

Digital Games and Electronic Literature: Toward an Intersectional Analysis

Introduction: Literature and the Paraliterary

Should groups such as the Electronic Literature Organization (ELO) play a role in the study of digital games? And what about broader professional organizations such as the Modern Language Association (MLA)? These questions suggest others: Fundamentally, what is the relationship between the categories of “electronic literature” or “literature” as such, on the one hand, and “digital games” on the other? Also, how do we understand the field of literature to be changing when so many compelling artistic experiments are unfolding in the realm of computer, console, and mobile games? The mission statement of the ELO notes that the organization exists to “foster and promote the reading, writing, teaching, and understanding of literature as it develops and persists in a changing digital environment” (Electronic Literature Organization 2013). The overarching MLA statement explains that the organization works to “strengthen the study and teaching of language and literature” (Modern Language Association 2013). It is noteworthy (though perhaps unsurprising to most readers) that games are nowhere to be found in either of these statements. Since the focus, in these descriptions, is on the term “literature,” it is worth asking one final and more rudimentary question: How does the form of “games,” especially as it has transformed in the early twenty-first century, relate to the category of “literature”?

In his work from the mid-1990s, novelist and critic Samuel Delany posits a material practice of “paraliterature” that describes “texts which the most uncritical literary reader would describe as ‘just not literature.’” In the illustrative list that follows, he includes “Comic books, mysteries, westerns, science fiction, pornography, greeting card verse, newspaper reports, academic criticism, advertising texts, movie and TV scripts, popular song lyrics” (Delany 1995,

210). Though it does not do so explicitly, this list could easily include computer and video games. As Delany explains, “Just as (discursively) homosexuality exists largely to delimit heterosexuality and to lend it a false sense of definition, paraliterature exists to delimit literature and provide it with an equally false sense of itself” (205). The canon of literature, he contends, should be thought as “*a way of reading* — or, more accurately, as a way of organizing reading over the range of what has been written” (187).¹ Delany’s critical move, then, is not to propose, in the way of cultural studies, that the “paraliterary” is a catalog of texts that either properly belongs to or expands the category of “literature.” The “paraliterary” is instead a critical optic and an alternative way of reading all texts. Instead of beginning with a definition of “literature” — a scientific impulse dating back to New Criticism in the 1930s and 1940s as well as structuralism in the 1950s and 1960s — Delany calls for a paraliterary method that focuses on “careful analytic *description*” (1996, 245).

In her book *Electronic Literature*, N. Katherine Hayles suggests precisely a description rather than a strict definition of the field of electronic literature. For her, literature *as such* exceeds conventional senses of reading and writing. Literature instead encompasses a web of phenomena, including “technologies, cultural and economic mechanisms, habits and predispositions, networks of producers and consumers, professional societies and their funding possibilities, canons and anthologies designed to promote and facilitate teaching and learning activities, and a host of other factors” (Hayles 2008, 42). Given the significant developments that have transformed literary studies over the last half-century, including the expansion into “cultural studies, postcolonial studies, [and] popular culture,” Hayles proposes the broader category of “the literary” in place of the more restrictive rubric of “literature” that has more often

¹ A canon, for Delany, is not a list of texts but “rather the discursive machinery that produces the many contesting lists involved” (1995, 187).

referred to “verbal art.” As a mode of reading, as much as an assemblage of texts, the “literary” has much in common with Delany’s concept of the paraliterary. It seeks to bring into conversation, though not to delimit, “creative artworks that interrogate the histories, contexts, and productions of literature” (4).

As Joseph Tabbi has observed, Hayles’s category of the “literary” comes to include work that might otherwise be classified as “digital art” or “computer games.” Unlike Hayles, Tabbi wishes to preserve the boundaries between literature, on the one hand, and “visual, oral, and computational media” on the other. He argues, “Where games demand interaction and where conceptual arts bring us to a new, embodied understanding of the primacy of perception in the arts, literature does something else.... Literature’s cognitive complexity comes not primarily from the media it encounters but from constraints that are peculiar to language” (Tabbi 2010, 38-9). Using the European literary group of the Oulipo (Ouvroir de littérature potentielle) as a model, Tabbi contends that literature, both print and electronic, depends fundamentally on “the promotion of constraints—mathematical constraints on formal production but also on the selection, sorting, and programming of texts at the semantic level” (27). Though experimentation with such constraints is critical to literature, those constraints also have effects on the “interaction” and transformations in “perception” that Tabbi sees as more proper to digital art and computer games. We see such changes most explicitly in electronic literary texts from hypertext fictions to generative poetry. At the same time, such changes become apparent in digital games that depend increasingly on the history of literature, literary forms, and linguistic constraints.

Beyond “Ludology versus Narratology,” Toward Analytical Intersectionality

Whether we work with Hayles’s capacious sense of the “literary” or Tabbi’s directed sense of “literature” as a play with textual constraints, a number of contemporary digital games seem to enter and expand the realm of literary studies. In exploring the relationship between games and literature in this essay, I am not suggesting a return to tensions between “narratology” and “ludology” that characterized the games studies turf wars that took place in the late 1990s and early 2000s. It is important to take seriously some of the key suggestions that emerged from the work of scholars such as Espen Aarseth, Markku Eskelinen, Gonzalo Frasca, and Jesper Juul who argued, in different ways, for a field of “ludology”: a formalist discipline that takes game mechanics and rules as its core elements of study. At the same time, these debates sometimes resulted in polemics that prematurely dismissed rich and diverse intersections between the literary and the ludic. As Gonzalo Frasca notes, in the late twentieth and early twenty-first century, a great deal of early research did indeed consider digital games as an extension of drama and narrative, in particular (see, for instance, Laurel 1993 and Murray 1997). Despite the popularity of narratology in early videogame studies, Frasca observes that this emphasis ignores a critical distinction between representation and simulation (2003a, 222). The conceptual difference is a useful one, though in a significant number of games these modes are compatible and concurrent. It is worth adding that the alignment of the “narrative” and the “literary,” which occasionally took place in these early discussions, conflates two terms that are far from interchangeable. Thus, even if there are limits to applying narratology to game studies, or using narratology as the structural basis for ludic analysis, it could still be fruitful to consider the literary dimensions of games. Games, after all, can productively be studied as simulations with

mechanics, rules, and objectives, but they also develop in conversation with both print and electronic forms of literature, including those with narrative inclinations.

