Sympathetic Imagination: Posthumanist Thought in Electronic Literature and Games

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

Martha Nussbaum insists on the power of "sympathetic imagining" for considering the lives of nonhuman animals. Literature, for Nussbaum, is a powerful site for imaging the lives of animals. This study extends Nussbaum's "sympathetic imagining" into the realm of digital art—namely, electronic literature and digital games. I explore how digital art intersects with posthumanism, via three distinct areas: biopolitics, animal studies, and eco-criticism. Posthumanism rejects anthropocentrism in favour of considering our own affinities and similarities with all living creatures in the world. It is a call to pay strict attention to our shared finitude and vulnerability with nonhumans, and change our ways of thinking and being accordingly to ensure the continued survival of our world and its inhabitants.

I argue that digital media affords us the ability to think past our anthropocentrism, opening up a space for us to consider our relationship to nonhuman animals, other humans, and the ecological world. I provide critical readings of electronic literature and digital games, which I believe illustrate the sympathetic imagining power of digital media. I see digital media as providing a site of speculation, a means to better understand and consider the role and position of the human imbricated and implicated within a networked ecology consisting of a multitude of creatures of life, all subjects of finitude and vulnerability.

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Dedication

To my favourite person, Amanda Freiburger.

You have opened the world up to me

with your love and support.

Olive juice.

Table of Contents

Introduction

Where Have all the Humanists Gone?

In *Super Sad True Love Story* (2010), Gary Shteyngart presents a future in which America has

been weakened by financial crisis, and has turned to China for credit. The novel's protagonist,

Lenny Abramov, is the son of a Russian immigrant janitor and consumer of "bound, printed, non

streaming Media artifact[s]" (90), otherwise known as books. Lenny works for Post-Human

Services, a company responsible for extending the life of its clients through the use of

supplements, dietary regulations, and "the constant shedding of blood and skin for various

physical tests" (57). Lenny's world is one in which books are simple, quant artifacts of a bygone

era, replaced by tablet-like devices called *äppärät*, which are literally tethered to each individual

through nano-technology, just as our smart phones are figuratively tethered to us. Like the

current cultural debate over the stability and reflexivity of language, wherein language is seen as

a complex, organic, dynamic tool, the use of *äppärät* has brought about the (d)evolution of

language. As Lenny converses with the object of his affection, the young and beautiful Eunice

Park, responds, "'LPT,' she said. 'TIMATOV. ROFLAARP. PRGV. Totally PRGV" (22). Lenny's

internal dialogue follows: "The youth and their abbreviations" (22), and later Lenny remarks on

his love for "hearing language actually being *spoken* by children" (53, italics in original).

Shteyngart represents a plausible near future, one in which the corporeal existence of both

humans and books is threatened. Screens have replaced pages, and "alkalines and smart

technology" (18) have replaced human biologic systems and materials.

Digital media already are bringing forth a similar scenario to that of Shteyngart's vision

for the future. Shteyngart's novel recognizes that that both literature and the human are concepts

in flux. Not only are these concepts shifting, but also they are inextricably bound. Conceptions of the human being have always been shaped by and considered through various media. As the acts of reading and communication shift from the page to the screen, new forms of literature and new understandings of the human begin to emerge. Posthumanism provides a framework for understanding new works of digital literature, while at the same time the digital provides the conceptual space for exploring posthumanist themes. At this critical moment wherein our conceptions of the human and literature are questioned through digital technology, I bring to bear the framework of posthumanist philosophy to digital media. I argue that digital media in general, and electronic literature and video games in particular, provide a unique conceptual space from which we can explore posthumanist themes in the areas of biopolitics, animal studies, and eco-criticism. These new works take full advantage of the digital platform, while at the same time carrying forth a literary tradition of exploring the human condition through the use of thoughtful, deliberate language experiments. Electronic literature, then, as a form of experimental literary writing intermixed with multimodal elements of audio and film, allows us to think through our implication and imbrication within a networked ecology of humans, animals, and machines. The value of print literature has always been in asking us to explore the human condition. The works discussed herein provide new literary experiences in a digital environment, which I argue allow us to interrogate the notion of a posthuman condition.

The main questions I address in this projects are: what is posthumanism? How does posthumanism extend or break away from the tradition of humanism? What is the importance of posthumanist themes for our contemporary times? Are works of digital art necessarily posthumanist, due to their reliance on digital technology? How do these themes come to the fore

in works of electronic literature and video games? Thus, my readings of electronic literature and video games attempt to explore how electronic literature and video games bring out the themes of biopolitics, animality, and eco-criticism, in an effort to show how the digital platform is a unique space for thinking through posthumanism.

This introduction provides a brief history of humanism, in order to situate posthumanism within a historical framework. Throughout this discussion, I explore various ways in which media frame and construct understandings of the human. I discuss the various ways in which print technology helped disseminate humanist philosophy, notably creating a distinct space for itself away from the teachings of the church. Posthumanism, by contrast, marks a moment in time wherein the rise of cybernetics and systems theory encourages us to reconsider the relationship of humans, machines, and animals. The purpose of this is twofold: firstly, in situating humanism as a philosophy indebted to print, I am able to theorize digital technology as bound within a posthumanist understanding of our contemporary world; secondly, a discussion of humanism via print and posthumanism via digital media allows the role of literature and "the literary" to remain consistently in the foreground of the discussion of these philosophies.

1. The History of Humanism

The lineage of humanism is long and complicated. This is largely due to there having been several powerful and simultaneous meanings, that understandings of the concept have shifted throughout various times and cultural movements, and that the term (like any other) has been co-opted for various purposes and ventures with no links or affiliations amongst them. In *Humanism* (2008), Tony Davies declares his "book should be titled 'Humanisms', to avoid any

implication that its subject is a singular, stable identity" (6). Despite its position as a shifting concept, it is useful to explore a history of humanism to delineate the position of posthumanism within a greater philosophical context.

Historically, the term humanism has been used to denote a practice closely linked with education and knowledge. Humanism, then, ultimately denotes the ability of human beings to use individual rationality, rather than a reliance on the Church or the Monarchy, in order to understand the world. As Davies states, the term has historically been used when discussing teaching and learning. Humanism was first used to describe secondary education (10). The earliest usage of the term hinged on the question of knowing and understanding humanity and the world in which we inhabit, and this usage was inextricably connected with the world of books and language, be it oral or written.

2. Humanism and the Enlightenment

Humanism and the enlightenment are closely associated with one another, owing to their mutual emphasis on rationality and autonomy for human beings. Davies writes that the most salient aspect shared between humanism and the enlightenment is '"the emancipated Man." In turning towards a more rational, science-based discourse of humanity, humanism and the enlightenment represent a turn away from religion as the dominant authority. Humans are emancipated from a life of being told what to think and how to live, and instead are able to prosper as autonomous, free individuals. This autonomous formation is known as the "liberal human subject," a conception of the human which, as we will see, both Cary Wolfe and N. Katherine Hayles challenge in their distinct posthumanist philosophies. It is this conception of a

4

free individual that sees humans as holding dominion over other humans and living creatures on this planet. The enlightenment's emphasis on rationality and individual thinking raised humans beyond all other animals on the planet. This was in agreement with the teachings of the church, which always held humanity in a privileged position. This elevation and separation from the rest of the world was used as a justification for "progress"—a progress which can been seen as contributing to the destruction of other animal lives and the natural ecosystems of this planet. Posthumanism, by contrast, challenges the supposed superiority of the liberal human subject, viewing it as a destructive force with dire consequences for all life on earth. Posthumanism is a refocusing and reorientation of humanism's worldview. The liberal human subject is a relic of enlightenment-era thinking, a relic which posthumanism would like to see put to rest.

Immanuel Kant, in "What is Enlightenment?" (1784), refers to the enlightenment's *modus operandi* of breaking free from constraints of religion or feudal systems and into a world of reason and judgment, which every person possesses. Kant writes that enlightenment, or the "age of illumination," is a gradual change wherein humans find the "courage" to use their own reason, thereby living "without direction from another" (85). For Kant, "Have courage to use your own reason!" (85) is the motto of enlightenment. In Kant's terms, enlightenment is an ongoing process, not a swift release from a perceived immaturity pervasive in humankind. This perceived immaturity is the condition wherein humans do not think for themselves but instead are guided by others, such as the church. This freedom from religious control is at the heart of enlightenment-era philosophy. In this way, it is connected with humanism. Humanism, as a form of education, provided knowledge to those who had previously only had access to the teachings

of the church. Knowledge was gradually reaching the hands of the people, and not controlled by the clergy.

3. Michel Foucault

In contradistinction to the work of Kant, Michel Foucault challenges the connection between humanism and the enlightenment. In "What is Enlightenment?" (1984), Foucault directly addresses Kant's response to this question. The crux of Foucault's career lies in the process of historicizing: he discusses how certain truths are normalized by institutions of power. For Foucault, the construct of the human is shaped by historically-specific contingencies, and therefore is a shifting concept. Paul Rabinow, discussing historicity, writes that Foucault would avoid the abstract question of "Does human nature exist?" in favour of asking, "How has the concept of human nature functioned in our society?" (4). Foucault draws a distinction between how ideas and theories function at given moments in history, and how these historical tendencies coincide with conceptual abstractions such as "life" and "human nature" (4). Foucault's theory of historical specificity shapes his discussion of humanism and the enlightenment, and his reading of Kant questions claims of universal truths.

Foucault criticizes Kant's concept of enlightenment for failing to adequately address differences in human experience across culture and time. In Foucault's view, Kant's enlightenment does not recognize inequality around the globe. Thus, Foucault wonders if we can discuss the enlightenment process as occurring for the entire human race at once, "as a historical change that affects the political and social existence of all people on the face of the earth" (35). He concludes that we cannot think of the enlightenment as a uniform epoch for all humans, but

rather a gradual shift occurring in specific cultures at different times. Foucault's work on the enlightenment focuses on questions of ethics and morals as related to Western rationality. Foucault works to explicitly identify subjects as historically specific constructions, contingent on the various power relations and structures from which they emerge. Subjects, then, are limited by these power relations—different citizens have access to different power relations, creating imbalances and inequality. Critical of Kant for suggesting that enlightenment operates at the same level for all citizens, Foucault describes how the enlightenment is a series of events which includes elements of social transformation. The nature of power structures, though, suggest that modern politics is always exclusionary, always creating different and imbalance.

This exclusionary form of politics brought about by enlightenment thinking is directly opposed to the central tenets of humanism, freedom and rights for all humans. This schism leads Foucault to conclude that humanism and the enlightenment are at odds, and the bond between the two movements is an illusion. Foucault writes that he is "inclined to see Enlightenment and humanism in a state of tension rather than identity" (44), and declares that "we must escape the historical and moral confusionism that mixes the theme of humanism with the question of the Enlightenment" (45). Foucault is adamant that the enlightenment and humanism must be understood as historically specific, shaped by powers of discourse and institutions. Foucault notes that his project is both archeological and genealogical: archeological as it views discourse as historically specific, and genealogical in that it uncovers contingencies of thought that have made us what we are today, without limiting the possibility of what we may do or become (46). In Foucault's terms, humanism and enlightenment are seen as products of historically specific institutions of discourse. Questioning humanism in this Foucauldian sense is integral in the shift

7

to a posthumanist understanding of the world. Posthumanism does not signal a distinct rupture from humanism, but rather provides a space for looking back and thinking through elements of humanism which are responsible for our perceived superiority and dominion over all other things on the planet.

4. Print Humanism versus Digital Posthumanism

Scholars have long discussed the role of media for bringing about change and providing insight into human nature. Media technologies are instrumental for thinking through our conceptions of human being. The printing press as a technology of change is not a new idea. Elizabeth Eisenstein puts this well in the title to her multi-volume study, *The Printing Press as an Agent of Change* (1979), which focuses on Johannes Gutenberg's printing press, and its widespread impact in European territories. Writing in 1620, Francis Bacon wrote that three inventions—gunpowder, the compass, and the printing press—"changed the whole face and state of the world" (3, qtd. in Eisenstein). Bacon sees power through using weapons, expansion through wayfinding, and knowledge dissemination through printing, as fundamentally altering the state of the world. Much has been written on how the printing press *spread* religion, due to the accessibility of printed bibles, but also how the printing press signalled a move *away* from religion, due to a widespread dissemination of radical new ideas (cf. Bell 1992, Waltham 2000). In what follows, I focus on the printing press as "an agent of change" for contributing to the philosophy of humanism.

Eisenstein writes that there is a case "for viewing the advent of printing as inaugurating a new cultural era in the history of Western man" (33). However, despite this proclamation,

Eisenstein warns of conflating technological advances with cultural or social movements, instead preferring to see them developing simultaneously, a relationship that benefits both sides. Eisenstein states that, in her project, "[t]he relationship between a given technological and a given cultural change will be approached, not by taking them to coincide . . . but, rather, by acknowledging that they came at different times and by investigating how they affected each other" (170). Technological change does not immediately create a related cultural change; rather, technology and culture are inextricably bound together, both impacting and affecting one another in a symbiotic relationship. Rather than dictating a spurious connection between humanism and print, or posthumanism and digital media, I investigate how these technological developments *contributed* to each philosophical tract. Thus, digital media has not ushered in a wave of posthuman philosophy, but certainly digital technologies have a role to play in thinking through a critical posthumanism.

R.R. Bolgar writes in *The Classical Heritage and Its Beneficiaries: From the Carolingian Age to the End of the Renaissance* (1954), "Humanism may indeed have owed the ultimate survival of its ideas to Gutenberg's discovery" (280). While reluctant to state that humanism's rise was solely due to the printing press, Bolgar identifies the importance of this technology for humanism, stating that humanism most likely survived because of the printing press. In "Oral Residue in Tudor Prose Style" (1965), Walter Ong identifies and expounds upon the print connection with humanism. Ong uncovers how media impacts and alters our perception of what it means to be human. He writes that humanist philosophy is not only interested in the world, but also in the book, and this connection "links the very existence of humanism to the medium of writing" (145). Ong notes that humanism—or at least humanistic ideals—existed before print,

9

but print and humanism helped foster one another. Further, in "Humanism in Script and Print in the Fifteenth Century," a chapter in *The Cambridge Companion to Renaissance Humanism's*, Martin Davies states that "[t]here was no humanism without books. They were the prime material on which the movement was founded and the natural medium through which it was transmitted" (47). This should come as no surprise, given the early humanists' crucial move away from a church-oriented education toward a more secular education. This is to say that print literature led to a more accessible corpus of literature, a corpus distinct from the doctrine of the Church. At the same time, interest in humanistic philosophy spurred the rise of various printers across Europe, as people clamoured to gain access to new knowledge in a way that previously was unavailable to them. In this sense, then, technology and cultural change are bound in the same movement away from the church.

In "Humanism and the Digital Age," Massimo Lollini explores humanism's insistence on historical awareness through the study of texts. Humanism as a means of education does away with doctrinal teachings and instead hinges upon knowledge and offering direction via secular teachings, propagated by the printing press. Lollini writes that "humanism had its focal point in the awareness of the historical contingency of texts and human experience of time" (2). Humanism was deeply rooted in print and explored the various ways humans had been constructed and defined historically. Access to new books through print allowed humanists to uncover previous conceptions of the human and the changing face of human culture over time. Print technology is not the sole actant in the rise of humanism, but the rise of print technology levied the spread of the philosophy. In the next chapter I discuss the changing nature of literature, as it moves from what has historically been thought of as a static technology instantiated in print

to a more dynamic and fluid form of digital literature. The static understanding of print literature is analogous to the idea of the liberal human subject as self-contained, autonomous, and has clear borders between the body and the rest of the world. Digital technology, for its part, through cybernetics and systems theory, encourages an understanding of the affinities and similarities between humans, machines, and nonhumans. If humanism was propagated and disseminated through print literature, as I have argued, then digital literature provides a space from which we can begin to think through a more interconnected network of all living things.

5. Why Posthumanism?

Arguably the two most influential theorists of the posthuman are N. Katherine Hayles and Cary Wolfe. The work of Hayles helps illuminate a conceptual shift in the understanding of human materiality and cognition. In *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (1999), Hayles explores the curious position of humanity at the turn of the millennium, as agents imbricated in a complicated network of organisms, social structures, and information and communication technologies. For Hayles, the *post*human explores the shift in how we articulate our being human; as we shall see, this is in contrast to Wolfe, who is more interested in post*humanism.* Hayles identifies a movement that is decidedly distinct from liberal humanism, and this schism hinges on the proliferation of information technology. In her view, the human and posthuman are historically specific constructions.

The human is bound to the tradition of liberal humanism and its insistence on autonomy and individualism, whereas the posthuman is born from the era of computation, which transitions

humans into the realm of artificial intelligence and cyborgs (33-4). As noted above, humanism (and by extension the conception of the autonomous liberal human) is inextricably tied to the rise of the printing press and the advent of the book. Hayles reflects on this and concludes that intelligent machines allow us to conceive of the posthuman. By way of cybernetics and systems theory, Hayles conceives of a posthuman theory that views humans as information processing systems. We are self-regulating and autonomous, and systems theory aims to show how all living creatures can be defined in this way.

How We Became Posthuman interrogates the notion that human bodies and cognitive operations can be understood from a computational perspective. Hayles is interested in the posthuman as a site of disembodiment, arguing that all life can be considered information, and humans are an evolutionary step in process of informant processing. In this sense, it is possible to conceive of human consciousness downloaded into a computer network, our minds existing on electrical impulses within a machine. This is to say, humans are merely information processing machines, our brains running the show behind a curtain and our bodies acting as performer. Hayles presents these ideas not as truth claims, but instead to explore a dominant mode of thought in theories of the digital. A central idea of the posthuman is that information (broadly construed) wants to be free: humans are merely a sideshow of the main act which sees the world as made up of information which must be communicated. Hayles notes four points which mark the tradition of the posthuman:

> First, the posthuman view privileges informational pattern over material instantiation, so that embodiment in a biological substrate is seen as an accident of history rather than inevitability of life. Second, the posthuman view considers consciousness, regarded as the

seat of human identity in the Western tradition long before Descartes thought he was a

mind thinking, as an epiphenomenon, as an evolutionary upstart trying to claim that is the

whole show when in actuality it is only a minor sideshow. Third, the posthuman view

thinks of the body as the original prosthesis we all learn to manipulate, so that extending

or replacing the body with other prosthesis becomes a continuation of a process that

began before we were born. Fourth, and most important, by these and other means, the

posthuman view configures human being so that it can be seamlessly articulated with

intelligent machines. (2-3)

For Hayles, the posthuman marks a shift in thought that recognizes the world as abundant with

information. In this sense, our own materiality and corporeality is an evolutionary step in the

transmission of information. Our minds, which are information processing machines, have first

used to learn the human body for movement, amongst other things, and with the rise of

information technology, our minds will learn how to manipulate or exist on digital platforms.

Hayles' posthuman marks a moment wherein the shift from humans to machines has already

begun, and is inevitably on information's journey to be free. This mode of thought aligns humans

with complex machines, and Hayles' posthuman interrogates the seamless articulation of humans

and machines.

Hayles discusses these fantasies of disembodiment, particularly how they play out in

cybernetics and works of literature such as those by Philip K. Dick, while adamantly rejecting

the transcendence of the posthuman. In discussing her fears of the abandonment of a human

body, Hayles states that her "dream is a version of the posthuman that embraces the possibilities

of information technologies without being seduced by fantasies of unlimited power and

disembodied immortality" (5). While her book discusses fantasies of the posthuman contingent on information technology, she suggests that humans should encourage the development of new information technologies without falling victim to their supposed transitory powers. Hayles advocates for a dream which "recognizes and celebrates finitude" (5) while at the same recognizing our embeddedness in a material world which we must work with, not against, in order to survive. Yet, in discussing the posthuman throughout her book, Hayles often succumbs to the same nightmare of transcendence which she argued against. It is in this contradiction that Wolfe criticizes Hayles, and marks his own distinctive posthumanism.

Wolfe approaches posthumanism from an alternative route, distinctive from that of Hayles. Rather than confronting posthumanism in terms of a transcendental after-embodiment theory, Wolfe takes an animal studies approach, encouraging us to extend the ethical and moral sphere to include nonhuman animals (which Wolfe names "nonhuman subjects"), in *What is Posthumanism?* (2010). Wolfe writes that his theory is "posthuman*ist*, in the sense that it opposes the fantasies of disembodiment and autonomy, inherited from humanism itself, that Hayles rightly criticizes" (xv). Hayles opposes disembodiment and autonomy, but Wolfe observes that her book largely espouses how these fantasies play out in current media, rather than exploring the theoretical frameworks which create these conditions of possibilities. Wolfe's posthumanism rejects this disembodiment, in favour of a recognition of our shared finitude with other animals on the planet.

Along with Hayles, Wolfe marks posthumanism as distinct from humanism, recognizing that the current technical, medial, and informatic culture is responsible for a shift in understanding human being. Just as Hayles recognizes the fantasy that human consciousness will

14

one day be downloaded into a computer mainframe, effectively relinquishing the need for a

material body, Wolfe notes that advances in technology have altered humanity's place in a

networked ecology. Wolfe recognizes that there are worthwhile aspects of humanism, and his

posthumanism does not aim to completely supplant this philosophy. He explains his

posthumanism as analogous to Jean-Francois Lyotard's postmodernism, in the sense that

posthumanism comes both before and after humanism (as Lyotard's postmodernism comes

before and after modernism). Posthumanism challenges historically specific constructions of

human beings by way of considering our coevolution with technology and the nature of bio-

medical scientific discoveries. It names "a historical development that points toward the

necessity of new theoretical paradigms (but also thrusts them on us), a new mode of thought that

comes after the cultural repressions and fantasies, the philosophical protocols and evasions, of

humanism as a historically specific phenomenon" (xv-xvi). Wolfe states that humanism's

insistence on an autonomous subject creates an image of the human that reigns supreme over all

living creatures and the natural world, predicated on the ability to conceptualize an "I" which

propels humans into a distinct ethical and moral space unknown to other living creatures. For

Wolfe, this image of the human is false; he notes how Bernard Stiegler's work identifies the

coevolution of humans with technology, rendering void the assertion that human beings are self-

contained creatures. At the same time, posthumanism comes after humanism, recognizing the

place of human beings in a range of networks, and encouraging a philosophy more sympathetic

to other subjects and objects in the world. This relationship between technology and media to conceptions of the human is at the heart of this dissertation[1].

What we have seen with Hayles and Wolfe is that posthumanism, like humanism, has neither a fixed definition nor a singular thesis. Rather, as Stephen Herbrechter argues, posthumanism is a critical discourse. In "Beyond Repair," he writes that posthumanism, "like all social discourses, is a display of power struggles, subject positions, identities, and is thus full of conflict and dissensus" (np). As such, there is no agreement about what is posthumanism; how best to understand, qualify, and discuss it; and whether it is induced by technological change or driven by ideology. Furthermore, as Wolfe points out, the prefix "post" does not symbolize a distinct rupture or break from the humanist tradition. In this vein, Herbrechter concludes that "posthumanism is more like a rereading or an ongoing destruction of humanism, which upsets a causational and chronological relationship of the two" (np). Despite the usage of the term posthumanism in a manner which does not suggest a supplanting of humanism, this dissertation understands posthumanism as a philosophy which places humans not at the center of an ontological hierarchy, but rather as a node in an interconnected network of all living things on this planet.

Posthumanism asks us to reconsider ethical responsibility in the wake of the Anthropocene, the historical moment when human action significantly impacts all life on Earth. There is, as Herbrechter notes, a "connection between posthumanism and post-

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[1] A brief note on the distinction between technology and media: technology is that which acts as prosthesis, allowing humans to extend beyond themselves through the use of tools. Media, distinctly, communicates information through technology. Or, as Neil Postman remarks, "A technology, in other words, is merely a machine. A medium is the social and intellectual environment a machine creates" (84).

anthropocentrism" (np), and this is precisely why Wolfe sees posthumanism as "thrust upon us." Human-made climate change and the impact of the human species on the environment is an ongoing ecological disaster which the posthumanities begins to consider. Herbrechter writes that "new forms of social, political, ethical, and ecological ways of thinking are vital for the survival not only of the human species but also—and this is the special responsibility that humans bear today—of other species, life in general, environments, and ecosystems" (np). Posthumanism seeks to create and develop these new forms of thought and action, so that we might better act as responsible citizens on this planet, alongside all other life.

Indeed, Rosi Bradotti approaches the question of the posthuman from this same sort of re-reading, the continued interrogation of its historicity and linkages to humanism. Bradotti recognizes the importance of understanding the posthuman as a tool to be used in scholarship which moves away from the abstract realm of theory. Rather, the posthuman marks a moment wherein we return to a focus on materialism, on the recognition that our scholarship should turn more towards concrete political action, rather than theoretical speculations. In many ways, my own thoughts mimic those of Braidotti's, who feels a sense of resentment towards the current techno-capitalist power structures that be. Unfortunately, the reality is that many of the issues which I discuss in this project (such as the systematic "othering" of persons, animals, and the environment) persist because of economic gain. Bradotti writes,

> In some ways, my interest in the posthuman is directly proportional to the sense of frustration I feel about the human, all too human, resources and limitations that frame our collective and personal levels of intensity and creativity. This is they the issue of subjectivity is so central to this bookL we need to devise new social, ethical and

discursive shames of subject formation to match the profound transformation we are

undergoing. That means that we need to learn to think differently about ourselves. I take

the posthuman predicament as an opportunity to empower the pursuit of alternative

schemes of thought, knowledge and self-representation. The posthuman condition urges

us to think critically and creatively about who and what we are actually in the process of

becoming. (12)

I share Braidotti's concerns, particularly in the frustration that our current worldview frame the

world in such a way that fails to recognize that humans are not the center of an ontological

hierarchy. The readings of theory and digital art which follow in this project are all shaped by

this frustration. Posthumanism, then, is a symbol of emancipation and freedom, as it helps us

critically think through the dominant power structures. Posthumanism is an ongoing

deconstruction of techno-capitalism, an encouragement that we are forever entwined with all life

and non-life on this planet, and that we are not past the point of no return.

On top of posthumanism as a philosophy which encourages us to rethink our ingrained

anthropocentrism, this project views posthumanism as a fundamental critical tool for analyzing

works of literature, broadly construed. In other words, posthumanism, like feminist or

postcolonial theory, provides a framework which can be used to critically read texts. The works

discussed in this dissertation are all explicitly posthuman, in a way, as they draw upon these

themes in vary outward ways. My hope though, following the work the of Timothy Morton (to be

discussed later) is that this posthumanist framework will be used to read any work of literature.

We can begin to ask ourselves what print literature, electronic literature, and video games have to

say about biopolitics, the question of the animal, and ecological issues. Posthumanism

recognizes that these issues are pervasive and are thrust upon us at this particular moment in time; further, these issue can no longer be ignored, lest we continue to destroy the planet and the environment at an alarming pace, leaving the earth in a terrible way for future generations (and indeed, perhaps the sharpest mind of our time, Stephen Hawking, has declared that humans must inhabit other planets should we continue to survive). Posthumanism as a critical framework, then, notes that these themes and concerns, all pervasive as they are, should be evident in the artistic production of our time, and is a worthy critical project to pursue.

This project is fundamentally a political one: posthumanism attempts to rework and rethink previous conceptions of human nature and being. As we will see in chapter two, posthumanism enters the realm of the political through Foucault's biopolitics—the governing of citizens and their bodies via the right to life. Biopolitics operates in the mode of exclusion, as some bodies are given rights while other bodies have these rights withheld. This form of exclusionary politics leads to the reverse side of biopolitics, thanatopolitics, whereby those bodies without rights are put to death, such as in the Nazi death camps of the Second World War. The political side of biopolitics, as that which is created through inclusion and exclusion, runs throughout this dissertation. Posthuman politics requires a dismantling of human exceptionalism, because this mode of understanding not only encourages a thanatopolitics for human beings, but also works to remove nonhuman animals and the ecological world from the realm of ethics. Posthumanism is further political in nature because it recognizes that all living things are intricately entwined in the advanced capitalist global economy. This economy is built upon not only the manipulation and control of *human* life, but also on the lives of nonhumans, and its processes threaten the planet's natural ecosystems. A posthumanist philosophy works to uncover

19

and reveal the machinations of this global economy through reconsiderations of engendered ontological distinctions.

For the purposes of this project, posthumanism as I articulate it is a fundamental critique of current modes of neoliberal capitalism. Launching from the work of Hayles and Wolfe, I understand our current situation as that which challenges any preconceived notion of an autonomous human. Considering the advances of cybernetics and systems theory, it is apparent that any historical divisions between humans, animals, mechanics, and the environment, are no longer useful categories. Rather, posthumanism shifts those borders in order to properly situate the human not as a walled off creature, but rather as immersed within, and part of, a diverse ecological network. Furthermore, this project argues that neoliberal capitalism works to "other" in order to perpetuate an economic system which benefits the few at the expense of the many. This system of techno-capitalism others not only human beings, but also nonhuman animals, and the so-called natural world (of course, even the word natural is used only to create a sharp distinction between human culture and that which lies outside). This project's critical posthumanism, then, works to think through this othering, to challenge these distinctions, in an effort to form a philosophy which takes seriously the human's imbrication within a vast network of the living and nonliving.

A reconfiguration of human being, and a dismantling of human exceptionalism that has been the norm for centuries, requires a great deal of time and thought. Posthumanism argues that change is fundamental to the ongoing survival and health of all living things on this planet. As Herbrechter notes, posthumanism requires "thought that is up to the magnitude and the complexity of the challenges the near future is likely to pose, with the depletion of natural

resources, a still growing global population, a widening gap between rich and poor, global warming, ongoing automation and virtualization, and so on" (np). These are complicated problems, and as this dissertation will show, I see electronic literature and video games as providing a conceptual space for working through these large, complex challenges. Issues like global warming and the wealth gap, considered through art, can help us think through complexity in manageable ways. In this sense, the digital works discussed over the course of this work exemplify a process of "taking care," of encouraging us to reconfigure our thought and actions so as to create inclusionary politics, extending the ethical and moral sphere to all living things on the planet.

6. Taking Care and Sympathetic Imagining

In *Taking Care of Youth and the Generations* (2008), Bernard Stiegler discusses how new media technologies affect our ability to focus, and thus we do not properly attend to ourselves and others. Stiegler contends that we have lost the ability to pause, ponder, and reflect, and this is precisely because we have stopped paying attention to the various ways the "programming industries" (72), by which he means the media, work to systematically control our consciousness. New media works in conjunction with advanced capitalism, or techno-capitalism, to replace old forms of culture, such as social institutions like schools and families. Cognitive technologies, such as digital media, enrapture us and destroy our ability to focus, and Stiegler explores the "politics of attention" (98), most notably for younger generations. *Taking Care* not only provides the theme of care that runs throughout this dissertation, but at the same time presents a

fundamental misreading of digital technologies—a misreading that I challenge through close readings of electronic literature and video games.

Discussing Kant's "What is Enlightenment?", Stiegler's focuses on Kant's theory that enlightenment signals a casting off of mankind's historical immaturity—its inability to think without a guide such as the church. For Stiegler, this supposed maturity is a signal for humans to take care of each other, as reasoned and educated citizens should do. Stiegler, following Kant, speaks in fundamentally humanist terms: the enlightenment celebrates humanity's ability to reason and think individually, and this allows us to take better care of ourselves and other humans (there is no mention of nonhumans or the environment in Stiegler's book). As noted, Stiegler takes particular umbrage with the current crop of new media technologies which, for him, disrupt our ability to think critically and deeply.

Stiegler notes that our ability to think deeply and critically is impacted and affected by media technologies. He writes that "the psychic apparatus is continuously reconfigured by technical apparatus and social structures" (7). The global system of advanced capitalism works to capture our attention and wrestle it away from traditionally institutions like the family and schools, and Stiegler sees this affecting our ability to take care. In his view, humans have stopped paying attention to the way programming industries work to control our attention; we have effectively relinquished our attention and are unaware of this psychic shift. Ultimately, Stiegler's analysis is without nuance: he effectively universalizes all new media technologies and thus his critique and analysis is superficial. Stiegler takes aim primarily at the newer generations of media, what he calls "psychotechnologies." While not named, it is clear Stiegler is interested in the Internet and social media (Twitter and Facebook), smart phones, tablets, and video games.

Psychotechnologies are behind younger generations' attention problems, such as ADD and ADHD. Stiegler speaks in alarming, apocalyptic terminology, going so far s to suggest that children "are stripped not merely of critical consciousness but of consciousness itself: they have become nothing more than a brain" (45). Psychotechnologies limit our ability for deep attention, and this leads to younger generations who are unable to think for themselves. Even worse, these younger generations are not even aware that they have lost this ability because these programming institutions are constantly inundating us with technocapitalism marketing and products.

Stiegler's aim at new media as that which disrupts our ability for deep attention should sound familiar to media theorists. We need only look back at Plato's rumination on writing in *Phadreus* to find a similar grievance: once we exteriorize our memory through writing we can never expect to gain it back internally. In this sense, Stiegler's critique is antiquated and without adequate, nuanced thinking. Despite this, Stiegler's overall thesis—that we need to undertake seriously a process of taking care—is a worthy ethical, moral, and political project. Contrary to Stiegler, I argue that digital media technologies are capable of encouraging a taking care, not only of ourselves but also of the planet and all nonhuman life. Indeed, I argue that electronic literature and video games provide precisely what Stiegler believes we have lost: namely, the ability to pause, ponder, and reflect on our world and our place as an integral part of it.

Electronic literature and video games provide a conceptual space for thinking through the radical diversity of life on this planet. Indeed, as print literature considered the human condition through a careful usage of written language, digital media utilizes multimodal media elements. Our language, which is always unavailable to nonhumans, is not always suitable for considering

nonhuman finitude and fragility. Digital media allows unique experiences using graphical elements, 3D space, and tactile feedback—these elements, and not language only available to humans, provide us with tools for thinking through the radical diversity and well-being of life on this planet. These works help to shape representations of nonhuman phenomenology. This representation will always be anthropocentric, but it moves away from considering nonhumans through human language. The works discussed in this dissertation exemplify Stiegler's notion of taking care, but do so in a way which extends this process beyond the inherent anthropocentrism of Stiegler's writing. We must begin to seriously consider how best to take care, of ourselves, of all human beings, of nonhuman subjects, and of the natural ecosystem of this planet. This is the burden of human beings which we must fully accept.

In this way, then, the idea of taking care works in tandem with the concept of "sympathetic imaging," as it is described by Martha Nussbaum. Nussbaum insists that literature, is a powerful site for imaging the lives of animals. The following passage from Cary Wolfe, wherein he discusses the work of Nussbaum, sums up the power of literature for considering the question of the animal:

> Similarly, Nussbaum, like Diamond, insists that the power of "sympathetic imagining" of the lives of nonhuman animals of the sort made available by literature (but not only there) is important and relevant to questions of moral judgment. As she puts it, "imagining the lives of animals makes them real to us in a primary way, as potential subjects of justice." (78-79)

In what follows, I provide critical readings of a few works of electronic literature which I believe illustrate the sympathetic imagining power of digital media. These works all operate in different

ways, with some creatively exploring what it might feel like to be an animal, while others merely allow us to pause and give reflection to the lives of various living creatures which we encounter on a daily basis but may in fact never fully consider.

