paths are connected to the central narrative of the game which—unless a player happens on the “true” path on the first try—requires players to replay the game several times before the central, “true,” narrative path is revealed. Yet *Undertale* also remembers the player’s choices with each play-through and reminds them (sometimes in passive-aggressive ways) of their good or bad decisions in previous plays. The interconnectivity of narrative pathways in *Undertale* intentionally highlights the importance of the player’s agency in the game, confronting them with their decisions directly. Additionally, *Undertale* eventually admits to the player that it is a game—a story—that is meant to trap them into infinite replays. Only beating the game’s “true” narrative path can set the player free. Unless, of course, the player simply decides to quit the game. Given *Undertale*’s self-awareness and emphasis on the player’s agency, *Undertale* is distinctly an ergodic cybertext as Aarseth describes, and one that very much carries the signature of each reader who plays it. This became most apparent when I taught *Undertale* and discussed its narrative paths with my students. Over time, my students came to recognize their role as a character and agent in crafting the game’s narrative and how *Undertale* meant different things to different readers. Even for readers who do not finish *Undertale* or who give up at the start, their limited experience *is* the story of *Undertale* for them.

Player-generated narratives, as a concept, could be more closely described as player-generated interpretation in *Undertale*. (Which, obviously, does nothing to distinguish it from interpretation of any sort; interpretation flows through the mind of the individual). Though the reader is, in a sense, generating a narrative through their actions and decisions, this narrative is

already present, programmed into the game by Toby Fox. The reader merely uncovers the narrative as they choose a narrative path or uncover various plot-points through their actions. Through this navigation of the narrative pathways, *Undertale*, as a game—a mechanized system—responds to the reader’s agency by referencing back upon itself, opening new pathways of indirect narration and description for the reader to pursue. However, since the reader is positioned as an active agent in the game, player-generated narratives function as an interpretive strategy in *Undertale* through the reader’s individual experience with the game. Some of my students discussed *Undertale* as a fairy-tale. Others connected *Undertale* to Greek mythology. Still others saw *Undertale* for the Japanese-style RPG that it is. All of these students brought their own interpretations to *Undertale* that directly connected to their individual, mental, points of reference. Though these readers were not generating the story ahead of them—the narrative programmed into the game—they were framing the narrative through lenses of individuated, personal, interpretation. Once more, we may remark play and *différance* of a sort functioning to drive interpretation of the text.

Undertale is unique in its design to allow it to illustrate a function of player-generated narratives as an interpretive strategy. Because the narrative of *Undertale* frames the game as self-aware, the narrative itself allows for individual interpretations of the narrative that are intimately connected to the agency of the reader. The agency of the reader, then, acts as a unit operation that drives the narrative system. Fox, in essence, hands the story off to the reader and allows them to take ownership of it. While not directly reminiscent of Cervantes or Dickens, this is quite the literary feat. Though for its triumphs, *Undertale* merely exposes player-generated narratives as an interpretive strategy. This is a valuable perspective for understanding how readers build individuated interpretations of video games as texts, but it does not provide evidence of players directly *generating* the narrative beyond the influence of the author (if such

a thing as authorial influence exists). Simulations best encompass this function of player-generated narratives.

Understanding cybertexts—and video games as cybertexts—means understanding that, just like codex texts, there are many different manifestations of text. These various manifestations may be called genres or subgenres, but for the sake of avoiding discussing genre, we shall say that, in video games as cybertexts, there are distinct differences between a role-playing game like *Undertale* and a simulation game like *The Sims*. One of the distinct differences between a role-playing game and a simulation is that simulations tend to lack narratives. Jenkins identifies *The Sims* as a game wherein emergent narratives may develop. This is true. In some ways, player-generated narratives are like emergent narratives in that narrative emerges from the simulation. However, as I have noted, for Jenkins emergent narratives emerge through the design elements of the game. In a sense, emergent narratives are still narratives working in conjunction with the author, rather than beyond the author. For example, the design of *The Sims* necessitates that a Sim will grow old over time, become the mean grandpa from earlier, and then die. The design of the game creates all of these eventualities. As a player, I can assign my Sim a name, give him a family, and craft a story, but my creative options are rather limited. Whether I desire it or not, my Sim will eventually meet his end. Thus, any narrative created around the simulation's major design functions in *The Sims* becomes constricted by those functions. In effect, in the emergent narrative, the author is still doing the writing. This is not to suggest that player-generated narratives cannot exist in a game like *The Sims*. It just takes a bit of imagination and ingenuity.

A simulation like *The Sims* allows the player more than just free agency in the game; it allows for extensive agency in the realm of imagination. Say, for example, that a Sim leaves for eight hours a day to work as an accountant. Perhaps I find this boring and, instead, in *my* story,

my Sim leaves to hunt dragons all day. Subversions of the game's design to create player-generated narratives become even more empowered if a player creates or downloads "mods," programs that alter aspects of the game and are very customizable. With a mod, my Sim could potentially *be* a dragon if I so desired. This seems rather simplistic, but it is essentially the same principle as Gee's version of *Tetris*: story elements are assigned to the rules of the game's design. In actuality, there exists no concrete narrative in *The Sims*. An emergent narrative may be located if the reader plays by the rules, but true authorial control of *The Sims* as a text is wrested into the reader's hands once the reader *generates* a narrative for themselves.

Another example of player-generated narratives exists in empire-building simulations like *Civilization* or *Stellaris*. In these games, the player controls a country, directing its development from a small settlement into a vast empire. The player is essentially removed as a character from these simulations, though rulers like Julius Caesar or Napoleon might behave as close stand-ins as the player's avatar. No intrinsic narrative is found in most empire-building simulations. In some cases, a scenario might be loaded that mimics events in history but, for the most part, these games are played very liberally. The absence of narrative creates a tremendous gap for a reader of a simulation like *Civilization*. As Aarseth notes, readers tend to navigate the ergodic cybertext by conceptualizing it as a narrative formation (Aarseth 95). To combat this, players often generate narratives. As Bogost observes: "the gaps in the simulation that the player fills in 'in his head' function equally well no matter how the player directs his sim" (Bogost 87). In games like *Civilization*, the reader is liable to create a story "in their head" that reflects their agency as ruler of their empire. Once more, the same formation as observed in Gee's version of *Tetris* manifests, assigning story elements to the design of the game. In this way, and in this particular instance, the player generates the narrative inside and during gameplay or reading.

In the end, player-generated narratives do little in this theoretical sense to create literature that would reach beyond the player themselves. Player-generated narratives, in the vernacular sense, might hold some potential to produce something of literary note, but then they are codex texts and not cybertexts, which removes them from discussions of video games as texts. What is useful about player-generated narratives is that they function in direct and indirect ways as a means of generating interpretation. As I mentioned before, it is tempting to see PGNs as, perhaps, player-generated interpretations, but this distinction robs the reader of their active narrative-building role in reading a video game as a text. If play and freeplay are present in a video game as a text, then so too is *différance*, for play often signifies *différance* in the text. Gaps in the text are necessarily filled in by the reader in order to construct both narrative and meaning. Filling in these gaps requires both textual and extratextual referents on the part of the text and the reader. As seen in *Horizon*, the reader is allowed the freedom to pursue or neglect the metal flowers. In one instance, the reader will never read the poetry and never “know what they missed.” In another, the reader will read the poems and pay them no mind. Still, in another, the reader will create extratextual links beyond the textual space of the game to provide context for the poetry and explicate another portion of the narrative. Similar to *Undertale*, the reader navigates the narrative pathways of the text provided to them by the author. In simulations like *The Sims* and *Civilization*, the reader is empowered with the ability to imagine beyond the game’s design and rules to generate narratives that exist beyond the text, yet work within it. All of these examples are instances of player-generated narratives forming a locus of interpretation of the text that is centered in the reader, positioning the function of the reader over the text itself. In every case, player-generated narratives are at the core of—to paraphrase Aarseth—“the text that tells *my* story, the story that *could not be* without me.”

Conclusion

While I do not mean in my analysis above to discount the very real and impressive work of ludology, I do mean to place it somewhat aside for the purposes of textual exploration and criticism. While Aarseth cautions against exporting the “civil war” of literary criticism to the medium of video games, I disagree. In part, I have explained that video games as an art form of textual expression are already making forays into literary territory. I have demonstrated this in *Horizon* and hinted at the medium’s further potential in *Undertale*. Further, video games as entertainment are growing as a medium, attracting more and more people each year and sucking up hours that could be devoted to reading. But as I argue, players of video games *are* reading; they are simply not reading the texts that most educators would rather them read. This dichotomy between what students read and what educators would have them read is a perceptual mistake. As Robert Scholes observes in *Textual Power*, this misperception is rooted in the educational approach to the field of studying literature: “We divide the field into two categories: literature and non-literature. This is, of course, an invidious distinction, for we mark those texts labeled as literature as good or important and dismiss those non-literary texts as beneath our notice” (Scholes 5). There is perhaps no more self-defeating position that bars the way of the literary scholar than to view video games with the two-pronged perception that they are both “non-literature” and merely entertainment or “consumer items.” Clearly the dichotomy between what is “literary” or “non-literary” is a self-imposed barrier to the exploration of potentially rich and wonderful texts that captivate the time and interest of students.

My own exploration, guided by scholars of literature and games alike, reveals an undeniable textuality in video games. That textuality, in turn, reveals an interesting relationship between the text and the reader as the reader navigates the ergodic literature of cybertexts.

Additionally, understanding of unit operations in texts marks the play of the text and the reader's presence within the text and the agency they exert as additional unit operations. This function cannot be denied or, as we observe, the reader is thrust out of the text to leave us wrestling with ideas of authorial intent in texts where the author is *deliberately* positioned as a specter. The function of narrative in video games takes multiple forms as the design of games as texts creates spaces for formation. In this narrative formation the game space is filled in with narratives that either center on the reader through the function of the design space or are filled in by the reader themselves. When the reader fills in narrative gaps by generating narrative for themselves, the unit operation of player agency takes on authorial properties that influence not only the way the text is read, but how the text is interpreted. Overall, the reader of the video game cybertext is a reader of *their* story, one that carries their unique signature. This story is experiential, subjective, intimate, part of an ideology that may only exist in the mind of the reader but is nevertheless connected to the broader social medium that continues to draw readers in. In this way, I see little to nothing that distinguishes video games as something other than literature.

Chapter Two: *Undertale* in Literature Classrooms: A Case Study

If the narratives of video games can be studied and analyzed in the same or similar ways as the conventional, textual narratives we read in literature classes, what does this look like in a literature class? I asked myself this question before posing it to a group of 101 students at IUPUI in the Spring and Fall semesters of 2017-18. As a teacher, I saw the opportunity to use a video game as a multimodal teaching tool to challenge my students to look at literature in new ways. As a lifelong video game enthusiast, I recognized that the narratives of some video games impacted me in the same ways as many books I read. A connection existed, and I wanted to try to puzzle it out with my students. I hypothesized that a fair number of students enrolled in literature classes were disinterested in the course material and playing video games rather than reading for the course. In utilizing a video game as a course text, I expected these disengaged students would be suddenly more active in class with a subject that interested them integrated into the curriculum. Additionally, I wanted to take my own theorizing about video games, informed by Aarseth, Bogost, and reader-response theory and place it in a practical setting to see if students could generate the same kinds of interactions with a video game as a text as they could with more conventionally studied codex texts. The results of the study showed both an increase in engagement from disengaged students and that students readily and actively made connections between *Undertale* and other assigned texts. Functioning as a launching-point for further research in the future, the following study shows the effectiveness of a video game as an object of literary study in multiple college literature classes and presents evidence of the positive impacts the literary study of a video game has upon students. The study of video games in literature courses has great potential to reenergize the field of college literature education by allowing educators and students alike to pioneer literary exploration in a medium that is widely neglected by critical study.

The idea of looking at video games as literary texts certainly complicates what we define as literature. However, as Terry Eagleton observes: “one can think of literature less as some inherent quality or set of qualities displayed by certain kinds of writing . . . than as a number of ways in which people *relate themselves* to writing” (8). Certainly video games have a place among that number. If students relate themselves most closely to the writing in video games over books, then we ignore what literature is for *them* in favor of its more familiar and traditional forms if we neglect this interest. In effect, those students either struggle to be a voice in the conversation or are shut out completely. Viewing video games as legitimate texts worthy of study grants these students a voice in the classroom and creates an access point that can—with guidance—transition their learning from the familiar (games) to the more complex (textual analysis and critical thinking). This is not a call to redefine literature; current and upcoming generations, armed with technology, are already on their way to doing that. Rather, I hope to shine some light on the power of the digital stories that some students are reading and experiencing and the place they have in the study of literature. Examining video games as a literary medium can empower students in the same way that Robert Scholes argues codex texts do: they “help students to recognize the power texts have over them and assist the same students in obtaining a measure of control over textual processes, a share of textual power for themselves” (39). The analysis that follows presents evidence collected from a year-long study of a single video game examined as a text in literature classrooms.