Despite Frasca's focus on the role of narrative in game studies, other ludologists have also objected explicitly to the positioning of games in relationship to literature. Espen Aarseth offers a summary of objections that encompass both the critique of the "narrative" and "literary" frames for game studies:

Underlying the drive to reform games as 'interactive narratives,' as they are sometimes called, lies a complex web of motives, from economic ('games need narratives to become better products'), elitist and eschatological ('games are a base, low-cultural form; let's try to escape the humble origins and achieve 'literary' qualities'), to academic colonialism ('computer games are narratives, we only need to redefine narratives in such a way that these new narrative forms are included') (2004).

Such motives for a "reform" of games and the way we define them have indeed been present throughout both the history of a broader cultural advocacy for videogames as a form as well as game studies scholarship in particular. For years, many writers treated games as a mere evolution (or devolution) of narrative and literary texts rather than a form with unique attributes.

In revisiting the relationship between the literary and the ludic ten years after Frasca and Aarseth's critiques, I do not wish to deny their charges of either elitism or disciplinary colonialism — a fundamentalism, however, of which both narratologists and ludologists were sometimes guilty in the years in which games first emerged as a major object of scholarly study.² Ludology had valid reasons to resist literary studies when it was still a fledgling field and looking to establish its own legitimacy. But surely, with the expansion of game studies in recent years, that is no longer necessary and it is time to put the terms of these earlier polemics behind

² See, for instance, Eskelinen 2001. In this piece, Eskelinen even uses the language of colonization, arguing, "if and when games and especially computer games are studied and theorized they are almost without exception colonized from the fields of literary, theatre, drama and film studies." Engaging in his own form of boundary drawing, Eskelinen proceeds to sketch out ways that "computer game studies" can "gain independence, or at least relative independence" as a field.

us. Indeed, as later scholarly contributions and amendments to this ongoing discussion have demonstrated, the study of games can profit from both ludic and narrative analysis.³ The larger field of literature, too, I would like to suggest, was perhaps prematurely made peripheral to game studies in its early years.

The question that interests me, in this essay, is not whether digital games *are* literature. Such a conflation would warrant Aarseth's criticisms and would, moreover, result in the very analytic inexactitude and historical confusion against which Tabbi correctly cautions in his characterization of electronic literature as a category separate from digital games. The different questions with which I would like to grapple, then, are the following: First of all, in what ways are certain digital games becoming increasingly literary in a way that does not make them categorically superior but does place them within multiple genealogies that invite continued research? Second, what can literary scholars contribute to the growing field of digital game studies that has seen much of its strongest work, thus far, develop through methods of art history, media theory, software studies, and platform studies? Finally, what might game studies contribute to literary criticism in the twenty-first century?

For all of the merits of medium-specificity in game studies, there is much to gain from comparative analyses between media and forms (Hayles 2012 and Hayles and Pressman 2013, forthcoming). As Marie-Laure Ryan observes, "different media often incorporate common tracks or semiotic systems" (Ryan 2004, 34). Rather than positing a strict definition of literary games or games as literature, or suggesting that English, Comparative Literature, or Rhetoric departments

³ Indeed some of the original participants in that debate have put it behind them. See, for instance, Frasca 2003b. Here, Frasca writes, "I believe that this debate has been fueled by misunderstandings and that generated a series of inaccurate beliefs on the role of ludology, including that they radically reject any use of narrative theory in game studies" (1). As Frasca's argument in this piece suggests, though it is important to make distinctions between game mechanics and narrative, they need not be opposed. For a return to questions about the narrativity of games, see also, Laure-Ryan 2006, especially 181-203.

are the *proper* disciplinary landing spots for the future study of games, this essay explores different ways that digital games enter into fruitful exchanges with literary texts and could profit from further study by literary critics. I am interested in what we might call an *intersectionality* that attends to works that emerge at the boundaries or overlapping zones of the literary and the ludic.⁴ Digital games often resemble literary texts and come into conversation with them in a variety of ways. They do so, for instance, through both visual and verbal puns; metaphor, metonymy, and synecdoche; systemic interrelations of parts that create totalities that exceed the sum of the parts; imagistic condensations; multiple avatar perspectives or character viewpoints; interpellation of readers and players; affective modalities; visualizations of textual descriptions; different varieties of difficulty; and, of course, narrative structures. In the early twenty-first century, games and literary texts also increasingly share distribution technologies; production and consumption mechanisms; forms of cultural knowledge; grant and research support organizations; and, despite the erstwhile divisions between narratologists and ludologists, professional and scholarly communities.

It is not insignificant that the works that I will be discussing in this essay are largely marketed and disseminated *as games*, and that they respond to specific genres and affordances that belong to the history of analog, computer, and video games. Nevertheless, I propose that we embrace the richness of the dual, though intersecting, lineage of literature and games much as Hayles has long done with her capacious sense of “electronic literature.” Without suggesting any significant revision of this inclusive taxonomy, it is nonetheless important to think with greater care about ways that digital games expand and complicate how we think about literature and its

⁴ The concept of “intersectionality” emerged in sociology and cultural studies, including in the work of Kimberlé Crenshaw in the late 1980s and early 1990s, to highlight the way that social discrimination emerges as a systems problem across conventionally discrete categories of race, class, gender, and sexuality. In this context, I am using the word in a formalist rather than a sociopolitical sense to capture some systemic and overlapping features of the literary and ludic that are too often separated from one another.

associated reading practices. There is no better time for a reappraisal. The crosspollinations between the literary and the ludic have become more possible than ever over the last decade — a change that has to do with cultural, technological, and institutional factors alike.