Furthermore, I extend the idea of sympathetic imagination to move past the idea of animal cognition, into a more robust concept which is capable of thinking through eco-critical themes as well. It is important that we do not stop short, that we do not only imagine the lives of nonhumans, but also to imagine how our lives are intricately connected with all other live on this planet. Thus, I argue that video game simulations can encourage us to think of the interconnected, networked ecology of life on our planet, and this is how we may extend the realm of sympathetic imagining past the realm of conscious beings. It is my hope that these readings confirm my thesis that digital media provides a site of speculation, a means to better understand the role and position of the (post)human imbricated and implicated within a networked ecology consisting of a multitude of various living creatures, all creatures of life, all subjects of finitude and vulnerability. Thus, it should be noted that my readings of electronic literature and video games in this project are explicitly informed by the twin notions of taking care and sympathetic imagining.

In many ways, then, the ability to think of a taking care and a sympathetic imagining in electronic literature and video games, hinges us on the concept of play. Although a contentious term, all works discussed in this project require the user to play, in some way. Play, in these cases, ranges from simply clicking on new words to bring about next texts, or fully controlling a simulated ecology. Again, I see this type of play in new media environments are carrying forward a literary sensibility; rather than thinking of reading as promoting deep attention and

games promoting hyper-attention (as Katherine Hayles has discussed), the play discussed herein encourages slow, methodical, and purposeful attention. Play should be welcomed alongside our traditional reading habits, as a unique way to engage in concentrated attention. Play is simply another tool available for us to use, and in fact play can move us closer to embracing our own animality, as it is an activity that we can share and engage in with nonhuman animals. Play is, of course, a week counter to the Anthropocene, but it is an activity that is prevalent in digital environments, and this type of play can help us think through our immersion in a complicated network of living and nonliving things on this planet.

7. Digital Humanities and the Posthumanities

As I have noted, digital media provides a space for an artistic interrogation of posthumanist philosophy, such as the thinking through of nonhuman phenomenology and ontology. Furthermore, as *Super Sad True Love Story* warns, we are experiencing a cultural shift (slow as it is) that sees the majority of our reading occur on a screen. The reading act itself is altered as well: no longer are we simply reading literature composed of written words, but we are learning new strategies for confronting multimodal electronic literature and video games. Previous reading strategies are useful in transition, but new ones will be developed as digital works increase in complexity and scope. The object texts of Humanities departments are changing, just as the historical object of study ("so-called man") is no longer the main concern. The posthumanities will see further interest in digital texts similar to the ones I discuss here. The humanities ask how texts shapes our understanding of human nature or culture, and the posthumanities ask how every text considers the question of the animal and the environment.

Interdisciplinarity will be key to the creation and sustainment of the posthumanities. By nature, posthumanism considers questions technical, ethical, bio-medical, and philosophical in nature. Advances in the posthumanities will, by necessity, encourage cross-disciplinary work in the academic institution, as scholars begin to ponder these complex questions. The question to ask right now is: are the digital humanities necessarily posthumanist?

The digital humanities today are a strategy wherein humanities departments stay relevant in the current academic market. By encouraging the use of digital technology, teaching students computer programming skills, and adopting the economy's fascination with "big data," the digital humanities claim to foster a more diverse humanities student, whose skills will be transferable to other lines of work. Digital humanities projects often involve data visualization, and other forms of computer-assisted methodologies for humanities learning. Despite the moniker, though, the digital humanities are not posthumanist by nature. Rather than encourage a contemplation and interrogation of the language used by advanced capitalism, the digital humanities wholly embraces "big business" and "big data" to stay relevant in the current academic market—a market which has, by necessity, itself become a business. If the digital humanities are to become the posthumanities, this research and projects need not stop, but what must occur is that which the humanities has always provided: a critical interrogation of the language and philosophies put in place behind these projects. The posthumanities recognizes the global market as pervasive, and thus digital methodologies and tools should provide analysis of techno-capitalism. Cary Wolfe writes that "the nature of thought itself must change if it is to be posthumanist" (xvi), and the digital humanities is suited for thinking through these concerns and developing new thought—a thought which moves past an ingrained anthropocentrism and begins

to seriously consider nonhuman subjects and the fostering of healthy and diverse natural ecosystems.

8. Structure

In my first chapter, I turn to the work of influential literary theorists and critics who have discussed the role and importance of literature in academic scholarship, primarily in the form of definitions and classifications. In order to delineate the borders and characteristics of electronic literature, we first look at how literature has been defined historically. This chapter explores how the concept of literature is historically bound to print, and how electronic literature expands or breaks away from this established literary tradition. For this, I turn to the work of Terry Eagleton. who answers some of these questions in *The Event of Literature* (2010). Eagleton himself states how difficult it is to accurately land on a stable definition for literature, but in deconstructing and interrogating definitions and characterizations put forth by other literary theorists, we may be able to flesh out a more pragmatic definition of literature. While Eagleton rejects a universalism for literature, arguing that it has no "essence," he still finds a usefulness for the category in literary theory. Eagleton's discussion of literature also points to other literary theorists whose work will be influential in my historical outline of literature, such as Stanley Fish. Through an examination of Fish's *Is There a Text in This Class?* (1980), I focus on a definition which moves from the text itself to the reading community, thereby situating electronic literature as an experimental form of writing with its own reading practices and methodologies.

After providing the historical background of electronic literature, I move on to discuss how the definition of electronic literature has shifted since the 1980s. Electronic literature began

as interactive and dynamic storytelling which utilized the computer's ability for linking lexias

(chunks of self-contained text), such as Michael Joyce's *afternoon: a story* (1987) or Shelley

Jackson's *Patchwork Girl* (1995). The link to the critical literary tradition is evident, as the work

was primarily textual. George Landow, in *Hypertext: The Convergence of Contemporary Critical

Theory and Technology* (1992), writes that electronic literature "has radical effects upon our

experience of author, text, and work, redefining each" (31). Landow notes that the interactivity of

computers altered reading, and early electronic literature was slotted into a tradition of

experimentalism and non-linearity inherited from print. Recently, however, electronic literature

has evolved into a multimodal conglomeration of digital arts practice. This creates a field diverse

and protean, which is constantly evolving. To provide the historical context from which

electronic literature emerged, I turn to Espen Aarseth's *Cybertext: Perspectives on Ergodic

Literature* (1997) to flesh out various ways in which early work has been theorized and placed

within the literary tradition. Following this, I discuss how new works are unique and nascent

types of literature which are indebted to print traditions while at the same providing new

pathways for exploring the place of the posthuman.

Chapter two focuses on the area of posthumanism known as biopolitics. As will be

shown, biopolitics identifies a shift in how government operates, specifically at the level of

managing the bodies of citizens. The critical thinkers I discuss in this chapter—Michel Foucault,

Georgio Agamben, Michael Hardt and Antonio Negri—explore biopolitics and the topic of

"life." What is life, how is it defined, and whom has the power to control it? I argue that

language experiments in electronic literature not only point to the role of language in biopower,

but also marks electronic literature as a site of aesthetic resistance (following Hardt and Negri)

operating within and against biopolitical regimes. In particular, I will illustrate how codework, a genre of electronic literature which mixes natural and programming languages, provides a tool from which to think through and work against biopower. For this, I turn to the writings of Mez Breeze, an electronic author working primarily with codework to explore questions of subjectivity, embodiment, and power in electronic literature.

Chapter three explores the role of the animal for posthumanism. The question of the animal is central to posthumanist thought. Wolfe, for instance, reconsiders the philosophical and theoretical frameworks of humanism which, for him, cause unnecessary death and suffering to nonhuman subjects. Posthumanism seeks to extend the ethical and moral sphere to the world of nonhumans, firstly by reconsidering engendered divisions between humans and animals. This reconsideration takes to task humanist thinkers who follow Descartes' dictum "I think, therefore I am," which precludes animals from rational and critical thinking. Wolfe observes that an understanding of humans as ethical beings, contingent on their ability to think, has disastrous consequences for not only nonhumans, but also humans with diminished cognitive abilities. Posthumanism encourages an awareness of our shared vulnerability and finitude with all living creatures. To this end, this chapter explores works of electronic literature and video games which explore different animal experiences and phenomenologies, taking full advantage of digital technology to provide a conceptual space for thinking through the question of the animal.

Chapter four ties the strands of posthumanism already explored (biopolitics and animal studies) together through a discussion of ecological criticism. Martin Heidegger's discussion of modern technology its impact on nature provide a background to current eco-critical work. Indeed, as we will see, thinking through our relationship to the natural world leads into the

philosophy of object-oriented ontology, which asks to consider the networked agency of all things on the planet, living and nonliving. Utilizing the work of Jane Bennett, who advocates for an understanding of the shared ecology of all things, I argue that this this networked ecology provides us with the conceptual space from which we can better recognize our shared finitude and vulnerability. In doings so, I explore electronic literature such as Roderick Coover's and Scott Rettberg's *Toxi-City,* which utilizes the multimodal characteristics of the digital terminal to explore the impact of climate change in our world. Further, I turn to digital games made by thatgamecompany, which encourage a thinking through of environmental themes and the impact of our technology on the natural world.

Finally, it should be noted here that the works I have discussed in this project, most notably the works of electronic literature, have yet to find a substantial reading audience. While the video games are, by contrast, much more popular, they are still not on the level of those blockbuster video games which have inflated budgets and have huge sales numbers. Rather, the works discussed in this dissertation are smaller works of digital art which, to my mind, point us toward a future of experimental literary experiences which work to uncover what might be called a posthuman condition. Part of my hope for this project is to introduce these artworks to a new reading audience of fellow scholars, teachers, artist, practitioners, and critical thinkers alike. I hope that a reading audience will grow for this experimental works, just as I hope the themes of posthumanism discussed will begin to reach to collective conscious. We may not be able to speak truth to power, when those in power have so much financial stake in their ways, but if we begin to play these games, to read this literature, to rethink our place in a networked world, then perhaps we can work to continue to take care.

Chapter One

From Literature to the Digital: Historical Definitions

This chapter works to position electronic literature in the greater historical context of the literary tradition. Literature is notoriously difficult to define, even for seasoned literary theorists and critics. There certainly is no ironclad definition, no unsinkable understanding of what makes a work "literature." Further, even defining literary qualities, or "literariness" as the Russian Formalists sought, is no easy task. It would thus behoove us to first acknowledge that our language, and the concepts they point to, are not static entities. Ultimately, while we can acknowledge that the category of literature is difficult to determine, this is not to say that discussions over its definition are moot. To this end, I turn to works by established literary theorists like Terry Eagleton and Stanley Fish, who both have worked to articulate the category of literature and its characteristics. Both Eagleton and Fish are instrumental for understanding this shift from historical definitions to understanding how literature is a shifting category reliant on material instantiation and changing values in the academic community. Building from their groundwork, I flesh out a productive definition of literature which is capable of including digital works such as electronic literature and even video games. In doing so, I argue implicitly that electronic literature and video games carry forth a literary tradition which, above all else, explores the human condition. More than this, though, I argue that digital media such as electronic literature and video games not only allow us to explore the human condition, but also helps us better understand our shared mortality and finitude with nonhuman others and our implication within a complicated ecology of living things on a living world. In essence, digital media allows us to explore the posthuman condition.

Digital media, as a multimodal, audio-visual art, opens up a space of imagining which, as I work to show throughout this dissertation, allows us to explore nonhuman being and phenomenologies in unique ways. Literature relies on the written word—words that are ultimately unavailable to nonhumans who are of primary concern. I argue that if digital media can serve to challenge notions of literature and the literary inherited from print, then digital media can play a role in moving the discussion from the human condition to the posthuman condition. Thus, digital media, through its multimodal capabilities, provides a conceptual space for exploring posthumanist themes.

As I will show, the key to understanding the literary tradition relies on recognizing the indeterminate universal (conceptual categories in flux but nevertheless anchored enough as to follow traditions and hold common characteristics), which is to say that literature and its definitions shift over time. As we see how the understanding of literature has changed over time, we then begin to understand how digital media—which from the onset might not appear to be literary—does in fact allow us to think through new ways of exploring the posthuman condition. Observing this shift will allow us to work through digital media, such as electronic literature, and better understand how these experimental, multimodal works are capable of carrying forth a literary tradition even without the use of any written words or similar features we typically associate with print literature. As discussed in the introduction, literature is bound into the discussion of what it means to be a human; in particular, the advent of the printing press and the role of print literature was fundamental to the creation and elucidation of the liberal human subject. Digital media, by contrast, coincides with posthumanist philosophy by way of cybernetics and systems theory. Thus, understanding the role of literary art in this transition, and

how literary art itself is a shifting category, opens up a space wherein electronic literature and video games—two examples of indeterminate universals—allow us to explore the posthuman condition in the current global ecological network.

1. The Philosophy of Literature

Searching for an infallible definition of literature is not the *modus operandi* of most literary theory. In *The Event of Literature* (2012), Terry Eagleton provides a comprehensive summary of work in the field of the "philosophy of literature." For Eagleton, this philosophy is, for all intents and purposes, a marked distinction from that entirely different beast known as literary theory. "Literary theorists tend to give short shrift to questions of truth, reference, the logical status of fiction and the like," remarks Eagleton, "while philosophers of literature often display a marked insensitivity to the texture of literary language" (xi). Thus, literary theory provides methodologies for reading particular works of literature or examining properties of literary language, while philosophers of literature are more often concerned with the larger questions of definitions and truths, and less so with the machinations of literary language. The philosophy of literature concerns itself with questions such as: what is literature, how has it been defined, and how do we come to understand what it is and how it operates?

The following discussion of literature relies heavily on Eagleton's work in *The Event of Literature* as Eagleton, more so than other theorists, productively asks these larger questions about literature. Eagleton notes that theory often provides us with methodologies for critical readings of particular works of literature but it stops short of asking what is the object of study and what shared characteristics exist in what we study as literature. The philosophy of literature,

then, owing to it not being concerned with literary language *per se*, can provide a definition of literature which comfortably allows for not only experimental digital writing, but also those works which are far more multimodal and expansive than print literature.

Rather than emphasize a schism between print and digital literature, I seek to explore electronic literature's possible literariness by establishing a historical context for categorizing literature. Indeed, as Eagleton remarks, the term "universal" does not "necessarily mean 'timeless' . . . Universals have a specific material history quite as much as individuals" (16). Universal categories are capable of shifting; they are neither infallible nor unchangeable. In my estimation, the postmodern tendency of rejecting categorical thought as oppressive, restricting, and debilitating is misguided. Categorical thought better serves us in understanding the various practical ways we compartmentalize the world, allowing for specializations and specific discussions. Thus, in defaulting to categorical definitions of literature, and in emphasizing the various ways in which definitions and categories shift over time, we recognize the legitimacy of groupings while still rejecting any oppressive traces of such definitions.

My project, then, follows through on Eagleton's insistence that there is a discursive productivity in recognizing definitions. Eagleton writes that "grouping individuals together in certain respects for certain purposes may contribute to their emancipation" (17). Defining literature is not a means to be restrictive and oppressive, nor is it a means of shunning electronic literature as non-literary digital arts. Further, labeling the works I discuss here as digital art is not done to restrict or remove them from what we have come to know or think of as literature, but rather as a means to recognize and respect similarities and differences. The very act of defining literature, or electronic literature, may very well prove to be impossible. But it is through the act

of definition, and the recognition of the legitimacy of an indeterminate universal, that we can better understand its role in a specific cultural shift. In other words, although we might not settle on specific characteristics or definitions, the act of searching for these universals helps elucidate what (post)literature is and how it might help us explore the (post)human condition. For my purposes, this shift identifies both the materialist and conceptual re-categorizations of both literature and human being, which are inextricably bound together.

2. A Brief History of Definitions

If we begin by asking, "What is literature?"—which, as Eagleton notes, is frequently asked by philosophers of literature—there is a presupposition at play that literature exists as a definable category. To discuss what makes a work literary there must be a definable essence of literature. And if we are to discuss the essence of literature, which again presupposes that there is some sort of ideal which each work must live up to, we must first discuss the distinction between universalists and particularists. For Eagleton, this distinction is boiled down to two different sides: the realists and the nominalists. Eagleton (in his trademark aloofness) raises the question of literariness through the conceptual framework of the realists versus nominalist debate. Realists claim that universals exist, whereas nominalists see concepts as springing forth from our minds to make sense of the world. In the case of literature, then, can we firmly state that there are qualities and criteria which exist in reality, and that particular works of literature must meet these criterion in order for a thing to be literature? Or, are these conceptions entirely dependent on our own thinking, our own mental abstractions that are used to overlay order and understanding onto the world? These questions are pertinent to the discussion of literature, for as literary scholars we

should have some notion of whether or not individual works are held up to some transcendental idea of what literature is, or whether we have created a universal category only for the sake of consistency and organization, out of a set of particulars with indefinable features. It would be most productive, then, to survey definitions of literature to illuminate the critical and academic landscape into which electronic literature enters. Doing so positions the study of electronic texts within a firmly literary framework, even while recognizing that the literary is neither a static or concrete entity.

3. Language and Literature

Historically, the English word literature stems from the Latin usage of *literatura*, meaning "learning, a writer, grammar." The root of the Latin word is *litera*, which comes to mean "writing formed with letters." Literature, at least in its historical sense, simply means the use of language to form words which convey a meaning. This notion of language as the indistinguishable characteristic of literature has survived for centuries. Ezra Pound writes, "Great literature is simply language charged with meaning to the utmost possible degree." Language, then, is at the core of the historical definition of literature.

Discussing the essential properties of the concept of literature in *Philosophy and Fiction* (1983), Peter Lamarque turns to the question of language. For Lamarque, it seems obvious to settle on language as the prototypical characteristic which sets literature apart from other arts, but this insistence is complicated by the indeterminacy of what we mean when we use the word language. It is natural to see language as being the preeminent defining aspect of literature, but this is itself a difficult assertion to argue. Lamarque writes that we "might distinguish those

37

properties which are intrinsic to language, properties of syntax or semantics, and those which are extrinsic, relating to its use, in this case its special fiction or purpose in literature" (2). Thus, there are many different properties of language and each property is shifting, making it difficult to settle on one particular property as the defining characteristic of literature. Again, we run up against a paradoxical problem: when we try to define literature as a skillful use of language, we must recognize that our own language is indeterminate and therefore we cannot settle on language as the core characteristic, since we do not have a concrete signified for the signifier "language." If we cannot settle on a specific concept of language to understand or define literature, we are better served by an exploration of how the term is commonly used.

4. The Common Literature

Terry Eagleton provides a succinct yet thorough definition for literature as it has been conventionally used by critics, authors, and readers alike. Eagleton believes that when people refer to literature, they are talking about one or any combination of five different characteristics. What is meant by the literary is a work that is either "fictional, or which yields significant insight into human experience as opposed to reporting empirical truths, or which uses language in a peculiarly heightened, figurative or self-conscious way, or which is not practical in the sense that shopping lists are, or which is highly valued as a piece of writing" (25). For Eagleton, these are empirical categories: they are used to refer to the various ways in which people *interact* with literature, or how literature operates in the world and in our discourses about it. These are not theoretical or philosophical characteristics of literature. There are great works of literature which are conventionally understood to exhibit all of these features (for an example, Eagleton uses

Shakespeare's *Othello*), but it is not a prerequisite for a great work of literature to exhibit every single one of these categories; in fact, works generally assumed to be literature may only yield one of these characteristics. I argue, though, that works which yield a significant insight into human experience are those which are frequently labelled literature. Literature provides a space for us to think through these larger questions of truth and existence. This opens up a space in which we can begin to understand electronic literature and digital video games as continuing the literary project in innovative ways, as unique works which help us explore the posthuman condition as outlined by Wolfe.

5. Language as Resistance

One definition of literature focuses on its ability to disrupt or challenge conventions, and to provide a site of resistance toward what are seen to be oppressive institutions, laws, or social formalities. Eagleton reflects on the idea that literary language rebels against conventions in *The Event of Literature*. In discussing formalist theories of literature, Eagleton surmises that the very anti-historical framework of formalism relies on the autonomous self-worth of the text, so that when literature stops serving a social function it can still be regarded as notable and worthy in and of itself. Furthermore, formalism seeks to understand the literary text as autonomous, but cannot help but rely on certain historical trends while doing so. In this case, a formalist framework for literature relies on the concept of defamiliarization (to be explained in the next section), but this viewpoint presupposes that "the basic stuff of literature - language - is felt to have become tarnished and degenerate, so that literary works have to wreak a certain systematic violence on this unpropitious material, alienating and transforming it in order to wrench some

value from it" (Eagleton 34). In other words, the historical actualities thrust upon language (the reality of language becoming tarnished or degenerate) can be challenged by the flowery flourish of literary flair, thereby insisting on a historical understanding of literature while presenting an anti-historicist, New Critical take on the text as autonomous.

Literature and literary language, then, can act as a site of resistance against infringements upon the liberal human subject by "tarnished and degenerate" language. The very same language which is instrumental in establishing and defining the liberal human subject can be used to work from within so that it might disrupt or challenge these very same definitions. As Eagleton notes, purposeful literary language is imbued with a power which can help us better understand and live in a world increasingly complicated by commercial, technological, and biological pressures. Language does not exist in a vacuum, nor is it resistant to changing socio-economic conditions. The increasing acceleration of techno-capitalism alters our language in profound ways. Language is always co-opted and put to use by multiple forces, such as global corporations. The various ways in which everyday language shifts impacts the very same language available to literary artists. The material of literary language is in danger, but Eagleton finds no need to panic, as it must be brought to crisis before it can be restored (35). As I will argue in the next chapter, one way in which this language can be restored is through a playful application of language in order to subvert and interrogate our current ethico-political situation.

There is, of course, a certain moralism at play in these cases. Proponents of this framework believe that literature has a responsibility to teach values; intermingling with this is the assumed prejudice that all institutions and aspects of mass culture are inherently evil or corrupting to the general moral character of readers. Literary language has the ability to instruct

and teach ways of resistance. It is didactic through and through. As we shall see, literature as defamiliarization is guilty of this moral relativism, because it relies on the belief that literary language acts as a site of morality and decency in an indecent time.

6. Defamiliarization

Defamiliarization is a term coined in 1917 by the Russian literary theorist Viktor Shklovsky in his essay "Art as Technique." For Shklovsky, defamiliarization is a means to describe poetic language, which is fundamentally different from that of practical language. In other words, poetic language (the language of literature), is arranged in such a way so as to make it more difficult to comprehend -- the reader must do more mental work to suss out the meaning. Practical language, by contrast, is used to deliver a message as conveniently and clearly as possible. Defamiliarization thrusts upon the reader an unfamiliar view of the world, often challenging established norms and conventions. Shklovsky writes that and "work is created 'artistically' so that its perception is impeded and the greatest possible effect is produced through the slowness of the perception" (19). Thus, art requires one to slow down and think critically about its characteristics in a careful, considered way and ultimately this extends most meaningfully to works of art which ask us to reconsider what is already familiar to us. Defamiliarization has the goal of "making new" that to which we are already accustomed. In rendering the familiar strange, poetic language seeks to disrupt and challenge the everyday, and in doing so casts the familiar as mundane and repressive. Defamiliarization is not a framework devoid of political ideology.

Eagleton challenges this conception of defamiliarization as always having a positive effect. In recognizing that there must be certain norms, conventions, or institutions that work toward a goal of collective social welfare, it follows that there will be unproductive attempts at defamiliarization. Eagleton questions language's ability to disrupt or resist social change, as though social change is always the enemy and poetic language always the saviour we so badly need. Eagleton notes that defamiliarization is typically thought of as disrupting the normative, always in a positive light. He writes, though, that the "possibility that norms can be defamiliarised [sic] in unproductive ways is excluded from the outset," and so "[b]ehind modernism's fascination with language lurks a profound distrust of its everyday manifestations" (92). The everyday, social and cultural change, technological development: these are all cause for concern for the Formalists and New Critics, who view poetic language as rescuing us from these doldrums. This championing of literature's ability to disrupt systems carries forward through the post-structuralists as well. Eagleton notes that "for Roland Barthes and Jacques Derrida, the inherent value of literature is its ability to wreak havoc with established systems, disrupting normative institutions and behaviours. (99). There is an inherent evil to the normal structures and systems which comprise our everyday world, and literary language, through defamiliarization, helps us to think critically about these institutions. I will return to the idea of language as a site of aesthetic resistance in the following chapter on biopolitics and electronic literature; for now, though, let us turn our attention to the reader and to our own potential critical biases.

7. The Confirmation Bias

Paramount to the discussion of meaning in literature is the critical act and how our own readings and biases shape what we think literature to be; in other words, we shift now, from meaning residing in the text to meaning residing in the critical reading process itself. Beauty is in the eye of the beholder, after all. There are theoretical and critical frameworks (one of the many -isms currently on the market: postmodernism, feminism, Marxism, etc.) which, we believe, help to uncover the meaning, message, or truth found in a work of literature. Ultimately, though, this is a utopian academic ideal rather than a reality. Our theories determine the work more than the work determines our theories. For Eagleton, we can approach any given text from any such -ism, and due to our own confirmation bias, we will find what we set out to look for. Our readings are always institutionally determined (41). Thus we cannot turn to literary theory or criticism to help us define literature, because literary theories make of the work what they wish. This is not to discount or disregard the efficacy of literary theory, as using its methodologies often produce intriguing readings of texts which reveal meaning in new and productive ways. Theory does not help us define the essence of literature, though.

Stanley Fish acknowledges this confirmation bias in *Is There a Text in This Class?* (1980). In this collection, Fish traces his own personal history of literary criticism, exploring the various ways in which his ideas and concepts have shifted over the course of his career. For Fish, the purpose of his career has been to ask, what should be the focal point of study in literary circles? In searching for meaning, Fish has explored all elements of what I shall call the literary transaction: writer, reader, and text. Each element of the transaction comes with its own set of questions and concerns, but for Fish the main goal is to determine where the meaning resides. Fish's collection illustrates how difficult this question is, as there are many different pathways in

his journey, some coming to an end and some leading him right back to where he started. Because digital media carries forth the literary tradition in unique ways—requiring different reading strategies and comprehension—Fish's reader response theory provides a conceptual space for considering digital media as innovate literature.

For Fish, what is most important is the meaning given to the work by the reader. The reading act is inherently interpretive, and creates meaning in conjunction with the text. Fish, though, astutely observes that our own critical biases shape our interpretations. In discussing these biases, Fish purposefully places his reader response theory in direct opposition to formalism, which he sees as relying too heavily on interpretive models to shape meaning. Theory gives shape and determines the meaning of a text (13). For both Fish and Eagleton, literary criticism wrestles its own conclusions out of a text, as there is no way those meanings can reside in the text itself. We cannot turn to literary criticism to answer the question of what literature is, because each ideological -ism will be capable of providing an answer and providing the methodology to back up its claims. This is not to say that any or all theoretical frameworks are invalid, but rather they cannot help us solidify a definition of literature, for they each create their own literature.

8. A Literary Community

Perhaps it is misguided to look for something inherent in the work itself when defining literature; instead, it is beneficial to look toward the practice of reading itself for meaning making. This is the bent that Eagleton and Fish take: the question of the literary is less about an essence, a set of defining qualities that individual works share in order to make up the genus

literature, but instead falls upon the shoulders of those invested in the study of these texts. Literature is not an empirical category, but rather a way in which we approach texts. Confirming this sentiment, Eagleton writes that literature is defined though our own strategies, how we orientate ourselves to a text. We should not expect the texts to answer the question of the literary, but instead we should focus on how any given reading community approaches the work (48). It is often these reading communities that decide for themselves what is or is not literature. The academic community, with its long history of producing canons and genres, is the most outspoken and invested in deciding what qualifies as literature. It has been argued that these categories are extrinsic and not reflective of inherent qualities in the works themselves. As such, we cannot speak of literary essence and instead turn to the literary community.

Literature as a category of attention provides a rather unique outlook for the field, but in the academic landscape, it would seem that this is the *de-facto* framework at work. In other words, literature in the academic world is already understood to be that which holds our attention. One needs only to look at any given English Department's lists of interests of faculty or graduate students to find an increasingly diverse range of work studied: anything from comic books, to video games, to social media and blogging, to pornography from the 17th century. Although debates may range between colleagues over the merit of these works, and whether they should be called literature, the reality is that the study of these texts is academically sanctioned, and so they are treated as literature.

For Fish, this is precisely what literature is: a communal decision and a conventional category. In other words, literature is a category created through attention, though a communal decision over what falls under the purview of literature. This means an ever-shifting field full of

diverse works, but if the reading practices and conditions of attention align with what we traditionally understand as literature, there is no stopping this diversity. For Fish, literature arises when our fine-tuned practices of attention are focused on a text. The properties and characteristics which generally come to mind when thinking about literature emerge from the work only after or during the process of reading and interpreting (which, for Fish, are one and the same process). Thus we move away from any inherent properties in the work itself, such as written language, and toward extrinsic issues of attention and awareness, created and upheld by reading communities.

Richard Ohmann echoes this sentiment in "The Social Definition of Literature" (1978), when he writes that "the definition of Literature, capital L, is a social process. In it, as in all social processes, some groups participate more actively than others; some do not participate at all" (90). There is an element of power and exclusion in this social definition of literature, as evidenced by the canon and the traditionally static nature of the humanities. The current academic landscape, as influenced by postmodernism and cultural studies, works to disrupt this politics of exclusion, leading to the study of a more open and diverse range of texts. I would argue, then, that literature is a complicated, diverse milieu of distinct texts ranging from films to graphic novels, and works of literature have one thing in common: they all artfully explore the human condition. Art gives us pause to consider the everyday, the mundane, the normative behaviours we encounter daily. Literature asks us to think more critically and reflexively about what it means to be a human being. In this space of print literature, writing allows us to slow down, to ponder the human experience and others' experience in the world. Electronic literature and games provide us with the conceptual space for thinking critically about what it means to be

posthuman—to think critically about not only the human experience, but the nonhuman experience of all life on this planet. Understanding electronic literature as that which carries on the literary tradition in new ways, requires us to survey brief history of electronic literature and its critical practices.

9. Electronic Literature and The Literary Tradition

Earlier forms of electronic text, discussed shortly, were more integrally connected with print literature because of the shared characteristic of written words. Despite these connections, early electronic literature theorists often fetishize and exaggerate the power of the digital, leaving behind rhetorical positions and theories which cannot be applied to the newer generation of electronic literature, which relies more on audio and visuals rather than the written word. The quick acceleration of technology has led to a more inventive, innovate digital arts practice, and these newer multimodal works often blur the lines between electronic literature and games. These digital media works carry forth the literary tradition in ways that explore not only the human but also the posthuman condition.

Consisting of written language, early electronic text was uncontested as literary—it was comprised of words and text, and the main act of interpretation followed the traditional reading process. The early personal computers of the 1980s afforded little to no audio or visual capabilities beyond the ability to produce written textuality, and thus traditional reading practices and methodologies were well suited for critical readings. Early versions of writing software, like Storyspace and Hypercard, allowed the writer to create a text which branched off in multiple ways, thereby creating a non-linear, dynamic story experience. Similar to the Choose-Your-Own-

Adventure book series, the reader had the opportunity to pick the direction of the narrative at various points throughout. The computer terminal essentially automated this process: rather than flip the page of a book to a desired story branch, the computer loaded up the next section after a hyperlink was activated. These early works of electronic literature (or hypertext, as it was commonly referred to in the 80s and 90s), owe much to the tradition of computer adventure games from the 1970s and into the early 1980s. Katherine Hayles marks 1995 as the year which saw the first works of the second-generation of electronic literature. These works featured more elaborate graphics and audio in conjunction with written textuality. In order to properly contextualize what is considered to be the start of literary hypertext, it is useful to explore various ways in which the computer was first used as a machine with potential for literary qualities. Many theoretical books focusing on electronic literature provide this background, but I use Espen Aarseth's *Cybertext: Perspectives on Ergodic Literature* (1997) to situate my discussion of electronic literature. The following section, indebted to Aarseth, provides a chronological lineage of literary work produced in a digital mode, and further illustrates the move away from text-based works to the more graphically advanced, multimodal works of today.

10. Early Literary Experiments

Aarseth notes artificial intelligence research as the launching point for many digital literary works in the 1960s. New advancements in computer intelligence allowed for unique ways to "communicate" with computer terminals, providing innovative ways in which text is delivered and read on a screen. Beginning with the program Eliza, made by MIT computer scientist Joseph Weizenbaum in 1963, the computer terminal exhibited new textual opportunities

for authors (or scientists, in this case) to work with. Eliza mimicked a psychoanalyst, in that it formulated questions and statements contingent on previous user input. One oft-cited anecdote is that the program was running on a computer in Weizenbaum's office when one of his colleagues sat down, waiting to speak to Joseph himself. Believing the program to be a simple intra-university message system, the colleague began conversing with whom he believed to be Joseph. The colleague was convinced by the program and believed it to be a real person, although he grew frustrated with the seemingly inane questions. To provide a brief example, if you were to type to the program Eliza, "I am having problems with my husband," Eliza would respond, "Tell me about your husband." This simple mimicry meant that the work was neither computationally taxing nor challenging to program, and this same simplicity meant that the user often projected their own personal issues onto the program, believing these rather banal statements were providing advice.

Another example of an early digital work with literary qualities is the role-playing game *Adventure* (1976), by William Crowther and Don Woods, released on the U.S. research network ARPANET, the precursor to the Internet. *Adventure* was the first game in a series of text-based games which allowed for simple user input. The system provides you with a basic scenario. For example, a game might begin with the following text: "You awake in a cold, damp room. Beside you is a lamp and an apple. There is a door in front of you." At this point, the user would be staring at these words on the screen while the cursor flashes below, requiring input to further the narrative. The user could type, "Take apple," for example, which would be followed by the next line of generated text, "You took the apple." As the name implies, these games were often adventure fables, with the user taking the role of the main character in the story and exploring a

fantastical world through written words. Once again, there is a connection to Choose-Your-Own-Adventure novels, requiring meaningful user interaction to further the narrative. As Aarseth notes, these text adventure games were short-lived, as the later graphical games rose in popularity during the 1980s (12). This brief statement on text-based games provides an analogy to the trajectory of electronic literature, in that the latter is also irrevocably altered with the inclusion of more intense graphical elements.

11. MUDs

Textual adventure games were the inspiration behind the creation of Multi-User Dungeons (MUD, or sometimes MUD1). MUDs were created in 1980 by Roy Trubshaw and Richard Bartle, two English programmers at the University of Essex. These digital environments were meant to create a space much like a text-based adventure game, but would allow for multiple users to play at once (as per Aarseth, see Bartle and Trubshaw 1980; Bartle 1984). Users would phone in to the Essex computer using modems, and thus would be linked together to explore and share the textual world. Aarseth notes that these MUDs were quite different from past literary experiences, as they often grew in size as readers from around the world contributed streams of text. MUDs provide a unique opportunity for exploring literary textual strategies such as the creation and expression of identity which, as Aarseth notes, have always been the purview of literary studies (13). For Aarseth, then, these MUDs were literature, as they relied on textual strategies and reading practices inherited from print literature.

12. Hypertext and the Electronic Literature Boom

One form of digital writing that would become synonymous with electronic literature for a period of time is hypertext. Hypertext was conceived by Ted Nelson around 1965, and Aarseth defines it as "a strategy for organizing textual fragments in an intuitive and informal way" (12), with the ability to connect various parts together using the same retrieval system. Nelson was not thinking specifically of literary writing when he came up with this system; rather, he wanted to create an information retrieval system which mimicked and more accurately represented the way our own cognition is perceived to work. Nelson's formulation of hypertext owes much to the work of Vannevar Bush, who in 1945 published "As We May Think." Bush envisioned a future when "wholly new forms of encyclopedias will appear, ready made with a mesh of associative trails running through them, ready to be dropped into the memex and there amplified" (np). For Bush, the memex was not a digital network of organization, but a mechanical one, capable of rapidly bringing forth new pages for reading purposes. Nelson, following Bush, was keen to explore this new form of knowledge and information retrieval, and thus hypertext was born.