The impetus to explore teaching a video game as a sort of experiment in a college literature classroom arose from a sizable body of research into the benefits of using video games as teaching tools in classrooms. Many who have researched the learning opportunities that video games can offer have presented positive outcomes. James Paul Gee, one of the most outspoken proponents of using video games as teaching tools, argues that “schools, workplaces,

families, and academic researchers have a lot to learn about learning from good computer and video games. In fact, the learning principles that good games incorporate are all strongly supported by contemporary research in cognitive science” (Gee, “Learning and Literacy” 1). Gee identifies a long list of learning principles that games can incorporate into education, whether the games have been designed specifically as educational, are as simple as *Tetris*, or as complex and entertaining as *Arcanum* (Gee, “Good Video Games” 3-10). Students already encounter some of these learning principles when studying literature. For instance, “Identity” is a learning potential found in conventional texts. When studying literature, students are encouraged to experience identity in different and changing ways through vicarious experience through the characters they encounter. Deeper still, in close readings of a text, students assume the identity of critic as they piece through prose to find textual evidence to support their understandings and criticisms of a text. Gee argues that “learning a new domain . . . requires the learner to take on a new identity. Good video games capture players through identity” (Gee, “Good Video Games” 3-4). In literature classrooms, students often combine the identities of their vicarious experience with the text and that of the literary critic to offer critical inspection of a text through discussion. This management of multiple identities in the classroom is not dissimilar to what Gee calls the *projective identity* in video games where the player negotiates multiple identities as both the player and characters in the game (Gee, *What Video Games Have to Teach Us*, 55-56). Identity is a firm foundation upon which the study of codex texts and video games as texts can meet in the classroom. One example of where learning potentials of video games differ from conventional texts is in “Production.” In games, players are often able to produce the content of the textual experience through choices and decisions that affect the course of the game being played. Similar to Choose Your Own Adventure books, games allow learners to approach a narrative from multiple angles and in non-linear ways. In this way, learners have

agency over the text in more direct and influential ways than a conventional text. In literature classrooms, production is often less valued than the consumption of literature (Scholes 5). However, production is still possible in literature courses, as students synthesize ideas through discussion and writing assignments. Learning potentials are found outside of narrative games as well, including simulation games such as open-ended simulations and turn-based strategy games. Similar to Gee, Kurt Squire poses a list of benefits for learners who interact with simulations, allowing them to understand a system in three-dimensions and incorporate risk-taking into their problem solving. Squire uses the popular *Sims* and *Civilization* games as examples of simulations that allow learners to observe the behavior of social systems over varying periods of time, whether that be days or centuries. Games such as these can be used to explore and question the function of narratives in literature by either comparing the presence or lack of narrative in simulations with codex texts or exploring the narratives students create as they play. These player-generated narratives that students create when playing simulations or other video games allow students opportunities to form interpretations that are guided by the text, but informed by their individual relationship with the text. The interpretations of the text that students bring to class are potentially much stronger in that their agency and experience within the text strengthens their investment in their interpretation and in the text itself. Squire also notes that the “gaming element added [to simulation games] bolsters student engagement” (Squire 5). Mark Griffiths argues similar benefits as Gee and Squire, but also draws attention to how games are used outside education in fields such as healthcare and rehabilitation. Griffiths mentions a case report of a 13 year old boy with Erb’s palsy whose arm control was improved through playing a video game: “the game format capitalized on the child’s motivation to succeed in the game and focused attention away from potential discomfort” (Griffiths 49). The same motivation towards success in video games can potentially focus attention away from

discomfort in learning as well. That games have the potential to bolster engagement, distract from discomfort, increase student investment in their readings, and engage student agency carries powerful implications for the literature classroom. Thus far, this and other research suggests that video games are potentially highly versatile tools in education.

Moreover, complementing positive assertions about video games and education is the function of video games as a multimodal approach to problem solving and learning. As an educator, I am drawn to student-centered approaches to learning. Particularly, I am very interested in multimodality as a way to allow my students more freedom and agency in their education. By incorporating a multimodal approach to student-centered teaching, students approach their education from entry points that are most familiar and comfortable and then gradually move to what is more unfamiliar, uncomfortable, and/or challenging (Cope & Kalantzis 180). This is precisely how video games work: challenges are tiered from simple to complex, building upon the structure of the gameplay throughout and over the course of interaction. Repetition is built in to this process which—while the merits of repetition as a productive educational tool remain debatable—create an entry-point for learning performance *before* competence (Gee, *Learning and Literacy* 70). An educator can capitalize upon this opportunity to direct students to work beyond the repetitious performance of gameplay and move towards examinations of the textual elements of the game: its story, characters, setting, and themes and how the gameplay works *with* the text rather than as a separate mechanic. Examining research and approaches to teaching video games, I concluded that *Undertale* would work perfectly in a literature classroom; it seemed that students would take to studying a video game as a text readily and with ease.

Action Research Project

Since I was working as a guest-teacher in literature courses alongside professors, I needed to maximize the learning potential of my experiment by clearly establishing goals for my teaching units. I approached teaching a video game in a literature classroom with the research question: “How does teaching a video game as a work of literature affect learning opportunities for students and their understanding of elements of literature?” My hypothesis was that students would readily interact with a game as a work of literature and be able to discuss it in similar terms as a traditional text. I had three goals for the experiment. First and foremost, I wanted to guide students through a discussion about video games as a form a literature, so that we could reach a consensus as to what extent video games can be examined like literature as a class. After all, the topic is subjective for all and contentious for some. At the heart of trying to examine video games as literature is the fundamental question of whether or not they can be classified as literature in the first place. Exploring this question allows for lively discussion and creates inroads to deeper considerations about the game such as its plot, characters, and themes. Secondly, and equally as important, I wanted to see if a video game introduced into the literature classroom would engage typically unengaged students. If discussing *Undertale* could get less engaged students to contribute in class and online, then such a success would hint at the benefits of video games as a multimodal teaching tool. These less-engaged students would, in theory, engage with the more familiar medium of video games (which hold their interest more intently) which would then act as a stepping-stone in to the less familiar mode of literary analysis and discussion. Beyond my personal goals for the unit, I developed a brief list of learning outcomes that I expected from the students: I wanted students to recognize three active elements of literature at work in *Undertale*: character, ethics and agency and compare and contrast those elements with their function in other texts encountered in the class. By

connecting *Undertale* to other readings, students were challenged to recall their study of other texts and demonstrate knowledge of elements of literature in order to compare and contrast other texts with *Undertale*. Further, I wanted students to demonstrate their competency in aspects of literature like narrative, characters, perspective, intertextuality, and metatextuality through writing either in online discussion boards or in short writing assignments.

To engage this pedagogical experiment, I chose *Undertale*, a Role-Playing Game (RPG) created by Toby Fox and published in 2015. Primarily, I chose this game for its literary elements: specifically its strong narrative, memorable characters, and its metatextual structure. *Undertale* is also a unique game in that its story subverts the violent impetus of most video games, which is to kill. Instead, *Undertale* encourages players to be pacifists and to forge friendships with characters, seeking conflict resolution through peaceful textual choices. The option to kill is still granted to players, but the negative consequences of violence become apparent very quickly. Because of this unique design, *Undertale* can generate a great deal of empathy in players, which I observed develop in many of my students. Fashioned as a voyage and return narrative like *Alice in Wonderland*, *Undertale* has an entertaining cast of characters who guide the player through the story of a child suddenly thrust into an underground world of monsters, swept up in their desires to escape to the world above, while uncovering the sinister mystery that keeps the monsters captive. The plot of the game is contingent upon the players' approach. The object of the game is not to kill any monsters. Players are given few clues as to the object of the game and must discover for themselves if they will take a Neutral Route (where players may accidentally or intentionally kill a few monsters), a Pacifist Route (where no monsters are killed), or a Genocide Route (where the players kill every monster they encounter). Depending on the path the player takes, the plot is drastically affected, presenting the player with a multiplicity of narratives that are directly shaped by the players' decisions and interactions with the

characters. Secondly, I chose *Undertale* because of its specifications and cost. *Undertale* is very light on computing resources, its low-graphic “retro” style makes it easy to run on most computing systems. The ease of compatibility helped mitigate the logistical worry of whether or not students would have the technology with which to play the game. In this one regard, the game was a complete success; most every student was easily able to access and play it. Lastly, I chose *Undertale* because of its acclaim in the gaming community. I assumed that most, if not all, students would be familiar with the game. I also wanted to choose a game that was popular, working off of the supposition that students who play video games over engaging with their course work are playing popular and entertaining games. The trick is to uncover the educational value that may be hidden in popular games and get students to think about them critically. Taking these many concerns into consideration, *Undertale* appears to be an ideal game to utilize in a literature classroom.

Methodology

I designed the teaching plan for *Undertale* in three stages, bookending the game with more conventional texts which served as observational controls for student engagement. I wanted students to engage with three key literary elements that I recognized in *Undertale*: character, ethics, and agency, each concept progressively more complex than the last. In designing this portion of the syllabus, I selected two conventional texts that strongly dealt with the concepts of character, ethics, and agency. For the first teaching unit, I selected Laura Groff’s “Delicate Edible Birds,” a short story about a female journalist in WWII who is placed in captivity with a cadre of male journalists who gradually, and unethically, strip her of agency in order to secure their release. “Delicate Edible Birds” rather heavy-handedly confronts students with ethical problems that surround agency. In addition, the story’s characters are very memorable. In these ways, “Delicate Edible Birds” was similar to *Undertale*. For the third teaching unit, I

selected Toni Morrison's *God Help the Child*, a novel about an African American woman subverting the privileges of skin-tone while navigating her sense of identity that is gradually challenged over the course of the text. Once again, memorable characters navigate a narrative that contains ethical problems dealing with individual agency. Additionally, both *God Help the Child* and *Undertale* contain voyage and return narratives that play at the periphery of the fairy tale genre that I hoped students would recognize. Both conventional texts dealt heavily with character, ethics, and agency at a level similar to *Undertale*. "Delicate Edible Birds" allowed me to introduce the students to the three literary elements that were our focus and nudge them into being mindful of those elements when playing *Undertale*. *God Help the Child* allowed me to assess their grasp of these elements after their experience with *Undertale*. All three texts met my conceptual requirements while also being contemporary, a goal that was tied to the theme of the course.

Initial Results

Before students played *Undertale*, I asked them to complete an entry questionnaire. For the entry questionnaire, I asked students what their opinions were concerning whether or not video games are a form of literature. I avoided defining "literature" in specific terms. Rather than ask students if video games could be considered one kind of literature over another, I wanted to gauge their initial opinion and determine if a bias towards or against the idea of video games as literary texts existed in the class.

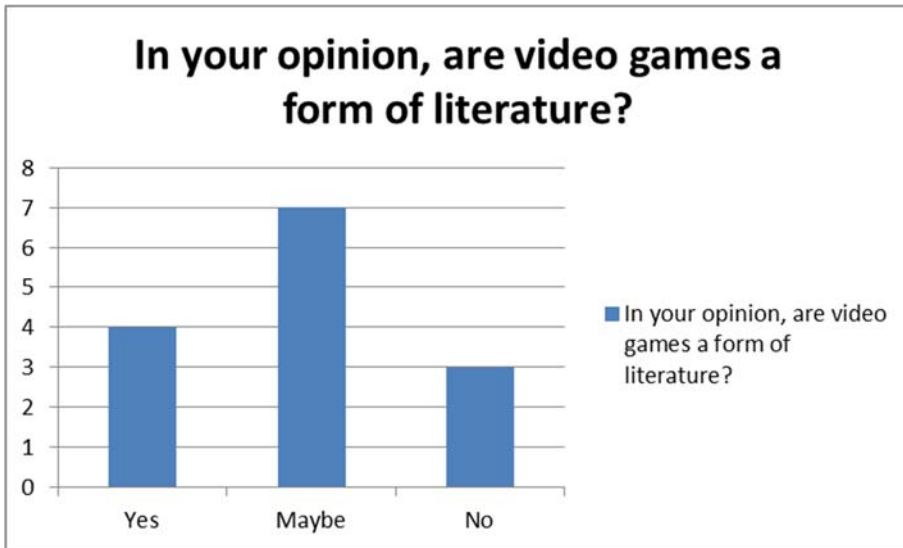


Figure 1



Figure 2

As shown above in the first figure, most students answered “maybe,” with a one-point variance in the “yes” column over the “no” column. The majority “maybe” answers, taken into account with the results of the second question, “How do you feel about playing a video game as part of a literature course?”, hints at a willingness from students who are unsure if games are literature to explore the possibility further. In retrospect, a better statement for Figure 2 would have been: “Video games should be included as part of literature courses.” This would have provided

a clearer result more reflective of student's opinions. Regardless, the survey displays a clear interest or at least curiosity from students towards the subject. I also asked students what kinds of games they had played and with which they were familiar. Their answers ranged the gamut of video game genres from arcade games to Massive Multiplayer Online Role-Playing Games (MMORPG's) to first-person shooters and mobile games. A very small minority of students reported that they had no experience with video games whatsoever. Overall, the data collected in the entry questionnaire coincided with the assertions of researchers such as Gee: that students were experienced with video games and would readily accept them in the classroom. That research proved to be challenged in some ways by the results of this experiment.