A New Phase of Electronic Literature and Digital Games

In *Electronic Literature*, Hayles describes two eras of electronic literature that include a “classical” period of early hypertext fiction between 1987 and 1995 and a later “contemporary” or “postmodern” period that carries from 1995 to the present. At the same time, she also suggests that this second category could someday yield to “a new phase” (2008, 7).⁵ I would like to suggest that we have already reached a phase of electronic literature that, at both the level of creation and dissemination, departs from the “postmodern” period. “Classical” hypertext fictions, for instance, were largely composed with the Storyspace authoring program and distributed using discs and CDs. What Hayles calls “postmodern” electronic literature became distributed increasingly online and made use of the “multimodal capabilities of the Web” (6).

Beginning around 2004, however, electronic literature began to experience another dramatic shift in the landscape of production, distribution, and reception. In that year *Facebook* was established and we entered what is commonly called the Web 2.0 era with the gradual proliferation of social networking sites, user-generated web content, bookmarking, micro-blogging, and cloud computing. Though still web-based, this assemblage of features represents a change in kind, rather than mere degree, of the ways that literature (both print-based and electronic) is now shared, discussed, and distributed. Though online communities, such as Alt-X Online Network, preexisted the Web 2.0 moment, the popularity of networks in recent years has

⁵ The “classical” versus “postmodern” distinction is an update of her earlier distinction between “first-generation” and “second-generation” works.

skyrocketed (with *Facebook*, for instance, surpassing 1 billion users in 2012) (Grandoni 2012). As Tabbi notes, such changes have also led to more frequent e-literature readings, publications, and conferences. Authors now “use their networks to their advantage, bringing their work to readers in numbers that could not have been realized even a few years ago” (45). In addition to changes in software and distribution, we have seen substantial changes in literary forms, for instance with the growth of locative narratives and transmedia (rather than primarily multimedia) texts.⁶

The numerous transformations that have accompanied Web 2.0, over the last decade, have affected not only (electronic) literature but also digital games. This new cultural, social, and technological landscape has, for a number of reasons, spurred an unprecedented intersectionality between games and the literary world. Even though this history surely stretches back to earlier years, it was around 2007 that we saw a widespread expansion of the related, though separate, phenomena of “indie games,” “artgames,” and “DIY game making.” These categories suggest more direct links between games and the digital arts, but they also opened up many previously unavailable, experimental avenues for literary games that exceeded merely economic motivations for improving the cultural status of games.⁷ Though the changes in game culture during this period demand a more detailed treatment than they have received, a short overview will suffice in the present context. Around 2007, we saw the growth of an emergent game scene through a new focus on auteur-style star game designers (e.g., Jason Rohrer, Jonathan Blow, and

⁶ For more on transmedia storytelling, see: Jenkins 2006. The *Star Wars* and *Matrix* franchises, for example, represent transmedia franchises that build a world across films, novels, games, comics, and more. The Alternate Reality Game (ARG) is another example of a transmedia text. Instead of operating as combinatory “multimedia,” ARGs tap into a more continuous “transmedia” flow that complicates discrete media objects in favor of mediation as an active process. Transmedia describes a relationship between media that is proliferating rather than additive. ARGs tell a single story that passes through and alternates between media — even those “new” media that have already been absorbed into the fabric of everyday life — to makes their differences among media sensible. For more on this phenomenon, see: Hayles, Jagoda, and LeMieux 2014 (forthcoming).

⁷ A broader cultural debate about games as “art” has seen both popular and scholarly versions in recent years. For popular entries, see: Kroll 2000 and Ebert 2010. For scholarly contributions, see: Smuts 2005 and Adams 2006.

Phil Fish), the proliferation of art exhibits (e.g., the Smithsonian's *The Art of Video Games* exhibit and MoMA's Video Games collection exhibits in 2012), the availability of online distribution platforms for independently-produced games (e.g., Steam, PlayStation Network, and Xbox Live), the growth of indie and art game conferences (e.g., Indiecade and the Independent Games Festival at GDC), new government grants to support game production (e.g., National Endowment for the Arts grants), and the rise of local maker movements supported by blogs and community events (e.g., blogs such as *The Border House* and game design competitions such as Kokoromi's Gamma 256) (Anthropy 2012a, Parker 2013, and Westecott 2013). The years between 2007 and 2009 also gave rise to a number of widely recognized art games, including *Passage* (2007), *The Marriage* (2007), *The Graveyard* (2008), *Braid* (2008), *Flower* (2009), and *Every Day the Same Dream* (2009) (Parker 2013, 41). In this same period, mainstream companies also produced a range of narratively complex videogames with multifaceted characters, including *BioShock* (2007), *Mass Effect* (2007), and *Fallout 3* (2008). At the end of this first decade of the twenty-first century, game studies also emerged as a viable academic subfield, supported by earlier work by scholars such as Henry Jenkins, Mark J.P. Wolf, and Espen Aarseth. Though the work of these early contributors to the field departed from literary methods, many game studies scholars nonetheless came to their objects with backgrounds in narratology (Marie-Laure Ryan), comparative literature and rhetoric (Ian Bogost), and literature and critical theory (Alexander Galloway). In recent years, English departments have started more regularly to hire scholars working on game studies as they did, in an earlier moment, with the growth of cinema studies.

With this overview, I am suggesting that a range of cultural, technological, and institutional practices have promoted a form of game production and play in recent years that

could be designated as “literary” and might enter into a generative conversation with both print and electronic literature. For the remainder of this essay, I track some of the specific ways that digital games relate to both the “literary” and to experimentation with textual constraints that has historically characterized a great deal of “literature.” Though many of my examples relate explicitly to textual and linguistic form, a number of recent networked games also suggest that a linkage between games and the literary can emerge from an *absence* of language. Instead of defining digital games as literature, I adopt Delany’s descriptive mode to suggest the possibilities of bringing digital games more fully into conversations about literature. Game studies has already produced important work on topics such as the history of videogame platforms and software, the ethics of computer games, videogame violence, and the development of digital gaming culture. Despite a number of careful and exemplary analyses, however, scholars have more often tended toward a cultural studies approach that treats particular games in a superficial, hasty, and instrumental fashion. To achieve a sense of videogames as a powerful aesthetic form requires a more intimate understanding of the sensorium that they open up — that is, the experience of spatiality, temporality, speed, graphics, audio, procedural activity, roleplaying, performance, and storytelling that both introduces unique elements and borrows or expands components drawn from earlier forms.⁸ This type of aesthetic engagement with the videogame sensorium is, I contend, something that literary scholars are particularly capable of adding to the ever-expanding study of games.