Dismayed by the linear organization of information in books and academic papers, Nelson envisioned a system of retrieval in which information could be linked together via hyperlinks, thereby allowing the user to jump to and fro, just as the mind is believed to operate when retrieving information and creating connections between neurons. In *Literary Machines* (1980), Nelson explains his reasoning behind this system:

The structure of ideas is never sequential; and indeed, our thought processes are not very sequential either. True, only a few thoughts at a time pass across the central screen of the mind; but as you consider a thing, your thoughts crisscross it constantly, reviewing first

51

one connection, then another. Each new idea is compared with many parts of the whole

picture, or with some mental visualization of the whole picture itself. (np)

Nelson envisioned a networked style of writing which would allow researchers to jump back and

forth between interconnected chunks of text. This, for Nelson, was more conducive to the

process of research as it better mimicked cognition than a linear print book. Of course, print

publishers also recognized the limits of linearity, and so created indexes wherein readers could

easily locate topics of interest.

The immediate pedagogical potential of hypertext was noted by theorists. The networked

environment could provide more dynamic and fluid learning than a stable, printed book. As

Aarseth notes, this form of information dissemination attracted the attention of authors and

educators, as authors and critics alike started to experiment with the form (13). Early work,

notably from authors such as Michael Joyce and Shelley Jackson, made use of the hyper-format,

thereby creating dynamic, twisting digital stories, or what Aarseth calls "labyrinths." Early

electronic literature goes by many names, all referring to this early style of linking lexias (chunks

of text) together to create branching narratives: hypertext, hyperfiction, interactive fiction, digital

literature, digital fiction, and, of course, electronic literature. It is fitting, then, that we move on

to a more rigorous discussion concerning the critical work surrounding electronic literature, to

nail down a proper definition and encourage a better understanding of how electronic literature

fits within a historical literary tradition.

13. First-Wave Electronic Literature Criticism

The first generation of electronic literature ushered in a wave of utopian criticism. Early criticism explored this new digital arts practice as a continuation of themes thought to exemplify postmodern literary criticism. These themes include the decentered subject position, the "death of the author," and a heightened awareness of the craft of writing (meta-fiction). George Landow's *Hypertext: The Convergence of Contemporary Literary Theory and Technology* (1992) was one of the first scholarly books on the topic of hypertext. The book, as we will see, is indicative of the utopian ideals present not just in early hypertext theory, but also in early digital media criticism.

The main crux of Landow's early hypertext theory focused on the dismantling of the traditional definitions and hierarchies associated with readers, writers, and texts. Landow celebrated hypertext for its supposed transfer of authorship from the writer to the reader. As the reader was now in charge of finding her own way through the lexias of text, the formal act of arranging text was seen as a form of writing in and of itself. For Landow, the reader becomes a "truly active reader" (36). If Roland Barthes' influential essay "The Death of the Author" (1967) isolated the writer from his or her work, thereby shifting the focus of literary criticism toward the text and reader, Landow's characterizing of hypertext further removes the writer from the equation. For Landow, there is an elegant relationship between reader and text, a dance initiated by the reader as they work their way through the labyrinth, and thus the author is supplanted and removed altogether by the reader's actions. The reader's own chosen path through the text is where the meaning is located and created, rather than at the hands of the author.

In Landow's utopian view, hypertext radically shifts the boundaries between reader, author, and text. Landow believes that hypertext effectively erases any boundary between two texts, as the ability to jump between linked lexias means a work is no longer bound by its physical borders. Of course, this understanding of hypertext is most evident on the World Wide Web, as websites are continually linked to each other, thereby allowing the reader to choose a unique pathway. For its own part, electronic literature has never quite lived up to Landow's networked ideal. Since each work is created by one author, or one set of authors (as in the case of collaborative works), the ability to link between works is left unfulfilled. Landow's early claims about hypertext have never materialized though, and current electronic literature are nothing of the sort he envisioned. Despite this, Landow recognized that hypertext and electronic literature would radically alter our previous conceptions of literature, genre, and media, thus providing an early understanding of the link between media and shifting perceptions of literature. For Landow, hypertext reveals that previous conceptions of literature relied heavily on how it was instantiated in print form. Hypertext makes us aware that literature and literary production are contingent upon particular forms and cultural moments. Literature is always bound up in material instantiation, and once the material is altered so too is the concept of literature. Electronic text, then, significantly impacts our conception of literature, as it is entirely different from print literature; the digital platform allows for new ways of thinking through basic assumptions of text, author, and reader (31). This is characteristic of the early view of hypertext as completely revolutionizing literature. The more active role played by the reader is seen as evidence that distinctions between reader and author are dissipating, while the hypertextual links create a connected digital space wherein individual texts are harder to locate.

Richard Lanham writes in *The Electronic Word: Democracy, Technology and the Arts* (1993), "What happens when a text moves from page to screen? First, the digital text becomes unfixed and interactive. The reader can change it, become writer" (31). For Lanham, the act of rearranging text is enough for reader to shift to writer, and the text becomes unstable because of the technology. Early hypertext theory proclaimed that the division between writer and reader was now erased, thanks in large part to the "interactive" nature of the computer. Lanham argues that readers "can genuflect before the text or spit on its altar, add to a text or subtract from it, rearrange it, revise it, suffuse it with commentary" (6). Electronic readers now have the ability to mold and shape the text to their will, and the border between reader and text simply vanishes. For Lanham, an electronic text is not a static entity, but rather a collection of material which can be arranged and altered by the reader to create new, endless, and boundless works of literature. This view is questionable, as simply choosing a pathway through a text is not enough for a reader to take part in the process of "writing," and muddling these categories only complicates any productive methods for understanding literature in a digital context.

What is missing from both Landow's and Lanham's early proclamations of this malleable text is a willful relinquishing of control on the author's part. In the early days of the web, it was thought that electronic text could be changed and altered at will, but this would require authors to give up their own authorial intent. While there have been some intriguing art projects which bring this kind of collaborative writing to the fore (such as the work undertaken by Rob Wittig and Mark Marino, known as NETPROV), most authors of electronic texts are not willing to allow the reader to manipulate their artistic output. In fact, the comments sections on many webpages most closely resembles what Lanham envisioned for electronic writing: spaces where

individuals can interact with one another while discussing the topic at hand. Still, in these

instances, the main article is never available for further manipulation by its readers; rather, the

comment section allows readers a platform to voice their own opinions. The utopian dream of an

electronic text constantly shifting and transforming, then, has never been realized to the extent

that these early theorists believed it would.

In contrast to Landow and Lanham, Janet Murray's *Hamlet on the Holodeck* (1997),

carefully critiques the early days of utopianism, and instead focuses on the reality of digital art.

Murray explores the notion of author controlled environments, and how in the end the interaction

offers only what was intended by the creator. Murray writes that "interactors can only act within

the possibilities that have been established by the writing and the programming," and "all of the

interactor's possible performances will have been called into being by the originating

author" (152). Murray responds to the work of Landow and Lanham (and countless other

theorists) by addressing directly the issue of interaction and writing in electronic environments.

Writing with, what seems to me, more awareness and expertise, Murray insists that readers do

indeed have new freedoms previously unavailable in print, but *these freedoms are always*

constrained and controlled by authored environments. While the reader may choose her path

through a set of linked lexias, this writing was always already produced and curated by an

author, and therefore the reader is always at the mercy of the author, who presumably has written

and programmed the work for all perceived variances and outcomes. Readers of electronic text

are not authors; rather, they are agents with a degree of control when confronting the text, but

that is where the control ends. Early hypertext theory not only fails in its attempt to destabilize

the reader/author binary, but ultimately fails to address the physicality and materiality of the

work in any meaningful or useful way. Early hypertext theory incorrectly surmises an identity

crisis for the text because of the multiple layers of instantiation characteristic of digital

platforms.

Unlike a physical codex, wherein the materiality of the work consists of pages and ink,

the digital literary artifact is seemingly immaterial. There is no physical work that one can lend

to a friend (although early Eastgate hypertexts were usually released as a physical CD-ROM

available to purchase and install on your home computer). In the age of the network, access to

hypertext and electronic literature is provided by the web, and so the work is downloaded and

installed to the hard drive without the user ever touching a physical work of art. This supposed

uniqueness of the digital terminal led to some questionable conclusions from early electronic

literature theorists. In *Writing Space: Computers, Hypertext, and the Remediation of Print*

(1991), Jay David Bolter discusses the supposed intangible, ephemeral quality of digital texts.

According to Bolter, electronic literature "removes or abstracts the writer and reader from the

text," and because electronic text relies on magnetic tape and optical disks, there "are so many

levels of deferral that the reader or writer is hard put to identify the text at all: is it on the screen,

in the transistor memory, or on the disk?" (42-3). For Bolter, there is a significant amount of

materiality between the user and the text; the digital platform abstracts and skews our

preconceived notions of text. For the reader, the written text is ready to be read on the screen just

as words exist on a printed page. But as Bolter's point notes, there are layers of data which

Chcontribute to a digital work, and these layers can all be viewed as instantiations of text. Both

Landow and Bolter seem to be fetishizing the new technology to the point where the rhetorical

questions and theories they provide are increasingly useless in our current media ecology. The

reader only engages with the written, produced textuality. Although there is a level of code, as well as the level of physical components that make up a computer, a reader only engages with the surface level of the text. Questions of code are interesting for another sort of research (as is the case with Critical Code Studies), but for questions of literary value in electronic writing, there can be no other issue than that of the surface level text.

In relation to print technology, digital literature's relationship to the network led critics to believe that previous literary theory was ill-suited to deal with these new digital texts. Typically, this analysis hinges on the fact that digital textuality is immaterial, as compared to the print artifact, and this leads to an altogether different literature. Bolter picks up on this discussion of the (im)material in digital environments. Ultimately, Bolter's insistence of the network leads to some questionable conclusions, both for print and for digital text. Bolter sees the electronic text not as a physical artifact, and therefore digital literature does not carry the same conceptual unity as a printed book. Bolter's assertion that the network allows "disparate materials" is evidenced in electronic literature of the late 90s vis-a-vis audio and visual elements, while earlier works are primarily written hypertexts. What is most disturbing, though, is Bolter's assertion that electronic literature can carry multiple voices, and thus the writer or editor of digital texts "need not envision and address one homogeneous readership" (7). This claim implies that physical books *do* presuppose a uniform readership; in other words, if digital texts can "speak with different voices to different readers" (7), then for Bolter print works speak with only one voice to only one uniform reader. Postmodern cultural studies has largely done away with canons and implied readerships, focusing instead on the multitude of voices and viewpoints that can converge when a

text is read. Bolter, then, uses print's implied reader as a straw-man, which conveniently for him is destroyed by digital texts and networks which allows for various voices and readers.

The question of how to study, teach, and write about electronic literature has grown all the more complicated as technology changes and "progresses." As such, hypertext flourished in the late 80s and early 90s when, not coincidentally, personal computers were almost exclusively text-processing and displaying machines, as opposed to newer models which are more graphically intensive. Electronic literature quickly shifted, as works of hypertext fell by the wayside in favour of works which often are less about a branching narrative and more about an exploration of an idea through the use of text alongside video and audio elements. These newer works are more challenging for the literary scholar used to analyzing works of a textual nature. In "How to Think (with) Tinkertoys," Adelaide Morris discusses the difficulty of teaching these works to a younger audience who are mostly likely encountering digital poetics for the first time. Morris writes that, for teachers of electronic literature texts, such as Talan Memmott's *Lexia to Perplexia*, or John Cayley's *Translation*, "concepts habitually deployed to parse literature are all but useless in describing - let along understanding - the working of these digital engines" (np). Electronic literature exists in a strange purgatory, then, as on the one hand it relies heavily on a tradition of experimentalism and visualism in literature (concrete poetry or the Oulipo), while on the other hand it expands upon these traditions through the use of innovative digital technologies.

Despite these wild proclamations of uniqueness for electronic writing, there has also been a productive push for understanding the shared traits and infinities between print and digital texts. Aarseth and Hayles discuss the affordances of digital technology while at the same time recognizing a critical literary lineage. Aarseth, for his part, is quick to point out that early

hypertext theorists unfortunately succumbed to the lure of the new medium: "The ideological forces surrounding new technology produce a rhetoric of novelty, differentiation, and freedom that works to obscure the more profound structural kinships between superficially heterogeneous media" (14). This differentiation masks shared similarities with previous media and literature, as new technology results in claims of uniqueness and speciality. While he does not name anyone in particular, it is clear that the earlier work of Landow and Lanham is targeted by Aarseth for using utopian terminology about hypertext. Aarseth notes that these statements are always somewhat politically or economically motivated, as is the rhetoric that new technologies will always usher in a new age of "progress." Aarseth and Hayles, then, provide critical work espousing a literary and critical lineage for digital media.

14. Cybertext

Aarseth's theory of cybertext focuses on various textual and literary forms in varying media. For Aarseth, the "concept of cybertext focuses on the mechanical organization of the text, by positing the intricacies of the medium as an integral part of the literary exchange" (1). Aarseth believes that the actual organization and manipulation of the medium itself creates a work of cybertext, and this term is not necessarily reserved for literature of an electronic nature. As books are capable of non-linear organization and manipulation, cybertext is a theory focusing on the arrangement and reading of texts—materiality is simply a byproduct of this arrangement. Not only is cybertext instantiated in a variety of media, but Aarseth also acknowledges the flawed perspective of only assuming literature can be found in the pages of a book. Aarseth's career arc, which sees him working in the field of Game Studies, illustrates the contemporary view of

literature as a multifaceted, multi-modal genre, one which hinges on how reading communities form and agree upon objects of study. Cybertext then becomes a methodological framework which can be employed to understand literature as it is instantiated across several media.

Cybertext is closely related to Aarseth's construction of ergodic literature, wherein reasoning is required by the reader to traverse a text consisting of multiple paths rather than a straightforward linear progression. Aarseth discusses cybertext and ergodic literature as distinct from nonlinear narratives, as these works require a traversal through multiple paths or choices in the text:

> During the cybertextual process, the user will have effectuated a semiotic sequence, and this selective movement is a work of physical construction that the various concepts of "reading" do not account for. This phenomenon I call *ergodic*, using a term appropriated from physics that derives from the Greek words *ergon* and *hodos*, meaning "work" and "path." In ergodic literature, nontrivial effort is required to allow the reader to traverse the text. If ergodic literature is to make sense as a concept, there must also be nonergodic literature, where the effort to traverse the text is trivial, with no extranoematic responsibilities placed on the reader except (for example) eye movement and the periodic or arbitrary turning of pages. (1-2)

Cybertext demands a certain level of interaction between the user and the work, and this interaction requires more cognitive work from the user than the traditional "reading" process. A cybertextual reader is required to actively choose what to read next, whereas a reader of non-cybertext follows through the narrative in a linear fashion. Aarseth's cybertext and ergodic literature are akin to media-specific analysis, then, as both methodologies account for new

literary practices in digital media, while at the same recognizing the literary lineage of these newer works. Furthermore, the interplay between medium and content creates a work of cybertext, which is the preeminent reason for espousing a media-specific analysis.

15. Media-Specific Analysis

Following Aarseth, Hayles provides her own methodology for thinking through hypertext, which she terms "media-specific analysis" (abbreviated to MSA). Media-specific analysis recognizes that certain genres of writing, specifically hypertext, are not only possible in digital works. Hypertext, then, becomes a literary genre instantiated within a variety of media. The purpose of MSA is to properly understand how instantiations of hypertext differ across various media, and how form and content merge to create meaning for the reader/user. In "Print is Flat, Code is Deep; The Importance of Media-Specific Analysis," Hayles illustrates the importance of media-specificity for critical inquiry. For Hayles, literary forms and genres are capable of mutating and shifting across various media. Further, all texts must be instantiated in some type of materiality, and so a discussion of literary merit or potential should not be limited to print works. For Hayles, the "materiality of those embodiments interacts dynamically with linguistic, rhetorical, and literary practices to create the effects we call literature" (70). Hayles's MSA hinges on the awareness that literary genres can operate across different media, but each media affords varying possibilities. This being the case, MSA seeks to explore literary practices in specific media through an understanding of textual embodiment. Digital hypertext is different than print hypertext because of its digital embodiment, and this interplay between form and media creates literary potential. It should be noted that Hayles' MSA is not without flaw,

however, as evidenced by her tautological assertion that "literary practices" work to "create the effects we call literature." Despite this, MSA encourages a methodology for digital literature which recognizes the unique characteristics of the medium while at the same time encouraging a greater understanding of the literary lineage from print to digital.

Media-specific analysis provides a fine-tuned methodology contingent on acknowledging the interplay between form and content and how this relationship is altered via medial instantiation. This is a productive route, as it insists that hypertext is a literary genre capable of existing both in print and digital works. Marking print antecedents is an important critical step, as it provides the link needed for establishing the literary qualities of electronic hypertext and other digital media forms. While the computer may have eased the process, hypertext is by no means contingent on the digital for instantiation. I have already mentioned Choose-Your-Own-Adventure books, but there are many other, far more "literary" examples of print hypertext. Laurence Sterne's *The Life and Opinions of Tristram Shandy, Gentleman* from 1759 marks an important turn in non-linearity for the novel, as the story is told in passages which do not follow a clean timeline. *Hopscotch* is a print hypertext by Argentine writer Julio Cortázar, published in Spanish in 1963 and in English in 1966, written in stream-of-consciousness and allowing the reader to choose between two different chapter orders. More recently, Mark Z. Danielewski's *House of Leaves* (2001) is a labyrinthine novel of three separate narratives, often insisting (but not requiring) the reader to leap back and forth through a complicated set of elaborate footnotes (which often span several pages and contain many footnotes of their own). This small sample set illustrates the literary genre of hypertext existing in its print form. Media-specific analysis recognizes this and encourages in-depth criticism attuned to the rich interplay between the book

form and the content of the novel; at the same time, MSA insists upon marking a new space for digital hypertext and its own unique characteristics and affordances.

Hayles' media-specific analysis sets out to illustrate the ways in which electronic hypertext differs from print hypertext. These electronic specificities, then, work to expand upon the literary qualities of hypertext. In other words, Hayles recognizes and catalogues the various characteristics which mark electronic hypertext as unique, but in doing so insists that electronic hypertext fits well within the greater literary tradition of experimentalism. For Hayles, these nine unique characteristics of electronic hypertext, all afforded by the digital terminal, and these elements are never questioned in terms of their literary quality, but rather are always seen as an extension of such:

> Following the emphasis on media-specific analysis, nine points can be made about the specificities of electronic hypertext: they are dynamic images; they include both analogue resemblance and digital coding; they are generated through fragmentation and recombination; they have depth and operate in three dimensions; they are written in code as well as natural language; they are mutable and transformable; they are spaces to navigate; they are written and read in distributed cognitive environments; and they initiate and demand cyborg reading practices. (68)

Hayles marks electronic hypertext as unique through its dynamism, fragmentation and recombination, use of 3D space, and its networked nature. The affordances of the digital terminal, in particular its ability to accurately render dynamic, spatial images, moves hypertext into a multimodal environment wherein written textuality exists alongside the audio-visual. Hayles remarks that these new works "initiate and demand cyborg reading practices," effectively

marking electronic writing through difference and encouraging new practices and methodologies for criticism.

Following Hayles, then, I argue that these cyborg reading practices must fundamentally be posthumanist. Cyborg reading practices can point the the various ways in which conceptions of both literature and the human are changing. Literature has always provides a device for exploring the human condition. Literature makes us aware of ourselves as vulnerable creatures, capable of tremendous emotion and action. Digital media furthers this exploration of the human condition. The digital humanities must not get caught up on the question of what is literature. This is a stifling question, one that only exists to protect the old guard and fend off innovation and invention in arts practice. The posthumanities is open to all works of art that ask questions of the posthuman condition. Now, cyborg reading practices are attuned to the materiality and arrangement of digital texts, but also the potential for these electronic works to act as conceptual spaces for considering our current techno-capitalist economy, the nonhuman subject and our shared finitude and vulnerability, and how human action is fundamentally altering and impacting the global ecology. Just as current theoretical paradigms help to elucidate different schematics of the human condition in literature, cyborg reading practices and critical work in digital media can help us suss out and theorize how these new works speak directly to the posthuman condition, be it in the form of biopolitics, animal studies, or eco-criticism.

Chapter Two

The Biopolitics of Electronic Literature

This chapter explores biopolitics, an ongoing concern in posthumanism, as it intersects and

emerges from electronic literature. Posthumanism identifies the current moment in time as one

wherein the human's immersion in a diverse ecological network can no longer be ignored. As

Janez Strehovic explains in "E-Literary Text in the Nomadic Cockpit," the current work in

posthumanism marks a "cultural shift in contemporary philosophy, where the linguistic,

discursive and textual give way to the material, biological, life, event-driven, and post-

political" (np). Posthumanism is thus a philosophy focused on materiality, on the corporeal

nature of living things on this planet. It marks a turn in theory, as well, from a postmodernism

discussion on linguistics and discursivity, to a theory more concerned with materiality. How,

then, does biopolitics fit into a posthumanist framework? As will be shown, biopolitics as it is

widely conceived identifies a shift in how government operates, specifically at the level of

managing and controlling the bodies of citizens through various biomedical programs. The

critical thinkers I will explore in this chapter—Michel Foucault, Georgio Agamben, Michael

Hardt and Antonio Negri—explore biopolitics and its impact on human beings. In what follows, I

argue that experimental writing in electronic literature helps not only to identify language as a

fundamental aspect of biopolitical power (or biopower), but also affords electronic literature the

ability to act as a site of aesthetic resistance (following Hardt and Negri) operating within and

against biopolitical regimes.

Of note in my work is the role of language for biopolitics, particular in its role for

defining and ultimately controlling "life." Beginning with Foucault, biopolitics marks a political

shift, from sovereign to biopolitical power, in the way governments operate and exercise power on bodies. Agamben, in concert with Foucault, emphasizes the various ways in which our language posits difference, and how this difference in turn effects the political nature of citizenry. Power creates difference, and thus a schism is opened between those humans capable of a political existence (those citizens protected with full rights under the eyes of the law) and those left on the margins (those deemed beyond the law). Finally, Hardt and Negri explore biopolitics and its reliance on capitalism, focusing on a recent shift toward immaterial production and "cognitive capitalism." Biopolitics, in its many instantiations, is fundamentally concerned with the nature of bodily regulation, the right to lawful protection as governmental citizens. Electronic literature provides a space for an artful interrogation of biopolitics—a space from which we can begin to think through the role of language in creating difference and how this difference creates a divide between groups of humans, machines, and animals.

These issues—of the body, politics, life and death, and techno-capitalism—firstly all rely on language, on specific definitions and terminology which allow some beings to fall under a protective sphere while others are cast out (and this, as we will see, has dire ethical consequences not only for animals, but also for "othered" human beings). Electronic literature as a site of experimental writing helps elucidate the nature of language in biopolitics. Language works to create difference and maintain existing power relations, but this same language can also provide the material for interrogating and pushing back against these forms of governmentality. In particular, I will illustrate how 'codework,' a form of electronic literature which integrates natural and programming languages to create its surface-level language, provides a tool through which to think through and work against biopower. For this, I turn to the writings of Mez

67

Breeze, an electronic author working primarily with codework to explore questions of subjectivity, embodiment, and power in electronic literature.

The terms biopower and biopolitics both are shifting and dynamic, and have been appropriated by various thinkers in different ways. In fact, even the terms biopower and biopolitics are used in significantly different ways by Foucault, who first discussed the term, throughout his career. Although primarily linked with biopolitics, Foucault used biopolitics sparingly, often in public lectures such as "Society Must Be Defended" (1975-76) and "The Birth of Biopolitics" (1979). Biopolitics is used by Foucault to describe how modern governments use new technologies of power to maintain control and power over citizens (these include advances in fertility science and other medicine). Biopower, by contrast, was a term he used often. Foucault writes that, in the era of the industrial revolution, there "was an explosion of numerous and diverse techniques for achieving the subjugation of bodies and the control of populations, marking the beginning of an era of 'biopower'" (*The History of Sexuality* 140). Biopower and biopolitics, for Foucault, signal a top-down form of administration, subjugation, and control, wielded by those with political power and thrust upon the bodies of its population. Biopower is having power over subjects, whereas biopolitics is used to define the technologies and forms of said power. Hardt and Negri further the development of biopower, also characterizing it as a form of top-down control. They write, "Biopower stands above society, transcendent, as a sovereign authority and imposes its order" (94). Biopower is a form of modern governmentality, one which imposes forms of power and control over citizens. As we will see, biopower is often used to normalize populations for the purpose of maintaining order in a techno-capitalist system.

Although not its opposite, "biopolitical production" arises as resistance to biopower. Biopolitical resistance is, according to Hardt and Negri, "immanent to society and creates social relations and forms through collaborative forms of labor" (94-95). As William Bogard notes in "Surveillance Assemblages and Lines of Flight," "[b]iopower is the new form of empire, whereas biopolitical production is the new form of resistance to empire" (113). Biopower is the power of governments, used by empires to maintain difference and power; biopolitical production is that which citizens can use to resist governmental control and power. Biopolitical production is instantiated in art as biopolitical resistance, through the artful consideration of biopolitical themes through the use of language and visual elements. Specifically, I argue that electronic literature, and the marked distinction which characterizes the playful use of language in codework, operate effectively as sites of biopolitical resistance. Biopolitical theory is necessarily posthumanism, as it is concerned with the regulation of bodies under the law. Electronic literature, as we will come to see, can act as a site of posthumanist biopolitical production for thinking through the various ways language works to systematically create difference and power structures. I posit that the power of electronic literature and video games is in acting as havens away from these power structures. These works allow authors, readers, and players alike to reconsider the very language we use every day, and how we might begin to challenge established power structures through this very same language.

1. Literature and Resistance

Before I directly engage a few prominent electronic literature works which discuss the relationship between language and biopolitics, I will begin by theorizing the very idea of

69

biopolitical resistance and its various (possible) incarnations. Firstly, I turn to the work of Michel Foucault. Foucault theorized a space of resistance within biopolitics, operating at the level of the very life that biopolitics calls into question. Foucault encouraged an understanding of life as a work of art, of a symbolic way of living which has the potential to resist biopolitical normalization. Foucault's work explores how we can understand human life as a "work of art," theorizing life as an "aesthetics of resistance." This aesthetics of resistance is a site of play which could be utilized by anyone, in any given political system, in order to resist control. Biopolitics relies on normalizing bodies, as the norm is easier to control. An aesthetics of resistance challenges this normalizing by exploring means of identity creation and autonomy. This "art of living" would, as Foucault claims, operate outside the supposed truths of "governmentality." Foucault turns to the Stoics' techniques of "self writing," which allows an individual to self-actualize and, hopefully, resist certain biopolitical control. Writing, for Foucault, is a means of meditation, a way to train oneself into facing reality through the recollection of principles or rules which help shape an ethics and morality. Writing becomes an *ethopoietic* function: that which is able to turn truth into ethos. This meditation, for Foucault, helps one to individualize and actualize their own personality, thereby resisting any authorial biopolitical control. Writing helps to form an individual life, and this is an art of living.

In the realm of biopolitical production, the very same technics of power on which biopower strives can contribute to methods of resistance. In "Sovereignty, Biopolitics, and the Use of Literature: Michel Foucault and Kathy Acker," Alex Houen discusses the possibilities of aesthetic resistance for Foucault, Hardt and Negri. Houen focuses on writing as a tool for aesthetic resistance, discussing how these theorists consider the role of art as an ethical and

moral tool. Foucault's interest in self-writing stems from the Greek practice of "self governance," which involve writing in a *hupomnemeta*, a journal or notebook. Foucault writes that the *hupomnemeta* is a tool that the Greeks used for "*epimeleia heautou*," or "care of the self" (210). This form of self-writing, which Foucault notes as forming the soul of the writer, helps shape individuals to take care of oneself as well as others. It is a practice which teaches how we may, as individuals, contribute to society in ethical and moral ways.

Foucault is interested in the ways institutions of discourse and power shape thought and action, and thus Houen asks, "might not an individual's capacities for aesthetic sensation and expression be contaminated already by the very effects of biopower that s/he seeks refuge from?'" (np). How are we to engage in a practice of self-writing, as Foucault suggests, if all manner of expression and identity creation is always already shaped and constrained by conditions of biopower? Certainly this question is apparent for Hardt and Negri, who discuss the role of language for biopower. For them, language and biopolitics feed off one another in a symbiotic relationship, language being a key technic for the structures of power to operate. Houen, discussing Hardt and Negri, writes that "art and literature cannot be seen as inherently autonomous havens in relation to power; rather, they would need to be developed as specific techniques of combat against power" (np). For theorists like Hardt and Alliez, "art or writing can thus construct discrete zones of sensation that stand outside the battlefield as a haven for an individual to dwell within" (np). Houen notes that, beyond discussing the possibilities of separate zones of resistance, Hardt and Negri do not specifically address how this linguistic resistance would operate. Houen's turns to the experimental writing of Kathy Acker for "adopt[ing] new forms of self-potentializing through literature" (np). This self-potentializing exists in discrete

71

zones, away from the language and power of biopolitics, and can help individuals become themselves without interference from dominant institutions.

Acker was a postmodern author who explicitly discussed her interest in Foucault's theories. Her writing explores issues of bodies, language, and autobiography to questions of discipline and social power. Houen notes that Acker refuses to suggest that writing is the best method for resisting biopower's influence, as it cannot alter disciplinary practices or institutions. Writing can, though, "suspend one from one's surrounding, and it can also suspend the effect of biopower that circulate through language" (np). Acker's writing, as well as the work of Mez Breeze, provides these spaces for suspense, allowing for an artful engagement with the way language is co-opted by governments to maintain biopower and control. Building on the work of Foucault and Hardt, and Houen's assessment of Acker's writing, I argue that electronic literature and video games act as a conceptual space for self-writing. These digital zones provide an outlet for thinking through not only the care of the self, but also the care of others—in this case, posthumanist literature considers the care of nonhuman subjects and the overall well-being of the planet. The works discussed below question institutions of discourse and power, and the ways in which language is co-opted in biopower to create difference, in gender, race, and socio-economic status. Further, these works interrogate systems of power which are fundamentally invasive and detrimental to the freedom and liberty of subjects within biopolitical governmentality.

My discussion of biopower and biopolitical production is inextricably bound within the capitalist framework. This is to say, the works of electronic literature I discuss are works of aesthetic resistance against capitalist means of production, identity creation, and marketing; biopolitics is linked with capitalism to the degree that all use of biopower strives to normalize a

society for the purposes of creating a productive, cooperative workforce. As Janez Strehovic writes in "The E-Literary World and the Social," the present time is "defined by capitalism, which does not leave anything outside of its influence," and thus "there is also no point in leaving the e-literary text outside" (np). Strehovic fixes his argument on the fact that criticism and theory must pay attention to post-industrial means of production in exploring electronic literature, but as I will argue here, the authors of electronic literature are already doing so. These are works of experimental writing that pushes back against the overwhelming forces of capitalism. As I will discuss, Mez Breeze's electronic literature works to think outside of the capitalist sphere.

Furthermore, as Foucault and Agamben focus their discussion of biopolitics on technologies of power, it cannot be forgotten that written language is itself a technology. Language acts as a specific mechanism for biopolitics, as a framing tool or positing sameness and difference in a biopolitical system. Stuart Hall discusses Foucault's thoughts on language and discourse in "Foucault: Power, Knowledge and Discourse." Hall notes that Foucault studied not language, but discourse. Historically, discourse is a linguistic concept, but for Foucault, discourse is a system for discussing knowledge at particular historical moments. Discourses and knowledges are shaped by the power structures in place at specific times. Discourse is that which defines and outlines the scope of our knowledge (72). Thus Foucault was not interested in semiotics, of the study of signs and systems, such as language. He was concerned with knowledge and meaning through power structures, through discourse, not through language. I would argue, though, that language is that which allows us to construct these discourses in meaningful ways, and thus language is the materiality of discourse and that which shapes and

constructs power relations. Furthermore, language must always be instantiated in a medium—as we will see in the next chapter, language is an exteriorization of our internal thoughts through an external materiality. As such, language is one form of technics.

In *Empire* (2000) and *Multitude: War and Democracy in the Age of Empire* (2004), literary theorist Michael Hardt and philosopher Antonio Negri discuss biopolitics. In their terms, biopolitics reflects a new stage of capitalism, wherein previous distinctions between economics and politics, and production and reproduction, no longer exist. What is important, for Hardt and Negri, is to bring to bear biopolitics on contemporary issues of capitalism, production, identity, and subjectivity. More to the point for my work, though, is Hardt and Negri's insistence that the very same forces which have led to a shift in capitalist production also opens up a space of political resistance, which I argue as key for digital media.

If Agamben is most noted for exploring the figure of "*homo sacer*" and the "state of exception," Hardt and Negri are critical of biopolitical theory and instead focus on biopower's link to capitalist production. Hard and Negri focus on issues of "cognitive capitalism" and "immaterial production." Cognitive capitalism is distinguished by a move away from a manufacturing economy to an information economy, similar to Fredric Jameson's discussion of the era of late capitalism in his book *Postmodernism; Or, The Cultural Logic of Late Capitalism* (1991). This transition from manufacturing to information leads to a decisive transformation in the economy. For Foucault, capitalism was always an integral element of biopolitics, but one he did not explore in detail. In *The History of Sexuality*, he writes that "bio-power was without question an indispensable element in the development of capitalism; the latter would not have been possible without the controlled insertion of bodies into the machinery of production and the

74

adjustment of the phenomena of population to economic processes" (140-1). Foucault is cognizant of biopower's reliance on the controlled bodies of citizens, those that run the machines and work in the realm of production. Promoting health and well-being is done to normalize the population for the purpose of keeping the capitalist machine moving along. Capitalism operates via the controlled production from bodies, in this case. Hardt and Negri see cognitive capitalism, though, as contingent on information technology, shifting the site of capitalist production, from the material world of factories and hard manual labor, into the virtual, supposedly immaterial world. In order for cognitive capitalism to exist, a new form of labor deemed "immaterial labor" is observed. Both forms of labor, material and immaterial, rely on human action, be it virtual or material.

For Hardt and Negri, the link between biopolitics and information technologies leads to a system of immaterialized capitalist production. Of course, in the field of electronic literature, one element that has been constantly theorized is the immaterial, virtual nature of the work. Biopolitics marks a shift in capitalist production, contingent on the virtual and immaterial, and electronic literature marks a shift in the production of literature, from the physical to the virtual. Electronic literature that discusses its own materiality, which recognizes the nature of the virtual in its own production, opens up a conceptual space for thinking through this mode of immaterial capitalist production. The same material which maintains and preserves the system of biopower, can be used to interrogate and weaken that very same system. As I will show, language is integral to creating difference: characterizations of bare and political life are never predicated on ontological differences, but rather in the way we use language to make rhetorical articulations and arguments which *create* difference. Thus, if we take it as a given that biopolitical production

is reliant on immaterial production and cognitive power, these very same apparatuses of the virtual can provide the means of questioning, weakening, and possibly overthrowing a negative biopolitics. It should be noted here that, for Hardt and Negri, biopolitics is most certainly negative, as even cognitive capitalism will contribute to a flawed system wherein only a selectively small percentile of people benefit in any significant way, the distribution of wealth is still absurdly uneven, and the exploitation of the immaterial working class proceeds unfazed. If language is the apparatus of biopower, as that which works to systematically create and define difference, then literature can act as a site of resistance, using this very same language to challenge dichotomies. In other words, language (in this case in the form of electronic literature) can work as a media of resistance even as media technologies are apparatus of cognitive capitalism. These works can wrestle away language from traditional power structures, instead engaging in language play in order to rethink our imbrication within the techno-capitalist system. This is perhaps the most liberating and exciting aspect of electronic literature, as it works to challenge the power of language for creating systemic difference across the globe.