Initial Results: Teaching Days

For the teaching unit on "Delicate Edible Birds," I broke the students up into groups and had each group discuss a supporting character from the story in addition to Bern, the protagonist. This approach worked very well. The students were productive in individual groups and equally as productive in class-wide discussion. Meeting my expectations, the students readily discussed concepts of character and ethics while touching on the concept of agency. This unit marked the students' first foray into the concept of agency and, while there was some comprehension issues and resistance, the students seemed to come out of the unit with a general understanding of what agency is: the freedom to make choices for oneself, face the consequences of those choices, and take/retain ownership of one's bodily autonomy. The results were somewhat similar in the third teaching unit over *God Help the Child*. For this unit, I acted to guide students' initial questions for the class into more critical discussion. Teaching units one and three showed the students' proficiency in working with conventional texts. In other words, they possessed the tools and intellectual capacity to engage with a work of literature, at the very least, at a superficial level with signs of higher thinking emerging

gradually. Using the conventional texts as controls, I was able to measure the quality of my students' interactions with *Undertale* as a text and determine similarities or differences.

In approaching *Undertale* as a work of literature, I anticipated that the exploration would begin awkwardly. Therefore, as *Undertale* was to be taught over two days, I decided to approach the first day very casually. I wanted to focus on the decisions, choices, and experiences the students encountered and examine their reasoning and opinions. In other words, I wanted to give my students the opportunity to share the player-generated narratives they created while playing and voice the interpretations they gleaned from their experience. This was to be a very low-stakes, class-wide, discussion. I reserved the second day for more analytical discussion. Together, the students and I would examine *Undertale* as a text and dissect the game along the same lines as we would examine a conventional text.

Undertale was assigned over Spring Break so that students would have ample time to play the game once, or more than once, if they desired. I directed students to look up walk-throughs and hints online. This was another positive characteristic of teaching a video game in a literature class: "cheating" was not only a nonissue, it was encouraged. Whereas with conventional texts, looking up a brief synopsis online in lieu of reading the text is frowned upon, walk-throughs and online hints can be a great aid for students in reading the entire text of a video game. I liken it to referential texts that are published to assist in reading difficult works like *Ulysses*; extra time is involved, but the text can be successfully navigated and understood by consulting extratextual help. This encouraged "cheating" cultivates critical thinking, promotes basic online research skills, and lowers the stakes of the assignment which can increase student confidence. Additionally, some walk-throughs contain commentary that offers critical analysis of games. Students who access this sort of commentary bring knowledge to the classroom that is similar—if not always as scholarly—to reading secondary, critical sources.

Eleven out of nineteen students (58%) were unable to complete *Undertale*. This was a major upset in my plan for the teaching unit. Clearly, at least in the case of *Undertale*, students were challenged by the game rather than being able to play it with ease. Of the students who completed the game—or who almost completed the game—five completed the Pacifist Route, two completed the Genocide Route, and four completed or neared completing Neutral Routes. The routes they took to complete the game are important to note here because it shows critical thinking skills on the part of the students. *Undertale* does not explicitly grant players the choice of which route to take; rather, they have to figure it out as they go along. This was very promising, demonstrating that the students were able to discern approaches to playing the game early on. The variety of approaches to the game also allowed for multiple angles of interpretation of the game's narrative. This placed the player-generated narratives of the students, guided by the game's overarching narrative, at the forefront of discussion, privileging their experience with the text and their interpretations.

That said, the majority of students offered major resistance through the start of class discussion. Some students were frustrated by the gameplay, unable to surmount puzzles and obstacles. Others were annoyed by the music and felt little connection to the characters, which equally made them question the connection of *Undertale* to literature. Though resistance was significant among the students, it offered teaching opportunities and points of engagement for students on how *Undertale* relates to literature. By addressing students' grievances and challenges, students were able to talk about many aspects of the game's narrative and create tenuous connections to literature. Meeting students' resistance head-on and discussing it with them exemplified, in real time, the gradual move of students from the familiar (literary study of codex texts) to the unfamiliar (literary study of a video game). This is theories of multimodal learning in action and working in the opposite direction than what I planned.

For our second class session on *Undertale*, I reevaluated my approach. Rather than beginning the class by looking at *Undertale* analytically as a text, I decided to start off by asking students what kinds of video games they had played and listing them on a white-board. The purpose of this exercise was to, first, make obvious the differences, similarities, and overlaps between video games and conventional literary texts and, second, to give students the language with which to have a discussion about video games as works of literature. This approach encountered much less resistance and garnered a great deal of participation and discussion from the class. This is closer to what I wanted on the first day of class. Giving students the language to talk about a video game like a text made all the difference. I adopted this approach to teaching *Undertale* with much greater success in later instances of teaching the game. The second day was a major success with students enthusiastically offering up titles of games they had played, what they liked about them, how they differed from literary texts, how they were similar, and how we, as a class, might go about examining games as works of literature. In particular, students were quick to pick out and briefly discuss the stories the video games on our list told. We also compared and contrasted the narratives of video games with those of previous readings in the class which resulted in the most enthusiastic discussion in the teaching unit and aligned with the learning outcomes that I set for the unit.

Another major success of this unit was that the typically *least* engaged students in the class were the ones who were the *most* vocal when discussing *Undertale*, contributing more to class-wide discussion during the unit than during any other day before or after the unit. As to the larger metrics of character, ethics, and agency, students reluctantly talked through these concepts (as many were unable to complete the game, character discussion was spotty, but students still managed to create some connections between the game's characters and characters from other texts in the course). However, as I discussed agency from the point of

view of the player of the game, an interactive participant in the text, students seemed to grasp the concept of agency readily and with renewed understanding as they positioned the concept in relation to themselves. Once the second and third teaching units had concluded, I turned to my data to see what could be extrapolated.

Results: Quantitative Data

Data collected from this study consists of both an entry and exit questionnaire. Student writing is sampled from assignments and online discussion boards with IRB approval. Following the first teaching days I analyzed the data from the exit questionnaire, which was administered to the students in the following week after the class on *Undertale*. The purpose of this questionnaire was to determine what the students, in their opinions, took away from the teaching unit.