⁸ My usage of “sensorium” here follows Hansen 1999. In her discussion of the centrality of film to modernism, Hansen argues, “the cinema not only traded in the mass production of the senses but also provided an aesthetic horizon for the experience of industrial mass society” (70). Videogames, I have argued elsewhere, provide a comparable “aesthetic horizon” for the experience of our postindustrial society (Jagoda 2014 forthcoming).

Literary Dimensions of Digital Games

There is no single or primary way in which digital games, since their emergence in the 1960s, have come into conversation with literature. Therefore, in mapping these intersections, it is important to consider comparative possibilities of content and form, genre and media, consumption and dissemination. In popular culture, especially through journalistic coverage, the link between videogames and literature is oftentimes approached in the most literal sense. There are, for instance, games that put themselves in relationship to the history of literature through loose adaptations of literary classics. These games, which have been produced by independent designers and major studios alike, include American McGee's third-person action game *Alice* (2000), Frogwares's *Sherlock Holmes* puzzle-oriented game series (2002, 2004, 2006, 2007, 2008, 2009, 2010, 2012), Charlie Hoey's platform game *The Great Gatsby* (2010), and EA's action-adventure game *Dante's Inferno* (2010). In most cases, these games privilege canonical classics of literature and approach their literary intertexts as brands without foregrounding the linguistic play, formal innovations, or textual constraints that are of central concern to literary scholars. Even so, these types of games promise to expand critical debates about adaptation that have been a prominent feature of fields such as cinema studies. In tracking specific adaptation choices, critics might think more about the way that different modes of adaptation — for instance, Dudley Andrew's categories of “borrowing, intersection, and fidelity of transformation” — operate in videogames (1984, 98). Games, after all, often share codes and techniques, such as narrative, with literary texts while introducing new, non-literary features such as mechanics, hypermediated interfaces, and navigable worlds.⁹

⁹ Though I discuss videogame adaptations of literary texts, games draw from other media as well. For example, for an excellent analysis of videogame adaptations of films and television series, see: Montfort and Bogost 2009, especially, 119-135. Here, they discuss early videogame adaptations from Mike Mayfield's text-only game *Star Trek*

Despite the attention they have received in popular press, ludic adaptations of literary texts have not been the only types of games discussed regularly in relationship to literature. The history of digital games has included a number of games that privilege textual exposition to cinematic cut scenes. Two text-heavy genres that blur the line between digital games and interactive fiction are text adventure games and visual novels. In both of these cases, the language of literature and games frequently blurs. Text adventure games, which reached their height of popularity in the 1970s and 1980s, require players to type in instructions (usually verb-noun combinations) and solve spatial, verbal, and object-oriented puzzles in order to reveal textual passages of a larger narrative. Text-only adventures such as *Colossal Cave Adventure* (1976), *Zork* (1977), and *Trinity* (1986), as well as adventure games with visual graphics such as *Mystery House* (1980), have already received critical attention in electronic literary circles (see, for instance, Aarseth 1997). Multiplayer text adventure games, MUDs or Multi-User Dungeons, such as *MUDI* (1978) and *AberMUD* (1987), had much in common with these single-player text adventures. In many cases, they extended the rules of the narrative and role-playing tabletop game series *Dungeons & Dragons* for online play. Other text-based MUDs, such as *TinyMUD* (1989), deemphasized combat in favor of social interactions, role-playing, and world building (Lastowka and Hunter 2004, 18-21). Still other text-based games used text not to produce sentences and linguistic meaning but rather to create a visual display. “Text mode” games, as they are sometimes called, used alphanumeric symbols and punctuation to construct characters and a navigable map. One of the most popular genres of text-mode games have been “roguelikes” — dungeon-crawling games that took their name from *Rogue* (1980). The earliest

(1971) through Atari VCS games such as *E.T. the Extra-Terrestrial* (1982) and *Star Wars: The Empire Strikes Back* (1982).

versions of these games relied on ASCII graphics and were known for significant difficulty and a high rate of failure.¹⁰ These games invite textual analysis that exceeds the semantic level.

More recently, the text-heavy genre of visual novels, such as *Tsukihime* (2001), *Fate/Stay night* (2004), and *G-Senjou no Maou* (2008), has enjoyed significant popularity, especially in Japan and East Asia. Visual novels are text-heavy interactive experiences that include primarily static images. Whether to classify this genre as electronic literature or a type of digital game is not always evident. For example, Christine Love's recent *Analogue: A Hate Story* (2012) can be read as an illustrated epistolary novel in which the reader interacts with two artificial intelligence programs on an interstellar starship, navigating a complex history of textual diaries and letters written by members of several prominent families in a distant future. At the start of the experience, the ship's language parsing system malfunctions and leaves the player with only the capacity to offer binary responses to questions posed by the AIs. Along the way, the experience adopts game conventions when players type precise instructions into a command line interface in order to solve puzzles and, in one case, race against the clock to prevent a nuclear reactor meltdown. Despite *Analogue's* novelistic dimensions, critic Leif Johnson (of the game-focused entertainment website IGN) describes it as a "game-like experience" and even a "game" that "neatly sidesteps the label of mere 'interactive fiction'" (2012). Another critic, Phill Cameron (of the UK-based videogame site *Eurogamer*) describes *Analogue* repeatedly as a "game" that deviates from "interactive fiction" (2012). Regardless of how we define *Analogue*, it suggests that games with rules and objectives can maintain substantive literary and textual ambitions.