2. Mez Breeze and the (Bio)Politics of Identity

Mez Breeze, or MEZ, is the pen-name (or code-name?) of Australian web-based poet and artist Mary-Anne Breeze. MEZ is a seminal and foundational member of the electronic literature community, not only because of her prolific writing career, but also because of the depth and complexity of thematic concerns found in her work. MEZ's is most noted for her pioneering of "codework," a genre of electronic literature which intermixes natural language with programming code. In her book *My Mother Was a Computer: Digital Subjects and Literary Texts*

(2005), N. Katherine Hayles touches on this link between natural language and machinic code. Hayles writes that "the creative writing practices of 'codework' . . . mingle code and English in a pastiche that, by analogy with two natural languages that similarly intermingle, might be called a creole" (60). The purpose of codework is not to create a language which could actually be read by a machine; codework does not operate as a functional programming language. Instead, codework is a form of literary language which brings programming language, that which so often lies beneath the surface of the text, to the fore, as that which is read alongside the writing. Codework "infects" literary language with programming language.

Codework authors often create their own distinct form of this style, and these different forms are distinguished by their names. Just as Alan Sondheim labels his own codework as "codewurk," Mez Breeze employs her own style of codework called "mezangelle," and in the authors own words from her introduction to _the data][h!][bleeding texts_ (2000), is a "polysemic language/code system" which "means to take words/wordstrings/sentences and alter them in such a way as to extend and enhance meaning beyond the predicted or the expected." Codework moves beyond traditional literary language, and bringing the code to the surface allows authors to interrogate traditional language. Furthermore, mezangelle works "with notions of language play, software n.vocations [sic] and identity swapping being the key to comprehension." Codework is the purposeful and meaningful application of computer languages within natural language. This application allows us to reflect and consider established literary and conventional language. Mez Breeze's codewurk and mezangelle can help us better understand the human's imbrication in networks, be they informatic, economic, or political. Florian Cramer writes that "the beauty of mezangelle is that it uses elements of programming

language syntax as material." The question of materiality is paramount to electronic literature's importance as a literary genre/movement in an increasingly globalized, virtualized, and immaterialized world. Through an engagement with its own materiality, electronic literature can challenge the increasingly immaterialized and virtualized world. Indeed, as Wolfe's posthumanism advocates an increased vigilance of our own finitude, corporeality, and materiality, electronic literature which engages its own materiality allows us to reconsider the virtuality of our contemporary world.

The question of the material plays an important role in postmodern print literature as well and, due to the nature of electronic literature, the discussion of embodiment and materiality influences many works. Christopher Breu's T*he Insistence of the Material: Literature in the Age of Biopolitics* (2014) discusses a return to materiality in contemporary literature—a sharp contrast from the idea of the immaterial in forms of cognitive capitalism. From an earlier essay on the same topic, Brea discusses "biopolitics and its deathly double, thanatopolitics" as the "direct management of life and death by political and economic power" (2). The author looks at what he deems the "late-capitalist literature of materiality," in the works of authors like Burroughs, Pynchon, and Ballard., wherein these authors illustrate the "increased importance of theorizing the resistant dimensions of materiality itself in a world devoted to the idea of its easy malleability and transcendence." Breu argues that a "more materialist conception of biopolitics and thanatopolitics . . . would enable us to more effectively theorize the intersections of the political, the economic and the material. It would also enable us to theorize the limits of biopolitics and thanatopolitics as forms of power" (3). How then do electronic literature authors confront these same concerns over materiality, the virtual, biopolitics, and globalization? I argue

that Mez's work carries forth the insistence of the material which Breu identifies in his study of postmodern authors. Mez's codework interrogates the role of language in creating subjectivities, ontologies, and differences in bodies. In many ways biopower is an explicitly patriarchal power, as that which codifies gender difference for the purpose of maintaining exclusionary politics. Mez's codework recognizes the inherent patriarchal nature of language in power structures, and her work resists this form of political language. This insistence of the material then, operates in a feminist framework by interrogating the material conditions under which biopolitical systems have emerged. These material conditions are built upon discursive difference, and marginalizes those who historically have held little to no power, such as women and minorities. Codework challenges the language used to stabilize and maintain these material power structures.

Mez's writing works to think through the issues of language and the power it has for othering. In Mez's case, she is primarily concerned with how language works to create dichotomies in terms of gender and sex. In this sense, Mez's work carries through thematics found in Michel Foucault's work on biopolitics and biopower. For Foucault, biopolitics marks a shift in the role of life and death in the nation state, a shift that transforms sovereign power to biopower. Sovereign power dictates the right to life or death—this was the extent to which forms of governments controlled or maintained the social body. Biopower for Foucault is a specifically modern regime of power, beginning with the industrial and agricultural revolutions of the late 18th century. Biopolitics and biopower enter Foucault's work in his lectures delivered at the Collége de France in 1976 and more explicitly in his book *The History of Sexuality, Vol. 1* (1980). Prior to modern biopower, which for Foucault emerged during the industrial and agricultural revolutions of the 18th century, sovereign power reigned supreme. Foucault notes

that biopower works in the form of deduction, of withholding items and rights from people. Foucault observes that sovereign power had the ability to dispose of the lives of subjects. Characterized in *The History of Sexuality* as a "right to life or death," it "only existed in a rudimentary form and with considerable qualification," which "symbolized the extreme point of a form of power that essentially operated as a right to seizure" (35). Sovereign power dictated the right to life or death—this was how sovereign power maintained control over citizens. Sovereign power was exercised in an absolute and unconditional way, as citizens could be put to death with impunity.

Foucault's work analyzes how "life" itself is brought to the fore of any and all political thought and action; thus, biopower marks a specific politics in which the very biological existence of humans lies at the core of biopolitical action. Modern politics, for Foucault, relies on a fundamental ordering and controlling of life through various apparatuses of power (*dispositifs*). Governments begin to recognize that their own political power is dependent on citizens. Thus, controlling the lives of citizens is key for cementing and maintaining political power. The ability now existed to control life, in the sense of not only individual bodies but also the population as a whole, which was put to use by governments for the very purpose of creating a more unified political social body. In *Discipline and Punish: The Birth of the Prison* (1977), Foucault writes of a moment in modernity wherein the concept of the human body shifted. No longer was the focus on developing skills and attributes, or on the creation of an identity and proper subject, but instead on the formulation of a mechanism which sees people as more obedient as they develop into useful citizens, and vice versa (137-8). Seeking a "more obedient" population becomes an example of normalizing, a term which becomes extremely important for Foucault.

"Normalizing" society marks for Foucault—and this is where biopolitics leads into its deathly double, "thanatopolitics"—a schism from sovereign to biopower.

Foucault's normalizing society essentially creates a culture of the norm, rather than a culture of rights. In other words, sovereign power dictates the right to life or death and hinges this right on the law, whereas biopower, by contrast, emphasizes the collective social body, working to homogenize this body for the purpose of maintaining power. This act of normalizing, which as we will see is crucial in Mez's writing, always leaves a remainder. Access to basic rights, economic freedoms, and health care is not given to all subjects under governments. These divides in societies can be predicted on issues of class, race, and gender. Normalizing, then, can lead to institutionalized racism, and this is where Foucault's biopolitics turns into thanatopolitics—that which mobilizes death for political purposes. If a portion of society is normalized and cared for, a break is ultimately created between those normalized and those not; thus, the supposedly affirmative biopolitics—which is promoted by governments as fostering and encouraging life, but for Foucault is a negative in that is seeks to homogenize social bodies— necessarily creates its deathly opposite. Biopolitics fosters life through biomedical advancements and technics. This biopolitics is delivered to subjects by governments as a positive force, one that will help foster and develop life for citizens. As noted, this creates an "other," because biopower is never uniform and in its attempts to normalize populations, there are always those who fall outside the scope of citizenry, especially due to socio-economic factors. Thus thanatopolitics emerges, as that which marks a difference and uses this distinction to systematically withhold or withdraw rights from citizens. These citizens who are marked as different no longer have access to a proper political existence, such as was the case of the Jewish people forced into

81

concentration camps in World War II (to be discussed in greater detail later in this chapter).

Georgio Agamben, in his discussion of bare life versus political existence, transitions Foucault's

work on biopower more deeply into the realm of thanatopolitics. Agamben will discuss the

various ways lives are divided, and this form of exclusionary politics often ends in death for

citizens outside the law.

3. Codework and Politics

Codework, in its various instantiations, serves as a means of aesthetic resistance to the

language of biopower. In her article "Interferences: [Net.Writing] and the Practice of Codework,"

Rita Raley writes that "codework's politics derives partly from its approach to writing as a

complex, collaborative, multi-faceted activity, one practical component that allows for the claims

for codework as an emancipatory aesthetic-political practice" (np). Codework serves to

interrogate the language used for biopolitical purposes. Language is key to the "power" of

biopower, used to bring together and separate various groups of people. Biopower is enforced

through language. We need only look at the various propaganda used throughout World War II:

the best way to "other" the enemy is through visual and written rhetoric. In America's case,

propaganda posters against the Japanese depicted them as vampires or mice caught in traps, often

with exaggerated features such as big teeth and very small eyes. On top of this, racist language

was used to prove how "different" the Japanese were from Americans. On particular posters

features a caricature named "Tokio Kid" (a recurring piece of propaganda) holding a sign which

reads "Much Waste of Material Make So-o-oo Happy!" The enemy is othered as nonhuman. The

message is clear: because they are vampires or mice, Americans should not feel bad about killing

them. As mentioned above, the current form of biopolitics is, in many ways, less malevolent than that which led to the Nazi death camps; today's biopower is enforced through capitalist institutions. The range of language used in marketing serves to normalize populations via products, products which serve to reinforce binaries across the board, not the least being those of gender binaries. These binaries depict the differences between men and women as biological, rather than as socially constructed.

Mez's innovative use of natural and programming language serves to explore the various ways in which language creates identity, subjectivity, and the body. The role of politics in codework has not gone unnoticed in previous criticism and theory. Rita Raley has discussed codework's politics, stating that it manifests itself "in the genre's thematization of subjectivity, identity, and the body" (np). Further, codework raises issues such as gendered agency through an interrogation of the language used in the public sphere. For Raley, codework theorizes text as flesh, and explores the borders of text and discourse, how language shapes gender construction and agency. I will discuss below precisely how Mez uses her language to interrogate the body, subjectivity, and identity, but for now I want to focus on the potential for aesthetic resistance in electronic literature. Codework is a space for engaging the role of language in biopolitics: a playful mixture of natural and programming language allows the author to confront our preconceived notions of the body and identity in a networked world.

Electronic literature, I argue, is particularly primed for these sorts of playful interrogations of biopower, due to its dynamic and ephemeral quality. Of course, literature and art has always been a site of aesthetic resistance. In his book *Narrative Care: Biopolitics and the Novel*, Arne de Boever advocates for a pharmacological theory of art. de Boever discusses the

ability of art to shape human thought and action. de Boever follows Plato and Derrida in

discussing art. Plato believed that the invention of writing would have a negative effect on our

memory and ability to think, and Derrida's deconstructive reading of the *pharmakon*, sees art as

a type of medicine which holds the capacity for both a good and bad ethos. Thus, de Boever

writes that "if one believes that art has the capacity to make people worse, then one must believe

that it has the capacity to make people better; and vice versa" (14). Both de Boever's and the

work of Christopher Breu highlight the vitalist turn—and this is forcefully represented in the

work of Cary Wolfe and Jane Bennet—in contemporary theory, a decided move away from the

postmodern world of ephemerality and virtuality. Despite its instantiation in digital media, I read

electronic literature and codework as being inextricably linked to this vitalist turn, particularly in

the work of Mez Breeze. Janez Strehovic, in "E-Literary Text and the Social," discusses the

political power of contemporary digital art practices. Strehovic's work illustrates the myriad of

ways in which electronic literature can help to explore the reliance of language for the

construction of subjectivities and bodies. He writes that contemporary art is a mode for discourse

involvee political theory, often working in a subversive mode through various forms of social

media (h)acktivism . Further, Strehovic sees electronic literature as "a biopolitical activity which

demonstrates striking forms of hybridization of language and bodies" (np). In my reading of Mez

Breeze's _*the data][h!][bleeding texts*_ (2000), I illustrate how electronic literature in general,

and codework in particular, encapsulates this biopolitical activity emphasized by Strehovic. Mez,

following the pioneering work of fellow electronic literature author Shelley Jackson, explores the

complexity inherent in language for its role in representing the body, identity, and subjectivity.

4. *_the data][h!][bleeding texts_*

Mez Breeze's *_the data][h!][bleeding texts_* (2000) is a work of electronic literature composed of various email "performances." Like much of Mez's writing, it is directly lifted from email conversations she had with other members of the electronic literature. A central preoccupation in Mez's work is the role and agency of the network for writing. Mez, like many other authors and theorists working at the turn of the millennium, having directly witnessed the rise of the internet and the world wide web, sees an emancipatory space opened up by the dynamics of an active network. Similar to mezangelle writing, the internet is a space for creative play, play which serves the function of exploring the limits of language, dualities, and representation. Rita Raley writes that mezangelle "suggests a pointedly feminist aesthetics and praxis of linguistic mutilations," that is decidedly "concern[ed] with the bio-politics [sic] of the body" (np). With these concerns, Raley suggests that there is a "striking resemblance between Mez's aesthetics and those of noted hypertext author Shelley Jackson" (np). Jackson's pioneering works of electronic literature, *Patchwork Girl* (1995) and *My Body — a Wunderkammer* (1997), couples literary writing of metafiction with visual collage, creating a recombinant text relying heavily on the theories of deconstruction and gender studies. Jackson pointedly explores the role of language for constructions of the body and subjectivity. Eric Dean Rasmussen writes in "Senseless Resistances: Feeling the Friction in Fiction," hypertext pioneers such as Shelley Jackson and Michael Joyce, "revitalize our relationship to ordinary language by revealing it to be an inexhaustible, readily available, and theoretically universal technology for transforming everyday existence" (np). Mez Breeze's *_the data][h!][bleeding texts_* carries forth this insistence on the inexhaustible nature of language, notably infecting language with programming

85

language to interrogate the various ways in which our language structures our experience, identities, and subjectivities.

Mezangelle reflects the theory of Hardt and Negri that sees the same capitalist forces of biopower as opening a space for political resistance. As we know from Foucault, biopower operates at the level of normalizing the population, and this normalizing is inextricably connected to capitalist modes of production and consumerism. Further, code now infects various levels of our lives: our shopping habits are tracked online, new items to purchase are recommended to us via algorithms which track our those previous purchases, our social connections are codified and quantified, and our own banking is primarily done either online or in the digital networks of various financial institutions. As we have seen in the fallout from the financial crisis of 2008, markets are now regulated and controlled via digital operations. Adrian Mackenzie and Theo Vurdubakis write in their article "Codes and Codings in Crisis: Signification, Performativity, and Excess," code and codings are routinely tied into a production and maintaining of instances of crisis. Although not mentioned by the authors, the various instances of crisis discussed are all primary examples of Agamben's state of exception which, according to Davin Heckman, "crises provide the pretext for the selective interruption of liberty, allowing so-called 'democratic' societies to maintain the illusion of human rights while violating them at their whim" (np). For Mackenzie and Vurdubakis, code is now so pervasive to infect every aspect of contemporary life, and thus contributes to maintaining the state of exception. They write that "[e]ver since the October 1987 (Black Monday) stock market crash, computerized 'black box' trading has been accused of destabilizing the markets by increasing stock volatility" (16), a practice repeatedly blamed for contributing to the house market bubble

bursting and the world economic collapse of 2008. Mezangelle and other codeworks are not executable, they do not compile and cause any programs to run, but they do infect natural language with programming language, which ultimately serves to render our everyday language strange.

Mezangelle and other type of codework serve a notable function in our current technocapitalist system, by forcibly bringing out code as a visible entity. Indeed, the argument could certainly be made that code was much more visible in the 1990s and the early 2000s. It would seem, though, that Web 2.0 has ushered in a wave of hidden code, of user-friendly platforms which obscure, or hide altogether, the code that exists behind these sites. Building personal websites used to require a decent understanding of programming code, but the more recent emergence of sites like MySpace, Facebook, and WordPress, allow users to create websites for themselves without ever having to read or write a line of programming code. Indeed, the code that lies beneath all the various online banking, stock trading, online purchasing, betting, and social media is, for the average user, never seen. Codework, then, serves to remind us of the inherent nature of programming language, and our implicit trust in our digital lives that we surrender over to these websites without fully understanding or comprehending what lies beneath. Codework, then, not only renders strange our natural language, but also, to a large degree, the obscured coded nature of our digital lives.

the data][h!][bleeding texts, and other pieces by Mez Breeze, focuses on the role of the network in our everyday existence; for her, the network has a certain muted agency, an ability to reshape subjectivities and identities for its users. Furthermore, the network provides a site for collaboration, which Mez often deploys in her work as she creates recombinant texts from email

threads and conversations. According to geniwate (aka Jenny Weight, an experimental electronic literature author also from Australia), in her article "Language rules," Mez Breeze "ties experimental language to avatar creation and collaborative networking to explore complex and often contested political and social themes" (np). Mez creates many different identities and personalities in her own work. Some of the various pen names she uses include her birth name, Mary-Anne Breeze, as well as the authorial names, such Mez Breeze, MEZ, mez, and netwurker. In a work like Mez's *Cutting Spaces* (1995), she takes on many different avatars, including the names "Ms Post Modernism," "Ms Corruption," and "GoddessAeon." In _*the data][h!][bleeding texts_,* Mez shirks the first-person pronoun "I" in her writing, instead opting to use "/me." Mez's preoccupation with nebulous identities is further illustrated when the text asks the user to "..share with me your childhood or secret][ed][name." Identity, for Mez, is not a fixed or stable entity, and her various pen names and avatars allow her to explore her own dynamic identity. Further, these avatars are indicative of the role of the network of exploring identity, for creating and forming different identities in the digital space. geniwate claims that Mez is closely linked to a very seminal and preeminent postmodern author, Kathy Acker. Acker's work in print fiction often creates unique prose which semantically dismantles power relations.

For geniwate, Mez's work is more nebulous than Acker precisely because of the network, of the distributed nature of the fiction and the shared authorship or ownership of her writing, working in "ways that exist beyond the scope of the capitalist print fiction industry" (np). Mez fully embraces the collaborative nature of the network, opting to share all of her work on the internet. In this sense, Mez's work does indeed "exist beyond the scope of the capitalist print fiction industry." As mentioned above, in our present age we cannot think biopolitics without

capitalism, and as Alex Houen has argued, Acker has a very pointed interest in Foucault, which means "her writing presents a particularly clear indication of the directions in which 'self writing' and 'self governance' can turn" (13). Both Mez and Acker use writing to explore themes of identity creation, never fully giving themselves up to one stable identity. Their writing, then, follows through on Foucault's form of self-writing, which allows the authors to work against capitalist production industries. In a capitalist system, identity as a stable creation is paramount to the world of marketing and advertising: in order to sell products, companies must work to create an idea of a fixed identity in the mind of the consumer. In order to perpetuate this identity, products must be purchased. Identities are bound within consumerism. Thus, self-writing and fluid identity creation resists these capitalist forces, which as we have already seen, are integral to biopower's necessity for a stable and docile working force. Codework and identity play resists these biopolitical forces.

the data][h!][bleeding texts encourages the user to recognize the agency of the network and of code in our daily life. As mentioned above, programming code regulates and underlies our contemporary existence; in _the data][h!][bleeding texts_, Mez encourages a finely tuned understanding of this symbiotic relationship between user and network. In the following passage, Mez stresses an understanding of nodes and access points, of the identity and sanctity of the network from which we cannot escape. In this particular passage, my childhood nickname, "Kenton," appears, as I entered it in at the prompt to start the work; this implicates me in this active network. I am a node in the network. The passage:

> /me waits, wanting the n.des to catch on/up, comprehending nothing, regurgitating
> everything][please][

/me had thoughts uncoded by the sanctity of the network. The sanctity was profound, the

data-traffic lost. The rhythm broken. How to convince the nodes of their existence/

resistance?

[Clue insert:You, Kenton , dear c.-auth.r and reader, are the nodepoint. The point in the

fluid. The point that flows between, behind, before....comprehension critical/crucial.]

(An Electroduction_)

The nodes are both network and people, in this case. When Mez writes, "How to convince the

nodes of their existence/resistance?" she not only refers to the active network, the identity and

agency of digital access points, but also to the reader who, by the very nature of the digital text,

is a member of the network. We are not only being convinced of our implication and imbrication

within the system, but also encouraged to think of various resistances against this network. Mez

seeks to resist various digital capitalist enterprises through the use of her various avatars, as well

as exploring language and its role in creating both physical and digital bodies.

Much of the text that makes up _the data][h!][bleeding texts_ engages the ethereal nature

of the internet, using language to explore the myriad of possibilities for identity creation in

virtual environments. Bearing in mind that this work is from the year 2000, Breeze's work is

connected to early hypertext and digital media theory, with its characteristic utopian predictions

for the internet. I would add, though, that Mez's work interrogates the role of language for our

everyday existence, not only for virtual life. Biopower and biopolitical production relies on

language, and Mez interrogates this language through mezangelle. In part two of _the data][h!]

[bleeding texts_, a section titled "LOGGIN 2 NETWORK," explores the role of language in

constructing bodies and identities:

/me torques masculine, feminine traits n.stead of

absolutes, jigsaws instead of gen][re][ders

…

/me resets the Gender _Distinct.ion_ Button

…

/me wishes 4 a genderless ID, identic.caul

twinned balances and life

n r gees

…

/me carves a sexless frame from jen's air, a

sculpture of both faces,

act.u.all

…

/me molds a ivory stamp with the letters "Print

Writers" backwards, mea washes her brow less

face, her n.oh.sent code

…

/me confers, her body light and silicon bright

Mez searches for a genderless existence, recognizing the unfortunate and sometimes dire

consequences for females in a biopolitical society. In many ways, then, Mez seeks that which

Donna Haraway identified as the cyborg, in her canonical essay from 1985, "A Cyborg

Manifeso: Science, technology and socialist-feminism in the late twentieth century." Haraway

writes that "[t]he cyborg is a creature in a post-gender world; it has no truck with bisexuality, pre-oedipal symbiosis, unalienated labour, or other seductions to organic wholeness through a final appropriation of all the powers of the parts into a higher unity" (605). The cyborg for Haraway marks a shift to the posthuman, as that which characterizes as both human and machine, creatures in the mist of an epoch. Mez continues the theme of the cyborg, discussing a dynamic identity which blends both masculine and identity features. Mez resists "absolutes" in identity creation, instead creating a patchwork, a jigsaw of various gendered features. Discussing the pressures placed on women and their bodies in contemporary societies (mostly Western), Mez sees women's bodies as bright with light and silicon. The biopolitical society forces women to not only purchase an extensive list of consumables defined as "beauty products," but also to consider putting silicon implants and other biomedical products such as botox in order to achieve nigh impossible beauty standards. As Foucault notes, biopower works through regulating norms, through normalizing and regulating the body, and women are far more frequently the target of this normalizing, through the pressures of Western media and celebrity culture.

Through an exploration of identity in online spaces, Mez turns to the transformative powers of language play in order to highlight issues of power and gender, much like feminist writers like Kathy Acker. Writing in a digital environment, Mez's writing recognizes the materiality of not only language, but also of our bodies. Words such as Fleshtronic, textsenze, and wurdskin call to mind the blending of the body blending with the text, the materiality of the text. Furthermore, this connection between the language and the body insists on the return to materiality in contemporary writing, as observed by Christopher Breu. He writes that "we need to insist on the ways in which the materiality of language and the materiality of the body

not only interpenetrate and merge (particularly in the construction of our imaginary bodies), but are also importantly distinct and sometimes form in opposition to each other" (6). For Breu, bodies are always wrapped up in discourse: the various ways bodies are regulated and maintained are contingent on language's ability to construct gender differences and bodily absolutes. For example, consider the Abortion debate in contemporary America, which features carefully considered rhetoric to discuss the materiality of women's bodies, and the rights of women to choose what they do with their own bodies. Mez is crucially aware of this connection, and in turning to mezangelle, she stresses the importance of language for constructing bodies, in virtual and "real" spaces. Mez sees an emancipatory power in the network, in the ability to construct a multitude of identities online.

Lastly, I want to discuss biopolitics as it is explicitly introduced in _the data][h!] [bleeding texts_. Breeze explicitly discusses genetic engineering in a section of part four entitled "Po[E].ST War[ning]." Part four is ostensibly about gods, devils, angels, and demons; the link here is in our apparent desire to play god through technology of genetic engineering and cloning. In his article "Re: The Fact That I Am Fiction": Mary-Anne Breeze, Her Avatars, and the Transformation of Identity," John Reep states that "Breeze goes even further in her condemnation of genetic engineering, likening it to the eugenics programs of Nazi Germany" (11). This occurs in the aforementioned part four:

/Post Aweganic..........

[1 gets their teeth knocked bac + Nother buttered by baron wingz + nother

victim of a chant resplendent in a nazi gooze[hop & bashe &]bumpish step]

[mbedded in2 a schemata of hate = awareness lost N licked by the gellmass

core.poor.8 = stitched uppe suitez & sue[t]ings commonplace::

IF ewe = suit s[l]ick, then + ————+ + + +==== Ignore::displacement, devil.ution, d

esperation Mbrace::slick IT regurgitation, eek[!].o[g]nomic augmentation.

Here Breeze discusses how ideas such as fashion and health become commonplace in a biopolitical society, as the masses congeal into a unified "gellmass," our corporeal existence augmented by corporations. This passage illustrates Breeze's suspicion of current biotechnologies which only seek to further normalize the population. Just as her codework utilizes language to interrogate identity, so too does her writing explore biotechnologies which ultimately serve to further construct identities and subjectivities. As Reep notes, Breeze's analogy of Nazi eugenics and current technology of genetic engineering speak to a profound distrust of those who normalize populations. In essence, various ways in which people transform themselves, by choosing their hair, clothes, weight, so that they might conform to the standard of beauty, is one way that corporations and governments work to control the wants and desires of citizens, so as to create and control docile subjects (12).

Thus, codework for Mez becomes a way in which to resist normalizing, a process of biopower which as been co-opted by capitalist institutions in order to sell products that are supposedly needed by the mass population. In many ways, Mez's work launches Foucault's discussion of biopolitics into the contemporary world. Rather than simply considering the role of governments in managing bodies through life and health sciences, a more current scope of biopolitics should be concerned with inequality. Mez is primarily concerned with gender dichotomies, and thus current issues of biopolitics such as reproductive rights for women, the

94

gender pay gap, and other instances of systemic inequality based on gender, are crucial when thinking of Foucault's biopolitics for our current world. Furthermore, as we have seen how biopower always leaves a remainder, issues such as access to clean drinking water, food, agriculture, genetic manipulation of food, are crucial to carrying the themes of biopolitics into the 21st century. As a means to rethink these issues, Mez creates a multitude of identities, and posits codework as a way of interrogating normalizing language, in order to resist this very same process. If a nebulous, diverse identity is possible in digital environments, it becomes harder to normalize this diverse set of people. Of course, biopower is not only executed by code via tracking our online identities, but also in the various ways in which surveillance has become the norm in our contemporary, digitized world (including the collection of biometric data). Mez's later work, then, further carries forth a discussion of biopolitics in our current, heavily-digitized world.

5. Surveillance and Biopower

Andy Campbell and Mez Breeze's *#PRISOM* (2014) is a work of electronic literature which explores themes such as privacy and surveillance, a direct response to the recent revealing of a number of electronic surveillance programs by the American government. In late 2012, an anonymous source asking to be called "Cincinnatus" contacted the journalist Glenn Greenwald, stating that there were "sensitive documents" which needed to be revealed. Following this, in January of 2013, Edward Snowden contacted documentary filmmaker Laura Poitras, after having read an article written by Greenwald about Poitras's film about NSA whistleblower William Binney, wherein Greenwald's article stated that Poitras was then made a "target of the

government." Finally on 20 May, 2013, the initial articles based on Snowden's information were published, on *The Guardian's* website. Although this is not the place for an in-depth history of the Snowden leaks, it is important to state the key revelations. Snowden's information documented the existence and various reasons behind classified surveillance programs, operating within a global surveillance network, composed of the United States' NSA, Australia's ASD, the United Kingdom's GCHQ, and Canada's CSEC.

The first program revealed was PRISM, which allows for a "court-approved, front-door access to Americans' Google and Yahoo accounts. According to the summary on Wikipedia, the "initial reports included details about NSA call database, Boundless Informant, and of a secret court order requiring Verizon to hand the NSA millions of Americans' phone records daily." Further, in his first interview published by the Guardian on June 10, and transcribed in a Greenwald article, Snowden says of his job at the NSA, "I, sitting at my desk, could wiretap anyone, from you or your accountant, to a federal judge or even the president, if I had a personal email." Key to the NSA's surveillance, and detailed by Snowden, is the role of digital technology in these surveillance programs. The online presence of Americans and, presumably, people from all over the world, appears to be fair game for government surveillance programs. If digital media make it easier to destroy our privacy, then digital media artwork can provide an "aesthetic resistance." By co-opting the same technologies and languages of biopower, digital art can provide a conceptual space for thinking through issues of surveillance and privacy. The materiality of the digital, the programming code and the computers which run these programs, is the same material used in electronic literature and video games. Works which interrogate the nature of digital surveillance and privacy can foster more critical, discerning readers—readers

that will think more critically and reflexively of how these programs operate and influence everyday life. Of course, as Houen has argued, "aesthetic practices are clearly weak as forces to use as means of disrupting actual networks of biopower and sovereignty. That said, they can provide potent means of fighting the effects of these networks within ourselves" (np). *#PRISOM*, which I will discuss below, provide this sort of aesthetic response as a means of fighting the effects of these networks of digital surveillance; in this case, fighting these effects come in the form of educating an audience, for the purpose of creating a more discerning, critical group of individuals.

The link between biopolitics and surveillance is found in the desire for control over the bodies of a population. As we have seen, the control of the population is contingent on digital technology. As many aspects of our lives are inevitably located within virtual and online spaces—be it in the way we shop or share information with friends—it is certainly easier to codify our behaviour, making it easier to track our movement and growth as a population. In "Surveillance and Biopolitics," Btihaj Ajana discusses the various digital technologies and the codification of bodies and parts within this system. Ajana notes that new media creates new conditions of social control. Social media, which quantifies connections between people, leads to a society in which we are constantly monitored and tracked, facilitated by the emergence of digital technologies. Ajana sees "DNA fingerprinting, electronic tagging, drug testing, health scans, biometric ID cards and passports, smart closed circuit television, etc" (np) as that which contributes to the pervasiveness of monitoring and surveillance in a digital society. Thus, the digital technology which is constantly sold to us under the guise of improving our lives through simplifying our day to day activities, allowing for more free time, also provides the means of

97

tracking and controlling our behaviours. Surveillance is a form of biopower as governments systemically remove the privacy of its citizens while maintaining the illusion of freedom and security. As we will see, in many ways this view of biopolitics is a logical extension of the work of Georgio Agamben. Mez is interested in the issue of pervasive surveillance in the contemporary world, of the systemic stripping away of rights from citizens, which is an extension of Agamben's work in the domain of political life.

6. Agamben, Bare Life, and Political Existence

Georgio Agamben is an Italian philosopher, whose work has been at the heart of current biopolitical though. With the publication of his book *Homo Sacer* in 1995, Agamben simultaneously celebrates the rise of biopolitical theory while at the same rejecting and disagreeing with Foucault on how and when biopolitics operate. Ultimately, Agamben sees the core problem of biopolitics hinging on the concept of bare life and its relationship with political existence. Agamben's work emphasizes a divide between bare and political life, and posthumanist theory focuses on how this divide shapes our current ethico-political situation, be it between groups of humans, or between humans and animals.

Agamben insists that there is a connection between sovereign power and biopolitics. Agamben writes that biopolitics is the core of the sovereign practice of power, and establishing power relies on citizens and subjects under the law: a biopolitical body. Ultimately, this creation of a political body is built on exclusionary politics. Providing rights and laws to some human beings automatically necessitates the fundamental exclusion and withholding of those rights to subjects outside of the law. In fact, those denied full legal status are no longer considered

subjects—they are merely bodies outside of the law. Exclusionary politics—and this is where

Agamben's work launches from Foucault's normalizing society and theories on racism—

becomes the central tenet of Agamben's contribution to biopolitical thought. Agamben traces this

exclusionary politics back to Greek antiquity, bringing into the conversation the very language

used by the ancient Greeks in their own discussion of political life, as we will see in his usage of

the terms *zoé* and *bíos,*. This language of biopower is that which is used in biopolitical

production, in the electronic literature of Mez Breeze, as a way to challenge dichotomies and

ontologies which are used in biopower for the purpose of maintaining control over normalized

populations.

Agamben remarks that the central binary relationship of the political is not the creation of

an us-versus-other relationship, but rather the schism between bare life (*zoé*) and political

existence (*bíos*). Agamben sees *zoé* as the very basic biological existence of life for humans.

Bare life is natural being, a person living in the world. By contrast, *bíos* signals the entry of

human beings into the political superstructure; *bíos* is protected and cultivated, then, as political

life, that which is normalized and fostered within the biopolitical regime. This dichotomy

between a bare life and a political existence is amplified in biopolitics, but for Agamben it exists

in the form of sovereign power.

Agamben illustrates the dichotomy between *zoé* and *bíos* through turning to a figure he

borrows from Roman law: *homo sacer*. Agamben's *homo sacer* is a person who is banned from

political existence, unprotected under the law and without any rights. *Homo sacer* is bare life, as

this person has been limited to an existence defined only by physicality: they are corporeality,

nothing more. *Homo sacer,* then, is that which lies outside of political existence. *Homo sacer* has

been othered, forever resigned to an existence of bare life. The sovereign decision is that of choosing between life and death, which of course has dire consequences for those beings deemed to exist outside of political existence. For Agamben, this dichotomy is pervasive and carries through to biopolitics, which is forever marked as a thanatopolitics symbolized by the Nazi concentration camps of World War II.

Alongside the *zoé* and *bíos,* Agamben discusses the "state of exception." For Agamben, the Nazi camps and the state of exception are forever entwined. In essence, the state of exception marks a form of governmentality that systematically suspends the rights of its citizens in the event of an emergency or tragedy, under the guise of protecting those same rights. The state of exception provides the opportunity for the creation (and subsequent destruction) of "bare life." The Nazi camps are a prime example of what happens to subjects reduced to bare life. For Agamben, the camps are not only a moment in time wherein thanatopolitics is observed, they exist as the symbolic border between bare life and political existence, a border that still exists today. In *Homo Sacer*, Agamben writes that "*[t]he camp is the space that is opened when the state of exception begins to become the norm*" (168-9, emphasis in original). The Nazi death camps symbolize the most extreme form of bare and political life, but for Agamben, bare life exists at the biopolitical center of *all* modernity, and less extreme states of exception are constantly observed in contemporary political existence (for example, in the recent revealing of the U.S. government's incredibly pervasive surveillance program).