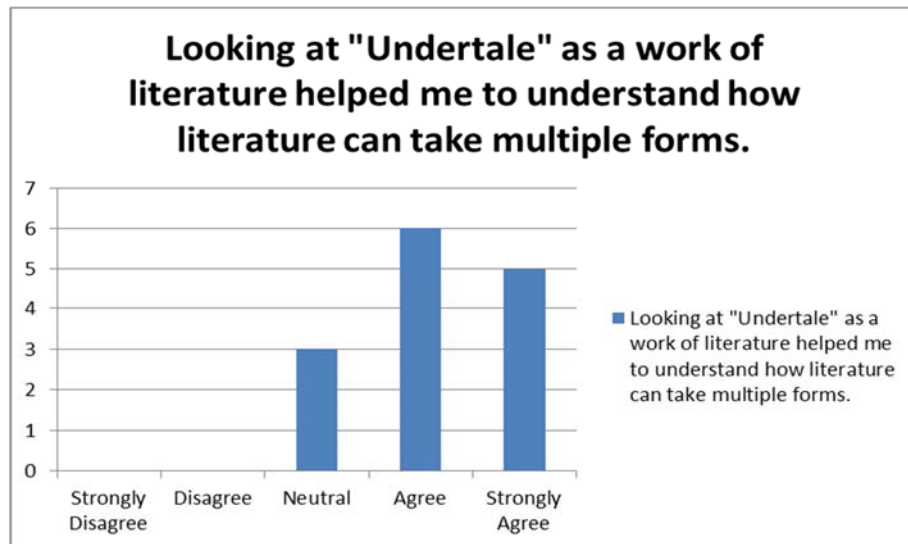


Figure 3

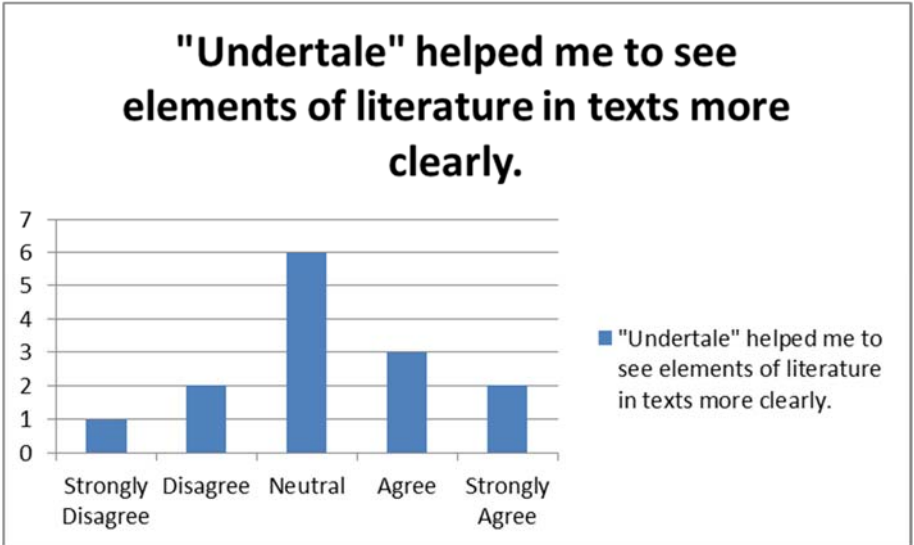


Figure 4

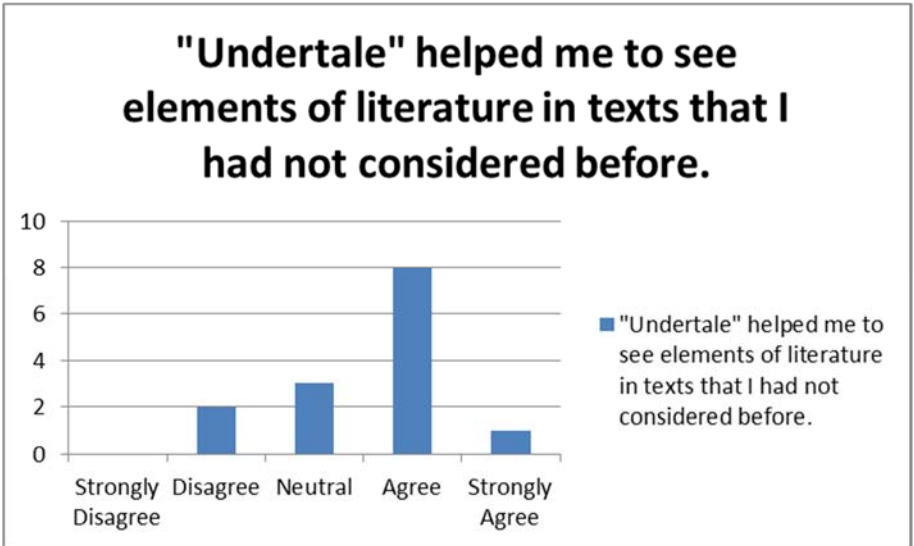


Figure 5

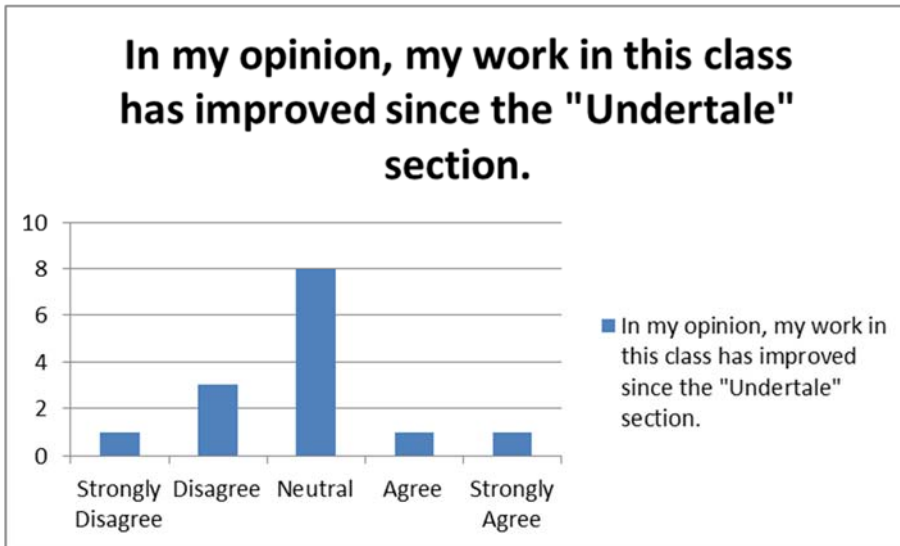


Figure 6

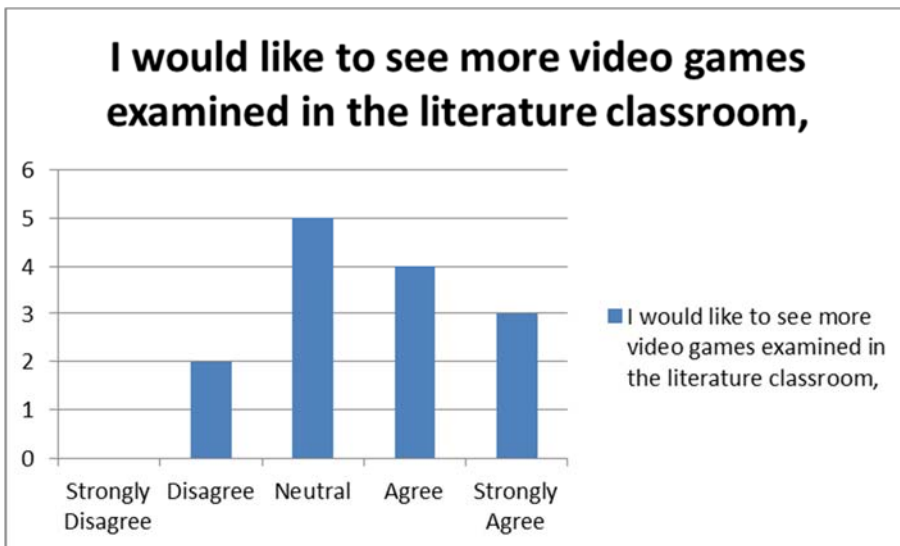


Figure 7

Figure 3 displays student responses to the question if *Undertale* allowed them to see how works of literature can take multiple forms. It is clear, from their responses, that most all of the students at least became more receptive to the argument that video games can be a form of literature, even if they did not agree in the entry questionnaire. Referring back to Figure 1, a noticeable shift occurs from the negative and neutral responses to positive responses. Figure 4 addresses whether or not *Undertale*, and our discussion of the game, helped students grasp elements of literature more clearly. What is represented here is a distinct parabola, with a

majority of students remaining unsure, or neutral, and a minority of students landing in either the affirmative or the negative. Given that the teaching of the unit was so drastically affected by the unexpected resistance to the game, the results of this data were expected. The same can be said of Figures 5 and 6. In Figure 5, students were asked whether or not *Undertale* allowed them to see elements of literature they had not considered before. Given the lively discussion of the game and agency on the second day of the teaching unit, I expected students would lean to the affirmative on this question. The purpose of the question in Figure 6 was to gauge if students felt that their work had improved after the unit on *Undertale*. In essence, this question was more about self-assessment than the about the game itself. The expectation was that *Undertale* would have little impact on students' perception of their performance in the class beyond the teaching units, as is reflected by the majority of neutral responses. This is not to suggest that the teaching unit on *Undertale* was a novelty, but that its impact on students' perceptions of their performance might be negligible due to the heavy resistance proffered in the first class. It is surprising, then, to see answers in the extreme affirmative or negative. This serves as strong evidence that some students were strongly affected by a video game being assigned in a literature classroom, whether positively or negatively. Equally this result serves as suggestive evidence for video games as an effective teaching tool, demonstrating visibly how a single medium can reach some learners profoundly. Lastly, in Figure 7, students were asked if they would like to see more video games in the literature classroom. Once more, there is a strong neutral center but, this time, an affirmative majority prevails. This demonstrates that, despite resistance and an unfamiliar classroom discussion, students remained open to the possibility of examining video games as works of literature in future classes.

Results: Qualitative Data

As documented above, students experienced a great deal of resistance to *Undertale* both in and out of the classroom. I hypothesized that the conceptual metrics of character, ethics, and agency would be tenuously grasped in the in-class discussion during the unit on *Undertale*. The previous unit on “Delicate Edible Birds” proved that ethics and agency were unfamiliar to my students, though they gradually navigated them. However, examining the qualitative data found in students’ writing demonstrated that students were beginning to manifest the learning outcomes that I designed for the class. To begin, I present an example of a student’s frustration with the game as both an example of student writing and also as an instructive caution to educators attempting to teach a video game in a literature course:

I became very frustrated when playing it and had to walk away many times. If I got stuck, I really got stuck and couldn’t get passed that part unless I continually kept playing. I would become frustrated that I couldn’t beat it. I think if it wasn’t for a class I would have liked it more. I kept thinking if I couldn’t get passed the part I was at, then I would not be able to get the grade I wanted for this assignment [*sic*].

It is important to note a couple of points the student raises in this online post. One, the student was invested in playing the game and overcoming its obstacles. This is an encouraging indication of personal investment in the assignment. Two, to speak even more to the personal investment of the student, she worries that her frustration with, and inability to complete, the game will adversely affect her grade in the class. This assertion is made in spite of the fact that this assignment was treated like every other reading in the class, what’s only point value was to be found in online discussions. The content of online discussions was not graded; rather, the students merely had to post to earn points. This is telling, in that the frustration the student encountered was exacerbated by the fact that the game was an assignment and could potentially impact her grade (at least, in her own mind). The student expresses that she would have liked the game more, perhaps, if it were not an assignment. This is something to bear in

mind when teaching a video game in a literature course: just like the conventional texts assigned, students will feel the burden of the assignment merely because it is assigned. In this instance, video games and conventional literature have this curricular trait in common. Despite frustration, however, a minority of students posted discussion comments that hinted at the connection between video games and literature.

A topic that came up briefly in discussion was the concept of empathy. The professor of the course, who had little to no experience with video games, observed that “video games, perhaps more than any other media, have the strongest potential to generate empathy.” One student seemed to express that empathy in her online response:

If you make the right choice [you] will come across friends that will touch your heart. I love the way some of the characters are presented in this game and the powerful message to “Stay Determined” when you fail. I could play this game over and over again.

Compare this post with another in response to *God Help the Child*:

Bride never had a voice let alone an outlet until she met Booker, and when he abruptly disappeared from her life, taking her secrets with him, she began a downward spiral. Bride becomes obsessed with thoughts of her ex-lover and why he might have left and where he could have went. Something I noticed about the main character after these events was her lack of connection with the people in her life and how self-centered she had become, but this characteristic doesn't fully blossom until Part-2 of the novel. In the meantime Bride, under a lot of stress and pressure, begins to completely lose herself on the search for other people, such as Sofia [*sic*].

The post by the second student is representative of the typical post by most of the class surrounding conventional texts. In both cases, hints of empathy exist. However, the first post regarding *Undertale* is effused with emotion, while the second post regarding *God Help the Child* is grounded in the text and is analytical in its observation of the characters. Given the opportunity to delve deeper into *Undertale* as a text, and with more students completing it, one wonders if the analysis would be just as informed, but also rooted in a deep emotional connection that only a complex interactive experience with a text and its characters could

reveal. This is certainly worth exploring further. Though the majority of students did not connect to *Undertale* as strongly as the student from the first post, a minority did seem to recognize, at least, the possibility of connecting video games with literature:

There are some things in this game, like literature, that are deeper than what is at face value. You have to go digging for details to get everything out of this game. In literature, you have to interpret and analyze ambiguous parts of the text to get the full picture.

Obviously, this student has made a direct connection between *Undertale* and literature: that one must close-read the text in order to glean everything that may be contained therein. This student was among the minority that enjoyed the game and managed to complete it, thus making her and her peers outliers in this experiment. However, the outliers seemed to be the ones who took away the course goals of this project most readily. They were the students who eagerly talked about character in class, who were keenly aware of the ethics in the game, who latched on to the concept of their own agency as they navigated the decisions that guided the plot, and who typically led discussion, requiring little guidance from me. Additionally, there were three optional short papers written about *Undertale* by students who nearly completed the game. In these papers, they made superficial observations about *Undertale* and its connections to conventional literature. Two of these papers argued in favor of *Undertale* being treated as a work of literature, and one argued against. In the paper arguing against *Undertale* as a work of literature, the student made similar superficial connections as the other papers and held a sympathetic tone for the game. His primary argument against video games being examined as literature was that video games “are in a class all their own; they stand apart [from literature].” While this is an astute point, it cannot be denied that students who were activated by the video game experiment found literary value in engaging with the game as a text.

Further Teaching

Over the next year, between May 2017 and May 2018, I taught *Undertale* in four more literature classes at IUPUI. Utilizing *Undertale* in literature classrooms spanned 100, 200, and 300-level courses and resulted in a sample size of 101. Between entry and exit surveys and analysis of student writing, the results echoed the same trends as those observed in the Introduction to Fiction course, despite changes in my approach to teaching the unit.

Teaching a video game across multiple classes allowed me to refine my approach. I learned from the Introduction to Fiction course that I should have switched my approach to each day. Such was the case when I taught *Undertale* subsequent times. I was not afforded two teaching days in every class, but for the ones in which I was, I took time to discuss other games with the students, list them on a white-board, compare and contrast any narratives that existed with more familiar texts, and effectively give the students the language with which to discuss video games on the same plane as conventional literary texts. I also designed an expanded handout with instructions on how to purchase *Undertale*, the game controls, and a link to a walk-through of the game. In the end, the handout became a bloated seven-page guide that I had to make sure to quickly walk the students through at the start of each unit to insure that they were at least familiar with its contents. Despite the guide's length, it better prepared the students to play and discuss the game than in the previous Introduction to Fiction class. In particular, both students and instructors commented that the YouTube walkthrough was a helpful resource.

In addition to serving as a game guide, the YouTube walkthrough was also a sort of "cheat-sheet," allowing the very few students who could not purchase the game to at least watch it and still be able to participate in class. The walkthrough also allowed students who got stuck in the game or those who simply did not have the time to invest in playing the game to

participate. Granting these few students the option to watch the game over playing it concerned me at first. Would *watching* a game instead of playing it essentially be the same exercise as watching a film for a literature class? Since the reader/player's agency is a significant difference between video games and books, would these students still be able to discuss the role of their agency working within the game's narrative? It turned out that my concerns, though not unfounded, were never brought up in class. I am still concerned about the complication in this project of watching a video game versus playing a video game, but my students seemed more interested in talking about their experiences with the game, its characters, and its story. Here is a typical example of an online discussion board response from a student who only watched the walkthrough:

This assignment was interesting for me because I never once considered a video game to be literature. . . . To be honest, I went straight to video walkthroughs of the game because I knew I wouldn't have the stamina to play the entire game. . . . I can see how a video game can be considered literature. It's like the video game is an interactive story, a virtual reality. Just like any other piece of literature, there's a beginning, a climax, and an end.

What is typical about this student's response is the concern for time, "stamina" in this case, that was most often expressed by students who only watched the walkthrough. Video games, especially narrative games, often take a good deal of time to complete. The same can be said about traditional texts as well, though, depending on the reader. Another aspect that typifies this response is the very superficial connection between *Undertale* and literature. In this instance, the student identifies that narrative video games have stories and that those stories have beginnings, climaxes, and endings. Her response is certainly not strong evidence for the literary connections between video games and traditional texts. However, it does demonstrate an openness to the concept—an entry-point for engagement that could be explored further in class if more video games were examined alongside other texts. Another typical response from students who only watched the walkthrough of the game regarded their level of experience and

skill with playing video games. Some students who only watched the walkthrough mentioned “getting stuck” in the game and running out of time to continue playing. Proficiency in gaming is an important factor in choosing and teaching a video game—a realization that came too late for me to change my most important variable: the game itself. Ultimately, in an educational setting, varying proficiency comes down to time again. An avid gamer will spend less time playing through a game as a text just as an avid reader will spend less time reading through a novel. Students with lower gaming and reading proficiency will take more time to complete the initial stage of a reading assignment. As educators, we often place the time management responsibility solely on the student, but are also careful not to overly assign voluminous tomes, scaffold workloads, and to provide resources for students to prime their thinking. In considering a video game to explore in a literature classroom, the students’ time and skill go hand-in-hand. For a comparatively long and challenging game like *Undertale*, a video walkthrough can help to at least somewhat mitigate the challenges of skill and time.

Despite some students choosing to watch the walkthrough over playing the game, most students actually played *Undertale*. Of those students, a majority across every class did not finish the game. This was disconcerting. After all, what kind of meaningful discussion is to be had in a class where a majority of the students did not read the material? In response, I had students familiar with the game and who completed it for the assignment help me explicate the game’s plot for the rest of the students. This created lively discussion. Students who completed the game were enthusiastic about explaining its story and students who did not complete the game readily posed questions. From there, I turned the discussion towards the game’s characters and the role of the player as a character. This segued well into discussions of player agency and the ethical challenges built into the game. Though more often than not I got many students talking about the game, I hold no illusions that there existed students who both failed to do the reading

and who did not participate in class. For a clearer picture of student participation across all five classes in which this unit was taught, it is best to look at the accumulated data from the entry and exit questionnaires.