Text adventure games and visual novels emphasize a likely irresolvable taxonomic complication. Despite the earlier cautions of the ludologists, in the second decade of the twenty-

¹⁰ Though roguelikes started as a text mode genre, later roguelikes such as *Ragnarok* (1992) adopted graphical interfaces. Some popular contemporary games such as the *Diablo* (1997), *Diablo II* (2000), and *Diablo III* (2012) have also adopted features of roguelikes, such as the permanent death of an avatar that is killed during battle.

first century the difference between contemporary games with literary aspirations and the categories of “interactive narrative” or “interactive fiction” remains frequently undecidable.¹¹ It is important to observe that numerous digital games, from *Tetris* (1984) to *The Marriage* (2007), do not include narratives and are primarily procedural, rule-based, and objective-oriented. Similarly, many analog games — card games like Bridge or strategy board games like chess — do not depend on fictional scenarios or navigable worlds. At the same time, digital games often feel much like interactive narratives or fictions. Many contemporary videogames such as *Bioshock* (2007), *Heavy Rain* (2010), and *The Walking Dead* episodic series (2012) are concerned, first and foremost, with world creation and storytelling. When games turn to narrative, as Henry Jenkins has pointed out, they do not tell stories in the same way as novels, films, or television series. Digital games tend to be nonlinear and spatially organized. For this reason Jenkins contends that game designers might best be understood not as “storytellers” but as “narrative architects.” Spatial navigation proves primary to the real estate track of the board game *Monopoly* (1934), the text-based space of *Zork* (1977), the scrolling space of the classic platformer *Super Mario Bros.* (1985), and the massive three-dimensional realms of the online game *World of Warcraft* (2004-present) (Jenkins 2003, 121). Narrative and fictional worlds are, of course, not the only features that characterize literature. Other examples to which I turn are, for instance, poetic or autobiographical, privileging a relationship to linguistic constraints or nonfictional self-expression to diegetic construction.

¹¹ I would add that though these categories are increasingly less distinct, they might influence how readers or players approach a particular work. Anecdotally, in my work as a game designer, I ran play tests, in 2013, for a game called *Lucidity* (<http://luciditygame.com/>) that was co-created in the Game Changer Chicago Design Lab (<http://gamechanger.uchicago.edu>) that I run with Melissa Gilliam at the University of Chicago. High school game testers brought substantially different expectations about game genres and the reading experience when the piece was introduced as a “digital game” versus an “interactive story.”

Beyond text-based adventures and visual novels there are numerous works that more insistently self-identify as games while still maintaining a complex relationship to language. Such games demonstrate literary ambitions and experiment with textual constraints while also developing qualities that characterize digital games, such as graphics, mechanics, extensive spaces for exploration, interactive puzzles, and opportunities for emergent and collective storytelling practices. These works, then, draw on multiple lineages: literary forms such as fiction, poetry, and theater, as well as game genres such as point-and-click adventures, platform games, and First Person Shooters. For example, *Today I Die* (2009), a game created by independent Argentine game designer Daniel Benmergui, requires the player to engage in a point-and-drag manipulation of graphical elements to solve short puzzles. Each sentence that the player constructs produces a different interactive challenge. Over the course of a few minutes, the player must substitute nouns and verbs of a short poem — “dead world/ full of shades/ today I die” — to transform it gradually, through a series of steps, into one of two final versions of the poem: “free world/ full of beauty/ today I swim/ until you come [or: better by myself].” Another game that draws from both literary and ludic lineages is *Mental Drift* (forthcoming), a platformer game design that has been crowdsourced by the Penny Arcade “Extra Credits” group. In this game, players control an avatar that moves descriptive words around a space to produce the spatial configurations necessary to complete challenges. The interactive effects of particular words, in gameplay, depend on their meanings. Still another popular game, *Dear Esther* (2012), has the player explore an island space in order to discover fragments of a larger story. This game uses the 3D Source engine, used in popular First Person shooter games such as *Counter-Strike: Source* (2004) and *Half-Life 2* (2004), not to enable action-packed combat but rather to deliver a moving epistolary narrative by an unnamed narrator writing to a woman named Esther. Key

locations on the island unlock different letter portions, in a semi-random fashion, producing variability between different play sessions.

Though many textually oriented games draw from popular game genres, they also relate to literary print culture in a variety of ways. *Analogue: A Hate Story*, for instance, simulates a printed page while *Dear Esther* complicates the print tradition with fluid epistolary prose that is delivered completely through voice-over audio fragments. Another interesting example, Jonathan Blow's platforming game *Braid* (2008) has an even more multivalent relationship to print. This game relies on a spatial storytelling that nonetheless includes a significant quantity of text. As Blow has observed, the game's narrative and ludic composition was inspired by two literary print texts: Italo Calvino's *Invisible Cities* (1972) and Alan Lightman's *Einstein's Dreams* (1992).¹² Though the game is not an adaptation, the influence of these experimental texts persists at representational, structural, and even procedural levels. At the entryway to each game world, the player passes across lecterns that hold thick tomes and trigger blocks of text. Though the game marks its debt to print culture through graphical representations of books, it does not simulate a printed page in the manner of "classical" hypertext fiction or recent eBooks.¹³ The text simply appears superimposed over the game screen, marking its digital status while constantly keeping its game space in view. Despite the initial left-to-right placement of the lecterns, the player also has the option of reading these texts in a right-to-left order that produces a different though still viable narrative — one of the many liberties that the game takes with temporal sequencing. Here, *Braid* estranges Western reading practices, encouraging a textual engagement proper to

¹² Blow has noted that *Einstein's Dreams* served as a key inspiration in *Braid's* early conceptual phase. Though he does not mention it, another novel that addresses the relationship between history and videogames, and explores many of *Braid's* themes, is D.B. Weiss's *Lucky Wander Boy* (2003). Brian Moriarty's text adventure game *Trinity* (1986) explores similar themes.

¹³ As Hayles observes regarding electronic literature, *Braid* both builds on print expectations and conventions while modifying and transforming them (2008, 4).

languages such as Hebrew, Arabic, and Japanese writing (including cultural forms such as manga that have influenced videogame culture).¹⁴ Instead of simply surpassing print or distancing itself from it, *Braid* enters into a conversation between digital games and earlier literary traditions.