Agamben's work helps to elucidate current ethico-political situations. Namely, bare life always resides where there is creation of a political body. Not all citizens are full political subjects, and this has often led to thanatopolitics, wherein those outside the realm of the law can

be put to death with impunity. The state of exception is a form of governmentality which systematically strips away the rights of lawful subjects, resulting in a normalized bare life at the whim of those with power. Agamben's work is primarily focused on the Nazi death camps, while unfortunately failing to carry this analysis forward into current states of exception. In many ways, the various issues of privacy and surveillance in the digital age are a logical extension of Agamben's work in states of exception. Mez's *#PRISOM*, then, explores these issues of withholding rights, as it works to think through notions of privacy in a digital age. In what follows, I will discuss *#PRISOM*, which interrogates the role of surveillance in our lives, portraying a bleak future in which the status quo is a world in which everything is transparent and privacy no longer exists.

7. *#PRISOM* and Privacy

#PRISOM places the user in a 3D environment via a regular browser or a download of the program, and with very little instruction asks users to explore a virtual world. The creators call the work a "Synthetic Reality Game where a player is set loose in a Glass City under infinite surveillance" (*#PRISOM* website). The work has proved to be quite successful for the creators, as it was nominated for a Digital Humanities 2013 Award for Best DH visualization or infographic. The presence of written text within the work, as well as Mez Breeze's position and history in the field, allows me to classify this work as a piece of electronic literature, one which takes full advantage of the digital medium in order to forcefully deliver a message. Indeed, electronic literature must be understood as doing something more than just replicating print literature, and that is exactly what *#PRISOM* can be said to do. The work is a strong argument

against the systemic stripping of civil liberties in the United States, of which the Snowden leaks made the general public aware of.

Edward Snowden's leaking of information revealed the existence of PRISM, a "clandestine mass electronic surveillance data mining program launched in 2007 by the National Security Agency (NSA)" (Wikipedia). PRISm collected stored information from internet communications, via demands made on major companies such as Google and Yahoo. *#PRISOM* is a direct response to the Snowden reveal; indeed, the term PRISOM is an portmanteau created by combining PRISM and prison. Furthermore, the name calls to attention the prismatic nature of our supposedly secure communications online. *#PRISOM* takes this virtual surveillance as its groundwork, creating a virtual game wherein the player wanders through an actualized, "synthetic" world composed of tall, transparent glass buildings. Everything is visible in *#PRISOM* at all times, as everything in the world is made of glass. Privacy does not exist in this prison, then, and the user is made to wander through this virtual environment confronting various thematic scenarios involving surveillance, sousveillance, propaganda, drones, and CCTV security systems. In what follows, I will explore *#PRISOM* in detail, arguing that the work makes use of electronic literature in order to deliver an argument against biopolitical surveillance and the current, pervasive 'state of exception' which repeatedly sees the stripping away of civil liberties in the name of freedom.

#PRISOM begins with the player's avatar placed on a barren platform, watching a strange, hover-ship transport ship fly away into the grey sky. The player is surrounded by various marionettes: mannequin-like, featureless beings, marked entirely in black. Unable to interact with these other "prisomers," the player is prompted to press "H" for help. Doing so, the

following text appears. I reproduce this text in length here, as it provides the context from which this game was born:

#HELP

So you need help already, huh?

That didn't take long.

Let's face it: we could all do with some help at this point in history, with rampant removal of civil liberties, awful privacy violations, increasing surveillance and widespread totalitarian-leaning propaganda masquerading as media. Really, it's no wonder you want help…

But #PRISOM isn't the place to turn to for help.

It's part blinding maze and part prison. #PRISOM is the place we'll all end up if we continue to ignore the systemic stripping of our rights as human beings.

The work directly responds to the PRISM program but it never states that it will help. Rather, the creators provide a virtual representation of the various privacy violations happening daily on the world wide web. With a program like PRISM, our digital lives are exposed, and we are all blind marionettes walking in a city of glass, our experiences visible by anyone intent on watching. As the player walks down the only path available, it is apparent that this location functions as a prison of sorts for those operating against the force of the sovereign "ConTROLLers." As the player quickly learns, there is no way out of this prison.

If *#PRISOM* were to only accomplish one thing (and to be clear, it accomplishes much more), it is to foster a more discerning, critical player; in this case, the goal is for the user to walk away from the experience more aware of her interactions and experiences online, and more critical of various user tracking algorithms which are irrevocably pervasive on the internet. The

reality here is that there is only a small step from Google tracking your search history in order to provide more individualized ads, to the rampant invasion of privacy when this information is accessed by the government, such as when in 2014 Google, Microsoft, Facebook, and Yahoo disclosed turning over their data to the US government authorities every six months. Not only should we be hyper-aware of how our social networking is repeatedly commercialized and quantified online, but now too we must realize that our own liberty and freedom is at stake. In "Control over Personal Information in the Database Era," Mark Andrejevic discusses the commodification and quantification of social networking and why we should be alarmed. For Andrejevic, social media sees forms of socialization and communication entering into the commercial world. Social networks now digitized are able to be quantified and analyzed, and what was once the realm of private social life now a space for monitoring by marketers and other agencies. All digital socialization exists in the domain of commercial commodification, and user friendships and online shopping habits are sold to advertising companies for the purpose of inserted targeted advertisements into everyday digital browsing. As Andrejevic notes, a service such as the Royal Mail does not send targeted advertisements with the rest of the post, but using the digital footprint of internet users allows Google to do precisely this (324). As we sill see, these are the precise issues which *#PRISOM* tackles. The work encourages us to not be complacent with this repeated stripping away of liberties. Ultimately, it is easy to brush aside the ability for Google to personalize advertisements based on our search history, for instance, but this is only the tip of the iceberg, the rather benevolent instantiation of our ongoing degradation of privacy. The fact that the US government (among others) has access to this information is alarming, but if we are to properly take issue with this we should also begin with the source: that is, the systemic and pervasive tracking of our digital lives.

As *#PRISOM* is a work of electronic literature with multiple narrative lines, there are certain experiences that the player must encounter if she wishes to see an 'end-game' scenario. There are several locations scattered throughout the virtual world which allow for interaction. These locations can be broken into two distinct types: (1) laptops scattered throughout the world which allow the player to look through a drone's camera and, (2) various propaganda billboards which, when approached, offer a scenario requiring the player to input an 'answer.' Let me first start with discussing the scattered laptops. When approached, a prompt appears stating that the player can take on the point-of-view of various drones throughout the world by pressing the buttons 2 through 9 (with the 1 returning the player to the regular view mode). Each individual drone is accompanied by a small poem-like text discussing the role of drones and surveillance. Pressing 2 brings up the following text:

PRESS 1-9 TO EYE-JACK DRONES

_ENGAGING GEOMONITORING SEQUENCE…

_WHISTLE BLOWING DAMPENERS: ENGAGED.

_ACKHANISTAN WAR DIARY: SANITISED.

##

#EYEJACKING COMPLETE WELL DONE, EYEJACKER. #

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[WHEN THE CONTROLLER FORMATTERS COME FOR US, WE'LL BE…

LIVING IN NON-SURVEILLANCE LUDDITE HEAPS]

In the world of *#PRISOM*, whistleblowers (like Edward Snowden in real life) are the target of droned surveillance, presumably 'dampened' out before they have the opportunity to speak out. The purpose of these Eye-Jack stations is ambiguous, though; were they left there by the

ConTROLLers? Or, rather, does the presence of the final two lines—stating that the rejection of digital technology is the only means of escaping pervasive surveillance—suggest that the drones have been hacked by some sort of group of freedom fighters? Unfortunately, we never do find out, as our interaction with the laptops is limited: we can only look through these various screens, observing what the drones see but never able to fully control them.

The other areas of interaction in *#PRISOM* are those that first appear as simple billboards with propaganda messages. Those billboards ask those 'citizens' of the Prisom not to engage in any sort of resistance, as the ConTROLLers are simply limiting privacy for the greater good. One billboard suggests that the role of Prisom is in "Securing your privacy; one liberty at a time." This billboard is, of course, a direct response to the US government's reasoning behind programs like PRISM, justified through the "foreign intelligence" gathering under the 2008 Amendments to the Foreign Intelligence Surveillance Act (FISA). Indeed, in June 2013 General Keith Alexander, director of the National Security Agency, told members of the Senate: "I think what we're doing to protect American citizens here is the right thing. We aren't trying to hide it." That is, in order to properly provide security for its citizens, a government must systemically remove certain liberties. This access to information is what, according to the government and its various security programs, allows better protection and, thus, citizens should not be so concerned with the removing of liberties.

As players get closer to these billboards, a holographic projection appears underneath. These projections, and there are many of them in the game, offer up a scenario and request input from the player. According to the "Resources" pages found on *#PRISOM's* website, these scenarios "stem from real-life scenarios, including the ongoing unconstitutional treatment and [in some cases] incarceration of those keen to expose the nature of heavily surveilled and overtly

monitored societies." The inclusion of these real-life scenarios further illustrate the pervasiveness of surveillance in our current world, made all the more prevalent by the ubiquity of digital technology. When confronted with these scenarios, the player is offered a choice, and presses either the Z or X key to choose an answer. It is painfully obvious which choice should result in a positive outcome for the player; each scenario presents one choice which favours on the side of the ConTROLLer, and one which reacts against. These situations serve to illuminate the nature and pervasiveness of surveillance for contemporary American life. More to the point, though, these scenarios all provide examples of how those citizens who speak up and out against these controlling forces are usually silenced, in one way or another. Although an extreme case (as he worked for the government and had access to top clearance level data), Edward Snowden is currently in exile in Russia, in a country that will not extradite him to the United States. Although it has not been made explicit, it is apparent that Snowden would be prosecuted for whistleblowing should he return to the United States. This is precisely the issue: we may have become aware of these injustices perpetrated by various governments throughout the world, but speaking out and reacting against these forces puts us in further danger of losing our individual freedoms. The scenarios portrayed in *#PRISOM* are all based on real-world events, and should give us pause when thinking about current digital surveillance. One particular example has the player pressing 'Z' if you wish to give in to the demands of the sovereign power, while 'X' has the player resisting the ConTROLLer's authority. This scenario is just one example, but the player is confronted with a number of different situations. It quickly becomes clear that choosing the Z option should lead to a better end-game scenario for the player, while choosing to rebel against the authority might lead to further incarceration of the player's avatar. Ultimately, though, the ending of the game is extremely bleak no matter the answers selected.

At the start of the game, there is a number five in the bottom right-hand portion of the screen. If the player chooses the pro-authority 'Z' option, this number decreases by one. If the player reacts against authority, the number increases by one. When the number gets down to either one, or up to number ten, a backwards, translucent "123" appears on the screen and the end-game voiceover begins. Regardless of the path taken and choices made by the player, the player will always end up as ConTROLLer 123. There are subtle differences between the three voice-overs that make up the three different endings of the game, but ultimately the player is reduced to being another cog in the biopolitical surveillance machine. In what follows, I will reproduce the three different voiceovers as heard from each different pathway through the game. These transcriptions were provided by Mez Breeze in an email communication I had with her during the time of my writing, as I wanted to make sure I was seeing all the possible endings myself. Breeze outlines the three different endings as such:

1. ConTROLLer-angled ending: "You have now successfully completed the Re-Education process through your interactions in Prisom. Congratulations. Your indoctrination is now complete. Your reward is a permanent upgrade to ConTROLLer status through an irrevocable, worldwide, royalty-laden, exclusive, perpetual license to revoke all your remaining personal rights and all associated civil liberties. Welcome, ConTROLLer123."

2. ResisTOR-angled ending: "Your Re-Education session is now finished. Your attempts to revise your ResisTOR status have been unsuccessful through your interactions in Prisom. Your punishment is a permanent upgrade to ConTROLLer status through an irrevocable, worldwide, royalty-laden, exclusive, perpetual license to revoke all your

remaining personal rights and all associated civil liberties. Your consciousness has now

been claimed as part of the ConTROLLer Drone Mind. Welcome, ConTROLLer123."

3. Finishing-all-posters-angled ending: Your Re-Education is now terminated. Your

attempts to revise your ResisTOR status have been only partially successful through your

interactions in Prisom. Your punishment is a permanent upgrade to ConTROLLer status

through an irrevocable, worldwide, royalty-laden, exclusive, perpetual license to revoke

all your remaining personal rights and all associated civil liberties. Your consciousness

has now been claimed as part of the ConTROLLer Drone Mind. Welcome,

ConTROLLer123."

There are subtle differences between these three endings. In complying with the Prisom program,

the player is lauded and congratulated for joining the ConTROLLer ranks. The final two answers

are heard when the player resists the Prisom program: now, the player is still relegated to the role

of ConTROLLer123, but this time it is a punishment for not perpetuating the system, for not

maintaining the status quo. As soon as your avatar is dropped into the game world, a hovering

drone approaches you and lights up with the number 123. In this system, you will be broken, no

matter your actions; you are ConTROLLer123 before you make any choices for yourself. For

Campbell and Breeze, the ongoing elimination of civil liberties and freedoms will ultimately lead

to a world in which everyone is indoctrinated, remaining civil rights and liberties are revoked,

and the biopolitical power of the authority cannot be challenged or destroyed.

The final message of *#PRISOM,* the bleak forecast provided when the player is always

relegated to the position of ConTROLLer123, is that if you are complacent in Prisom-like

systems, which for Mez is "currently happening in Australia and has already manifested

elsewhere in so-called democratic countries" (e-mail conversation), there is very little chance

and hope to remove yourself from this surveillance system. Despite this bleak final message, there is a snippet of hope found in the game. This embedded hope if found in the "Tips" screen via the Help menu. The "Tips" screen reads as follows:

Walk your dog. If you don't have one, walk your neighbour's dog [with permission, obviously]. Learn your neighbour's names [when you offer to walk their dog?]. Absorb. Get decent sleep. Learn the lyrics. Discard all of the previous advice occasionally and just tilt. Listen. Be responsible. Love the small[nesses]. Share. Smile at strangers. Help anyone or anything you can, for no reason other than their presence. Dream. Listen some more. Laugh frequently. Nurture your emotional intelligence as much as you do your intellect. Imagine. Create. Play. Empathize. Learn constantly. Read, especially the fine print. Hell, read any non-propagandized [sic] print that'll help you understand how insidious the removal of civil liberties can be, and how to combat the process. (np)

According to Mez, again via an email conversation, the tips text "indicates the level of micro-connectedness, via community and simple interactions/intentions, that can help (or at least fundamentally alter) these types of scenarios from occurring." These are only a small sample of ways in which these biopolitical surveillance scenarios can be combated. *#PRISOM*'s website provides a list of online resources such as "NSA Surveillance: A Guide to Staying Secure." There is hope, then, and this hope is dispersed through the proliferation of education and knowledge, on making citizens more discerning, critical agents.

#PRISOM provides an illustrative example of the ways in which electronic literature can utilize digital technology in order to effectively render an argument. While still keeping written textuality at the heart of the work, the gameplay is familiar to anyone who has played a First

Person Shooter (FPS) video game before. FPSs are one of the most popular video game genres, but *#PRISOM* subverts many of the traditional characteristics of the genre. The usual level of control for the player is not found in *#PRISOM*. Indeed, the game is extremely clunky and the player's avatar is difficult to control. Platforms which rapidly shoot the player across the world, or up into the sky toward the top of one of the buildings; the player is unable to seamlessly control the avatar, which of course is a cardinal sin in video game development. This lack of control represents the apparent real-world lack of control and agency in a post-industrial, biopolitical society. In a surveillance society, we are all reduced to faceless mannequins, unable to positively impact the world around us in any meaningful way. In essence, *#PRISOM* thrusts upon us the opportunity to think through the future of our digital (and physical) lives. I feel it best to end with the words of electronic literature author Alan Bigelow's online review of *#PRISOM:* "This is a most ambitious work . . . a piece that delivers a political message within the framework of a game that is actually no game at all - it's the serious business of where do we all go from here."

8. Writing and Resistance: Final Thoughts

Biopower is a form of governmentality which exercises control over citizens' bodies. For Foucault, biopower is distinctly modern, a shift away from sovereign power. Sovereign power was exercised as that which decides who has the right to life or death. Biopower, by contrast, uses modern technology, such as science and medicine, in order to better organize and control subjects. This organizing is implemented as a way to create docile, pacified citizens, who are thus better able to contribute to modern capitalization. The capitalist system runs on human machinery. Art, according to Hardt and Alliez, can provide a distinct space for individuals to

express themselves without interference from biopower. Foucault sees writing as a way for citizens to create a distinct identity, a way to develop a soul and learn to care for themselves and for others. The writings of Mez Breeze are examples of the ways in which writing and art can offer up biopolitical resistance. _the data][h!][bleeding texts_ illustrates how language is a fundamental element of biopower. Language creates difference, reinforces binaries, and maintains existing power structure. Breeze, through her innovate codework, works to deconstruct and challenge the ways in which our language create identity. For Breeze, the digital platform provides a conceptual space for exploring the idea of dynamic idea; in creating various avatars and identities, Breeze's work challenges a concept of stable identity which is perpetuated by biopower to create consuming citizens. The citizen who is infatuated with creating an identity through the purchasing of goods, is less likely to challenge the existing power structures which benefit from this capitalist system. Codework is thus a means of challenging these existing power structures and bringing about new ideas of identity, subjectivity, and gender.

#PRISOM is a work of electronic literature which directly critiques current government surveillance programs. This type of surveillance is critical for biopower, as it further catalogues and quantifies citizens for the purpose of maintaining a degree of control. As Breeze and Campbell argue in *#PRISOM,* accepting government surveillance programs without questioning can only lead to further invasions of privacy. These programs are implemented by governments in supposed "states of exception" which systematically remove certain rights from citizens under the guise of protecting liberty and safety. *#PRISOM* asks its readers to become more critically discerning citizens, willing to stand up against this form of governmentality in the name of lawful rights for all.

Biopower works as a politics of exclusion, through defining who has access to lawful rights. Electronic literature and video games, then, provide the conceptual space for exploring these posthumanist concerns: the issues of inequality, ethics, and morals. This chapter discussed works of electronic literature that take on issues of biopower, such as gender, identity, privacy, and surveillance. Following Foucault's writing on the *hupomnemeta*, this electronic literature as understood as art which encourages not only a care of the self, but also a care of others. A posthumanist worldview promotes extending these ethical and moral concerns, this idea of taking care of others, to include nonhumans and other living things on our planet. To this end, the next chapter extends the discussion of power and discourse to the issue of animals, or nonhuman subjects as they will come to be called. Given the enormous size and profit of the slaughterhouse industry, the condition of the animal must be understood as inextricably bound within the biopolitical system. The biopolitical system is built upon exerting power on bodies, and thus our relationship with animals and the ways in which we control their bodies is a direct result of biopower. The next chapter works to uncover the nature of our relationship with animals: how understandings of animality are built upon discourses shaped by humanism, and how we might begin to think of extending the ethical and moral sphere to include animals as a means of taking care.

By way of a conclusion, I would like to address the issue of electronic literature and video games as aesthetic resistance. Ultimately, electronic literature as a form of aesthetic resistance is, ultimately, tarnished by its role as an art form for the educated elite. At this point, the electronic literature reading and writing community is, by and large, composed of literary academics. Electronic literature's status as literature operating outside of cultural capital modes,

113

in that it is largely posted online, free to share, and at times free to be remixed and remodelled, seemingly limits its possibilities for resistance. At the same time though, and somewhat paradoxically, the fact that these authors are not beholden to traditional modes of publishing does mean that these works exist in a small haven outside of the capitalist system. Perhaps this will encourage authors to wrestle with the language of capitalism, to resist and protest the flaws of a system that promotes individual greed and inequality. In contrast to folk and punk music, with their sizeable catalogues of protest songs, electronic literature has not reached a wide audience. However, thinking of those expanding borders, perhaps works that blur the lines between electronic literature and video games, such as Breeze's and Campbell's *#PRISOM*, are the answer to this "othered" role that electronic literature currently holds. Certainly the popularity and mass appeal of the video game market provides an opportunity to explore the possibilities of similar aesthetics of resistance in the digital world.

Chapter Three

The Question of the Animal in Digital Media

In December of 2014, an Argentinian court ruled that a Sumatran orangutan named Sandra

should be recognized as a person with a right to freedom. Sandra spent 20 years living in the zoo

in the capital of Argentina, Buenos Aires. The ruling, passed by the judges unanimously, means

that Sandra will be freed from captivity and transferred to a nature sanctuary in Brazil. The court

decided that Sandra should be recognized as a "non-human person" who holds some basic

human rights. The decision was requested in November of 2013 by the Association of

Professional Lawyers for Animal Rights (AFADA), claiming that Sandra was dealing with

"unjustified confinement of an animal with proven cognitive ability." The lawyers argued that the

orangutan's freedom should be constituted on the basis of its mental abilities, as they maintained

that the ape was capable of emotional ties. They also lobbied that the ape had the ability to

reason, and was frustrated with her confinement. On top of this, the lawyers argued that the 29

year old ape can make decisions, is self-aware, and understands the passage of time. With these

factors in mind, they stated that her confinement was a willful act of deprivation of liberty. This

is a landmark case for animals in captivity, as two previous "habeas corpus" (laws on freedoms

and rights) cases were unsuccessful. Recently in the United States, a New York court ruled that a

chimpanzee named Tommy was not legally a person and is therefore not entitled to human rights,

and in 2011 a lawsuit against SeaWorld to free five wild-captured orca whales was dismissed.

According to the AFADA lawyer Paul Buompadre, this ruling "opens the way not only for other

Great Apes, but also for other sentient beings which are unfairly and arbitrarily deprived of their

liberty in zoos, circuses, water parks and scientific laboratories."

Sandra's case, as well as those others which have been brought to various courts around the world, hinge on whether or not an animal in captivity is a "thing" or a "person." This question of the animal, this fundamental philosophical distinction between man and animal, is of utmost importance to posthuman thought. Posthumanism moves away from the areas of cybernetic research and technological prosthesis, instead focusing on the ethical and moral responsibility toward nonhumans. As discussed, Wolfe is one of the most notable scholars working in this area, and has made a tremendous effort to distinguish this posthumanism from the more techno-centric areas of transhumanism associated with Hayles. Wolfe's posthumanism places the question of the animal at the fore of humanities scholarship going forward.

How best to approach the question of the animal? Firstly, we must ask why this question is relevant. It is relevant because the human is an animal, but the ideology of the liberal humanist subject which places the human above all other living creatures, wants to deny this; hence, humanism leads to what is known as "speciesism." In order to engage the question of the animal, it is first necessary to engage critically and rigorously with the question of the human. This chapter seeks to interrogate assumptions wrought by the rhetoric of the liberal human subject. Through this deconstruction of the human, our supposed uniqueness amongst living beings will be questioned, thereby questioning the distinction between humans, animals, and machines. My argument, as it develops over this chapter, is that electronic literature and video games offer a conceptual space from which we can better consider the question of the animal. The works I discuss here help us think through our own animality, our relationship to what Wolfe calls "nonhuman subjects," and our situatedness within an ecology and environment in which living and nonliving things are dependent and reliant upon one another.

116

These works of electronic literature and video games are explicit examples of Nussbaum's sympathetic imagining, which asks humans to imagine the internal lives of nonhumans. Through this imagining, we might better take seriously the fragility and vulnerability of other animals on this planet, and perhaps curb the more pernicious aspects of our relationship with them. It is, of course, important to note that there will always be some sort of anthropomorphism in this works, as we cannot entirely know what it is like to be another animal (just as we can never truly know what it is like to be another human). We can, though, use digital media to consider and explore animal phenomenology in new and exciting ways. I argue that the works discussed herein do precisely this: they challenge us to confront our supposed superiority, our ingrained anthropocentrism, and in doing so they thrust upon us reconsiderations of how humans exist on this planet. An engagement with the animal, then, should also force us to turn inwards, to question what exactly we are, as humans, and how we might be better understood on a spectrum of animality, rather than as towering over all others.

Before questioning the animal, we must first reconsider our own humanity, our own status as animals, and in order to do this, we must renegotiate the supposed borders between humans, technics, and language. For this, I turn to the work of Bernard Stiegler and Martin Heidegger. As mentioned, the doctrine of liberal humanism works to separate humans from all other animals. This separation hinges on humankind's affinities for language, reason, and the overall mental capacity of our minds. In *Language as Symbolic Action* (1966), Kenneth Burke writes that "man is the symbol using, making, and mis-using animal, inventor of the negative, separated from his natural condition by instruments of his own making, goaded by the spirit of hierarchy, and rotten with perfection" (16). Humans are symbol using, and because of this, we

117

are special creatures. Burke states that humans are separated from some sort of primordial, natural condition, through instruments (technics) which thrust us into an altogether different realm of existence. As I will show, Wolfe would not argue that humans are unique in certain respects, such as our command of language and ability to communicate, but the speciality of the human does not place ourselves above other living creatures. Rather, our uniqueness means that we have an ethical and moral responsibility to nonhumans because of our shared finitude, our shared relationship to death, and our ability to recognize and know death. As I will show, the work of Heidegger further creates a schism between animality, humanity, and technicity. Stiegler, on the other hand, questions the definition of man as one who has evolved into a preternatural position, well past any supposed "natural" human condition.

1. Martin Heidegger

Heidegger's writings discuss the role of technology for humans. Heidegger's main philosophical undertaking is to expose and theorize ontological distinctions between things and creatures, both living and nonliving. Heidegger believes that the true nature of things in the world are concealed from us, and thus the main mode of being in the world is a working toward unconcealing these truths. In this sense, technology is a method for unconcealing, and Heidegger's writings theorize the relationship between technology and humans.

"The Question Concerning Technology" (1954) develops Heidegger's thoughts on the nature of technology, most notably in its relationship to nature. The implications of Heidegger's writings on technology and nature are crucial for eco-criticism, and I discuss Heidegger's thoughts on the destructive force of modern technology for nature in my next chapter. For now, I

want to fully develop Heidegger's views on technology and the human from a lecture series he delivered in the winter semester of 1942-43, entitled *Parmenides*. Here Heidegger focuses explicitly on how technology and life are inextricably bound together. He explicitly suggests a schism in human nature caused by technology and, as I will show, this serves as a counterpoint to the thoughts of Stiegler and David Wills, to be discussed later in this chapter.

In *Parmenides,* Heidegger develops his distinction between proper and improper technology by elaborating on the act of writing, which for him most forcefully identities that nature of human uniqueness. Heidegger writes that "the hand is, together with the word, the essential distinction of man" (80). Here runs the strain of liberal humanism in Heidegger's writing, as he posits an ultimate difference between the human and the animal. The hand and the word are fully entwined, and the hand itself is the true marker of humans: "No animal has a hand, and a hand never originates from a paw or a claw or talon" (80). As the hand is the true marker of the human, those tasks which the hand allows are of utmost importance. Heidegger, in considering a proper and improper form of human being, focuses on writing, as that which combines the two fundamentally human characteristics: the hand and the word. Engaging writing and modern technology Heidegger focuses on the importance of the typewriter, which signals a schism in being wherein humans are irrevocably distanced from their "true" nature. In Timothy C. Campbell's *Improper Life: Technology and Biopolitics from Heidegger to Agamben* (2011), he writes that "Heidegger posits a fundamental ontological distinction between a proper writing, a Festschrift or 'handwriting,' and another thought against (and through) the example of the typewriter" (3). Acts of writing bring humans ontologically closer to a proper mode of human being, and Heidegger believes that the hand is closer to humanity's true nature of being. Along

119

with the word, the hand separates us from animals, and thus writing with the hand is ontologically closer to a proper being than dictating to (or through) a typewriter.

Heidegger argues that handwriting is pure and natural, whereas the typewriter perverts and obscures human being. For Heidegger, the word is not merely a tool constructed and used by the human, but is rather the very construction of the human itself. The typewriter is not a tool that humans write with, but rather one to which humans can only dictate. Because of this, Heidegger sees the typewriter as symbolic of the "increasing destruction of the word" (80). Handwriting, in Heidegger's terms, is a proper form of writing, as he sees the hand as closer to nature than a typewriter. For Heidegger, the proper realm of the hand and the proper realm of the word are intimately connected, and as such, using a typewriter sends the word into the realm of that which is typed—ontologically distanced from the word which is composed by a writing hand. Heidegger writes that "Mechanical writing deprives the hand of its rank in the realm of the written word and degrades the word to a means of communication" (80-1). He distinguishes between proper and improper writing and this difference in writing is carried forth into the realm of being. As the word is associated with the hand—and here we remember that for Heidegger the word does not merely signal the human but actually *creates* the human—once the typewriter replaces the hand, humans are ontologically distanced from the true nature of being. Modern technology tears us away from any true, natural condition of humanity which existed prior.

In "The Question Concerning Technology," Heidegger interrogates the ways humans use technology. In Heidegger's view, there is both a proper and an improper method to understanding and utilizing technology. Heidegger conceives of technology in two distinct ways, which he terms instrumental and anthropological: "The current conception of technology,

120

according to which it is a means and a human activity, can therefore be called the instrumental and anthropological definition of technology" (5). The instrumental definition sees technology as a means to an end, whereas the anthropological definition focuses on technology as a fundamental aspect of human culture. Heidegger focuses on modern technology, a destructive force in his view. According to Heidegger, humans use technology and believe themselves to have mastery of technics, but in reality humans are mastered by technology. Heidegger writes that modern technology is a means to an end. In this sense, instrumentalizing technology depends on our ability to properly master technology—humans attempt to "get" technology, "spiritually in hand" (5). This will to master technology creates a relationship wherein technology is always already slipping from our control, and the urge to master only increases as we lose sight of our "proper" relationship to technology (5). Modern technology is characterized by the intense and rapid acceleration of technology for tasks which were once done by the hand. This technology, as we will discuss in the next chapter, is used to exert control over the natural world, ultimately leading to its destruction. Modern technology brings about a new way of ordering and controlling the natural world, and this for Heidegger leads to a destructive schism in the nature of human being. He focuses on a proper relationship to technology, predicated on the hand of the human. For Heidegger, humans are the only living creatures who can use technology, because it is the hand that separates us from animals. It is the hand which allows us to grasp the tool, to use it as means. Ultimately, though—and this will become more clear in the following chapter— humans who attempt to exert a mastery over technology open themselves up to the possibility of being mastered by technology themselves. Furthermore, this possibility of technology mastering

121

us is even more pronounced with the rise of modern technology, the most destructive force the world has known, according to Heidegger.

Heidegger's conception of technics and its relationship to humans marks a fundamental distinction between technology, humans, and animals. The hand is the distinctive characteristic of the human; it grasps the tool, and writes the word, which is not only used by humans, but actually helps *create* the human. Campbell, notes that "Heidegger lines up the word with man— man doesn't simply embody the word but *is* the word to the degree he writes with his hand" (4). Heidegger stresses that if humans no longer write with the hand, then our relationship to a proper mode of being is irrevocably destroyed. Modern technology, epitomized by Heidegger in the form of the typewriter, is that which separates humanity from a proper relationship to technology. The speed and power of modern technology has thrust upon humans a world which they are incapable of fully understanding and controlling; this world is in contra-distinction to the pre-modern world, where the relationship with technology required more care and time. Technology is that which separates humans from animals, but modern technology is also that which separates humans from our true nature. Heidegger's thoughts espouse a humanist philosophy, which works to mark the differential of human uniqueness. More contemporary thinkers like Stiegler and Wills take issue with this conception of humans, and work instead to foster an understanding of humans being as fundamentally constituted by and through technics.

2. Bernard Stiegler and André Leroi-Gourhan

Bernard Stiegler's work draws heavily upon the archeologist and anthropologist André Leroi-Gourhan. Leroi-Gourhan's work focuses on the emphasis of technicity on human beings.

122

He views humans as assemblages of interior milieu (such as a shared cultural past) and exterior milieu (such as the geography and natural surroundings, as well as technical object). Leroi-Gourhan's work in *Gesture and Speech* (1964), forged a new definition and understanding of human and technical evolution. Leroi-Gourhan noted that the brain was not the catalyst in human development, but rather the beneficiary of humans becoming bipedal creatures. He noted that it was common among evolutionary scientists to consider the intelligence of the human as the primary characterizing feature, more than mobility. But in Leroi-Gourhan's view, this is backwards, as "the 'cerebral' view of evolution now appears mistaken, and there would seem to be sufficient documentation to demonstrate that "the brain was not the cause of developments in locomotory adaptation but their beneficiary" (26). Leroi-Gourhan notes that the mobility of the human, the moment when our ancestors first stood up and walked on two legs, freed the brain to develop more fully. The brain does not drive evolution, but is propelled forward by our own spatial and bodily movement. This idea of human and technical evolution is picked up by Stiegler.

In *Technics and Time 1: The Fault of Epimetheus* (1998), Bernard Stiegler provides an account of the history of human beings. Relying on anthropological and archeological research (most notably from Leroi-Gourhan and Gilbert Simondon), Stiegler notes that humans have always been technical creatures. As such, much of his work in general, and *Technics and Time 1* in particular, aims to rethink and reforge the relations between humans, animals, and technics. As mentioned above, Heidegger is focused on technology as either means or end, and this issue too is important to Stiegler. After all, it is precisely these distinctions which lead to categorization, and categorization leads to differentiation. This differentiation is the driving force in liberal

humanist philosophy, and in order to properly deconstruct the liberal human subject, this differentiation must be interrogated. Stiegler notes that there can no longer be a debate surrounding technics, because it is clear that technology is not merely a means. Rather, technology is always already an integral part of the human. Stiegler discusses "the need, today, to forge another relationship to technics, one that rethinks the bond originally formed by, and between, humanity, technics, and language" (13). Stiegler acknowledges a distinction between his work and that of Heidegger. Since the human is always already a technical being, there is no sense in thinking through technology as Heidegger does. Technology is no longer means nor end, but rather an extension and intricate part of the human, one that cannot be separated from a romantic, idealized human nature. Posthumanism, following Stiegler, is a rethinking of traditional definitions of the human and, because the autonomous liberal subject is no longer a valid characterization, we must then think past anthropocentrism and encourage a biopolitics of ethics and morals for all living creatures.

Drawing on the work of Leroi-Gourhan, Stiegler states that the moment our apelike ancestors stood up to become bipedal creatures, essentially freeing the hands and mouth for other tasks, we became humans. The freeing of the hands led to the use of tools, while the freeing of the mouth from its grasping functions led to the development of language. Stiegler writes there is a rupture in movement, when our ancestors first engaged in the process of exteriorization. This process frees the hand to grasp the tool, and this "means that the appearance of the human is the appearance of the technical" (141). The human is always already technical, then, as it is marked in creation by the first tool use. This leads to a symbiotic and paradoxical relationship, as Stiegler notes, in that "it is the tool, that is, tekhne, that invents the human, not the human who invents

124

the technical. Or again: the human invents himself in the technical by inventing the tool—by

becoming exteriorized techno-logically" (141). The human is invented by the technical at the

very same time that the technical invents the human. There is no human without technics, as the

human invents itself in the technical. Stiegler notes that we are in fact animals—and again, the

philosophy of liberal humanism wishes to deny this fact—but we are specifically technical

animals.

Dovetailing with this connection between techné and humans is the appearance of

language during the process of exteriorization. Leroi-Gourhan writes that humans make both

symbols and tools, and these draw from the same part of the brain. This, then, "leads us back to

conclude, not only that language is as characteristic of humans as are tools, but also that both are

the expression of the same intrinsically human property" (113-4). Furthermore, Leroi-Gourhan

notes that the anterior field of the brain is divided into two distinct fields, "one governed by

actions of the head and the other by those of the forelimb or, more precisely, by actions of the

facial organs and of the extremity of the forelimb, respectively" (31). The brain is directly altered

by the freedom of the hand and the mouth, which has developed because of the bipedal nature of

human beings. Language and technics, for Stiegler, is what invents the human; in a strange twist

of logic, we are always already posthuman. Furthermore, language and technics highlight the one

process of humans which, for Stiegler—and this is the direct influence from Leroi-Gourhan—

separate us from other animals: exteriorization. Stiegler marks the passage into human being

with the creation of the flint, a small, sharp rock used to create tools like hunting sticks. For

Stiegler, there is a direct correlation between tool use and the development of the human brains

(which, of course, leads to language). Stiegler writes that the "appearance of the tool,

accomplishing the indetermination specified from the moment of the human as a process of exteriorization, must be brought into relation to the particular organization of the cortical zones of the brain" (148). This correlation reveals the link between the hand and the central versus system: a direct link between the body and the mind, as the brain is shaped by the freeing of the hand and the specialization of tool use. Stiegler then asks, "are we still capable of detecting what we would call 'human nature'? Do we not see, in this original human, that "human nature" consists only in its technicity, in its denaturalization?" (148). Human nature is a falsification, then, as humans have never existed as autonomous creatures, demarcated from the tools we use or the environment in which we live. Exteriorization marks the human outside of itself through tool use and language acquisition. It marks the human as a technical animal through prosthesis, existing outside of the human body, and thus the human is a complicated assemblage of interior and exterior milieu.