Of the 101 students in the study's sample, sixty-eight students (67%) responded to the entry survey and fifty-three (52%) responded to the exit survey. In terms of student feedback, this is a remarkable volume of response, especially given that the surveys were optional. Of the respondents to the entry survey, 47% responded positively to the idea of playing a video game as part of a literature class, 31% responded neutrally, and 22% responded negatively. The total survey results are consistent with the entry survey for the Introduction to Fiction course: a minority of students were opposed to the idea. While this statistic does little to advance the argument that video games can be examined similarly to traditional texts in a literature class, it does show that students are willing to examine video games as a medium in literature courses. The outlook for using video games as an alternative medium for studying literature is optimistic at the very least.

The exit survey was more useful in gauging students' responses to *Undertale* as a potential literary work. Students responded overwhelmingly positively to all statements except question 2 (See Fig. 4) and question 4 (See Fig. 6) (refer back to the "quantitative data" section of this chapter). For the statement "*Undertale* helped me to see elements of literature in texts more clearly," students were almost evenly split between positive and neutral responses with a very small minority responding negatively. Given the results of the feedback for this particular question, a majority of students either experienced clearer perception of literary elements in texts or were unsure. In response to the statement "In my opinion, my work in this class has improved since the *Undertale* section," the majority of students responded neutrally (55%) or negatively (28%). Since this question was designed to gauge the students' self-perception of

their class performance, this result is not unexpected. While I am tempted to assume that the students who responded the most positively to the surveys were also the students who were the most enthusiastic about the project, the assured anonymity of the project's participants makes identifying such a correlation impossible by only looking at the surveys. A better look at what students took away from this teaching unit exists in their written work and discussion.

One of the most interesting observations I made about the students playing *Undertale* across multiple classes was their gravitation towards the game's characters. I anticipated from the start of the project that students would engage with characters most readily because it is often an easy entry-point for discussion in most literature classes. This proved to be the case for most of the students I taught. What was most interesting was the level of emotional investment some of the students made with the characters from *Undertale*. In one course, a student who had played *Undertale* before replayed the game for the class assignment. He previously beat the game on a Pacifist Route and this time attempted to play it on a Genocide Route. This student, though a skilled gamer, was unable to complete the game. He remarked that it was "too unbearable" for him to kill the characters that he had befriended in a previous play-through of the game. He was noted by the instructor to be less participatory in previous class discussions. This student later went on to remark on the reliability of the game's "narrator," astutely pointing out that all explication of *Undertale's* narrative comes from the game's characters who are also participants in the story. He was also quick to notice that the characters often give conflicting information about each other, leading one to question the veracity of the story being told at most points in the game. This student, though not connecting his experience of *Undertale* to other texts in the class, *did* forge a connection to a previous reading of the game. Not only did he express a deep emotional investment in the characters (empathy), his experience of two distinct narrative paths in the game led him to question the veracity and

reliability of the narrative itself. In line with my learning outcomes for the course, this student offered a strong criticism of the text by creating a connection to a previous reading of the same text rather than a paired codex text.

Another student in discussion commented on the character Toriel, a motherly figure who guides the player through the game's tutorial. Toriel wants to protect the player-character and keep him or her safe in her home. Toriel gradually leads the player to her home in the Ruins and tries to prevent his or her progression to the rest of the game. The student remarked that the character of Toriel reminded her of cautionary fairy tales and that she was uneasy by Toriel's insistence that she stay in her home and by her offer of food. The student later wrote about her experience in an assignment, offering connections to well-known literary figures:

I was, mercifully, rescued [from the antagonist, Flowey] by a kinder looking character called "Toriel," whom I didn't trust at first out of this new-found inability to believe anything anyone said to me in the video game; my shields were up, if you will. I learned from her how to move through the game, and I realized that she acted like a guide of sorts and I was reminded of Gandalf from the Lord of the Rings franchise— another realization occurred that Undertale was, after all, reminding me more and more of literature as I continued to play [sic].

Much like the previous student, this student also questioned the veracity of the narrative the characters presented. Unlike the student from earlier, this student had never played *Undertale* before, which forced her to decipher the game as she progressed, forming her own opinions and interpretations of the characters and the story. Interestingly, while she was able to identify the story's antagonist right away, her wariness continued onto the next character she encountered until she was sure that Toriel was a guide, rather than a trickster. We may also mark here a player-generated narrative formed by the student. Counter to Fox's design of the game, which intends for players to trust and befriend the characters, this student became distrustful after her initial encounter with the story's antagonist. She remarks about proceeding cautiously through the game from that point on and is distrustful even of Toriel, the game's tutorial character. This

cautiousness on the part of student shapes her interpretation of the game and its characters and, in many ways, subverts the core narrative of the game which is to utilize empathy to peacefully navigate the game's story. The freeplay of the student's player-generated narrative interacts with the core narrative of the game, substituting a presence in the game (empathy and connection with the characters as a path to uncover the object of the game) with an absence (distrust acting as a barrier to discovering the object of the game). She surmounts this absence rather quickly by realizing that Toriel is, in fact, not an enemy and creates an interpretation of Toriel as a character-type that links extratextually to other works of literature.

Another way in which I adjusted my approach to teaching *Undertale* was to try to pair it with other texts. Given the bountiful reading lists that the instructors I worked with had put together, *Undertale* was paired with some very apt works such as *Ender's Game*, *Anda's Game* and "In Real Life," *Feed*, and *Ready Player One*. In some courses, the instructors already had the same idea and structured their courses in such a way that *Undertale* would fall alongside other readings. In others, I had to encourage these connections myself through in-class or online discussions. Before, when I first taught *Undertale*, the other readings I taught served as controls for the experiment. In subsequent classes, texts that were paired with *Undertale* proved to be far more effective. For students who were not gamers and unenthused by *Undertale*, the chance to connect other texts to the game created inroads for their participation in discussion. For the students who were avid gamers, the other texts served as a way for me to connect them with conventional texts in a literature course. Going forward, I highly recommend pairing more conventional texts with a video game. Connecting the gamers of the courses to conventional texts speaks to the power of video games to engage otherwise disengaged students. All of the instructors I worked with noted that their most disengaged students became enthusiastic participants during the unit on *Undertale*. This was consistent with my original findings in the

Introduction to Fiction course and shows an interesting emergent pattern. Since video games are multimodal by design, the consistent increase in participation by disengaged students when assigned a video game to “read” hints at Cope and Kalantzis’s assertion that multimodality is conducive to learning. These students were activated by something familiar and something of which they had some level of knowledge and perhaps even expertise. There was suddenly a space *for them* in the class. Through that space, they were able to launch from their more familiar associations with video games and participate in discussion of more traditional, literary texts, even if it was only for a single teaching unit. This evidence suggests that the familiar medium of video games, if explored further and tied closer to their regular coursework, could lead to consistent engagement of these students.

It is important to recognize that not all students responded positively to the project. On the one hand, it is common in almost all coursework that it will resonate for some and not for others. On the other, more than a few students expressed frustration with examining a video game as part of a literature course. Most objections took the form of statements about “not being a gamer” or complaints about “getting stuck” on the gameplay. Even for these students, there was no objection to the story or its characters. However, one student in particular—and in my opinion—summed up resistance to the project very succinctly:

Playing this game is like reading a book that makes you complete annoying fine motor-reliant tasks every thirty seconds before you’re allowed to continue reading. . . . I feel like it’s just enough video game to intend to make the reader feel involved, but not enough to not be annoying. I can see that choice is the essential part of the “reader’s” involvement here, but the choice is the only thing that’s important, while the actual gameplay feels more like a mere annoyance to reading through the storyline. Perhaps this video game can be read as literature of a sort, but that doesn’t mean that all of them can. . . . The power of this game lies in how it subverts common video game tropes, which isn’t nearly as impactful if you’re not a gamer. For this reason, it’s definitely geared toward gamers, rather than a larger audience. I don’t think the question we should be asking is if video games can be considered literature, but rather if they can be studied in the same way as literature is.

This student gets to the heart of this project in her response. While I *did* posit the question to students: “are video games a form of literature?” the question itself was mere low-hanging fruit to generate discussion. The *real* question is: “can we *study* video games in the same way that we study literature?” Though this student objects to much of the design of the game, she still engaged with the story both in and out of class. She later went on in her post to question if video games should be categorized in academic discussion the same way that genre fiction is. These are interesting questions which lead me to question if the “right” video game might even engage students as resistant as this one with discussion that aligns with their own academic interests.

Conclusion

In order to pin-point outcomes from this study, it is necessary to revisit the research question, hypothesis, and goals which all surrounded the experiment’s construction. First, the question: how does teaching a video game as a work of literature affect learning opportunities for students and their understanding of elements of literature? To answer the first part of the question, this experiment shows that a video game examined as a work of literature speaks to a multimodal approach to student-centered learning. While a small number of students were somewhat challenged by the project, a minority of typically unengaged students became active and vocal participants in-class and online. These students found a point of engagement that was otherwise lacking for them before the video game was introduced. As to the second part of the question, students who engaged most readily with *Undertale* hinted at some rudimentary understandings of the elements of literature that were the focus of the study. Keeping in mind the resistance to the game (sparked by its difficulty in some instances), some students’ tenuous connections between video games and literature might come more readily and be more obvious with different games. The fact that *Undertale* is such a challenging game and had the impact

that it did in these classes hints at the possibility of employing less-challenging games to greater effect. This, too, is worthy of further exploration. To examine the hypothesis, it is obvious that I was mistaken. Most students did not *readily* take to *Undertale* as a work of literature. However, as it has been noted, points of resistance became learning opportunities. In the future, educators would be wise to anticipate that not all of their students will be adept at video games, despite what optimistic proponents of games research may suggest.

The goals of the experiment were achieved, however. Through examining *Undertale* in similar fashion to a work of literature, the students and instructors were able to generate lively discussion and consensus regarding whether or not video games can be studied similarly to conventional literature: they can. The most unengaged students became the *most* engaged, contributing to discussion during the *Undertale* unit more so than at any other time in the courses. This, in itself, is a breakthrough and echoes the findings of Jonathan Ostenson's 2013 paper exploring narratives in video games in a public school English classroom. In terms of assessment, qualitative data reveals the student experience more thoroughly, mapping their thoughts and impressions, and granting insight into their connections between video games and literature. Going forward, there is much that can be done differently in approaching this topic. However, from this overview of one experiment with a video game in literature classrooms, one can see that learning potentials exist that can potentially reach *all* students. At the very least, this experiment shows that the least active students are missing a point of engagement in the literature classroom, and that video games could be the learning opportunity they need to better realize their academic potential.

Chapter Three: Video Games in the Classroom

Over the course of the previous two chapters, I have argued that video games are literary texts worthy of exploration and that noteworthy exploration of these texts can be achieved in literature classrooms. The promising evidence in Chapter Two strongly suggests that guided study and analysis of video games has potential to produce positive learning outcomes at an often higher rate of participation. Students' reading interests overlooked by the teaching of codex texts find a space in the classroom through which to perform. Utilizing video games as literary objects—reading them as texts—“meets the students where they are” or, in other words, takes advantage of the interests of the increasing number of students who play video games; it is fundamentally student-centered teaching. Since these are the texts they are reading, these are texts teachers should explore with their students to both garner their interest and cultivate critical textual and cultural understanding of the texts they read. Though video games will never (and *should* never) completely replace codex texts as objects of literary study, harnessing their power as texts creates a bridge that can transition students' reading interest from cybertexts to codex texts (and perhaps vice versa for educators). This is all well and good for my purposes as a scholar and educator who possesses vast experience with video games and the critical wherewithal to position them as literature. However, I understand that for many in the field of English education—and literary criticism for that matter—that video games remain complicated, foreign, and perceived, perhaps, as unequal to the codex texts upon which our profession is founded. For many educators who are receptive to video games as educational tools, their utilization often bumps up against pragmatic concerns. Time is an ever-present factor, whether students are playing video games or reading a codex text, they have to have time to complete the reading; video games are notoriously lengthy texts for the most part. Cost and accessibility are also factors to bear in mind, particularly when guaranteeing access for

differently-abled peoples. Moreover, access to video games as a technology is directly tied to privilege of access to that technology, which, I believe, unintentionally creates gatekeeping in both the fields of education and gaming.

This chapter examines some of the highlights of learning with video games, addresses some of the many practical concerns that educators may encounter when considering video games as educational tools, and attempts to offer some suggestions on how to mitigate these challenges. Additionally, I offer practical examples of educators utilizing video games as teaching tools in their classrooms as evidence of their effectiveness. Keeping with my core argument that video games can and should be used in literature classrooms, I provide examples from educators who have used video games in the study of English and synthesize ways in which these approaches can be used effectively in teaching and studying literature. I conclude by suggesting avenues of further research into video games and their impact upon gamers, readers, and educators alike.