While many of the games I have described thus far offer their most significant innovations at the level of mechanics-oriented game genres such as the platformer or point-and-click adventure, other games enter explicit conversations with both poetic and prose literary forms. For example, Ian Bogost's *A Slow Year* (2010) is a game created for the Atari Video Computer System that he frames, in an accompanying book, as "a set of playable poetry that owes as much to William Carlos Williams as it does to Will Wright" (ix). Bogost calls the four computational pieces of *A Slow Year* "game poems" that make up a "a kind of videogame chapbook." The work is available in a deluxe edition that includes a foil-stamped case with gold lettering and a magnetic clasp, and contains a hardcover book printed with thick pages and in color that includes poems created by a haiku generator. The interactive game poems themselves, however, depend on both procedural and linguistic forms of constraint, condensation, and player response. Bogost explains, "As a game, *A Slow year* relies on the procedural representation of ideas that the player manipulates. As poetry, it relies on the condensation of symbols and concepts rather than the clarification of specific experiences" (x). Imagism, for instance, resonates at both the level of representation, as it might in modernist poetry, but also simulation, given the limitations of what a computer can model.¹⁵

¹⁴ I offer a more detailed analysis of *Braid*, including its relationship to novelistic intertexts, in Jagoda 2014 (forthcoming).

¹⁵ For another work that falls somewhere between a "haiku" and "a Zen video game," as creator Neil Hennessey calls it, see: *Basho's Frogger* (2000).

Another digital game that experiments with literary prose, rather than poetry, is *Dys4ia* (2012), created by Anna Anthropy (aka Auntie Pixelante). Anthropy describes this work, in a textual preface, as “an autobiographical game about my experiences with hormone replacement therapy.” The short experience unfolds as a series of interactive game challenges, with text, which work through difficulties with transgender identity formation and medical procedures. The work can be described as a minimalist prose autobiography with a largely linear story that is communicated, in part, through text. At the same time, *Dys4ia* operates as a series of mini-games that play directly on the conventions and components of classic arcade games such as *Breakout*. Here, Anthropy uses game form to produce an experience that departs from print literature as well as less ludic forms of interactive fiction. As she puts it, “This was a story about frustration - in what other form do people complain as much about being frustrated? A video game lets you set up goals for the player and make her fail to achieve them. A reader can’t fail a book” (2012b). The experience of failure, then, is framed by text but transmitted through game rules and mechanics. While neither *A Slow Year* nor *Dys4ia* can or should be described as “literature” per se, both are in direct conversation with literary forms and traditions, speaking as much to literary scholars as researchers coming from game studies and media theory.

Digital games often enter exchanges with literature at the level of content or form but the exchange is not unidirectional. In many ways, games expand the canon or category of literature, in Delany’s sense, as “a way of reading” and also writing. As Tabbi notes, thinking the literary in the early twenty-first century is not simply about the generation of updated lists of texts. In an electronic environment characterized by sharing, crowdsourcing, and the reworking of existing texts, the literary operates increasingly as “a collaborative workplace” (26). Processes of co-creation and modding, of course, have not merely influenced writers or literary critics in recent

years. They have been central to game production long before their significant impact on the literary landscape, beginning with the earliest academic computer laboratories and arcade game production companies of the 1960s and 1970s. In recent years, both collaborative and player-oriented creations have become even more widespread throughout game culture, especially with the growing prominence of networked game consoles. As videogames such as the popular PlayStation puzzle-platformer *LittleBigPlanet* franchise (2008) have demonstrated, the creation and sharing of user-generated content is often more compelling than playing through a designed game. In the primary mode of the game, players guide the protagonist, Sackboy, through platforming challenges and other mini-games. Arguably, the popularity of the series has had more to do with the opportunity for players to create their own levels of the game and short films that they can upload to the PlayStation Network and share with the game's community. In August 2012, players of the game had created and submitted 7 million levels. Other games have incorporated community collaboration as early as the funding stage of development. Double Fine Productions used Kickstarter to raise 3.3 million dollars from over 87,000 backers to create the point-and-click adventure *Broken Age* (forthcoming) (Double Fine Adventure 2013). During this game's production process, concept artists turned back to the community of supporters for ideas to influence the game's visual design. This sense of collaboration resonates with comparable developments in contemporary literature, visible for instance with transmedia novels that generate online communities and Kickstarter campaigns that are especially common for graphic narratives and other texts with visual components.

A similarly collaborative spirit is evident in core gameplay of literarily inclined story-building games such as Jason Rohrer's *Sleep is Death (Geisterfahrer)* (2010).¹⁶ Instead of

¹⁶ Daniel Benmurgui's *Storyteller* (in-progress, 2013) suggests similar experimentation with storytelling constraints, though it is not yet known whether the game will include a user-generated mode.

offering a pre-authored play mode, this game relies entirely on the interactions between two players who create a story together. Tapping into larger web communities, some players have posted their stories on YouTube for spectators to experience. In *Sleep is Death*, each player manipulates objects — language and graphics — in order to cooperate on an emergent narrative. In this case, the primary constraint is time. Each player has only thirty seconds to alter objects or type in text (that is to make a “move”) before the other player responds. This mechanic suggests a compelling way in which games can tap into literary culture. While not a language-based constraint that could be captured in print, as in the work of the Oulipo, *Sleep is Death*'s temporal constraint expands literary practice and writerly collaboration through a turn-based mechanic already common to earlier analog games that is enforced, here, through the game's computational design. In this way, Rohrer's game draws explicitly on both literary and ludic legacies.

Though most “digital games” are screen-based, it is also worth considering games that adopt some videogame mechanics and tap into gamer communities but unfold in both physical and virtual environments. One such form that has thrived within a Web 2.0 environment and demonstrated rich literary roots is the Alternate Reality Game (ARG). The ARG borrows heavily from a wide range of artistic, literary, and paraliterary forms. As transmedia writer Sean Stewart explains, ARGs incorporate a range of media — “text, video, audio, flash, print ads, billboards, phone calls, and email to deliver parts of the plot” (Stewart 2006). Though ARGs make use of the web, social media practices, and digital games, they also owe their development to earlier practices, such as English letterboxing, the Polish tradition of “podchody,” invisible theater, the Situationist art practice of “dérive,” scavenger hunts, assassination games, and Live Action Role-Playing games (Montola, Stenros, and Wærn 2009, 32-8). Commercial ARGs such as *I Love*

Bees (2004) and *Year Zero* (2007), as well as independent games produced by university-based designers such as *Reality Ends Here* (2011) and *Speculation* (2012), have incorporated textual narratives, theatrical performances, and poetic intertexts. These games often depend on collective and highly collaborative player participation. Given the transmedia movement of ARGs, the form depends on literary and ludic precursors, as well as complex hybrids that are the products of the two lineages (Hayles, Jagoda, and LeMieux 2014, forthcoming).