The driving force behind Stiegler's work is an attempt to define the human. In *Technics and Time 1*, Stiegler highlights how memory is most important to the human; coincidentally, memory is multi-layered, and illustrates the aggregation of both interiority and exteriority in the human. Humans are reliant upon memory, but not just of our own individual memories which have a limited lifespan. The recording and dissemination of memory fundamentally marks not only the human but also technics, as this recording is reliant upon technology. Technology allows the interior to become the exterior; technology provides the venue for a collective memory, one which moves past the very limited space of genetic and bodily mechanisms. In thinking through this relationship between technology and the human, I will now turn to David Wills and his work on technics.

3. David Wills

David Wills' *Dorsality: Thinking Back Through Technology and Politics* (2008) rethinks

an original human nature, one which cannot be seen as distinct from that of technology. As such,

Wills rethinks our understanding and defining of technology. Wills insists on the *dorsal turn,* an

understanding of the human which begins at the back, in the spine, and which begins the

evolutionary process. The dorsal turn is that which marks the human as a technical creature. Just

as Stiegler notes, following Leroi-Gourhan, Wills sees the human as that which became a

technical creature at the same moment it became a vertically-erect, bipedal animal. *Dorsality*,

then, encourages a view of technology which no longer focuses on the forward motion, but

instead encourages to look behind us, to understand the spine as the catalyst in our evolution.

Like Stiegler, Wills refuses to propagate a distinction between the human and the

machine; rather, the human is that which is fundamentally technological. The human is an animal

which is always already technical, which can be defined with and through its bipedal movement.

Wills writes that the "human is, from the point of view of this turn, understood to become

technological as soon as it becomes human, to be always already turning that way" (4). Wills

thinks of technology not in the traditional human-mechanical divide, but rather as something

which grows and emanates from us. *Dorsality* urges us to consider a technological turn, which is

also a *dorsal* turn taking place behind the human, as the spine grows upright and allows for the

freedom of the hands and the corticalization and specialization of the brain. Just as Stiegler

notes, the human cannot be thought of without technology. Wills remarks that as humans appear

"to be moving inexorably forward toward a biotechnological future," it is crucial to recognize

that there exists "a relation between bios and teckhne [sic] so complex and historical that any

presumption of the priority of one over the other can be sustained only by means of an appeal to a metaphysics of creation" (5). Here Wills notes that a refusal of understanding that humans are always already technical creatures is especially critical given our current march toward biotechnology and bioengineering, and only creationism would be so naive as to think of a pure and distinct human nature without technics. Both Stiegler and Wills argue that, as soon as the first bipedal human ancestor stood up on two legs and freed the hands, the human was a technical creature. Wills writes that "there is technology as soon as there are limbs, as soon as there is bending of this limbs, as soon as there is any articulation at all" (3). This, of course, works to resist the liberal humanist viewpoint, as the human being is no longer a unique and special creature able to procure and use technology (and language which, as we will see, may just be the most preeminent of those technologies). Rather, humans are fundamentally articulated and defined with and through technics. Divisions of human, machine and, as we will see, animals, are no longer useful.

Wills' book intends to theorize and rethink this relation precisely because of its fundamental ethical and moral implications which—and this will become all the more consequential in Wolfe's work— force us to reconsider the treatment of nonhuman animals. Wills is less concerned with the question of the animal in *Dorsality*, and instead seeks to constitute an ethics of and for technology. As we rethink the relationship between human, animal, and machine, the question of ethics automatically moves to the fore. Wills notes that it is impossible and not of any consequence to consider an ethics of the machine, but instead what is required is an ethics which notes that the machine is always imbricated within the human. He writes of not an "ethics dictated by technology, or the nonsense of an ethics of the machine, but

128

rather an ethics that takes account of the machine in the human" (12). Wills' dorsal turn marks a moment wherein ethics must be reconsidered alongside the understanding of the back and spine as key to evolution. Wills believes that once the dorsal turn is theorized as such, once the spine is noted as the originary technology, the human as technical creature can be used to develop a worldview adequate to explaining and thinking through our biotechnological age. Furthermore, Wills argues that there must be a philosophical or conceptual advantage to thinking of the human in this way, and his book largely works to explore the various political, ethical, moral, and sexual consequences. While I cannot devote any more space to discussing the larger consequences of *Dorsality*, as I turn my attention toward the question of the animal, Wills' conception of language will be paramount in our understanding of subjectivity, both for humans as well as other animals.

4. The Question of the Animal

The preceding section exposes how the maxim which drives the dogma of liberal humanism is threatened by the work of those such as Leroi-Gourhan, Stiegler, and Wills. This dogma follows Cartesianism, in that the human is and should be the center of our scientific and philosophical inquiry, because the human has the capacity for language, reason, and cognition. These faculties elevate humans to an ontological status above all other creatures, according to liberal humanism. Stiegler, vis-a-vis Leroi-Gourhan, notes that the very conception of the human as a unique creature defined by its use of various tools—of which language is the most defining—is a fallacy. Humans are not special creatures able to utilize those tools, but rather animals fundamentally imbricated with tools in a co-evolutionary process. The human invents itself in the application of tool use.

As our technicity threatens the project of humanism on one end, so too does our increased animality threaten on the other end. This is to say, if the human has been dethroned due to our reconstitution as fundamentally technical creatures, the ongoing project of posthumanism further reconsiders our relationship to animality and our shared existence with other living creatures. As we will see, the work of posthumanism challenges fundamental ontological presuppositions regarding any division or rupture between humans and animals. The consequence of this challenging is to reconstitute our position toward other animals, ethically and morally. As I move through this space of animal studies, it is important to note that Wolfe's work foregrounds and informs my own history of the discipline.Wolfe notes that posthumanism does not signal a break from humanism; rather, his posthumanism finds worth and merit in many of the undertakings of humanism, but are ham-stringed by their own limited world views. Wolfe, speaking of ethical commitment to nonhumans in humanist philosophy, writes that "the philosophical and theoretical frameworks used by humanism to try to make good on those commitments reproduce the very kind of normative subjectivity—a specific concept of the human—that grounds discrimination against nonhuman animals and the disabled in the first place" (xvi-xvii). In his discussion, Wolfe notes the work of Daniel Dennett, a cognitive scientist whose work continually falls back on issues of human normativity, which inadvertently restricts humans with diminished cognitive abilities from being considered "fully human." As I will show, these philosophical and ethical commitments are most important to the project of posthumanism, which takes it as an *a priori* truth that humans are fundamentally *technical animals*. With this truth, we no longer look upon our own prosthesis as a new world of technics and language which we were fortunate enough to discover; rather, these technics and language exist as a spectrum, of which we have co-evolved

130

with. This spectrum of tool and language use opens up a space for nonhuman animals to make use, thereby further challenging the speciesism of liberal humanism.

This is an important point and one I must stress: posthumanism recognizes a spectrum of tool use and language acquisition that includes nonhuman animals. At the same time, though, it would be exceptionally foolhardy to not recognize that there does exist a fundamental abyss between humans and nonhumans. In the famous lecture series *The Animal that Therefore I Am,* delivered by Jacques Derrida in 1997 and later published in book form, Derrida recognizes that this rupture exists and to argue otherwise would be futile. For him there is no point in discussing a "supposed discontinuity, rupture, or even abyss between those who call themselves men and what so-called men, those how name themselves men, call the animal," because everyone agrees that this distinction exists and to argue otherwise would be "asinine" (30). Despite this recognition of an abyss, we must be careful to emphasize that this abyss does not propel humans into a zone of ethical and moral immunity. As Wolfe argues in his work, our recognition that we *do* in fact possess special tool and language skills can only serve to remind us that we need seriously consider our ethical and moral responsibilities to nonhuman animals, for it is us alone who have this ability.

In *What is Posthumanism?*, Wolfe takes to task various elements of philosophical humanism, which purports the ethical and moral consideration of nonhumans. But, as Wolfe shows, too often humanism not only fails to recognize its anthropocentrism but also reifies it, with disastrous consequences. In a chapter entitled "Language, Representation, and Species," Wolfe juxtaposes cognitive science with deconstruction, focusing on the cognitive scientist Daniel Dennett and his work on cognition. Dennett's work goes to great length to explain

consciousness, both human and other, and this explanation carries with it ethical ramifications. For Wolfe, Dennett's focus on cognition ends up causing more harm than good. As Wolfe writes, "Dennett's apparent functionalism and materialism are unable to escape the spell of the very philosophical tradition (whose most extreme expression is Cartesian idealism) that he supposedly rejects" (34). This is how Wolfe views humanism's foray into ethics: while carrying with it a noble cause, it is unable to escape its own (false) ontological distinctions.

When considering the question of the animal, we must ask ourselves why the ethical and moral standing of nonhumans matter. The answer, for many, is that these are living creatures capable of their own complex cognition. This cognition is different from ours, but this should not banish nonhuman animals from the realm of ethical consideration. Furthermore, our ethical treatment of nonhumans should not, in fact, reside in the area of cognition. Here the work of Jeremy Bentham is paramount to Wolfe's project and, I argue, the entire discipline of animal studies. Bentham's contribution to the ethical treatment of animals can be summed as such: the question we must ask is not "can they talk?" or "can they reason?" but "can they *suffer*?" The ethical onus does not depend on a specialized view of human cognition which lifts us above all animals due to our supposed grasp on language and reason, but rather a recognition that these are living creatures, all focusing on the same thing: the right to exist.

For Wolfe, the Cartesian duality so influential to humanism not only impacts our ontological understanding of nonhuman animals, but certain claims made my Cartesianism further affects our understanding of what it means to be *human*. In illuminating these concerns, Wolfe illustrates why a posthuman understanding of human and animal consciousness is necessary, as the slippery slope of Cartesianism leads to questionable ethical and moral

132

conclusions. In the following passage, Wolfe takes to task Dennett's work for its implications for the treatment of humans with diminished cognitive capacities:

> For example, when Dennett attempts to draw out the ethical consequences of his contention that "human consciousness . . . is a necessary condition for serious suffering" (165), he ends up suggesting that "a dissociated child does not suffer as much as a non-dissociated child" (164). And just as different forms of being human in the world are rewritten, as they are here, in terms of a homogeneous Cartesian ideal, so nonhuman beings, in all their diversity, are now rendered not as complete forms of life that are radically irreducible to such a thin, idealized account of what counts as subjectivity but rather as diminished or crippled versions of that fantasy figure called the human—the Cartesian cogito now rewritten as the user-illusion qua enduring subject. (45)

The issue here, then, is that when suffering is grounded in an extremely limited conception of consciousness, we not only exclude nonhuman animals from ethical consideration, but we also excuse those humans who have diminished cognitive capacities. Further, this view of consciousness is directly related to the human capacity for language which, as Wolfe notes, is unfairly linked to subjectivity.

Wolfe writes that Dennett's ontological distinction between pain and suffering "is based on a set of phantom abilities, anchored by but not limited to language and its imagined representational capacities in relation to the world of things, that no subject, either nonhuman and human, possesses in fact" (46). Wolfe, like Stiegler, believes that humans are technical animals. Part of this technicity has to do with language and its fundamental relationship to subjectivity. Wolfe writes that we are always already inhuman or a-human, not only because of

133

the recognition of our physical vulnerability and mortality, shared with nonhuman animals, but also in the sense that language is "always on the scene before we are, as a precondition of our subjectivity" (89). Language is not fundamentally human, but rather a technic which we have learned to harness. Language is present before we arrive, as an external prosthesis much like any other tool. And of course, just as Derrida suggests, our language acquisition does in fact signal a rupture from other nonhuman animals. This subjectivity, though, need not exclude nonhuman animals from our ethical and moral consideration. Again, we need not employ our exceptionalism as basis for not considering the welfare of the animal, but instead as justification for precisely why we must consider with great earnestness the question of the animal.

Wolfe, along with others, notes that the ethical and moral standing of humans and nonhumans need not rely upon our varying conceptions or sliding scale of cognition; rather, the imperative falls upon us due to our recognition that all living creatures are share with us a limited time on this world. In discussing the philosopher Martha Nussbaum's *Frontiers of Justice: Disability, Nationality, Species Membership* (2006), Wolfe notes, while the work of philosophical humanism takes seriously the ethical consideration of animals and is a worthy project, its theory and methodology fails to properly *locate* the importance of the question. Rather than discuss our shared embodiment with life on earth, philosophical humanism only reifies the Cartesian ideal "I think, therefore I am." Wolfe writes that thinkers such as Martha Nussbaum, Cora Diamond, and Jacques Derrida anchor their ethics in the recognition of our shared embodiment and mortality with fellow creatures. This anchoring is in sharp contrast to previous ethical humanism, which for Wolfe is predicated on humans' supposed uniqueness in the ability to reason, or engage in non-reactive behaviours and actions (62). We cannot seek similar cognitive affinities in

134

nonhuman animals as the basis for moral standing. Rather, our shared embodiment with living creatures forces us to consider the pain and suffering of other animals. When Cora Diamond notes that it is absolutely paramount for us to recognize that "the moral expectations of other human beings demand something of me as other than animal" (478), she makes us aware that, as Wolfe puts it, "it is not by denying the special status of human being but by intensifying it that we can come to think of nonhuman animals not as bearers of interests or rights holder but rather as something much more compelling: fellow creatures" (77). There is a seeming paradox evident in the work of posthumanism: in discussing animal rights, scholars quickly revert to latest developments in the animal sciences, developments which constantly teach us that nonhuman animals are both tool and language using. At the same time, though, posthumanism reiterates the divide between humans and animals by stating that our own moral and ethical dilemmas *require* us to consider the standing of the animal.

This paradox, though, is understandable. Writers such as Wolfe or Diamond might revert back to discussing the latest findings in animal science, but only do so to prove that the liberal human subject is a historically specific construct. It is not that animals and humans exist in more of a continuum than previously thought that we should reconsider our ethical responsibilities, because, as Wolfe proves with his discussion of Dennett's work, falling back on certain cognitive abilities as that which separates us from other animals has dire consequences for *humans* with diminished cognitive abilities. Furthermore, as Wolfe notes, our perceived expertise or domination of tools and language is itself incorrect, but has been engrained and celebrated by the liberal human subject. As Wolfe notes, even Noam Chomsky, the world's leading cognitive linguist, recently argued in a paper with two other researchers, "the available data suggests a

135

much stronger continuity between animals and humans with respect to speech than previously believed" (40-1, qtd. in Wolfe). As noted by Chomsky and his coauthors, and stressed by Wolfe, most of the recent data on language broadly construed "does not tend in the direction of an unquestioned exceptionalism" (41) on the part of humans. Language is a fluid external prosthesis that is accessible by all animals, not an internal mechanism that only humans possess. Marc Hauser (one of Chomsky's coauthors) writes in another article, "organisms possess heterogeneous sets of mental tools, complexly and dynamically put together from genetic, developmental , and learning interactions throughout their lives, not unitary interiors that one either has or does not have" (41, qtd. in Wolfe). Although Wolfe is careful to discuss these various studies on language acquisition for animals, he is also careful to note that these are not the reasons we must extend the ethical and moral sphere to include nonhumans. It is not the idea that only those who have the cognitive capacity to enter a shared contract of justice are worthy of ethical consideration, "but rather the embodiment and finitude of creatures of whatever species who may be deemed, to use Tom Regan's term, the 'subject of a life'" (60). It is our vulnerability, our recognition of the fragility and preciousness of life, which should give us pause to consider our treatment of what Wolfe is more than ready to call "nonhuman *subjects*" (47, italics mine). A proper ethical and moral consideration recognizes them not as nonhuman animals, but as subjects with rights and protection under the law.

This recognition of our shared finitude is, as we will see, one that reaches far back to the world of Aristotle. This historical view of the animal has important ramifications for posthumanism, for it further cements the position that the view of the liberal human subject is a historically specific construction. Wolfe's posthumanism follows closely the writings of Leroi-

Gourhan and Simondon, the latter being particularly instrumental in illuminating the historical changes in our understanding of the difference, or lack thereof, between humans, animals, and other living things. In *Two Lessons on Animal and Man,* which received its first English translation in 2012, Jean-Yves Chateau writes in the Introduction how Simondon is aware that the "Presocratics and Aristotle, in antiquity, conceived of a great continuity between man and animal; But Socrates, Plato, and the Stoics, on the other hand, underlined the singular status of man separated from the rest of nature" (13). Simondon's work here is paramount for posthumanist thought, as it illustrates the historical lineage which finds its apex in liberal humanism. Simondon writes that "everything that lives is provided with a vital principle, the great dividing line passes between the reign of the living and the non-living much more so than between plants, animals, and man" (32). As such, Simondon concludes that, "It is a relatively recent idea to contrast animal and human life, and to see human functions as fundamentally different from animal functions" (32). Historically, there has always existed a continuity between man, animals, and other living things on earth. Following Descartes, though, and the work of modern science, a distinction between human and other life predicated on our cognitive abilities was created. This contrast between animal and human life has, of course, led to dire consequences for animals, as their lives are seen indispensable in the wake of liberal humanism. This is why, for Wolfe, the nature of thought itself must change to recognize a posthumanist mindset. And indeed, as highlighted by Simondon, this posthumanist thought is, in a way, a *pre*humanist thought, as a greater continuity between humans and animals was once believed to exist in the Presocratic world, and indeed by Aristotle himself.

5. Art and the Animal

Now that I have established the historical background to the question of the animal in posthumanist thought, it is important to note how the question of the animal has factored into art and literary scholarship. Wolfe has discussed how posthumanist concerns are evidenced in various forms of art, from Lars Von Trier's film *Dancer in the Dark* to the 1981 musical album *My Life in the Bush of Ghosts* by Brian Eno and David Byrne. To this point, the Posthumanities series by the University of Minnesota Press, edited by Wolfe himself, features many books which explore the role of animals in art. One such work is *Surface Encounters: Thinking with Animals and Art* (2011), by Ron Broglio. In this inventive work, Broglio thinks through and constructs an animal phenomenology, a way to creatively understand what it is like to think and feel as an animal other, and he does so without any serious engagement with biology or natural history. His work discusses various contemporary artists who interrogate the question of the animal through art; Broglio stresses the importance of hybridity for his scholarship. It is the recognition that humans as we think of ourselves are a hybrid species: we are animals who, by our very nature, deny our own animality and, in doing so, create the figure of the human. Broglio writes in his Introduction that "[r]ealizing and taking seriously that there are other beings with other worlds and way of being on this earth means reassessing humanism and what it means to be human" (xviii). Broglio outlines the figure of a hybrid in his work, as that which encourages a recognition of how integral animals are in the lives of humans, represented in the figure of the animal in art. This hybridity encourages a more open and active sympathizing with nonhumans. The recognition of our own animality fosters our rethinking humanism, and this in turn leads us to seriously question the ways in which we think about and treat nonhumans.

138

Broglio's bypassing of biology and natural history informs the following readings of electronic literature for the purposes of this project. Certainly advances in the sciences, including cognitive science and biology, allow us to better understand the inner workings of animals to a degree previously unheard of. Yet we still must recognize that we may never truly know what it is like to think and feel as nonhuman subjects do. Despite this, it is important for us to engage in creative ways the question of the animal. Through this artful engagement, we challenge ourselves to consider our own animality as well as our shared finitude and vulnerability with all living creatures.

This vulnerability extends past nonhumans to the environment and the earth as a whole, as will become fully developed in the next chapter. In discussing how art can allow us to think different, Broglio notes how it is precisely in this site of difference wherein we work toward better understanding our shared existence as vulnerable subjects. Brolgio writes that "much of the history of philosophy has been about mastery of thought over and against the stuff of the world, fragility allows us to think otherwise, to think differently" (xxii). Broglio's book carries forward by exploring this difference, to encourage us to think differently through various examples of art. This difference can certainly be brought out forcefully in artistic creation, be it literature, visual art, or even video games. The following close readings of electronic literature, and the general speculative nature of these sections, operate overtly under the assumption that digital media provides a site of thinking differently in various modes and methods, and allow us to engage in Nussbaum's sympathetic imagining.

6. Digital Media and the Question of the Animal

This section explores various forms of electronic text which explore the question of the animal. Works of electronic literature like the electronic poet Jhave's *The Denial of the Organism,* to Maria Mencia's *Birds Singing Other Bird's Songs*, operate in such a way that the question of the animal is inextricably bound with questioning the role of the human and machine in what Dominic Pettman, in *Human Error: Species-Being and Media Machines* (2011), calls the "cybernetic triangle" (5). For Pettman, this is "the unholy trinity of human, animal, and machine, including the various ways in which hey have been figured, and reconfigured, conceptually over time: sometimes spliced together, other times branching off into different directions" (5). The cybernetic triangle resists divisions between humans, animals, and machines, then, instead arguing for an understanding of a networked assemblage of living things. The argument implicit in the following section is that digital media affords unique and interesting ways to engage in what Nussbaum calls sympathetic imagining. Literature in print form allows us to think with, though, and like not just human others, but nonhuman others as well. Digital media, operating in multimodal forms, allow for different sympathetic imagining experiences. As I will show, there is a wide spectrum of electronic text: on the one end is electronic literature which utilizes certain affordances of digital media but still operates as not much more than remediated print literature, and at the other end of the spectrum are video games which place the player in control of an animal avatar, some even attempting to replicate specific animal phenomenology. This spectrum of electronic text allows us to engage with the question of the animal, oftentimes encouraging a more sympathetic and empathetic relationship with nonhuman others, through exploring and attempting to understand animal phenomenology.

Canadian electronic poet David "Jhave" Johnston is a prolific artist, creating numerous

works published in various digital journals and on the author's own website. His work often

focuses on the nature of human being in a world dominated by technology. Jhave's poetry

attempts to capture the essence of human life as it is continually framed by communication

technologies, and he is interested in how media frames and constructs our consciousness. His

poetry is often metafictional, in that the work is often self-referential and focuses on how poetry

can help us navigate the interstitial space between the real and the digital. In his work *The Denial*

of the Organism, published on Jhave's website in 2012, the poet has created what he calls a

"public domain vivisection footage subtitle poem," which operates as a set of "video-triggered

HTML poems." In this work, Jhave takes a public domain film of Soviet experiments on animals

during the 1940s. The original film features and English voiceover and is titled "Experiments in

the Revival of the Organism." In said film, Soviet scientists perform various experiments on

animals, from removing the heart of a dog and keeping it beating by passing blood and air

through the heart, to removing the head of a dog and recording how the head then responds to

external stimuli as it is being kept "alive" by pumping arterial blood through a pump and

reservoir system, keeping blood and oxygen moving throughout the animal's head. As the film

states, "the artificial blood circulation ensures the metabolism necessary for the life of the head."

This entire film provides visual corroboration of these experiments and, needless to say, is quite

disturbing and difficult to watch.

 The Denial of the Organism is a transitional work of literature, taking advantage of the

multimodal aspects of the digital format, but at the same time it is really a remediated form of

print poetry. The multimodal nature of the work allows the reader to directly confront the harsh

visions of animal experiments; the work is visceral and disturbing, amplified by the visual

images. In a sense, Jhave is limited by relying on the voiceover in order to write his poetry.

Words like "heart" and "lungs" in the voiceover are replaced in this poetry by "art" and "guns,"

respectively. This work does not interrogate the question of the animal in any truly meaningful

way, but it does encourage the reader to think differently about how the knowledge we have

about the human body is oftentimes built on animal sacrifice. In the final section of the film, we

see how the blood of a dog has been drained completely and for ten minutes the dog is dead;

after ten minutes, the blood is pumped back into the dog and it is shown to regain consciousness.

The dog cannot move around, too weak from the experiment, but the filmmakers treat the

experiment as a significant success. Here Jhave interjects his own poetry into the work, while the

film plays orchestral music:

rousing
propagandic
music

emerges
from its flesh

the hands that
cut its throat
now caress it

out of love
out of love
out of love (156-7)

The Denial of the Organism is about the relationship of animals to humans. In order for humans

to fully know themselves, we have turned to using animals in various experiments in order to

better explore what we are. The title of the work—changing "The Revival" to "The Denial"—

emphasizes that the film is about denying nonhuman others the right to a life, to a proper Being-in-the-world. Jhave is able to better emphasize the sacrificial nature of animals in our lives through the use of the film. *The Denial of the Organism* is a work of electronic literature that utilizes the digital medium to more forcefully work through its themes. As said, though, it is a work that is more remediated print poetry than a fully operative, experimental work of electronic literature. Calling forth the importance of the posthumanist thought in art, Jhave writes that, "the question / of the denial / of animals / is one of the most / interesting problems / in poetics today" (171). As mentioned, I see Jhave's work as a transitional artwork, bridging the gap between print and digital. I will now discuss the work of Maria Mencia, whose work offers up a new way to think of the relationship between humans and nonhumans.

Maria Mencia is an artist-researcher and professor at Kingston University in London. According to Katherine Hayles in *Electronic Literature,* Mencia's work is interested in "reconfigurations possible with digital technologies of the traditional association of the sound with the mark" (71). Mencia's work is particularly interested with the history of media technology and, as the author herself describes in her doctoral dissertation, in the "exploration of visuality, orality and the semantic/'non semantic' meaning of language" (Methodology, np). *Birds Singing Other Birds' Songs* is an installation that was first presented as a video artwork and is now available in a Flash version on the internet. I want to note here that the following discussion of this work is indebted to Katherine Hayles own discussion in her book *Electronic Literature.*

In *Birds Singing Other Birds' Songs* (2001), Mencia takes the sound of birds singing and transcribes those sounds into morphemes representing the human perception of those songs.

These morphemes are then used to form the body of birds in flight, their bodies presented as creations of the human voice. Katherine Hayles discusses how the work presents a complex work of hybridity between humans and nonhuman others:

> In the complex processes of translation that the work instantiates, the human is in-mixed with nonhuman life forms to create hybrid entities that represent the conjunction of human and nonhuman ways of knowing. The work can also be understood as a reenactment of the history of literacy through different media as it moves from sounds present in the environment to written marks (orality/writing), written marks to the iconographic shapes of the animated avian bodies (writing/digital images), accompanied by the re-representation of human speech as computerized voice production (digital multimodality). (73-4)

Mencia's work provides an interesting example of a hybrid form of art; the integration of the animal into the work is integral. As noted by Hayles, the work is also a rumination on the nature of media and transcription. The figure of the animal, as it exists in *Birds Singing Other Birds' Songs,* is integral to the formation of the art. The song of the birds mixes with human language to form a sort of creole. The work is an interesting example of how digital media can help us negotiate the divide in language between humans and nonhuman others, and provides a unique view of how we might begin to understand an animal art.

Both *The Denial of the Organism* and *Birds Singing Other Birds' Songs* use the particular affordance of the multimodal digital platform to create works of electronic art which foregrounds the question of the animal for their thematics. While these works are interesting uses of the digital for confronting the question of the animal, I argue that the digital provides a unique form

of "sympathetic imagining." As noted, Nussbaum seems the power of sympathetic imagining in literature; inhabiting and exploring the perspective of others is a powerfully way in which humans can become more sympathetic, empathetic members of the community of the living. Literature, though, is composed of written language, of which humans are the sole users. Digital media in general, and video games in particular, allow us to better contemplate our shared finitude and vulnerability through exploring different phenomenologies in an artistic manner. Inherent in this discussion, then, is that the idea of electronic literature is capacious in such a manner that other forms of electronic text, such as video games, can be productively discussed alongside works of literature. The following section explores the role of animals and animal phenomenology in electronic texts, including video games.

7. The Animal in Digital Art

My entry point into thinking about the role of the animal and animal phenomenology in electronic texts is a unique browser "game" called *What is it like to Be a Bat?*, by Jeremy Griffith, published on the author's own website. In a sense, this game functions as a bridge connecting the low-budget, single author works of electronic literature to the big budget, collaborative triple-A games of major developer studios. Griffith introduced the game to the website Reddit, on the subreddit specializing in Philosophy. In his post to the site, Griffith discusses the creation and inspiration for the game and the role games can play in exploring different phenomenologies. Griffith writes that his game "inspired by Thomas Nagel's essay 'What is it Like to Be a Bat?'" because the author believes "that games can be used as tools to experience weird phenomenologies." Griffith discusses the term "unnatural participation" which

he borrows from Deleuze and Guattari. In *A Thousand Plateaus,* Deleuze and Guattari argue that

the animal "and the man are in no way the same thing, but Being expresses them both in a single

meaning in a language that is no longer that of words, in a matter that is no longer that of forms,

in an affectability that is no longer that of subjects. Unnatural participation" (258). Moving away

from a literature that is reliant upon the written word (of which the animal does not have access)

and into an electronic text, seeks to explore animal phenomenologies through a type of play—

play which allows us to participate in the process of imagining and becoming a different Being.

What is it like to Be a Bat? is a Unity-based game which works in your internet browser.

The game places you in a first-person view, an imaginative look into what a bat might see or

hear. In order to control the bat, the player uses the keyboard keys W A S and D. Players familiar

with standard first-person shooters on a PC are familiar with this control scheme, as it is

generally the way you move your avatar around the world. The game allows you to fly, by

pressing the Space button to flap your wings. Finally, the left and right mouse buttons are used to

'screech.' This sends out a sonar wave, which then allows the player to get a feel for the world.

Screeching allows the bat, and thus the player, to "see." Moving the mouse around allows you to

swivel your field of view. The purpose of the game, which really is the only "game-like" element

to this electronic text, is that you are tasked with finding bugs to eat before your hunger

consumes you and you "die," effectively ending the play session.

Placing the player in the position of a bat illuminates the fragility and vulnerability that

humans share with all animals. The game takes full advantage of the digital medium, providing a

unique electronic space which attempts to replicate how a bat navigates through the world

relying only on its sonar. The game is difficult; it is hard to navigate through the space, and even

after spotting a bug in the space it is often gone before you move toward it. It is easy to die, and very frustrating. Perhaps as sign of poor game design, nevertheless the level of difficulty reminds us again of our shared finitude with nonhumans and the struggle all creatures face in survival. The bat cannot see which, if you only read this fact, is something that you cannot really imagine what it is like. *What is it like to Be a Bat?,* though, effectively provides an imaginary space for us to inhabit a different sort of phenomenology, one so different from our own. This is the power of electronic texts: to allow us to imaginatively inhabit a different form of Being-in-our-world. Griffith's game is a unique, experimental game, one that we unfortunately do not see enough of. The game takes seriously the issue of animal phenomenology, and in doing so ventures into the realm of sympathetic imagining. Using the unique multimodal aspects of the digital platform, the game allows us to imagine what it is like to have the attributes of a bat. Of course, the takeaway here is that we can never truly know what it is like to be a bat, just as we cannot know what it is like to be someone else. But it is important, for us as humans to take seriously our ethical and moral commitments to nonhumans, to be able to put ourselves in the role of the other.

What is it like to Be a Bat? attempts to portray the attributes of a bat. In critically analyzing this work, and exploring what it means for our ability to sympathetically imagine how other animals exist in the world, it is important to note that these sorts of games cannot escape our anthropomorphism. Regardless of any desire or potentiality to explore animal phenomenology in digital media, we must always recognize our ingrained anthropocentrism. We are limited by our own frameworks, our own ways of seeing and being in the world. We can never truly know what it is like to be another being in the world. Despite this, though, electronic literature and video games provides a conceptual space through which we can begin to consider,

in whatever limited way we can, the complex and different minds of other animals. Furthermore, knowing that we cannot escape our anthropocentric sympathetic imagining, perhaps we can use these works of digital art to pause and ponder our own limitations, our failings, and our own limited ability to fully consider and appreciate the inner lives of nonhumans.

Before I delve completely into exploring the animal in video games, I want to take a quick sojourn to illustrating the importance of animals in the history of visual media. I do so to note that the figure of the animal has always been intimately connected to art; we have a fascination and admiration of animals, and this comes through forcefully in our art. Some of the earliest examples of visual art are cave paintings, etched on the walls of our ancestral homes some 40,000 years ago. These paintings are similar all around the world, and animals figure heavily into these images. It is not clear the purpose of these images for our ancestors, but it serves to illustrate a fascination and an impressive desire for verisimilitude in our representations of animals. Jumping further ahead, early examples of hand-drawn animation focused on the quixotic representation of animals. One of the earliest animated films is from 1914, *Gertie the Dinosaur,* created by the successful newspaper cartoonist Winsor McCay. The first feature length animated film, *Snow White and the Seven Dwarfs* (1937), by Walt Disney, features an extensive list of animated animals. This, of course, follows Disney's first notable breakthrough in 1928 with *Steamboat Willie,* featuring the anthropomorphic mouse Mickey. Moving along, early IMAX films were almost all nature documentaries. The subjects of these films were not only picturesque scenery of awe-inspiring locations, but were often focused on the animal inhabits of said locations. Certainly there is a fascination with animals in our media—they figure heavily into media technologies, often as a means of showcasing the true mimetic and representational

148

possibilities of these new media. This fascination with animals is evident in video games as well. As I will show, the early games often featured nonhuman characters, or anthropomorphized animals as playable characters. My purpose here is to explore the relationship between players and their avatars, and how exploring animal worlds in video games can encourage more sympathetic ways of thinking through the question of the animal.

8. Videogame Avatars

This section explores the role of animals as player characters in video games. I argue that video games provide an imaginary space for entering into an emphatic relationship to nonhuman others through simulation and immersion. Though animal welfare may not be the main point of interest for most game players and designers, by entering into a fictional space and taking on the role of a nonhuman other, players begin to better think through nonhuman fragility, finitude, and vulnerability. Admittedly, the video games explored in this section are not elaborate modes for exploring complex animal phenomenologies; rather, the examples here serve as short forays into the world of simulation which, for all intents and purposes, allow us to creatively explore other modes of Being-in-the-world.

As the history of different media technologies, noted above, has proven, animals are often center stage as we begin to experiment with new medial formats, and video games are no exception. As Gonzalo Fransca notes in "Rethinking Agency and Immersion: videogames as a means of consciousness-raising," until quite recently, "most video games characters did not reflect our everyday life for the simple reason that most of them were trolls, aliens, and monsters" (np). Either because of graphic constraints, or a desire to play as the other, most early

video game characters were nonhuman. Games such as *Pong*, published in 1972 by Atari, and

Space Invaders, published in 1978 by Taito, featured disembodied modes of controlling a paddle

or a spaceship, respectively. Human characters or avatars did not exist. Many of the successful

video games of the following two decades did not feature human characters, such as *Donkey*

Kong (1981), *Frogger* (1981), *Q*bert* (1982), and *Pac-Man* (1980). Again, this could be the

cause of limits in graphical power and fidelity; after all, the famous anecdote about the character

of Mario from the *Super Mario Bros.* (1985) video games is that he only had a moustache in

order for the player to successfully distinguish between his nose and the rest of his face: the

moustache provided a colour barrier, etching out his face with more detail. Regardless, the role

of the animal and other nonhumans feature prominently in the history of video games. It is not

until recently, though, that video games engage with animals in any sort of thoughtful or

meaningful way, due to the increased computing power and capabilities of video game systems.