An important distinction exists between using video games as teaching tools that complement classwork and studying video games as distinct and unique texts. Much research is in print about using video games as teaching tools, complementing course curricula but limiting direct engagement with video games as objects of study outside of game design curricula. Conversely, very little research exists that puts theory to practice by examining video games as texts in an environment of literary study. In short: little-to-no research in the field of English uses video games as direct objects of study. When video games are used as rewards or as supplementary material for a course, then such practices ignore an exigence on the part of the student: the inclusion of one very influential aspect of a present and active digital life and culture in the classroom. These students risk becoming shut out of the literary conversation because the literature that they may possess relative expertise in is relegated to ancillary status,

to say nothing of how such practices devalue the texts themselves. Therefore, I offer what limited research as I may—coupled with my own study—as a foundation of work in the field of, not merely using video games as helpful learning tools, but as objects of critical study.

Teaching video games as literary texts necessarily changes the approach an educator might take when guiding study in a class. As with codex texts, interpretation of the text will vary from student-to-student. This is similar to video games as texts, but that students may often experience differing narrative branches that inform their interpretations of the text. Equally, the player-generated narratives that students produce as they fill in the gaps in the narrative, supplant the narrative through their agential influence and experience, or engage in tmesis as they navigate the narrative affects their interpretations of the text and what they bring with them to class discussion. Educators need not be discouraged as, even when faced with a multiplicity of narrative outcomes, many narrative video games contain a central narrative that ties the game’s narrative alternatives together. An upside to such diverse experiences and readings of a single text is a surplus of alternative viewpoints of the text, which can make for productive discussion. This experience is familiar; multiplicity of interpretation is common-place in the literature classroom. The difference lies in that, in video games, direct agential influence over and participation with the narrative invests the reader’s interpretation in their embodied experience, producing a far more individuated and, perhaps, intimate reading of the text. One need not ask “how will I address all of the varying narrative experiences of my students in the space of a single class session?” Instead, one should ask “what is the central story and its central themes?” and then work to merge student experience into a cohesive discussion that aligns with the goals for the teaching unit. I attempted this with my unit on *Undertale* and found that though students had varying experiences of the game’s narrative, that I was able to direct their discussion of the game towards thinking about their agency and how that affected their sense of

empathy for the characters in the story and the potentially problematic questions of ethics they faced. Adhering to more fundamental goals of teaching literature may work just as well. Though learning goals vary from teacher-to-teacher and from class-to-class, Robert Scholes perhaps best describes the fundamental learning outcomes of literature curricula in *Textual Power* as “reading, interpretation, and criticism” (Scholes 21). These three learning goals encompass much of the outcomes of literature curricula for most literature teachers and incorporate goals that I have heard expressed many times by educators: “creating life-long, avid readers” (reading), “building critical thinking skills” and “cultivating empathy,” (interpretation and criticism). These outcomes are foundational to the teaching of literature and need not be changed when examining narrative video games as texts. In the same fashion as the multimodal learning potentials of video games, educators may start with the familiar when approaching teaching such texts and then gradually move in to new and more complex approaches as they become more familiar with the medium. Learning, in this way, becomes reciprocal—which is perhaps the *best* way to go about learning. The three studies of games in English classrooms discussed below hint as such an educational dynamic and further the sparse research surrounding the conversation of video games as literary texts worthy of study.

Video Games in the Literature Classroom

Izabela Hopkins and David Roberts argue in their article “‘Chocolate-Covered Broccoli?’ Games and the Teaching of Literature” that games in general, including video games and board games, have a place in the literature classroom. They argue, similar to Gee’s learning principle of situated, embodied meaning-making, that “In its ability to impart meaning to actions, the game already contains both a creative and didactic function through which the player acquires knowledge of the self and others: a core mission of literary studies” (Hopkins and Roberts 226). By “actions,” Hopkins and Roberts highlight the interactive quality of games that immerse

readers within the story and allow their agency to play out and influence the narrative. Situated, embodied experience is tied to actions that, as Hopkins and Roberts suggest, allow the reader to acquire “knowledge of the self and others.” One presumes that the authors are speaking of characters and, most importantly, the reader as an influential character in the game. They go on to suggest literary avenues in which games accomplish tying the reader’s actions to notions of knowledge of self and others: “games may be utilized to combine the elements of progression and emergence. Many computer games rely on this model and, when it comes to the emergent aspect, draw upon literary studies to construct appealing narratives. One of the more popular paradigms that such narratives exploit is that of the hero’s journey” (Hopkins and Roberts 231). The hero’s journey is compelling in both codex literature and within the narratives of video games and, perhaps, is one of the best tropes by which readers can derive situated experience, particularly in video games. Whether the experience of the hero’s journey is individuated in the vicarious experience of the codex text or in the situated, embodied experience of the player-as-character in a video game, the trope remains a successful and powerful narrative approach. Particularly in video games, the reader’s experience seems all the more vivid and immersive as “the play that ensues becomes not a question of empathy or sympathy but projection and interpellation of the player into the play-world thus created” (Hopkins and Roberts 231). In other words, over the empathetic and sympathetic positioning of the reader in relation to the codex text, the reader of the video game as cybertext becomes a device of the story, an agential influencer whose meaning-making of the story is tied directly to their relationship to the virtual setting of the story and the literary elements contained therein, including its characters. In a very powerful and vivid way in video games that employ such world-crafting, meaning-making—learning—is situated within embodied experience.

Hopkins and Roberts add further evidence of Gee's proposition that situated, embodied, and experiential learning is one of the chief benefits of utilizing video games in literature. Additionally, they offer an interesting criticism of proponents of pedagogical games and teachers of literature that touches on the crux of my argument for video games' place in literature:

For proponents of pedagogic games, they unfairly characterize literary studies as a ghetto of either willfully regressive or irresolvably indeterminate practice, immune to the playfulness of the game by virtue, paradoxically, of the very playfulness of literary reading. For teachers of literature, such explanations provide a convenient excuse for not venturing into an area of new pedagogy that has enjoyed signal success in adjacent disciplines by force of its connection with the cultures increasingly inhabited by students. (Hopkins and Roberts 224)

Pedagogic games and the video games as texts that I discuss students engaging with are very different entities. Hopkins and Roberts are correct though that, even in the realm of pedagogic games such as foreign language coaches, math games, or the widely-popular *Kahoot*, literary study seems neglected. Hopkins and Roberts's observation is a harsh critique of both literary studies and teachers of literature as well. However, Hopkins and Roberts are not off the mark. The increasing number of students with regular exposure to video games indeed signals the necessity towards a shift in expanding the media included in literary studies. Video games are a part of that media expansion, and just like film, television, graphic novels, comic books, and fanfiction that have all found a place in the study of literature, the increased exposure to video games by students signifies a cultural norm that must also struggle to insert itself into the field of literary study. And educators need to hurry, as this particular technology has only accelerated in complexity since its inception. In moving forward in explorations of video games as literary texts, educators should keep in mind the distinction between pedagogical games and video games that constitute objects worthy of literary study. Pedagogical games are often very directed and focused on a specific subject. Some may be narrative and those narratives may be

worth exploring. However, one should bear in mind the role of the reader within the game narrative and whether or not the reader has opportunities to engage in freeplay and tmesis, both crucial aspects in the formation of player-generated narratives and thus interpretation tied to agential influence within the text. Agency as a unit operation functioning within a text is pivotal in allowing the formation of player-generated narratives through freeplay within the text. This is why video games like narrative-driven RPGs are candidates for literary study; the agency of the reader is integral to the text and is impeded very little or not at all. This is an important and distinct difference separating codex texts and narrowly-focused pedagogical games from video games as valid literary texts: the function of reader agency as an active influence on both the construction of the text (structurally and mentally, positioning the text as ergodic) and interpretation of the text. Though not as heavily theorized, educators working with video games as objects of literary study seem to recognize both the importance of the role of agency in games as texts and look to games that are more familiar to their students over pedagogical games as objects of textual study.

Margaret Toomey's October 2017 article "Engaging the Enemy: Computer Games in the English Classroom" chronicles an experiment in a ninth-grade classroom in Australia where students were assigned video games to play and then pair them alongside more conventional codex texts. They then created, through a group project, promotional material for a game of their own design. The researchers involved in the study recognized the gap between the pedagogy of literary and literacy studies and the increasing cultural impact of video games as the exigence for the experiment. "Computer gameplay forms a compelling part of many students' lifeworlds; however, too often in secondary English classrooms games are seen, at best as a reward for completing a 'sanctioned' classroom activity, or at worst as the rebellious refuge of the resistant and disengaged learner" (Toomey 39). Once more, video games are

recognized as a cultural art form of powerful significance to students, but are underutilized and under examined in literature and literacy curricula, relegated to rewards or supplemental materials for the course. Equally, the researchers recognized the potential of video games as literary texts: “Computer games also offer new opportunities for storytelling and new forms of engagement with digital texts that call on English and literacy educators to expand their understandings of ‘the literary text’, as they further investigate the potential these new narrative forms may have for English classrooms” (Toomey 39). With an understanding of video games as texts that are influential in students’ lives, the researchers formulated the following teaching intervention:

The curriculum unit focused on conducting a critical analysis of the speculative fiction genre, while integrating digital games. . . . As examples of literary texts, the games were examined alongside equivalent examples from novel and movie forms. The games played in class, selected for their narrative content, visual appeal and age appropriate material, were drawn from early versions of *The elder scrolls: Arena and Daggerfall* . . . and from Cyan Worlds’ *Myst and Riven*. . . . Other games were also discussed, providing further texts for identifying the unique features and structures of computer games as a new narrative form and for use as resources for students to design a game concept of their own. (Toomey 40-41)

It is compelling that Toomey recognized the importance of pairing video games with codex texts; it seems a logical approach for bridging video games as cybertexts and codex texts. For my unit on *Undertale*, I was more interested in the interaction of intertextuality between video games and codex texts. But Toomey is correct in her approach utilizing codex texts as “equivalent examples” of narrative texts. Because experiences of narratives in video games can vary widely especially when considering the function of player-generated narratives, paired codex texts may act as a sort of common-reader for a class.⁶ Notice, too, the games that were selected were

⁶ I have observed a similar approach in a two separate Introduction to Theory and Criticism courses. Recognizing the widely varied interpretations that can come from reading many critical theorists, in both cases the instructors assigned a common-reader. Both, interestingly, chose works by Faulkner. The novels acted as an experimental space whereupon students could collectively test out their interpretations of

chosen for their narrative content and are a mix of RPGs and puzzle-games. It is a shame that Toomey does not list the texts that were paired with these games, as it would be interesting to know the texts she chose. Despite this lack of information, the results of the study are very compelling, particularly in the evidence of three students who were the focus of the study's research outcomes.

Increased participation, engagement, and enthusiasm were three of the most fascinating outcomes I observed in my teaching units on *Undertale*. The same outcomes hold true for Toomey's experiment as well. Though Toomey's research encompassed an entire "Year 9" classroom, her article focuses on three boys from the class who are given the pseudonyms Kirk, Spock, and McCoy as tribute to their avid interest in *Star Trek* and science fiction games. As part of the group project, the boys had to work together to create a "multimodal artefact" in the form of promotional materials (a poster and video) for a video game of their own design which they named *Endurance*. Early observations of these students noted that they "were all deeply invested in the world of computer games, particularly in science fiction narratives surrounding those games" (Toomey 41). All three of the boys were capable students with varying degrees of introversion and extroversion. Spock, in particular, "was a serious, shy and very capable student who was typically reserved, but he spoke with energy and enthusiasm when discussing science fiction narratives and video games" (Toomey 42). Additionally, these three students exhibited excitement and initiative in their work beyond what was required by the class once video games were introduced as objects of study:

These boys were very excited about the idea of studying computer games in English, as evidenced by their enthusiastic sharing of ideas for the final project

various theories and discuss their merits and applicability. Though students were working in the unfamiliar territory of critical theory, they had a familiar space in the form of the novels whereupon to connect their ideas and convey them to one another. Since Faulkner's works are widely open to interpretation, the novels acted similarly as "equivalent examples." In the case of these courses, they were examples of theory at work.

long before lessons required them to begin planning. Observing these students in class, talking with them as they worked, interviewing them after class and watching the evolution of their project highlighted what it meant to them to have the digital narratives that they so much enjoyed in their out-of-school lives included in the work of the English classroom. (Toomey 42)

Once more, one observes educators “meeting students where they are,” bringing their out-of-class interests in to the classroom increases engagement and, as Toomey notes in this case, enthusiasm for the subject matter. Consequently, the students were very successful in their project, creating a promotional poster for their fictional game *Endurance* as well as a twenty-second video “trailer.” When later interviewed, the student, Spock, offered observations that confirm both a number of learning principles proposed by Gee (see Chapter Two) and ways in which player-generated narratives are formed to affect interpretation:

Spock further elaborated on connections between English and computer games, stating that “English and writing the narrative stuff and games are more closely related than people think. [Games] give you more control, it feels like you’re more intertwined with the character because you’re actually controlling them and you’re part of, you’re sharing the experience.” . . . In his “controlling the character” and “sharing the experience”, Spock was creating a game narrative “out of the ‘verbs’ made available within a game design’ engaging ‘a back and forth between reading the game’s meanings and writing back into them” (Steinkuehler 2010, p. 61). (Toomey 46-47)

Of Gee’s learning principles, one observes in Spock’s commentary and Toomey’s observations factors such as Identity, Interaction, Production, Agency, and Situated Meanings coming through directly with hints at the Text, Intertextual, and Multimodal Principles beneath the surface. Equally, one observes through the interplay of narrative construction within the game itself and within the student’s mind reflected back (“written” back) into the game, the formation of a player-generated narrative.