While numerous digital games, from videogames to ARGs, foreground text as such, it is important to stress that a meaningful connection between games and the literary need not be dependent on the presence of language. A number of digital games have explored the nature and limits of human language *through its absence*. Games have employed gestural language (the *Oddworld* series), animated pictorial thought bubbles (*Machinarium*) and fictional languages (Simlish in *SimCopter* and *The Sims* series). Recent online games have conducted even more compelling experiments with restricted communication. While some games enable multiplayer text or voice chat, certain player communities have set communication limits on themselves. In the sandbox-style virtual world *Minecraft* (2011), players often work together to build a community without explicitly planning or discussing construction plans. Similarly, in the first-person puzzle game *Portal 2* (2011), a cooperative campaign allows players to make sounds to get each other's attention, set timers to coordinate action, and communicate in gestures, frequently leading players to bypass the option of voice communication.

Still other multiplayer online games exclude human language completely. Jason Rohrer's 2D pattern-creation, multiplayer game *Between* (2008) offers an example of what Ian Bogost calls "disjunctive multiplayer" (Bogost 2008). In *Between*, two players never appear on the same screen and have no way of communicating in the game space but are nonetheless completely

interdependent. The appearance of blocks necessary to construct a tower depends on the actions of the other player. Correct placements of blocks add new sonic layers to a song that is shared, if only at a distance, by the two players. As Rohrer himself observes, “*Between* erects an almost impenetrable barrier between the two players and then still demands that they somehow communicate through that barrier, at least minimally, in order to progress in the game” (Jagoda 2011).

Another compelling example that takes a similar approach is Thatgamecompany’s critically acclaimed networked game *Journey* (2012). In *Journey*, the player guides a mysterious robed avatar through a desert and up a mountain. At different moments, the player discovers other players but cannot communicate with them via either text or speech. The “journey” on which the player embarks is suggestive of many things, including the quest of the chivalric romance, but it is ultimately unsolvable at either a ludic or narrative level. During gameplay, *Journey* enables thought and multiplayer actions through its language exclusion constraint. Moreover, the game has generated modes of emergent narrative that exceed the space of the game. One particularly striking development has been *Journey Stories*: a Tumblr that was started in mid-March 2012. The Tumblr is described as “A space to collect the stories of companionship, sadness, and joy experienced while playing the videogame Journey.” Despite the non-linguistic nature of *Journey*, this blog has yielded elaborate stories, poems, theories, and readings of the game’s diegesis, and various forms of fan art, including images, sculptures, musical performances, comic strips, and even tattoos. As of May 22, 2013, the blog had collected 1,260 stories and accrued 131,017 followers. A large part of this secondary production speaks precisely to the possibility of interpersonal connection in the game despite the constraints of non-

linguistic communication. Literary critics might have much to say about these types of games that both limit or eliminate language but also promote its subsequent production.

Conclusion: Reading Games, Playing Texts

This essay has not attempted to produce a comprehensive definition of the intersections between digital games and literature. However, through a series of examples, it suggests ways that these fields, with their divergent but increasingly overlapping traditions, might enter into a more vibrant ongoing conversation. Though literary analysis by no means offers the full range of methods necessary to explore digital games, it does invite critics to approach these artistic objects through aesthetic, affective, narrative, historical, and formal techniques that carry with them rich legacies developed through the study of literature. There are surely differences of emphasis worth marking between games and literary texts, as when Hayles paraphrases Markku Eskelinen to observe that “with games the user interprets in order to configure, whereas in works whose primary interest is narrative, the user configures in order to interpret” (2008, 8). In recent years, however, with a larger volume of artistically and literarily inclined games, it is growing more difficult to determine, in certain cases, whether configuration or interpretation carry greater weight. Certainly, the habits and cultures of readers and players, writers and designers are not identical. But neither are these subject positions always separate.

Indeed, games can be read through literary critical techniques. At the same time, texts can often be played. Though I have primarily discussed what literary critics can bring to game studies, there is also much that game studies, as a more mature field than it was in the 1990s, can now reciprocally contribute to scholarship on literary works. As games explore the possibilities and limits of language, at both the level of interface and code, so print and electronic literary

texts participate in what Noah Wardrip-Fruin describes as “the expression of ideas through processes” (2009, 417). Indeed, recent literary criticism has used both analog and digital games to better analyze novels and other non-gamic texts (see, for instance, Seltzer 2009 and Jackson 2013). Thus, in a brief though critical concluding gesture, I would like to suggest some further ways that the tools and concepts of game studies might make a generative contribution to literary studies.

Numerous literary texts respond, at a formal level, to games and ludic intertexts.¹⁷ Transmedia novels such as Mark Danielewski’s *House of Leaves* (2000), Sean Stewart and Jordan Weisman’s *Cathy’s Book* (2006), and Steven Hall’s *The Raw Shark Texts* (2007) have all been taken up by communities that play Alternate Reality Games. *House of Leaves*, for instance, likens its own structure to that of a riddle that may offer “answers” or only “torment” (33). The online forum for the novel (<http://houseofleaves.com/>) has generated thousands of posts from readers who have delved into the novel’s mysteries together and sought to solve its riddles, much as gamer communities share tips, observations, and walkthroughs. If *House of Leaves* suggests a transmedia game, the novel *Cathy’s Book* comes much closer to actually constituting such a game. The book contains a pouch that includes illustrations, postcards, napkins, and other artifacts that allow a deeper engagement with the story’s central mysteries. The narrative directs readers to web pages, social networking sites, and phone numbers. One site, for instance, contains a birth date puzzle. While most birthdays lead to random messages, entering the birthday of the protagonist Cathy, which must be discovered within the book’s text, yields new narrative information that is not contained in the novel. *Raw Shark Tales* initiates even more