These newer games allow us to control nonhumans in situations which, due to their increased

fidelity as simulations, can more forcefully engage the question of the animal.

9. The Player, The Avatar

Implicit in this discussion of video games encouraging players to think differently about

the world is the idea that video games carry forth a rhetorical element. There has been extensive

scholarship on the notion of a boundary between the play space and the real world. Indeed, much

of the early work done in game studies was influenced by the noted Dutch theorist Johan

Huizinga, who in his seminal book *Homo Ludens* (1955) argued that games were played in a

magic circle, which creates "temporary worlds within the ordinary world, dedicated to the

performance of an act apart" (10). This early work purports a false dichotomy though, one in which games are specifically fantastical acts of play which have no bearing or effect on the real world. Later scholarship, such as Sherry Turkle's work on identity in the digital age, or Ian Bogost's theory of procedural rhetoric, notes that the relationship between games and the real are infinitely more complex and interwoven, eradicating the notion of a schism between the two. In *Life on the Screen* (1995), Turtle various ways we come to understand simulation, one being the role of simulation as social criticism. She sees simulations as providing a space for challenging assumptions about the world. A simulation theory and criticism would view simulations as "a means of consciousness-raising" (71) which can help foster more engaged, critically discovering players. This is the argument that I draw upon over the following pages, as I explore the various ways in which video games allow us to inhabit, however artificially, the body of an animal in a virtual environment. This inhabitation acts as a means of "consciousness-raising," providing the player works toward engaging in a meaningful way with the game.

The relationship between the player and the avatar is complicated and divisive as well. The magic circle idea put forth a theory that video games are a site of escape: the player is able to create an entirely different persona through the avatar, as a possible extension or opposition of the real world self. The avatar is the visual representation of the player on the screen. The avatar is what that player controls to move about the virtual game space. In *Hamlet on the Holodeck* (1997), Murray discusses this relationship between player and avatar when she states avatars "provide alternate identities that can be energetically employed" (113). These avatars can be as complex as fully rendered 3D models, or as simple as icons used in internet chat room. I am not arguing that playing as an animal in a video game allows us to don the mask of an animal, but it

does help us *imagine* what it is like to be another living creature in the world—and this imagining can help foster more sympathetic relationships to nonhumans as we begin to consider their own unique, complex cognition and behaviours. As Murray writes, "working on the computer can give us uninhibited access to emotions, thoughts, and behaviors [sic] that are closed to us in real life" (99). Video games operate in this same mode: they allow us to explore different life worlds, effectively encouraging the sympathetic imagining that Nussbaum champions. In what follows, I explore the video games *Ecco the Dolphin* (1992), *Tokyo Jungle* (2012), as well as *Tamagotchi* (1996) and *Neopets* (1999), all of which allow us to play as animal avatars in various meaningful, sympathetic ways.

10. *Ecco the Dolphin*

Ecco the Dolphin is an action-adventure game released for the Mega Drive and Genesis home video game consoles, published by Sega in 1992. The player controls the player-character of Ecco, a dolphin who finds himself alone after his pod mysteriously disappears, and must travel through time to combat hostile extraterrestrials in the Earth's oceans and on an alien spacecraft. In controlling Ecco, the player is able to perform actions based on actual dolphin abilities. Pressing one button prompts Ecco to sing, which allows him to speak to other creatures of the deep and interact with objects. This same button is used for echolocation: by holding the button down, Ecco releases a sonar wave which can then be used for navigation. This is very helpful, as the player must guide Ecco to the surface in order to breath, or to various pockets of air found in the depths of the ocean. The game is now dated, but in 1992 was lauded as an example of the beautiful graphics capable on the Sega Genesis console. *Ecco the Dolphin* is not a

game which explores animal phenomenology in any meaningful way; the game is innovative and distinct from most games of this era, and certainly a decision to entertain while exploring animal relationships was made by the designers. The game does, however, encourage an exploration of the relationships between dolphins, their environment, and other sea creatures. In presenting the familial bonds of dolphins, the game forces the player to rethink the capabilities and lives of nonhumans.

In turning on the Sega Genesis console with the *Ecco the Dolphin* cartridge inserted, the game begins with a small visual representation of Ecco as the dolphin swims and jumps out of the water with his familial pod. Once this brief intro cinematic ends, there is a quick menus screen and then the game begins. The player takes control of Ecco as he swims and plays with his pod. Pressing the button to sings allows Ecco to talk with members of his pod. The dolphins speak poetically, telling Ecco things like, "The marks on your head look like the stars in the sky," and asking, "Ecco, if we breathe air why do we live beneath the waves?" These are intelligent animals, capable of communication and language in ways that we historically have reserved for only humans. The dolphins are playful and caring to one another; this is a family in all senses of the word. One dolphin asks Ecco, "How high in the sky can you fly?", to which the player responds my tapping the swim button repeatedly to gain speed, enough so as to breach the surface and "fly" in the sky. Once in the air, a strange whirlwind enters the screen and carries off with it all the sea creatures of this particular scene, leaving behind Ecco to figure out what has occurred.

The player then guides Ecco into the next level of the ocean, whereupon he meets another dolphin. This dolphin speaks to Ecco, saying "I am sad for you. I know not of your pod." This is

not the place for providing a plot summary of the game, but as the player guides Ecco through his journey he meets orca whales and other creatures who provide advice and other thoughts, such as stating that Ecco's journey is "long and dangerous." In fact, an orca whale provides the player with the most meaningful clue for locating his family, by suggesting he find and talk to the "Big Blue." The Big Blue is the oldest creature in the sea, a blue whale around 500 years old. Big Blue is revered for his experience and wisdom, and he guides Ecco toward the completion of his journey. This is a game which represented a beautiful aquatic ecology, one in which the creatures of the deep work together to help each other. Ecco is alone on his journey, but the ability to speak with other aquatic creatures. Affording these creatures this level of language places *Ecco the Dolphin* above many other games of the time which featured nonhuman characters and avatars, for it more fully develops a sympathetic portrayal of nonhumans. Even before Chomsky and his co-authors argued that animals were closer to humans in speech than previously thought (as mentioned above), *Ecco the Dolphin* presents a continuity between dolphins and humans which should give pause to the player, encouraging us to reconsider the linguistic domain. Procedurally, the game enforces the vulnerability and finitude of nonhumans, as the player must pay mind to Ecco's health and oxygen gauges. For an earlier game released on a less powerful console, *Ecco the Dolphin* still provides an example of a game which encourages sympathetic representations of nonhumans through its content and procedures. These themes found in *Ecco the Dolphin* are developed further as video games age and mature, as evidenced in *Tokyo Jungle.*

11. *Tokyo Jungle*

      Tokyo Jungle, released in 2012, is an animal survival game developed by now-defunct studio Crispy's and published by Sony Computer Entertainment for the Playstation 3 game console. In the game, the player controls a variety of animals as they roam the deserted streets of a futuristic Tokyo, long after humans have become extinct. *Tokyo Jungle* features a story mode, wherein the player controls an animal through various missions, eventually learning the truth of the disappearance of the humans. As the player progresses through the story, it becomes apparent that the humans have abandoned this current time period, which explains why there are dinosaurs roaming the city. Playing the game uncovers emails and artifacts which explain that humans in the year 2027 received a message from the year 2215, informing them that the Earth was headed to catastrophe. This causes the humans in the year 2027 to experiment with time travel, looking to end up in a time period that is safe. The consequence of their time traveling is that all the animals are left behind to fend for themselves in the year 2027. For our purposes, this is the extent of exposition I will provide. Rather, I discuss *Tokyo Jungle* as a game which explores animal vulnerability through its processes; although perhaps not intended, it is important to note that the game serves to highlight the almost symbiotic relationship between humans and their companion animals.

      The story mode features the Pomeranian breed of dogs prominently. In the game, after the player's avatar (the dog) runs out of pet food, he must now explore the abandoned streets of Tokyo in search of food. The process of hunting is crucial to the player's survival. The game allows the player to sneak around, using tall patches of grass to sneak up on unsuspecting prey. Animals such as rabbits exist and are often hunted by the player. The player also has the ability

155

to mark territory, thereby controlling certain parts of the city. The main task in *Tokyo Jungle* is to survive, and doing so requires finding a mate and breeding. The success of your animal character depends on building a strong family, capable of fending off larger animals and hunting for more food. The player is able to select a partner, find a small nest of grass, and procreate. This grows the player's pact, becoming stronger for the end game boss fights (which are often in the form of fat cats).

Through the process of survival, the game of *Tokyo Jungle* serves to remind the player of animal fragility, finitude, and vulnerability. Inherent in the game is the idea that every living creature on earth shares the same end goal: to survive. Finding a mate and bringing up a pact of offspring is a key to long term survival, emphasizing the similarities between humans and nonhumans. The very fact that these animals are capable of companionship, that they seek out mates and social groups, should give us pause to consider how we discuss and think about the ability for animals to have feelings, in some sense. *Tokyo Jungle* presents a world of social order for animals that is usually not extended past the limits of human culture and indeed, this is how the game encourages a sympathetic imagining which seriously considers the complex social structures and inner lives of nonhuman animals. Furthermore, playing the game serves to remind us of our own companionship to our pets, our companion animals. If we are responsible, considerate pet owners, we devote time, attention, and affection for our companions. *Tokyo Jungle*, though, explore social dynamics of animals alone, thereby encouraging us to think about the sorts of relationship we are preventing our animals from having with their own kind, so long as they are solitary companions to humans. In this sense, *Tokyo Jungle* is similar to both *Animal Farm* (1945) by George Orwell and *Watership Down* (1972) by Richard Adams, in that the game

156

presents a social order among nonhumans. The difference, though, is that the animals in *Tokyo Jungle* are less anthropomorphized, as they do not have the ability to speak, nor do they carry any sort of historical culture with them. Rather, *Tokyo Jungle* presents a harsh world of survival, one in which the shared finitude of all animals is felt by the player through the processes and procedures of the game.

12. *Tamagotchi* and *Neopets*

The *Tamagotchi* and *Neopets* are examples of digital pets. This is a genre of digital game which places the player in a position of responsibility, as the goal here is to foster and take care of a digital pet. The *Tamagotchi* is a handheld digital pet, released in 1996 by games company Bandai in Japan and later sold worldwide. *Tamagotchi* are generally housed in a small egg-like shell, with a rudimentary LCD screen and three buttons, which are used to feed, play, and discipline the digital pet. The game is first activated by pulling a tab when the game is unboxed, and thus the digital creature is hatched and available to play with. The goal of the game is to keep your digital pet alive and happy for as long as possible. There is a built-in clock in the computer, which keeps track of the day/night cycle. Because of this, the Tamagotchi often falls asleep during the night. Generally geared toward younger children, the game is often marketed as a way for kids to learn responsibility and the realities of looking after a pet.

Similar to the *Tamagotchi*, *Neopets* is a virtual pet website, launched in 1999 by Adam Powell and Donna Williams. Users of the website create accounts, own virtual pets, and use virtual currencies to buy items for their Neopets. Much like a *Tamagotchi*, *Neopets* have no set objective or end goal for the user, but the purpose is evidently to feed and care for a virtual pet so

that they can grow. Unlike the *Tamagotchi*, *Neopets* can battle against other virtual pets or non-player characters. Furthermore, there is a virtual planet called Neopia, with different lands hinged on themes such as Pirates or Prehistoric Times. The system is very robust, with a mailing system and a chat board system; thus, there is a very vibrant and active community playing *Neopets*. Again, much like *Tamagotchi*, *Neopets* is often praised for its educational merits, in teaching children responsibility. Furthermore, as the game is customizable, it can also teach very basic HTML programming.

Both the *Tamagotchi* and *Neopets* are examples of digital technology fostering a sense of care and attention, in this case toward nonhuman animals. These games use processes to establish a relationship with a digital pet. These pets can be become sick and require medical attention, and constantly require play and food to develop into a healthier, adult version of themselves. *Tamagotchi* and *Neopets* use the digital platform to foster a sense of empathy between the player and the digital pet. Digital processes remind the player of the fragility of a living creature, through the playful interactions with a digital pet. These digital pets are fragile, and they require deep care and attention for a long life. A neglected *Tamagotchi* or *Neopet* will eventually "die," requiring the player to start over. Presumably, with the required amount of time invested into the games, the player forms an empathetic relationship with her digital pet, and thus the passing away of these creatures serves to remind us of our interconnectedness with nonhumans and, indeed, reliance on our own companion animals. In this case, the digital processes require active participation with the digital pet, more than reading a book about a pet dog would require, for example. The nature of digital gameplay fosters a more empathetic

relationship, enforcing a notion that humans and nonhumans all share fragility and finitude on this world.

In conclusion, digital technology opens up a new space for thinking through different phenomenologies and ways of being in the world. The works discussed in this chapter extend literature's ability for "sympathetic imagining," through their ability to place the user, reader, or player in direct control of an animal avatar or character. In essence, these works encourage an exploration of the shared fragility and vulnerability that we as humans must recognize in nonhuman subjects. I contend that by experiencing these digital objects we further recognize our imbrication within a complex network of humans, animals, and machines, and it is our responsibility alone to consider our own actions and repercussions for all living beings on our living planet.

Chapter Four

Living Ecologies and the Environment in Digital Media

In a moment of serendipity, I was watching videos on YouTube a few days before I had planned to start writing this chapter on eco-criticism and digital media. In doing so, I came across a video that was uploaded almost five years ago, on 8 July, 2010, from a YouTube user named Dave Oxford. The video is of a competition held at the Annual Green Fair and South West Scythe Festival, held in Somerset, United Kingdom. It is titled "Scythe vs. Brushcutter 1 - South West Annual Scythe Festival - June 2010." In this video we see the British Scythe Champion working against an experienced agricultural worker working with a three-tine brush cutter (or "weed wacker" as they are normally called in North America). Working with a patch of grass which, to my eyes, looks to be about ten feet long by five feet wide, the competitors enter a race to see who can cut the grass the quickest. Perhaps unsurprisingly, given the critical bent of this dissertation, the Scythe Champion is able to use the agricultural hand tool to quickly cut the patch of grass in around thirty seconds; the worker with the gas-powered brush cutter finishes in almost double the time.

In many ways, this is a rather fitting way to begin a chapter on eco-criticism which, in no uncertain terms, explores the environmental impact of humans, culminating in the now all-too-real global environmental crisis. That the human-powered scythe is able to cut through a patch of grass in half the time required of a gas or electric device should give us pause to reconsider our supposed technological "progress." Oftentimes the justification for new devices and new technologies is that they will make our life easier—tasks will be simpler, leading to more free time and happier lives for all of us. But the use of the scythe in the video challenges this notion

of supposed progress: clearly, new technology is not always responsible for making these little tasks quicker and easier. And of course, the question that must follow is such: if these new technologies are not making our lives more efficient, and at the same time are more damaging to the environmental and ecology of our planet, why do we continue to use them? Furthermore, is efficiency a cornerstone to human happiness and fulfillment? How can we justify using machines which use electricity or petrol, and thus have a more negative impact on the environment, when a simple to use, human-powered scythe, is able to accomplish the exact same task? Indeed, as Andrew McMurry is quick to point out in his retrospective "Critical Ecologies: Ten Years Later," as a species, "we have the power to modify our surroundings to suit our needs but not the wisdom to suit our needs to our surroundings" (np). In other words, we should pause to consider how our actions impact the environment, how these actions are predicated on a relationship to technology, and how might we better curb our actions to ensure the future of life on this planet.

Pausing to reflect on our impact on the environment is precisely what Dutchman Tommy Kleyn did when he decided to clean up a riverbank he passed every day on his way to work. Kleyn decided to bring grippers and a garbage bag each day to clean the Schie waterway, noting that it usually took about thirty minutes to fill up one bag with garbage. Through a Facebook page, he tracked his progress and informed his friends of his work. Over time, this inspired many of his friends and even passersby to join him, effectively cleaning up an entire section of the riverbank. A translation of a Dutch report from RTV Rinjmond notes that it was the artist's three-month-old son who inspired him to take action. "What do I say when my son asks why this is such a mess?" the artist noted. Keeping track of everything on Facebook allowed his story to gain popularity and Kleyn responded by asking people to take a mere 30 minutes out of their

year to fill a trash bag with litter. According to reports, residents of Skagen, Denmark got together to collect 950 kilograms of litter from a local beach. Finally, in a Facebook post from 16 April, 2015, Kleyn posted a picture of a bird with the following text: "And the real reward for me was this: A Eurasion Coot started nesting in the part wish [sic] I cleaned."

Kleyn's story is notable for a number of reasons, but most pertinent to this chapter and the larger goal of this dissertation are the ways in which it illuminates the interconnectedness and interdependence all forms of life share on this planet. In cleaning up a stretch of the Schie waterway, Kleyn was able to observe a nesting bird in an area that before was far too littered with human waste and debris. Furthermore, Kleyn notes that his son was a catalyst for cleaning up the river; Kleyn notes an urge to take care of the earth and its inhabitants, a duty he has to preserve that natural world for his son and future generations. In many ways, this goal of taking care, which Bernard Stiegler emphasizes in his book *Taking Care of Youth and the Generations* (2008), rests at the heart of this chapter. In exploring the role of eco-criticism in posthumanism, and illustrating the various ways that digital media projects such as electronic literature and video games might play in the eco-critical project, this chapter advocates a way of thought and action that asks us to "take care"—of each other, of other animal life, and of the natural environmental structure and integrity of the planet which sustains us all. In many ways, then, this chapter, while emphasizing how eco-criticism is a valuable tenet of posthumanism as it requires us to rethink our perceived superiority and uniqueness by way of thinking through our actions and the shared ecological network of this planet, also serves as a conclusion to my project. As I will show, the work done in eco-criticism concludes the work laid out in my previous chapters— specifically, eco-criticism brings together an emphasis on biopolitics and animals to discuss the

role of the human in the natural ecological structure. Thus, the ways in which we govern ourselves and hold ourselves responsible for our environmental impact directly affects nonhuman animals and the holistic health of our planet and, as I will show, the role of our digital art is to provide a conceptual space for us to pause, ponder, and reflect on our imbrication within a greater system.

This chapter explores the power of digital media for extending the previous chapter's argument of sympathetic imaging. Indeed, the explicit thesis of this chapter is that humans are situated within ecological and networked systems, and our entanglement in this systems is one that we can no longer ignore, as we race towards a global climate crisis. I argue that sympathetic imaging is not only useful for thinking of other organisms and phenomenologies, but can be extended outward to consider ecological systems and networks. The works of electronic literature and video games discussed in this chapter allow us to imagine beyond ourselves, to consider the relationship of living and nonliving elements of our planet, and instead to consider the possibility of defining life as a system. In other words, perhaps it is best to consider life holistically, as a complicated assemblage of a variety of actants and non-actants, rather than in simply biological terms. Indeed, as we will see in the work of Jane Bennet, rethinking vitality in this way has immense consequences for our ethics, politics, sexuality, and morality. In many ways, then, this chapter launches off from the work of Timothy Morton, who sees an explicit and consequential relationship between art and ecological concerns.

1. Timothy Morton and the Role of Art in the Ecological Thought

Timothy Morton's espouses his own eco-criticism in his books *Ecology Without Nature: Rethinking Environmental Aesthetics* (2007), *The Ecological Thought* (2010), and *Hyperobjects: Philosophy and Ecology after the End of the the World* (2013). For Morton, the ecological thought is an opening, one that thrusts upon us new ways of imagining our world. Morton writes that the "ecological crisis we face is so obvious that it becomes easy . . . to join the dots and see that everything is interconnected. This is *the ecological thought.* And the more we consider it, the more our world opens up" (1). The ecological thought is an awareness of our actions and their impacts on the natural health of the world. But for Morton, the ecological thought is not just thought, but action. In order for the ecological thought to take proper hold, it must be put into practice. Morton wishes to see new forms of politics, commerce, and governance which takes into account the current ecological crisis in its forms and processes. He writes that the ecological thought is "a practice and a process of becoming fully aware of how human beings are connected with other beings—animal, vegetable, or mineral" (7). And if we are to properly consider how human beings are inextricably bound with nonhuman actors, this means we must begin to question democracy. Morton then asks, "What would a truly democratic encounter between truly equal beings look like, what would it be—can we even imagine it?" (7). Again, like Bennett, Morton does not leave us with a fully mapped out blueprint for how new forms of democracy or politics might look (and how can blame them for this massive undertaking). Where his work takes a necessary and crucial turn, though, is in his insistence that the ecological thought must first take root in art.

Morton suggests that art and environmentalism are more similar than previously conceived. Beginning with *Ecology without Nature*, Morton turns to considering art, "for it is in

164

art that the fantasies we have about nature take shape—and dissolve" (1). This work turn to literature of the Romantic period, which is commonly noted for its focus on nature; for Morton, this literature—more than any other era—"still influences the ways in which the ecological imaginary works" (1). Fleshed out in more detail in *The Ecological Thought*, Morton notes that art might begin to tell us more about the natural world precisely because it helps us imagine new worlds, or question our own. He writes a truly ecological thought must involve being open, forever, to moving past anthropocentrism and our own supposed dominion over all living things. Interestingly, for Morton the ecological thought can best be override in art, because both art and the environment are partly matters of perception. Morton writes that, "Art forms have something to tell us about the environment, because they can make us question reality" (8). Our conception of nature as distinct from culture is a matter of terminology and language, thus it is a matter of perception. Art, then, in its ability to play with perception, opens a space from which to challenge the nature/culture bifurcation in creative ways. This in turn can help shift the nature of thought to a properly ecological one, just as Wolfe notes that the nature of thought must properly become posthumanist. And, in the vein of Stiegler's conception of "care," in *Ecology without Nature*, Morton stresses how "[a]rt could help ecology by modelling an environment based on love (*eros*) rather than death (*thanatos*)—as is the current technological-industrial world" (24). As previously discussed, we have seen how easy a biopolitics shifts to a thanatopolitics. For Morton, our current political, industrial, and technical systems are modelled on *thanatos*, on the greed of the few at the expense of the many; art, though, opens up a space to challenge this, and instead could provide the grounds for new forms of ecological action.

This chapter branches out from Morton's work, as I look at works of electronic literature and video games which are actively engaged in the ecological thought. My hope, then, as is the case with the previous chapters, is to elucidate a form of literary or media criticism which works to think through issues of the environment. As the following passage from Morton suggests, in the future we might not only discuss works which are explicitly about themes of environmentalism or animal welfare, for example, but instead work through a methodology which gets at the heart of these concerns in every work of literature. Morton writes,

A truly ecological reading practice would think the environment beyond rigid conceptual categories—it would include as much as possible the radical openness of the ecological thought. Ecocriticism has overlooked the way in which all art—not just explicitly ecological art—hardwires the environment into its *form.* Ecological art, and the ecological-ness of all art, isn't just *about* something (trees, mountains, animals, pollution, and so forth). Ecological art *is* something, or maybe it *does* something. Art is ecological insofar as it is made from materials and exists in the world. . . . Nowadays we're used to wondering what a poem says about race or gender. We will soon be accustomed to wondering what any text says about the environment even if no animals or trees or mountains appear in it. (11)

Thus, for Morton, all art is ecological, and thus criticism can follow through on these themes. Art allows us to pause, gives us a break from the busy world, a relief from the commercialism and marketing of techno-capitalism. Works of electronic literature and video games are not exempt from this. Morton stresses that art is made from materials and exists in the world, and digital media carries an enormous carbon footprint, due to the amount of materials, metals and plastics

included. Digital media, then, might dwell on its own materiality and its own place in global economies and ecologies. The following works of electronic literature and video games dwell on this materiality, on the reality of human impact on the natural world.

Building from this critical work, I then turn to works of digital art that interrogate, challenge, and encourage environmental themes. Firstly, I look at the electronic literature work entitled *TOXI-City*, a collaborative work by writer Scott Rettberg and digital media artist Roderick Coover which explores the environmental impact of the involuntary release or seepage of toxic chemicals into waterways. Following this close reading, I will discuss the work of Thatgamecompany, an independent video game development studio co-founded by University of Southern California students Kellee Santiago and Jenova Chen in 2006. Thatgamecompany's works include *Flower*, from 2009, and *Journey,* from 2012. All of these works of digital media art explore environmental impact and the interconnectedness of living things. Again, I argue that these works take particular advantage of the capabilities of a digital platform, thus providing unique storytelling avenues for works of eco-critical thought. In doing so, though, I am not blind to the environmental impact of digital technology itself; in discussing these works I will also illuminate the link between digital media and eco-criticism. My readings of these digital media works emphasize Timothy Morton's assertion that art most certainly has something to tell us about the natural world. For Morton, the role of literary criticism and theory (to which I will add digital media theory) in the near future is to focus on how each work of art reveals something new about ecology and the environment, just as feminist theory reveals the representation of women in literature and art. Framing my reading of these works is done in an effort to foster more critically discerning players. Understanding the role of ecological thought in digital media

should foster a more attuned awareness to the various ways in which our actions on this planet do not exist without repercussions. As noted, these repercussions are often dire for nonhuman subjects and the environment, and thus works of electronic literature and video games can help us better explore our imbrication within a networked ecology, and how our implication in this system thrusts upon us new ethical and political challenges which will need to be solved in the coming year to ensure the planet's and its inhabitants' continued survival.

The previous chapters, in discussing biopolitics and animal studies, have illustrated the ways in which language creates and sustains difference. Ultimately, these discursive dichotomies are used to reify difference, thereby creating an us-versus-them situation. For biopolitics, difference is used to determine what constitutes a true political life and what exists outside this realm; for Agamben, this is the stark contrast between bare life (*zoé*) and political existence (*bíos*). Biopolitics, then, strives to maintain these dichotomies so as to enforce and keep power over groups of people deemed not within the realm of politics. For animal studies, as we have seen, these discursive movements work to reinforce the anthropocentrism which, coupled with the rise of machinery and industrialization in the modern era, is a means for humans to hold dominion over all which lies outside the realm of "humanity." For animals, this dominion works to systematically remove animals from the world of cognition, awareness, and emotional response, as these are all unique aspects of the human. As Mick Smith notes in his book *Against Ecological Sovereignty: Ethics, Biopolitics, and Saving the Natural World* (2011), the modern world "exemplif[ies] what Agamben (2004) refers to as the "anthropological machine"—the historically variable but constantly recurring manufacture of metaphysical distinctions to separate and elevate the properly human from the less-than-fully-human and the natural

world" (xii). The preceding chapters have focused on this anthropological machine and its impact for humans and animals. This chapter explores the ways in which our discursive dichotomies have historically separated humans from the natural world, purposefully; this separation has created the history in which we currently dwell—one in which the impeding global ecological crisis threatens the life of all creatures and, indeed, things, on our planet.

2. Martin Heidegger and the Essence of Technology

Martin Heidegger's writings, in particular "The Question Concerning Technology," and "The Turning," focus on human's relationship with technology. As we will see, this work is seminal to eco-criticism, for as humans hold dominion over the natural world, they often do so through instruments of technology. Heidegger observes a schism in Being due to the nature of our technology—a schism that seemingly relies on the power of modern technology versus that which came before. In "The Question Concerning Technology," Heidegger outlines two ways in which technology can be defined: "One says: Technology is a means to an end. The other ways: Technology is a human activity" (4). Heidegger later states that these two statements "can therefore be called the instrumental and anthropological definition[s] of technology" (5). Heidegger bases his entire project on the idea that "the essence of technology is by no means anything technological" (4). For Heidegger, then, the essence of technology is not in its role or ability as a piece of working equipment, but rather in the ways that this technology shapes humans' behaviour, actions, or attitudes. Heidegger's attempts in revealing the essence of technology puts in motion that which is still fundamental to contemporary eco-criticism: that in order for us to inflict the control and violence upon the natural world, such as what we observe in

the Alberta oil sands, we use technology *en masse*. Thus, a posthumanist philosophy reconciles our relationship to animals and the environment, but does so by considering how and why we use technology.

Heidegger observes that the relationship between humans and technology hinges on *mastery*. Humans, in attempting to control and instrumentalize technology, must therefore always attempt to master it. Heidegger writes, "Everything depends on our manipulating technology in the proper manner as means. . . . We will master it. The will to mastery becomes all the more urgent the more technology threatens to slip from human control. (5) For Heidegger, then, modernity sees technology slipping away from human control, and this seems humans struggling to gather mastery over it even more. The nature of the relationship lies in the fact that humans essentially instrumentalize technology, rather than reflecting upon our own relationship with it. We must recognize that our relationship to technology is reciprocal: we are altered and changed through the technology we use. This is a key principle of posthumanism. Humans are not separate from technology, but instead are shaped and created by our relationship to it. We are eager to perfect mastery, while not pausing to reflect on how we ourselves are altered by technology. This is Wolfe's critique of humanism: this particular philosophy fails to recognize that we do not simply employ technology to do our bidding. Instead we are inextricably bound to it, shaped by the various ways our technologies present the world to us.

Key to my discussion of technology and the natural world is Heidegger's conception of technology as a mode of *Gestell,* "enframing" or "framework" as it is often translated. *Gestell* is a way in which technology works to "bring forth" certain truths of the world.. Cary Wolfe notes in *Before the Law: Humans and Other Animals in a Biopolitical Frame* (2013), "enframing is

170

anything but a neutral concept; indeed, with the luxury of twenty-twenty hindsight, we can now

see that it is deep background . . . for what Foucault and others will call the *dispositifs* or

apparatuses of biopolitics" (3). Enframing, then, is the way in which the world is presented to us,

and Wolfe's point is that this enframing is never politically neutral; rather, the world is presented

to us through the various systems in place, such as biopolitics or technology, which are always

shaped by governmentality, or structures of power. Enframing is an intricate relationship between

nature and culture, and should reveal truths about both. Thus, the truth brought forth by

technology is a means for humans to understand themselves, both intrinsically and extrinsically.

What is revealed as truth, then, is the nature of our relationship to technology is predicated on

human's dominion over nature.

In the concept of revealing, as we will see, Heidegger's work takes on its eco-critical

bent. Revealing, for Heidegger, is the impact of modern technology on the environment: humans

develop new technology capable of intense destruction, and what is revealed is how the natural

world can be used for our purposes. As technology is used as a mode of revealing, of discovering

worlds or revealing truths, what is revealed is that humans use technology to put unreasonable

demands on nature to supply us with material so that we might keep the technological machine

moving. In other words, we require the destruction of nature so that we may continually power

and create new machines, capable of more destruction.

This mode of revealing sets upon the world in a manner of instrumentality, thereby

ordering nature into what Heidegger calls *Bestand*, translated as "standing-reserve." Heidegger

observes that the ordering brought about by modern technology is predicated on holding nature

at standing-reserve; in other words, modern technology unlocks energy from the earth, and rather

171

than use or convert that energy immediately, this energy is stored for later use. Heidegger writes that the "revealing that rules in modern technology is a challenging, which puts to nature the unreasonable demand that it supply energy that can be extracted and stored as such," and this is not the same for the old windmill precisely because its "sails do indeed turn in the wind; they are left entirely to the wind's blowing. But the windmill does not unlock energy from the air current in order to store it" (14). Older technology then, which Heidegger is fond to call "handwork technology," does not unlock energy for the purpose of storage. Rather, the windmill, to use Heidegger's example, is turned by the wind and this energy created is directly put to use. When energy is stored for later use, it becomes standing-reserve. For Heidegger, this standing-reserve is an inherently violent process, one in which the natural world is set upon by man in the process of ordering; in other words, modern technology is key to holding power and dominion over the natural world. Posthumanism insists that we challenge this power and dominion, and instead attune our thinking to properly nourish and sustain the ecological network of humans, animals, and the natural world.

It is this concept of violence that sees Heidegger's work resonate with contemporary eco-critical theory. Heidegger writes that a "field that the peasant formerly cultivated and set in order [*bestellte*] appears differently than it did when to set in order still meant to *take care* of and to maintain" (14-5, second italics mine). This idea of taking care is one that resonates throughout the entire dissertation, by way of thinking through posthumanism to encourage a taking care, of each other, of animals, and as we will see in this chapter, of the environment.

Heidegger notes that when technology is set upon nature and orders it as standing-reserve, it is those who use technology who are further reserved to the confines of a standing-

reserve. This is to say, humans set out to instrumentalize technology, only to be instrumentalized ourselves. Humans are placed on standing reserve by technology, in Heidegger's ordering. Heidegger discuss how humans, using technology for certain purposes, are under the impression that they have control over their actions, objects, and surroundings. Heidegger, notes, though, that humans are actually placed in the order of standing reserve themselves. Humans believe that our relationship to technology and how we use it to hold dominion over the land is that which we are destined to do—thus when we use technology we are encountering our true human nature. Heidegger argues against this, though, as he claims that it is an illusion to believe that this is human nature. Rather, once we we instrumentalize technology, we become instrumentalized ourselves. We are caught up in the momentum of the technological machine. Noting that technology does not reveal any truth about human nature, Heidegger writes that, "*In truth, however, precisely nowhere does man today any longer encounter himself, i.e., his essence"* (26-7, italics in original). Thus, humans are actually ordered and confined to standing-reserve as they attempt to use technology, as they attempt to dominate nature through it. Where Heidegger's work launches us forcefully into our contemporary situation lies in the idea of mastery and standing reserve, notably in the form of the current global climate crisis.

Again, as humans have often thought of themselves as superior, as seeing the world and all things available to them as instruments to use in whatever manner, we have created for ourselves a technological system which seems increasingly to slip from our grasp. Global climate change is a human-created epoch which sees the destruction of the ozone layer and unpredictable weather patterns. According to the World Wild Life organization, sea levels are rising and oceans are becoming warmer. Droughts threaten crops worldwide, as well as animals and freshwater

supplies. Due to extreme weather patterns, species of animals all over the planet are in danger of

dying off. In many ways, Heidegger's rumination on technology warned us of this future: we

have let technology escape our grasp, and now we are drastically reaching to gain control of this

situation. While literature is, undoubtedly, a fairly weak weapon in the fight against human-made

climate change, it can be used as a tool of education. We turn to literature to explore the human

condition, and certainly the current posthuman condition is inevitably bound within the

framework of climate change. Thus, a work like *TOXI-City* carries forward the concerns of

Heidegger, as it explores the human technological system and its impact on the environment.

3. *TOXI-City*

TOXI-City (2014) is a combinatory narrative film made by experimental filmmaker

Roderick Coover and electronic literature author Scott Rettberg. The work has been shown at

various electronic literature conferences, and was present for me to view at the Electronic

Literature Organization Conference of 2014, in Milwaukee. The work has a presence on the

internet in various snippets, but is only shown in full at various installations worldwide. The

project explores the roll of climate change in the near future. Specifically, the work explores a

near future scenario of the Delaware River Estuary. In *TOXI-City*, the fictional narrative explores

the impact of hurricanes, flooding, and seepage of toxic chemicals into major waterways on the

eastern shore of the United States of America. The film is organized around six different

narrators, each recounting how climate change has affected their lives. These narratives were

written by Scott Rettberg, but at the same time the film features voiceovers from real people who

recount their experiences with death and destruction on the eastern coast after Hurricane Sandy

in 2012. These voiceovers are layered over original film—mostly shot from a kayak—of the industrial docklands on the New Jersey and Pennsylvania coastlines.