While much of Toomey’s research on this project also highlights the power of games as multimodal learning tools for literacy studies, I have attempted to feature here the results of her project that relate most closely to the study of video games as literature and those outcomes.

As observed, Toomey's findings reflect at the high-school level much of my own findings with *Undertale* at the college level. Students who interact with video games as part of their extracurricular lives are more engaged and enthused about working with these texts in the classroom. Additionally, investment in course work increases in relation to the investment of the student as reader of the text. Because the player of the game is most often a character in the text, the player is more invested in not only their navigation of the text as character, but in their interpretations of the text as they craft player-generated narratives in response to textual gaps and their own freeplay within the text. As Toomey notes, the quality of their work may also be improved simply with the addition of these kinds of texts in their curricula. For a closer look at video games used directly as texts for English curricula, I turn now to Jon Ostenson's similar experiment with his high-school English class.

When considering the use of video games as texts in his English class, Ostenson expressed similar observations about the literary potential of video games as myself and Toomey:

There's a place for a purposeful study of video games in today's English classroom because they represent some of the most important storytelling in the 21st century. This new medium is not only connected to our students' lives and interests but also represents our society's efforts to push boundaries of storytelling in meaningful ways. . . . Many of these games (such as the *Balder's Gate*, *Elder Scrolls*, *Fallout*, and [the] *Mass Effect* series) feature extensive dialogue that has players reading as much as engaging in virtual combat. While a central focus of these games is character development—gaining skills and abilities as quests are successfully completed—the entire rationale for playing is provided by the narrative and the problems posed within the storyline. (Ostenson 72)

In recognizing a similar exigence for the active study of video games as seen several times before so far, Ostenson points to the function of dialogue as an example of the amount of reading that takes place in video games over the often-heard stereotype of mere combat or violence. As discussed in Chapter One, video games incorporate a great deal more textual

information than their earlier progenitors. I offer *The Witcher 3* as an example of one kind of RPG that infuses an exhaustive amount of reading material into the construct of the game.

Similar to my own study and Toomey's, Ostenson also paired the video games he used in his class with other media—conventional codex texts and film.

Ostenson describes his approach to the project as follows:

My efforts to bring video games into the high school classroom were part of a larger unit on the power of storytelling. In this unit, we began by looking at ancient Greco-Roman and Norse myths and discussing the purposes for these stories and the influence they have had on Western culture. We explored the archetypal hero journey as described by Joseph Campbell and looked at examples from these ancient myths as well as modern examples in such characters as Frodo Baggins, Luke Skywalker, and Harry Potter. This exploration of archetypes provided a segue into a unit on film in which we explored cinematic techniques as we analyzed narrative and dramatic aspects of film. (Ostenson 73)

Ostenson then introduces video games to his class almost as a sort of condensed survey course. He began, as I did, by asking his students who played video games to name some of which they had experience with. As in my experience, Ostenson notes that the introductory exercise was “a move that caused some students to perk up and sit up straighter in their seats” (Ostenson 73). I observed a similar enthusiasm among my own students with a similar exercise. It is certainly a valid argument that simply generating enthusiasm in students about their coursework is a far cry from them extracting meaningful learning from their coursework, but I think enthusiasm is a powerful first step. Additionally, my own research and Toomey's offer evidence to assuage such concerns; what students glean from units on video games seems to always be positioned as powerfully personal, intimate, and experiential.

Ostenson took a number of weeks to guide his students through a wide variety of video games, all the while examining as a class their narratives in relation to accompanying texts and films. The class started with the text-based interaction fiction game *Zork* and worked together in class and individually outside of class to navigate the game's choice-based narrative. Ostenson

reports that several of his students reacted to the game's clues within the narrative to anticipate possible events in the game, "encouraging [students] to make the kinds of inferences we make when we read conventional stories" (Ostenson 73). After students became familiar with *Zork*, Ostenson had them continue exploring and reading the game on their own, but also offered them a website where they could play a few other interactive fiction games:

<http://pot.home.xs4all.nl/infocom/> (Ostenson 73). Following the unit on text-based adventure games, Ostenson then had his students play *Myst*.

Ostenson's use of *Myst* in his classroom provides an easy solution to one practical concern about video games as course texts: cost. Video games, even old ones, can be expensive especially when a teacher may need thirty or more copies. "Since I couldn't afford copies of this game for all of my students, we engaged in a sort of 'group play' to explore it" (Ostenson 74). Working together as a class, Ostenson played the game as his students made suggestions about what to do, where to go, and how to overcome puzzles. "Students noted, in subsequent discussion, that this game played like the interactive fiction games we just played, with similar narrative structures . . . and a similar participatory nature" (Ostenson 74). Since *Myst* is a more graphically visual game than *Zork*, Ostenson asked his students about the impact of visual elements in games and their potential to "destroy imagination" and "make the whole experience 'easier' than if they were reading a text" (Ostenson 74). His students had a variety of responses, but as a class they concluded that the visual and auditory elements of *Myst* and other video games are equal to text in their ability to convey a narrative, albeit in different ways than codex texts.

Ostenson then continued the practice of group-play when he turned to *World of Warcraft*, the massively multiplayer online role-playing game. *World of Warcraft* is similar to RPGs that I have discussed before in that the reader has almost unlimited freedom to navigate

the virtual world and its story. The difference between a game like *World of WarCraft* and *Horizon*, though, is that *World of WarCraft* has an online community of millions of players and a single player may find themselves on a server populated by tens of thousands of other players. The textuality of such a game is brought into question as the characters the reader encounters are mostly other characters like themselves, imbued with vast agential power and influence over the narrative. This seeming chaos is mitigated by the authors who design a singular “main storyline” that the player navigates. In this “main storyline,” the reader’s actions become canon to the reader reflecting their choices and decisions as the story moves forward. Ostenson notes the power of games like *World of WarCraft* and, simultaneously, hints at the power of player-generated narratives: “Because this game allows for even freer exploration of a virtual world and unprecedented freedom of choice compared to those earlier games, each player experiences his or her own plotline while playing the game” (Ostenson 74). His students also commented on the social aspect of the game, and how players must work together and form relationships. These relationships, his students noted, seemed to be strengthened by navigating the narrative of the game. Ostenson also used *The Sims* and *Dear Esther* (a life simulator and an exploration game, respectively) as part of his lengthy survey of video games in his English class. After playing through the list of games Ostenson compiled, he asked his students to reflect on their experience and to find connections between the games they played and codex literature usually examined in the class.

Ostenson prompted his students’ reflection with some rudimentary questions connecting video games to literature: Does the game have a setting? Who are the characters? What is the conflict? In what ways is the game’s story similar to other stories we have read? This reflection helped his students recognize one of the major goals of his teaching unit: that video games are highly participatory and that their main draw is in placing the reader in the position of

the main character. Ostenson also wanted his students to become more critical thinkers about games and the ways in which they work in his student's lives (Ostenson 76). He observes at the conclusion of his study that:

I didn't set out to study video games as a way of motivating reluctant learners or bringing more of the students' culture into the classroom (although both things happened, happily, as a result of our exploration). . . . [The unit on video games] facilitated deep and engaging discussions about the power of the video game, its unique strengths and weaknesses as a storytelling medium, and the potential future of the genre. While we live and breathe story in the typical English classroom, we don't often push its boundaries and explore its frontiers. I have found that doing so, even for just a short time, awakens a critical awareness for students of the power and influence of narrative in their lives. (Ostenson 78)

Out of his study, Ostenson observes the continuing trend of the presence of video games in English curricula: they motivate and energize reluctant learners and allow students an immersive, interactive, and deeply personal textual space wherein to form interpretations of these digital texts while drawing connections to the codex texts of conventional literary study. He also notes the power of storytelling and the influence of narrative both within varying texts and in culture. This is a powerful bridge between codex texts and video games as cybertexts. The two media do the same things, but deliver them differently.

Access

Delivering video games as texts to students can be a difficult effort for practical reasons. Video games can be expensive (but arguably no more so than college textbooks). Some video games demand a great deal of time to play, equivalent or more so than the time it takes to read a lengthy novel. Video games are not accessible to every student or every instructor whether it be a matter of cost or access to technology. Lastly, not all video games are worthy of deep, critical study as literary texts. The studies above all suggest varying ways to navigate some of these prohibitive barriers. In my study on *Undertale*, I was careful to choose a game that was low in cost, relatively quick to play depending on the skill of the player, easily accessible to all

students with a computer, and rich in narrative. Toomey allowed students to pick from a handful of cheap and easily-accessible games, and Ostenson used group-play as a way to mitigate cost and access. Websites exist, as Ostenson shows, which allow open-licensing of video games to anyone, allowing them to be played easily and for free. Steam, the most active and largest online distributor of video games, offers academic licenses through their parent-company, Valve, for educators that allow cheap and affordable access to video games for students. Another avenue of exploration may exist in mobile games. Not every student has a gaming console or a computer, but almost all of them have smart-phones. As the popularity of mobile games increases, story-rich video games are becoming more and more common. An excellent example is Playdius Entertainment's 2017 mobile game *Bury Me, My Love* which chronicles the stories of two Syrian refugees as they communicate back and forth over their smart phones. The story is presented in text messaging format, with brief messages and pictures. This kind of textual style is familiar to students and will likely resonate with them more readily than the prose of a novel or even the lengthy gameplay of a game like *Undertale*. Other practical concerns surely exist when it comes to migrating video games into the English curriculum. Some of those concerns will be easily mitigated by online resources and others may turn out to be insurmountable; studying video games as literature is new territory for everyone, even young up-and-coming educators with a lifetime of experience playing and reading games. A very difficult practical concern to mitigate is access to video games as texts and technology for the differently-abled. Visual and hearing impaired students are often cut off from access to video games in their default formats. Most universities have policies in place to assist differently-abled persons in accessing course materials, but providing access to video games for such persons in school systems is still a relatively new concept. There is some hope, however, as many game developers work alongside charities such as The AbleGamers Foundation to provide

guidelines for game development that include accessibility for the differently-abled (Moss 1). Universities and public school systems can glean a great deal of helpful information from such charities and even game developers themselves to help mitigate accessibility issues for the differently-abled. All of these practical concerns should not dissuade us or be an excuse for avoiding this medium, as Hopkins and Roberts caution. Video games are part of our culture, and a part that students are engaging in more and more frequently and with greater enthusiasm.

Beyond practical barriers to using video games in classrooms such as cost and accessibility, educators should be mindful of the *kinds* of games they examine as texts. Because video games are cybertexts, arguably *all* video games *are* texts. Gee's construction of story elements around *Tetris* demonstrates the potential for all video games to be narrative, even in very subtle and ambiguous ways. This is particularly true when one takes into account the interpretative and story-crafting power of player-generated narratives. It is not enough to simply say that educators should focus on examining only video games that are "literary," "textual," or "narrative. Such monikers are complicated by questions of what "literariness," "textuality," or kinds of "narratives" one wants to explore. Arguably, any video game could function as a text for literary exploration depending on what the educator wants to emphasize in a course. Even a game as simple and straightforward as *Space Invaders* could pair with *Ender's Game* if an educator wanted to question the motives behind violence in both texts, for instance. But for extensive, deep, critical exploration of a video game as a narrative text, strong story-driven role-playing games are the best option for educators. Narrative role-playing games often contain expansive stories that provide ample textual material to explore. Because the reader is also the player, they are also a major and influential character in these kinds of games. As an agent of influence within the story, readers navigate role-playing games through a multiplicity of branching narratives that can be explored, opening up many avenues for interpretation. Role-

playing games typically create spaces for readers to insert player-generated narratives, filling in the gaps in the story or directing their avatar through a direct and personal connection with their character.