¹⁷ Of course, many literary texts also have a representational relationship to games. The texts, here, are too numerous to summarize but they would include texts about card games (Stephen Crane’s 1900 short story “A Poker Game”), chess (Vladimir Nabokov’s 1930 novel *The Luzhin Defense*), military simulations (Orson Scott Card’s 1985 novel *Ender’s Game*), massively multiplayer online game worlds (Ernest Cline’s 2011 novel *Ready Player One*), and live-action role-playing games (Jenny Davidson’s 2013 novel *The Magic Circle*).

complex games. The novel requires two forms of decoding: close reading and a capacity to decipher difficult ciphers. As Hayles observes, the novel simultaneously emphasizes “the decoding process of making letters into words, words into narratives” as well as decoding challenges that incorporate, for instance, Morse code letters encrypted through QWERTY keyboard codes (2012, 209). Though all of these texts are marketed and largely read *as novels*, a full appreciation of them requires skills more commonly developed through gameplay.

While the novels that I have mentioned suggest an awareness of their relationship to games and gaming culture, other literary texts do not require such connections but nonetheless profit from comparative analysis. One example that suggests ways that game studies techniques might be used in a literary context is Chris Ware’s graphic narrative *Building Stories* (2012).¹⁸ This text contains 14 separate works that are housed together in a large box. These objects include a children’s storybook, broadsheets, pamphlets, and newspapers. Though the book follows the lives of several characters, its structure depends more centrally on the building in which these characters live. Through its numerous forms, the text promotes decision-making, spatial navigation, and narrative architecture that is more common to videogames. Indeed, the order in which the reader experiences or returns to the 14 objects is not predetermined. Though many pages follow a standard left-to-right and top-to bottom reading order of Western graphic narratives, in other instances, the reader’s gaze is allowed the freedom of moving across nonlinear pages. Moreover, the text’s vision of the relationship between parts and wholes, both in its formal composition and its themes, has much in common, for instance, with system simulation games such as *SimCity* (1989) or *The Sims* (2000). As one character observes: “You just don’t realize... how interdependent the ‘modern world’ is.” Throughout, the text connects

¹⁸ Comics and graphic narratives, more than digital games, have recently played a prominent role in contemporary literary studies. Hillary Chute, for instance, argues, “critical approaches to literature, as they are starting to do, need to direct more sustained attention to this developing form” (2008, 462).

floors of a building and ordinary human affects to larger totalities, requiring the type of multi-scalar toggling that is common in digital games.

Perhaps the aspect of literary studies where gaming literacy and vocabulary has already proven most helpful is in the ever-expanding subfield of electronic literature. The study of this form of literature returns us, productively, to earlier narratological approaches to games and capacious frameworks that sought to discuss videogames and interactive fictions alongside one another. Janet Murray's four properties of digital environments — that they are procedural, participatory, spatial, and encyclopedic — helps us think about computer games such as *Myst* (1993) alongside an electronic literary pieces such as Shelley Jackson's *Patchwork Girl* (1995) (1997, 71). More recent pieces of electronic literature open up even more possibilities for a reader who comes to the text with gaming literacy. Emily Short's interactive fiction *Galatea* (2000) takes the form of a textual conversation with a "chatterbot." This often-challenging exchange can be thought to "gamify" the dialogue form. The interactor can, as the author puts it, "pursue different information or seek different relationships with the title character" (Short 2000). Bringing up certain subjects may lead to a premature ending that feels very much like a "Game Over" screen and keeps the reader from delving into the narrative's depths. The experience of interacting with *Galatea* often feels akin to testing the parameters of a videogame system and draws elements from the text adventure game genre. An example of an interactive drama that has already profited from discussions within games studies is Michael Mateas and Andrew Stern's *Façade* (2005). As the creators explain, *Façade* is "an attempt to create a real-time 3D animated experience akin to being on stage with two live actors who are motivated to make a dramatic situation happen" (Mateas and Stern 2003). *Façade* can and has been read productively as an interactive drama but the language of digital games also enables a different

purchase on issues of role-playing, textual inputs, and verbal interventions that enable progression to various endings within the narrative (Wardrip-Fruin 2009).

Though my concluding examples have all included literary texts that are both experimental and contemporary, more traditional works of literature could also profit from the terms and techniques of game studies. Tabbi already suggests what it would mean to read the work of the Oulipo as “gamelike” practices (17). But the intersectionality outlined in this essay raises many other possibilities and questions. What, for instance, would it mean to read a literary romance such as Thomas Malory’s *Le Morte d'Arthur* (1485) alongside a platform game such as *Super Mario Bros.* (1985) or *Braid* (2008)? What might we learn from reading systems-oriented novels such as Upton Sinclair’s *The Jungle* (1906) or cinematic dramas such as Richard Linklater’s *Fast Food Nation* (2006) as companion texts to simulation games such as Molleindustria’s *The McDonald’s Videogame* (2006)? What would it mean to read encyclopedic novels such as James Joyce’s *Ulysses* (1922), Thomas Pynchon’s *Gravity’s Rainbow* (1973), or David Foster Wallace’s *Infinite Jest* (1996) as world-building exercises that belong alongside virtual worlds such as *Entropia Universe* (2003) and Massively Multiplayer Online Roleplaying Games such as *World of Warcraft* (2004)?

Given the ways that methodological cross-applications open up interdisciplinary and transdisciplinary discussions, not to mention the categorical hybridity and undecidability of so many of the games and works of literature described in this essay, it may not be productive to insist on a decisive separation between digital games and literary texts. As Delany’s writing suggests, however, it may be equally unproductive to *define* the precise ways that games alter the category of literature, and vice versa, in the early twenty-first century. Nevertheless, the careful *description* of intersections between digital games and electronic literature promises to make

possible numerous robust conversations for literary studies in the years to come, including our sense of the shifting parameters of the category of “literature” itself. In coming to terms with the videogame sensorium and its many lineages, such analysis could open up new methods, habits, and relations of reading and play.

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