Role-playing games also encompass many of the learning principles that Gee establishes as hallmarks of “good” video games. Role-playing games capture readers through the Identity principle, placing the reader in the role of the story’s protagonist wherein they experience the game-world and learn through first-hand experience (Gee, “Good Video Games,” 3-4). First-hand experience directly relates to another learning principle: the Situated Meanings principle: “The meanings of signs . . . are situated in embodied experience. Meanings are not general or decontextualized. Whatever generality meanings come to have is discovered bottom up via embodied experiences” (Gee, *Learning and Literacy*, 209). Role-playing games allow readers to experience a game-world full of interactions with characters and environments that help the reader to decode the signs or meanings of the text. As Gee points out, nothing is decontextualized, and if any signs in the story or world are general or ambiguous, the reader discovers this slippage through direct interaction with the world and likely reacts to that slippage by mitigating it through the creation of a player-generated narrative. This kind of immersive reading experience is not unlike that found in the reading of codex texts, but agency plays a far more active role for the reader. Through this increased agency, readers as players are positioned such that learning becomes situated and embodied which contextualizes learning through lived experience in the game-world (Gee, *What Video Games Have to Teach Us*, 24; Toomey 39; Hopkins and Roberts 222; Squire 203; Barab et al. 307). Role-playing games also encompass many more of Gee’s learning principles such as Production and Customization which allow players to design, tailor, and produce aspects of their experience with the text (Gee, “Good Video Games,” 4-5). This, of course, ties in with the Agency principle that highlights the

role of the reader's agency, allowing them control and ownership over the text as they interact with it (Gee, "Good Video Games," 6). These are but a few of Gee's learning principles that role-playing games encompass.⁷ While I am cautious of Gee's assignment of the term "good" to video games that he deems possess value for education, I am in agreement with him on his assertion that video games that possess all or many of the learning principles he establishes are candidates for the literary exploration of video games. Role-playing games, because of their often sweeping and intricate narratives, have increased potential for textual and intertextual exploration, two more principles that Gee highlights. Games such as the *BioSock* series, the *Final Fantasy* series, the *Elder Scrolls* series, *Undertale*, *Bury Me*, *My Love*, *Gone Home*, *Night in the Woods*, and *Red Dead Redemption* (1 & 2) are but a few examples of narrative-rich role-playing games that could be effectively explored as texts alongside codex texts in classrooms.

Further Research

As I have mentioned, the research surrounding video games as objects of textual exploration in literature classrooms is very sparse. Toomey highlights a common use of video games in classrooms as "rewards for work completed" or, in other words, accessories for the "real" coursework. While using video games as rewards for completing coursework has an effective place in early education, higher education should be focused on the hard work of in-depth exploration. For English curricula, this means actually *using* video games as objects of study in the classroom. Herein lies one avenue of further research. Between Toomey, Ostenson, and myself, only a small number of video games have been explored as texts. Taken together, this combined research represents an abysmally small sampling of the texts that exist. This is not to be confused with the plethora of projects that have used video games as teaching tools and aids; these projects, though very promising, are focused on how video games work to help

⁷ For a comprehensive list of Gee's principles, see: *What Video Games Have to Teach Us about Learning and Literacy*.

facilitate learning, rarely as exploration of video games as texts in conjunction with exploration of learning potentials. What research exists that examines video games as texts in English curricula—that I am aware of—I have presented above. More may exist, but it is assuredly sparse. Thus, the fields of English and literary criticism have an exciting opportunity before them to explore video games as a textual medium.

Explorations of video games as texts in the literature classroom need not confine themselves solely to role-playing games either. While role-playing games are certainly powerful and rich in narratives, they are merely the third-largest genre of video games in the total market-share. First-person shooter games make up the most popular genre of video games (“2017 Sales, Demographic, and Usage Data” 12). There is room for exploration of other games from both a literary and cultural perspective. With consistent attention being brought to the toxicity surrounding gaming culture—which competitive gaming like first-person shooters seem to breed—another avenue of research lies in exploring the capacity for generating empathy through the study of video games.

Matthew Farber and Karen Schrier express in their working paper “The Limits and Strengths of Using Digital Games as ‘Empathy Machines’” a need for finding new ways to locate empathy in cultural media such as video games.

We need to find new ways to cultivate empathy-related skills and attitudes. For instance, how do we negotiate and reflect on others’ (and perhaps even our own) fear, racism, disrespect for others, and xenophobia? How do we manage and de-escalate behaviors like trolling, online harassment, and cyberbullying? How do we empower people to take on perspectives, to listen, to deliberate effectively, to act respectfully, and to consider others compassionately online and in public? (Farber and Schrier 5-6).

An answer to these questions may lie in the cultivation of empathy through literary study. It is perhaps foolish to assume that books or video games alone can work as effective “empathy machines.” But, through guided study—the “reading, interpretation, and criticism” of Scholes—

empathy can be encouraged in students of literature. The same can be done with video games as well if they are examined as texts. Chapter Two demonstrates that, for some students, empathy was an influential part of their experience with the game. A more direct study on the effects of studying video games alongside codex texts might reveal more clearly the role of empathy in both media.

Conclusion

The studies above—and my own in Chapter Two—are but a handful of examples of educators using video games as texts in the English classroom. We observe varying degrees of success and varying learning outcomes as a result. Chief among the successes of these studies is the increased enthusiasm, participation, and active learning of students once video games are introduced to the curriculum. This is a result of acknowledging the culture of our students, recognizing that they are—more and more—digital citizens whose lives play out in an interplay between physical and virtual spaces. In this culture, literature—the text—is no less influential or powerful, but is experienced in different and varying ways. I grant that the most powerful outcomes of these studies are displayed in the energetic interest of the students. But enthusiasm for textual study alone is not enough. Educators must harness that enthusiasm and direct it towards our goals, whether they be the reading, interpretation, and criticism of Scholes, the cultivation of empathy, or the critical exploration of literature as an experiential textual phenomenon. On a subterranean level, these studies all show the gradual progression of students into more critical spheres of thinking about narrative and the textuality of video games. The failing of more consistent, deeper, exploration exists not on the part of the students, but on educators. The students are clearly ready to study the material and, moreover, are already prolific readers of it. These studies, including my own, are but the tip of the spear; we must launch into deeper and more consistent study of video games as a textual and literary medium

before the deepest critical learning outcomes we want to see may be achieved broadly and consistently.

Conclusion

Video games remain an intriguingly challenging and even sometimes problematic technology. Culturally, they have been scorned as scapegoats for violence and lethargy and praised as hubs for digital citizenship and versatile tools for learning. Much like conventional texts, video games can serve many purposes and convey many different ideas and perspectives depending on who wields the technology. In the broad culture of the internet, video games can bring people together or create divisive environments; it is up to the user. Perhaps this is the great power that video games share with literature: for good or for ill both are conveyances of ideas, thoughts, and beliefs open to reception, interpretation, adoration, evisceration, and change most importantly. Video games are powerful idea-machines, captivating culture and commanding a thirty billion dollar market. This sort of imposing position makes them unavoidable for students and teachers alike precisely because of how much video games have permeated culture. It is tempting to see young people as the harbingers, champions, and gatekeepers of video games, but the fact is that video games know no age limits; everyone plays them, young and old.⁸ Even as I make the case for video games in literature classrooms, they have already found their way into our schools: “Fifty-five percent of teachers use video games in the classroom on a weekly basis, and many find these games to be an effective tool to motivate low-performing students” (Meyer 20). Indeed, many of these games used frequently in classrooms are pedagogical, but others are not, as the few studies offered her show.⁹ Clearly, both inside and outside the classroom, video games are an increasingly recognized and powerful phenomenon that cannot be ignored. As Gee points out frequently, video games have a clear

⁸ See: “2017 Sales, Demographic, and Usage Data,” Entertainment Software Association, 2017.

⁹ See also: Ames and Burrell. “‘Connected Learning’ and the Equity Agenda: A Microsociology of Minecraft Play,” The 20th ACM Conference on Computer-Supported Cooperative Work and Social Computing, Portland, Oregon, USA, February 25 – March 1, 2017.

This paper is an example of pedagogical work conducted in communities using the popular game *Minecraft* to teach computer and coding skills.

place as learning tools in STEM. But where do they fit in to the Humanities, in literature, more specifically? The clear inroad for this technology lies in its value as a text and the narratives contained therein.

Theorists such as Aarseth and Bogost have begun and continued the serious work of understanding video games as a distinct form of textuality. Though neither privileges the reader as central to the textual and literary experience of video game narratives, their theoretical analysis of games and video games has laid the groundwork for deeper critical exploration. As I have suggested before, entire academic careers in the Humanities will one day be devoted to deciphering and identifying the many genres and sub-genres of video games as literature. Moreover, while the field of literary criticism is all but bare of analyses of video games, the time in the culture has never been better for critics to begin this work. I have shown, to a small extent, that such criticism is possible and valuable in my analysis of *Horizon: Zero Dawn*. Certainly, for perhaps many games, one will wonder at their use of devices, allusions, and literary form and question: is it all just a gimmick? Yes, for some games it will be, but there are two good reasons not to be dissuaded regardless. One, if what one marks as literary falls short or comes off even as a nice trick this is because video games, for all of their rich and wonderful stories, are still launching their opening forays into the world of the literary. This means the iron is hot and that we should strike it! The critic is poised very opportunely to be a voice in influencing the literary direction of video games. Herein we hear our creed calling to us from this new medium. We temper the iron of our forge through reading video games, playing them as avidly as we read books and allowing our critical tools to help shape their future designs. In turn, our critical inspection, expectedly, will also change, adapting to a new medium. Such an endeavor reveals literature at work as the stories within video games derive from the mythologies of literature and from the stories of video games that came before. For example,

Final Fantasy XV comes off flat and *overly* derivative taken alone. But when examined closer, we see influences from Arthurian legend and strong allusions to *Final Fantasy VI*, a highly influential RPG of its time. It is akin to reading Toni Morrison's "love trilogy" without reading Dante's *Divine Comedy*: there is much that is lost without knowledge of the work alluded to. This is not to suggest that *all* video games such as *Final Fantasy* are on par with Morrison or Dante; video games have yet to find their "Dante or Cervantes," as Aarseth says. But the savvy literary critic must ask: can they one day be? And *when* they are, can the critic stand to witness this execution without ever lending their voice? Two, the students, young and old, who play video games feel the power of their stories and recognize that there is *something* of literature therein, even if they cannot quite put their finger on it, even if the literary scholar is slow in seeing it. The effect of the video game story is influential and present, as undeniably *real* as the story in a novel or film. Here, the case for the literary in video games swings the other way. If one holds the realization that more and more students play video games over reading conventional texts, then there is much about the literary world that they are missing beyond and within their games. If the literary scholar or educator must play more video games, then the student must read more books; the journey into this new territory is reciprocal.

The reciprocal relationship between students and teachers both learning video games as literary texts has powerful implications for the classroom and creates advantages for teachers and students alike. Gee and others assert many possible learning potentials for video games as teaching tools, but educators such as Ostenson and Toomey demonstrate through practical application how powerfully these learning potentials manifest in students. My own study with *Undertale* correlates with many of the outcomes of previous studies especially in regards to the level of student engagement and increased investment in the course material from students. But these few studies are merely a launch-pad for what else may come from further exploration.

Though the research is sparse for now, it is very promising. Nor will such research remain sparse, as more and more teachers, up-and-coming graduate students, and undergraduates recognize the value of exploration of video games in the Humanities and begin building careers as scholars of Digital Humanities. In exploring game narratives with their students, the skilled teacher should be able to extrapolate and inspect a narrative with their students with even cursory knowledge of the game itself. It is perhaps not the task of every teacher to be an “expert” at the game, but rather to be the mediator who bridges the literature found in games and the wealth of literature found in conventional texts or the canon. Moreover, such explorations may allow the *student*, armed perhaps with years of experience with video games to be the expert in the class and position the teacher as the literary guide who helps fortify and polish the student’s craft.

Such an approach to education that cedes expertise to the student while retaining the guiding, formative power of the teacher places significant agency back in to the student’s hands. Neither is it anything new as it is but one more manifestation of student-centered teaching. It was Robert Scholes who called for teachers of literature to “help our students unlock textual power and turn it to their own uses. . . . We must help them to see that every poem, play, and story is a text related to others, both verbal pre-texts and social sub-texts, and all manner of post-texts including their own responses” (Scholes 20). But what are these “uses?” Can they not be applied to the narratives in video games? For example, if a student of literature cannot identify the course of the hero’s journey in the narrative of a video game— decoding its parts and application—and derive an interpretation that enriches the narrative or a critique that exposes its flaws, then what are the limits of the practical application of literary study? If we say to a student that a Marxist interpretation is only valid within the pages of conventional text and not in the sweeping narratives of the *BioShock* series then, to be frank, what are we doing but

supplanting their textual power with our own? Finally, if the aim of literary study aligns with Scholes's, then what good is the understanding of intertextuality—even within a student's own writing—if intertextuality is only recognized in the poems, plays, and stories of conventional literature and not in the ergodic literature the student is actively, regularly reading? Video games in the literature classroom are not unlike bringing film, television, comic books, or children's literature into the classroom. It is a migration of interests and culture from outside of the academy into its halls. In adopting video games as a new mode of expression for literature—as a form of literature itself—the relationship between teacher and student becomes symbiotic with either side sharing expertise and breaking new ground. This is how literature comes alive in the classroom. It is past time to take the literary experience of our students and move it from the screens of their phones and homes and place it squarely as a topic of critical inquiry in the classroom and in our criticism. Doing so will enrich the value of the educational experience for the student, the teacher, and our very institutions themselves.

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Campus Organization Affiliations and Service:

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From the Well House: The IU Kokomo Review of Arts and Sciences

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