The six narrators discuss the struggles that they experience in the world ravaged by climate change which, as the film notes, is explicitly linked to numerous factories which litter the eastern coastline. The narrators are all very distinct and bring up different issues they face in the wake of these devastating ecological disasters. As mentioned, the film is combinatory, meaning that a viewer begin watching at any time without needing the full narrative. In installation settings, the film plays continuously so that viewers walking the floor can sit down and watch at any given time. Intermixing real world interviews with the fictional narrative is a constant reminder that the climate is already changing, that unpredictable and extreme weather patterns already exist. *TOXI-City* amplifies existing conditions caused by global climate change, such as the increase in severity of the hurricane season on the eastern seaboard, to remind us that our actions have a meaningful impact on the world. If these actions continue undeterred, the scenario envisioned by *TOXI-City* will not just be a fictional one.

In one particular 12 minute segment of *TOXI-City*, which can be viewed on the video sharing site Vimeo, voiceovers discuss a number of issues brought about by the global climate crisis. A young girl discusses her father catching fish from the Delaware River. These fish are mutated, changed by chemical seepage from factories along the river way. This same young woman discusses the growing frequency of flooding in her hometown, recollecting the strange smell of the water that filled their basement, polluted by these very same chemicals. The world, as she notes, is becoming less diverse, as animals not only mutate like the fish, but also die off, unable to adapt to climate change. "The whole world is getting less diverse now. Fewer species"

she remarks. *TOXI-City* reminds us that our industrial and manufacturing needs have led to huge factories and power plants. The emissions from these plants are instrumental in the global climate crisis, and the extreme weather patterns which are a direct result of climate change can turn back on us and destroy these plants and factories, leading to toxic chemical seepage and more ecological disasters. Global climate change is cyclical, and impacts not only humans but the diversity of all life on earth.

A young voice provides a different voiceover from this segment of *TOXI-City.* His personal narrative discusses how he, as a young man, used to venture to waterways and the coastline to catch a variety of fish to eat. "Nowadays, of course, with the contaminants," he notes, "they say it ain't safe. I never know what to believe." He then remarks that he still comes down to the water, but not fish. After a hurricane, with all the garbage and debris, there is no point to fishing. Instead, he finds a variety of furniture, which he can dry out, clean up and restore, and sell back to people rebuilding their homes after the destruction. The river still provides him with a type of livelihood, but this is no longer about food. Given this personal narrative, it seems that this is the only source of income this young man has. He remarks, "I figure it's like a harvest." This is the reality of life after devastating climate change: everything will change, including our every day operations. But, as this young man concludes in his voiceover, "Get lemons, make lemonade." There is not point in struggling, at this point, as the world has been ravaged by climate change, and life on earth is forced to make due.

TOXI-City is explicit in its argument that humans are responsible for the ongoing ecological crisis. At the same time, Coover and Rettberg are keen to highlight the current thought of climate denial, which argues categorically that humans are not capable of impacting the

climate. Thus, humans should not curb our actions to repel climate change. One narrative in particular discusses this line of thought, stating that the climate has always changed and it should not fall upon the shoulders of humans. This narrative is delivered by someone who sounds like a middle aged man:

> Climate change? Of course there was climate change—that obvious. But all these people who spent all their time worrying about it, passing around petitions and so on. I never had time for all that Greenpeace, save the manatee, PETA garbage. Tree huggers and Democrats and Hare Krishnas, and so-called scientists. Where did all of their belly aching get us? Huh? Did it make us one bit more prepared? The climate has been changing since before Jesus—you know what I mean. There were ice ages before and there will be other ones later. Continents shift and there's plate tectonics, volcanoes blow and people die, and there are tornadoes and tsunamis, forest fires and micro-bursts. And outbreaks of disease: plague, cholera, yellow fever, swine flu. Welcome to planet earth, where shit happens. It's not like any of this is our fault. Fate plays spin the bottle. Would you blame the dinosaurs for dying out?

These are the problems which a posthumanist philosophy faces. Thoughts of human speciality and uniqueness are deeply engrained, and people are often keen to reject claims that our actions are having an adverse effect on the ecological health of this planet. But the reality is that our carbon footprint on this planet is so large, and constantly growing, that the planet's natural ecosystems are struggling to adapt to our actions. The only way we can hope to solve the problem of the growing ecological crisis is by changing this thought. As thought begins to shift, to consider our imbrication within a diverse ecological network, then we can begin to shape our

177

actions accordingly, to ensure a healthy planet for all life. *TOXI-City* is a work of experimental

electronic literature which provides a space for this thinking through, for encouraging a more

thoughtful, critically discerning viewer who may start to see the world differently.

4. Posthuman Eco-criticism

     As stated, current eco-critical work in the posthumanities is indebted to Heidegger, for it

is his writing that begs us to reconsider the application of our technology, the ways in which we

conceive of its use value, and the environmental impact that so-called modern technology holds.

We find need, then, to pause and consider the various ways in which posthumanist eco-criticism

breaks apart and forges ahead anew, rather than operating solely in Heidegger's shadow. As

already noted, Heidegger, for all his ruminating on technology and the environment, is ultimately

betrayed by a humanism from which he cannot escape. In *Being and Time* Heidegger formulates

a view of world-having, drawing sharp distinctions between the world of humans, other beings

(which include animals and plants), and material things (like the stone). From this, Heidegger

concludes his three thesis: "[1.] the stone (material object) is *worldless*; [2.] the animal is *poor in*

world; [3.] man is *world-forming*" (Animal Philosophy 18, italics in original). For Heidegger,

material things, such as a stone, are completely worldless, they have no autonomy or agency in

the world—a point that a current crop of posthumanist thinkers reject. The animal, in

Heidegger's view, is poor in world, presumably due to a lack of internal awareness and

consciousness, which, as I have shown last chapter, is an outdated worldview. Finally, the

human, for all our environmental torture and willingness to place nature on standing reserve, is

ultimately world-forming. Our agency, rationalism, and consciousness brings the world into

being not only for us, but for other living creatures. It is here that posthumanist thought breaks

away from Heidegger, as he is unwavering from his own dedication to humanism and the

anthropological bias.

So what will posthumanist thought have us do about anthropocentrism? As I will show,

writers and thinkers such as Timothy Morton and Jane Bennett ask us to reconsider the humanist

hierarchy. Timothy Morton argues that the nature of our thought must shift entirely if we are to

seriously consider and work toward solving the growing ecological crisis, and this shift is first

predicated on the ways in which our language still works to reify difference and hold nature and

the natural world at bay. Morton's writing is most influential, as it asks us to turn to art—

precisely what I argue and do in the final section of this chapter—in order to think through a

fully fleshed out "ecological thought." Finally, in what can be considered a direct response to

Heidegger's three theses, Jane Bennet asks us to reconsider the agency of things, leading the

author to a more holistic view which she labels a "political ecology of things." In what follows,

then, I discuss these three thinkers as key to posthumanist ecological thought, one in which,

when coupled with the various works of electronic literature and video games I analyze, lead

away from a humanist, anthropocentric view of the world and instead encourage humans to

pause, ponder, and reflect on our relationship to technology, animals, and a vibrant ecological

system of all things, living or not.

5. Speculative Realism and Object-Oriented Ontology

Broadly speaking, this section discusses the world of *things*. As we will, this entry into a

world of *thingness* is housed in a lengthy tradition of philosophy, from the works of Martin

Heidegger to Alfred Lord Whitehead. The purpose of this section is to ground the environmental interest of eco-criticism into a philosophy which seeks to give greater agency and a broader ontology to the world of things. As I will show, object-oriented ontology works toward the same goal of recognizing a networked ecology which takes into account the ways in which the environment, animals, and human exist together, and thus are shaped and created through interactions.

Current work into the world of things, most often found in posthumanities studies, goes by many names: object-oriented ontology or philosophy (OOO or OOP), speculative realism, new materialism. Thinkers, writers, and philosophers working in this area of scholarship include names such as Ian Bogost, Levi Bryant, Graham Harman, Jane Bennett, and Timothy Morton, however these thinkers may not necessarily agree with one another on the best approach, and they certainly fail to agree on terminology. Indeed, many of these thinkers might reject a term like OOO, but are comfortable fitting in with the new materialism, for example. Even the object of study, which I have just called *things*, is not uncontroversial. Bogost, for example, rejects the term "things" in favour of "units," a result his scholarly work in critical game studies (although his entry to this form of scholarship in the form of his 2012 book *Alien Phenomenology*, is subtitled *What It's Like to be a Thing*). In what follows, I will provide a rather cursory summation of current work in the area of OOO. I trace some common themes in the study of *things* in order to arrive at a place from which we can better understand the work of Jane Bennett, who in her book *Vibrant Matter: A Political Ecology of Things* (2010) argues for a vital materialism, one that eschews anthropocentrism in order to understand a world of complex networks and assemblages between all things. To my mind, Bennett's work is the most useful

entry into the field of OOO, and will help illustrate the various ways in which our own thinking

must change if we are to properly reconstitute our position in the living world. The overall goal

of this section is to focus on how our understanding of ecology must begin to factor in nonhuman

things so that we might better dethrone ourselves from the high seat of ontological superiority.

Acknowledging a form of nonhuman agency begs us to reconsider our relationship to our

surroundings and environment.

A brief look into the history of the philosophy of things should start with Immanuel Kant

—and here I want to mention my indebtedness to Ian Bogost for providing a pathway into the

history of *thingness*. For Kant, the idea of being is predicated on the notion of subjectivity.

Providing a brief history of modern philosophy's interrogation of beings and things, Bogost

writes in *Alien Phenomenology* (2012) that George Berkeley's subjective idealism places objects

in the minds of humans, as bundles of sense data. By contrast, Martin Heidegger sees objects as

outside human consciousness, but their true essence only exists for humans in the mind. And for

someone like Derrida, objects are never fully present to us—we rely on what is left behind by

those objects and how we can create a semblance of reality from these traces (3-4). There is a

problem of things and their relationships to humans, and philosophy has long sought to

determine the true nature of our existence with the world of things. As Bogost notes, "Quentin

Meillassoux has coined the term *correlationism* to describe this view" (4, italics in original). This

view, then, notes that beings only exist in a sort of purgatory, halfway between mind and world.

In other words, "[i]f things exist, they do so only *for us*," as Bogost writes (4, italics in original).

In this correlationist view, the human mind is inextricably bound with the world and, as the mind

is there to bring the world into being, there is a staunch anthropocentrism inherent in this

position. Further, this view, much like Bruno Latour's critique of modernity as noted by Bogost, ultimately attempts to split the world into two halves: human and nature.

Bogost notes that Meillassoux and thinkers such as Ray Brassier, Iain Hamilton Grant, and Graham Harman are housed under the term "speculative realism" (4). For Meillassoux and the rest of the speculative realists, the first step in a revolutionary philosophy is the rejection of correlationism. Bogost writes that in order to be a speculative realist, "one must abandon the belief that human access sits at the center of being, organizing and regulating it like an ontological watchmaker" (5). There is an explicit rejection of anthropocentrism here, then, and speculative realists seek to understand properly the world of things as such, rather than things as beings which only exist in our mind and for us to understand or use. For Bogost, the work of Harman is the most productive of these speculative realists, as Harman's work "most explicitly embraces the multifarious complexity of being among all things" (5). It should be clear, then, as to why this work commonly falls under the rubric of posthumanism. One might consider speculative realism, or OOO, as a logical step branching from animal studies; after all, if we are to seriously consider the diversity of animal life, why not then branch into the world of things, of car tires, ketchup packets, and pebbles on a shore?

As mentioned above, an interest in the world of things has long been a feature of philosophy. Martin Heidegger, for example, sees things as only existing for us when they serve a purpose or function. Bogost sums up Heidegger's position by writing that "stuff becomes ready-to-hand (or *zuhanden*) when contextualized, and present-at-hand (or *vorhanden*) when it breaks from those contexts" (5). Thus, for Heidegger, we really only begin to comprehend and interrogate the *thingness* of a tool when it breaks, when it no longer performs the its supposed

function. The *thingness* of the hammer only reveals itself to us when it breaks and we can no longer use it to drive nails down. Heidegger is only concerned with the singular and the specific, with understanding the being of things as they are alone, as they perform a specific function. By contrast, the philosophy of Alfred North Whitehead and Bruno Latour explore the various assemblages and networks which are made up of objects and things. For Whitehead, objects exist in relation to others and as such they do not persist but are always in the process of withdrawal or decay—relationships between objects are bound by energy and this energy will gradually wither away at things, thus the world of things is in constant motion and flux. Latour's actor-network theory (ANT), in relation, things are constantly in alliances with other things and as such, Bogost writes, "entities are de-emphasized in favour of their couplings and decouplings" (7). What is less important, for Whitehead and Latour, is the objects as such, as singular entities existing in a vacuum, and what is most relevant to philosophy is the various ways in which things act together, creative communities and assemblages.

Bogost draws upon Harman's work to discuss the possibility and creation of a new form of philosophy that seriously considers objects and things, thereby rejecting Kant's emphasis on subjectivity as a prerequisite for being. Bogost writes,

> If ontology is the philosophical study of existence, then from Harman we can derive an
> object-oriented ontology. OOO puts things at the center of being. We humans are
> elements, but not the sole elements, of philosophical interest. OOO contends that nothing
> has special status, but that everything exists equally. . . . In contemporary thought, things
> are usually taken either as the aggregation of ever smaller bits (scientific naturalism) or as
> constructions of human behaviour and society (social relativism). OOO steers a path

between the two, drawing attention to things at all scales . . . and pondering their nature and relations with one another as much with ourselves. (6)

We can see how OOO stems from the earlier work of Whitehead and Latour, then, in its rejection of anthropocentrism, its insistence on unseating humans from an sort of privileged subjectivity or understanding of being, and a willingness to understand all things as existing in complicated networks of agency and relations. Unfortunately for Bogost, his insistence on OOO as a more-posthuman-than-thou philosophy blinds him to the rationalism that all philosophy will have some aspect of anthropocentrism in it—we cannot adequately escape our own subjectivity, even as we attempt to consider the world of animals and things. To wit, Bogost derides science studies, lamenting that the "field retains some human agent at the center of analysis" (10), apparently with no irony or recognition that his own work into OOO is guilty of the very same thing. Asking what it's like to be a thing, as his subtitle remarks, is an inherently anthropocentric gesture, as we presuppose that humans have the ability to creatively imagine a thing's being. Bogost's project is admirable, but lacking in the recognition that, regardless of how seriously he considers things, he is still a human imposing a certain worldview shaped by our own subjectivity. We can never know what it is like to be a thing and any effort to do so is anthropocentric. Finally, I see no great benefit of separating posthumanism from OOO, as Bogost is quick to do when he writes, "Posthumanism, we might conclude, is not posthuman enough" (8); strange, given that this very book was published in a posthumanities series. Rather, I see OOO as falling under the large umbrella of posthumanism, sharing the same interests and wants and uniting in a common plea for understanding a world of greater living diversity.

Before moving on to the work of Jane Bennett, I want to briefly discuss Steven Shaviro's *The Universe of Things: On Speculative Realism* (2014), as it provides the groundwork for moving forward. Shaviro's book stands to reckon the new speculative realism with the work of Whitehead. For Shaviro, Whitehead's philosophy, written nearly a century ago, is the beginning of the various themes and concerns found in the new branch of continental philosophy known as speculative realism or new materialism. Shaviro illuminates how Whitehead's work resonates with Graham Harman, who Bogost identifies as the godfather of OOO. Shaviro states that "Harman addresses our sense of the *thingness* of things: their solidity, their uniqueness, and their *thereness*," while Whitehead instead insists we must "address an equally valid intuition: our sense that we are not alone in the world, that things *matter* to us and to one another, that life is filled with encounters and adventures" (32). Shaviro, then, identifies the common ground that Bogost seems unable to articulate. That is, the recognition of both Whitehead and Harman leads us to contemplate how objects are somethings unto themselves, with singular uniqueness and *thereness*, and these things are not alone in the world, but instead make up complicated networks and assemblages which lead to new modes and understandings of agency and subjectivity.

Ultimately, the question of things is important to my project and the greater project of posthumanism because it is though the recognition of a networked understanding of the connectedness of all things that should help us no longer contribute to the destruction of the living world. I have turned to Shaviro here as he astutely and concisely sums up the reason for the importance of speculative realism, OOO, and new materialism for the greater project of posthumanism. Shaviro writes that "anthropocentrism also has become increasingly untenable in the light of scientific experiment and discovery. Now that we know how similar, and how closely

related, we are to all the living things on this planet, we cannot continue to consider ourselves as unique" (1). Speculative realism, then, is a recognition that anthropocentrism is not benign; indeed, the gall of humans in believing that we are unique has led to the systemic destruction of the natural world, and speculative realism and OOO argue that we must shake ourselves free of this anthropocentric view if we are to continue to survive on the planet. Of course, this is not the only reason, as that alone places the human at the center of existence; rather, a shared networked of living actants encourages us to reconsider our own place and actions simply for the benefit of the living world. Thus, I turn now to Jane Bennett and her new vitalism, or new materialism, to understand the political ecology of all living things.

6. A Political Ecology of Things

As noted above, Jane Bennett is often associated with thinkers in the realm of object-oriented ontology, such as Ian Bogost and Timothy Morton. While not agreeing with the term itself, Bennett's work fits in with the philosophical, ethical, and political goals of OOO. In Bennett's 2010 book *Vibrant Matter: A Political Ecology of Things*, she intervenes in the field of OOO by discussing what she labels "vibrant matter"; thus, Bennett's work is often called vibrant materialism, vital materialism, or new materialism. *Vibrant Matter* argues a philosophy which, like Bogost's *Alien Phenomenology*, works to shift the focus away from the human experience of things to focus solely on things themselves. Bennett argues for a political theory which recognizes the active participation of nonhuman objects in our own cultural assemblages and political manifestations. In referencing the work of Bruno Latour, Bennett writes that "Latour makes this same point when he notes that we are much better at admitting that humans infect

nature than we are at admitting that nonhumanity infects culture, for the latter entails the

blasphemous idea that nonhumans—trash, bacteria, stem cells, food, metal, technologies,

weather—are actants more than objects" (115). Thus, Bennett's work stresses the importance of

firmly deconstructing the nature/culture binary, similar to Bogost. In what follows, I will briefly

discuss some themes in Bennett's work, elucidating the ways in which *Vibrant Matter*

encourages an understanding of the various assemblages of human and nonhuman actants.

However, as I will show, Bennett's insistence on the actant properties of nonhuman objects

should give us pause, as this leads to some very questionable conclusions, particularly when it

comes to the concept of responsibility. Ultimately, though, Bennett's work contends that a

"vibrant ontology" can better help others work toward a more caring world. Bennett writes that

there "will be no greening of the economy, no redistribution of wealth, no enforcement or

extension of rights without human dispositions, moods, and cultural ensembles hospitable to

these effects" (xii). These various ensembles which Bennett stresses dovetail nicely with the

work of Timothy Morton. As we will see, art in general, and games and electronic literature in

particular, is one way to alter these dispositions and mood, thus leading to a hospitable

atmosphere for us to better consider and think through our relationship to the environment and

all living things on the planet.

Bennett labels her philosophy "vital materialism," and in her book she compares and

contrasts her work to that of Theodor Adorno's "specific materialism." Adorno's philosophy

espouses the theory of "nonidentity," which explores a force in the world which impacts all

human and nonhumans. This is an unstable and amorphous idea, and Adorno, in the title of his

books *Negative Dialects* (1966) labels this feeling that we have of being watched or acted upon,

187

and his work is a way to articulate this nonidentity in the world. Adorno's "negative dialects" stresses the idea of a networked agency, how our lives will always be somewhat out of our reach, always escaping any idea of control. Bennett notes that if we finally recognize this, "then we can stop raging against a world that refuses to offer us the 'reconcilement' that we, according to Adorno, crave" (14). Where Bennett's vital materialism begins to divert from Adorno's specific materialism is in this concept of reconcilement. For Bennett, this reconcilement is not something to focus on, and instead we should shift our interest to the concept of a shared materiality. Bennett writes of "the recognition of human participation in a shared, vital materiality," and this means that for humans the "ethical task at hand here is to cultivate the ability to discern nonhuman vitality, to become perpetually open to it" (14). Bennett stresses the importance of nonhuman vitality, that is, the recognition that nonhuman things carry with them a vitality which continually and perpetually impacts and affects humans, such as the various chemicals found in foods which can alter our moods and behaviour. Bennett's project, then, follows through on this recognition of nonhuman vitality to work through a political ethical system which considers how humans operate and act within a complicated assemblage of actants, animate or not.

Bennett's work thus transitions into the realm of political ethics, as it works to envisage a mode of democracy which factors in the actant properties of nonhuman things. In order to illustrate the complexity of our own history, Bennett discusses the role of worms in making our earth what it is and how it opens up to us: "How do worms make history? They make it by making vegetable mold, which makes possible 'seedlings of all kinds,' which makes possible an earth hospitable to humans, which makes possible the cultural artifacts, rituals, plans, and endeavours of human history" (96). Thus, the ways in which humans understand their own

culture and history should take into account the various nonhuman or nonliving vitality which ultimately impacts and shapes our own existence. How then might this understanding help us better shape a new democracy? As Bennett writes, a "vital materialist theory of democracy seeks to transform the divide between speaking subjects and mute objects into a set of differential tendencies and variable capacities" (108). These differential tendencies and variable capacities, then, lead us to consider how a varying assemblage of ontologies form around various problems. Thus, our own political ecology should not focus solely on humans. Bennett notes that because human culture is a collection of both human and nonhuman agencies, an appropriate democratic theory is not concerned with only individual humans or the human collective, "but the (ontological heterogeneous) 'public' coalescing around a problem" (108). Humans should not be the center of democratic theory, for Bennett, because human agency and action is always defined and developed through the collection of various agencies at work, both human and nonhuman. Ultimately, this is where Bennett's work takes a strange ethical turn, as she discusses the nature of ethical responsibility in a vitalist materialist democratic theory.

In moving away from focusing on individuals or collectives of humans, to considering the varying ontologies that are all affected by various situations, Bennett inadvertently separates humans from any sort of intentionality. Bennett writes that "[i]n emphasizing the ensemble nature of action and the interconnections between persons and things, a theory of vibrant matter presents individuals as simply incapable of bearing full responsibility for their effects" (37). And later, after listing various assemblages that humans find themselves within, she writes that "humans and their intentions participate, but they are not the sole or always the most profound actant in the assemblage" (37). Doubtless though this may be, it should still give us pause to

189

consider the role of intentionality in Bennett's political ecology. Can I blame a murder I just

committed on the process of indigestion and the chemicals released shortly after eating a

sandwich? I make no claim that this is Bennett's intention, but this line of thought follows

logically from her position. It would appear that Bennett is all too aware of this consideration, as

she goes on to write that "the ethical responsibility of an individual human now resides in one's

response to the assemblages in which one finds oneself participating" (37). Thus, I cannot blame

the sandwich for my actions, and I must take full responsibility for how I live and the actions I

have taken, so it is all the more necessary to understand the complicated assemblages in which I

participate. For example, though I cannot blame the sandwich, perhaps I should be more attuned

to realities of various assemblages, such as the various growth hormones or chemicals used in

the system of factory farming. Armed with this knowledge, I might extricate myself from these

systems; this is my ethical responsibility in this political ecology of things.

Unfortunately, Bennett does not offer an alternative to a system of assigning moral or

ethical blame to a sole individual. Her politics works to elevate the position of distributive,

which is all well and good, but how are we to impose a system of law and justice when agency is

relayed across a number of things, living and not. Bennett writes,

> A moralized politics of good and evil, of singular agents who must be made to pay for
>
> their sins (be they bin Laden, Saddam Hussein, or Bush) becomes unethical to the degree
>
> that it legitimates vengeance and elevates violence to the tool of first resort. An
>
> understanding of agency as distributive and confederate thus reinvokes the need to detach
>
> ethics from moralism and to proceed guides to action appropriate to a world of vital,
>
> crosscutting forces. (38)

What this ethical system would look like is not offered, here. Thus, we are left to ponder how to charge Hussein and Bush with war crimes, for instance, if we are to understand their actions as only singular in a system or assemblage of many. Do individuals get a free pass in favour of questioning or charging an entire system? These questions are left unanswered, but I raise them here to show that this line of thinking stemming from OOO and vital materialism is not infallible, and raises its own ethical and moral questions, desperately in need of answers.

Despite these concerns, Bennett's work helps us to better elucidate the complicated network of humans and nonhumans, living and nonliving, which we cannot begin to escape. And, through this knowledge, we should then work to better take care of our world, our fellow creatures, and even those nonliving objects which indirectly affect our everyday existence. Bennett, providing a blueprint for moving forward, writes,

> Admit that humans have crawled or secreted themselves into every corner of the environment; admit that the environment is actually inside human bodies and minds, and then proceed politically, technologically, scientifically, in everyday life, with careful forbearance, as you might with unruly relatives to whom you are inextricably bound and with whom you will engage over a lifetime, like it or not. Give up the futile attempt to disentangle the human from the nonhuman. Seek instead to engage more civilly, strategically, and subtly with the nonhumans in the assemblages in which you, too, participate. (116)

How, then, might we proceed with "careful forbearance," as Bennett suggests? Bennett wishes us to engage more civically and strategically with nonhumans in the assemblages in which we participate. One way in which we can engage with our assemblages, I argue, is through our

191

interactions with various media. The following video games, then, carry forward this discussion of the networked nature of ecological thought. These works encourage us to consider our actions and our impact on the environment. Furthermore, these simulations allow us to sympathetically imagine the power of an ecology that is complicated and networked, where any and all actions have significant impact on the overall health of the system.

7. thatgamecompany and green games

Thatgamecompany (stylized as thatgamecompany and here abbreviated as TGC) is an American independent video game development company, founded by two University of Southern California students. TGC was contracted as a developer for Sony Computer Entertainment during the last console cycle, releasing a trilogy of games on the Sony Playstation 3 video game console. These games were entitled *Flow* (2007), *Flower* (2009), and *Journey* (2012). TGC's distinguishing mark in video game history is that their games are explicitly designed to evoke or elicit emotional responses in the players. While a large portion of well-funded, "blockbuster" games focus on violent action, TGC's games provide an altogether different experience, one which promotes slowing down to reflect and contemplate. Thus, players experiencing TGC's games are thrust into an unusual game space, whereby fine-tuned motor skills usually needed for video games are unnecessary. In the following section, I discuss both *Flower* and *Journey* as exemplary eco-games; that is, both these games provide a virtual space for us to ponder the relationship between humans and nature. These "green games," as I will call them, deliver powerful message of eco-consciousness through game mechanics and environmental storytelling.

Many big budget video games place the player in the role of a soldier or an adventure, tasked with saving the world through escapades laced with violence and sex. Action in video games usually revolves around pointing and shooting guns at countless "bad" guys, placed in the midst of global wars and conflicts. Thus, as Alenda Chang remarks in her essay "Games as Environmental Texts," games "that dare to contemplate alternate schemas merit closer inspection" (72) and thatgamecompany's *Flower* (2009) fits this category. *Flower* was released for the Sony Playstation 3 and takes advantage of the Six-axis motion controller. The game was later released on the Playstation Vita and the Playstation 4, each using motion controls. *Flower* is still a game about saving the world, but rather than guns and swords, the player controls the wind. *Flower* begins with a visual of the inside of a room, a table and chair sitting by a window. Looking through the window, we see a laundry line with clothes hanging, as well as the tops of buildings in what looks to be a fairly populated city. Judging from the height of the window, we can surmise that we are in the room of an apartment building, on one of the top floors. A solitary yellow flower sits atop the desk by the window; it is wilted, looking days away from perishing. Tilting the controller to select the flower, the camera zooms into focus on the flower before the screen fades to black. At this point, a cut-scene (a movie that the player cannot control) begins. This very first cut-scene sets up the themes of the game, as we see a time-lapse of hundreds of cars passing by a busy street at night, the city looming dark and large in the background. City sounds abound, with the screech of traffic and the wailing of sirens.

Following this cut-scene, we see a solitary yellow flower in the midst of a field of grass, each blade moving in the wind. Here is when the visuals of *Flower* really come through. The world is luscious and vibrant, full of colour. Pressing any button plucks a flower petal from the

plant, and thus the player then controls the wind as it picks up and moves the petal through the field. It quickly becomes apparent that not the entire field is full of life, and as we use the wind to brush over other plants and flowers, we begin to bring life and colour back to the various patches of dead or dry natural landscapes. I want to again turn to Chang's essay, in which she notes that *Flower* is "well poised to fulfill the criteria for an 'environmental text' presented by Lawrence Buell in *The Environmental Imagination*" (72). Chang notes that Buell focuses on "environmentally oriented" works, and his four characteristics are as follows:

1. The nonhuman environment is present not merely as a framing device but as a presence that begins to suggest that human history is implicated in natural history.

2. The human interest is not understood to be the only legitimate interest.

3. Human accountability to the environment is part of the text's ethical orientation.

4. Some sense of the environment as a process rather than as a constant or given is at least implicit in the text. (7-8)

Flower fits the criteria listed above. This is a game which is presented as a largely relaxing, meditative experience. It thrusts upon you the space and time to consider the natural world as you control the wind and your ever-growing collection of flower petals. As Chang notes, video games are particularly suited to fulfilling Buell's fourth point, as games are by nature procedural and processual. *Flower* encourages us to understand the process of nature as it works for the benefit of humans. Thus, the game is a rumination on the inextricability of human and nonhuman life.

As the player progresses, different scenarios and settings arise. While short in duration, the game features five levels, each with different tasks. The player will encounter windmills as

194

well as other forms of electricity generation, such as towering power line structures. By moving the wind over flowers at the base of windmills, the blades begin to spin and, we can imagine, electricity is produced. The windmills are never harmful nor are they a danger to the flower petals you carry on the wind. By contrast, the huge power structures which disrupt the natural landscapes are dangerous. These live structure will zap the flower petals should the player accidentally steer the wind into them; petals are left burned and scarred as your recalculate your trajectory and speed. There is a stark contrast, then, between the clean generating of the wind-powered turbines and the harsh and dangerous power grids and structures. *Flower*, then, reminds us of alternatives to electrical generation, noting that windmills are a clean and safe way of harnessing the natural world without being overly destructive or penetrative.

In the same way that games such as *Tokyo Jungle* invite the player to consider animal phenomenologies and being, *Flower* insists on the variance and multitude of nonhuman life. As each level starts with the selection of a flower from a desk by the window, it is clear that these environments are the tremendous day-dreams of domesticated flowers. These flowers are stuck in a city, dreaming of an escape in beautiful, lush fields. The player has no corporeal presence in the game, only controlling the wind as it picks up flower petals. We are reminded of the sheer power and awesomeness (in the most traditional usage of the word) found in the natural world. Yet at the same time, the game reminds us of the finitude and vulnerability we share with the natural world. The world of *Flower* is beautiful and serene, but is often interrupted and scarred by the presence of man-made inventions, such as the windmills and electrical grids mentioned above, and later in the cityscapes we help restore back with natural life and colour. Even while focusing on the beauty of the natural world, *Flower* is always mindful of the reality of human

195

life. Those windmills and electrical grids which the player helps restore to power are man-made

inventions. There is no separation of the natural world from that of human culture and, as the

game sets out to argue, we must begin to explore new ways of being in the world which sees our

the continued survival of all living things as well as the living world.

In 2012, thatgamecompany released *Journey*, the final game in their trilogy, and it

quickly became the fastest selling downloaded game on the online service Playstation Network.

Journey places the player in a beautiful desert environment, with no clear object or goal. The

player character is a humanlike bipedal creature, clothed in red and yellow robes and wearing a

small scarf. In the distance, a mountain beckons, with an intense white light bursting from its

peak into the sky. It becomes apparent that this mountain is important, and the player proceeds in

the direction of the mysterious light. There are few hints as to how to play the game. In the

beginning, the player learns quickly that the X button will allow the character to jump, while the

O button acts a form of communication. The player character releases a flash of light, which can

light up certain elements of the environment. This is the only tutorial in the game, and the player

is left alone to explore the world. There is no overt story, no other characters which you can

speak with to gather information. *Journey* does feature online co-operative play: as you move

through your journey, you may encounter other robed figures, players from across the network.

You are unable to speak with them, but instead carry on with your journey together, exploring the

vast environments silently.

Journey is an example of what Henry Jenkins calls "environmental storytelling." As there

is no story or plot given in any explicit way, it is up to the player to piece together a narrative or

story through the environment. Jenkins sums up environmental storytelling as such in his article "Game Design as Narrative Architecture":

> Environmental storytelling creates the preconditions for an immersive narrative experience in at least one of four ways: spatial stories can evoke pre-existing narrative associations; they can provide a staging ground where narrative events are enacted; they may embed narrative information within their *mise-en-scene*; or they provide resources for emergent narratives. (np)

Journey does not provide any sort of clear-cut narrative, but through its locations and its *mise-en-scene* we learn that this world conceals the remnants of a presumably once great civilization. The player encounters giant structures and building, half concealed by the elements—the desert is reclaiming its space. At the conclusion to each "chapter," the player character encounters similar looking creatures, but these white, glowing creatures loom large and appear almost ethereal and god-like.

As the journey encounters, new areas are revealed. The game sees the player encounter barren deserts, icy and snow mountaintops, and underwater locations. Throughout there are remnants of buildings, long since abandoned and broken. Furthermore, progressing through the game reveals strange creatures who pose a physical danger to the player character. These creatures are almost technical, with lights on the front that seek you out like a spotlight. This is where the game forces the player to consider what has happened to this world. The ending of the game and its meaning are debatable issues. There are many forums and topics on the internet discussing this, with various interpretation and readings offered. Following TGC's work with

Flower, I read this game as a message of eco-consciousness, one that asks us to reconsider our insistence on exploiting the natural world to our so-called benefit.

Firstly, although the game is short in duration (clocking in at around an hour to finish), the gorgeous visuals and graphics, *Journey* suggests that the beauty of the natural world is something worth preserving. The range of locations in the game is a reflection of the ecological diversity of our own world, a diversity which we would be wise not to take for granted. As noted, the locations are littered with the remains of a civilization, slowly reclaimed by natural landscapes. It seems as though there has been a struggle or war in this world. In "Interpellation & Apocalypse: Communication, Coercion, and Identity in *Journey*," Meghan Blythe Adams understands these ruins as remnants of old war machines, an indication that the fellow members of the player character's species have long since destroyed themselves. Adams writes,

> Through these simple but visually striking images, it becomes increasingly clear that the post-apocalyptic ruins of the game-world are the result of wars waged by the player-character's own civilization and that Journey interpellates its players through the representation of a cycle of reincarnation and guilty self-recognition. Instances of recognition characterized by regret and shared guilt appear throughout in the game, particularly through repeated run-throughs, such as when subsequent revisitations of early levels allow the player to recognize what looked like generic ruins in the desert to be the skeletons of war-machines both a) produced by the player's own civilization and b) active and potentially injurious to the player in later levels. (np)

Of course, due to the game's environmental and beautiful visuals, we cannot help but ponder how these war machines affected not just the player character's species, but also how the natural

world was impacted by this war. Those creatures that can cause harm to the player are technical in appearance and movement; is this a warning about our own reliance on technology and its harmful effects to us and the environment? One need only view images of the Alberta oil sands to be reminded of the sheer destruction of which humans are capable. And again, we must remind ourselves that this oil is not only used for fuel, but for the manufacturing of various appliances and devices we use daily, from our mobile phones to vinyl records. Ultimately, *Journey* is both beautiful and relaxing, alarming and dire. It is a reminder of the fragility of the natural world, and a warning that we should consider curbing our behaviour if the natural world is to persevere and live on.

I would like to conclude this chapter by highlighting one final example of a game that uses its unique systems to explore eco-critical issues. In 2012, Sony Computer Entertainment Europe released a game for the Playstation Vita system called *Ecolibrium*. This game is in the genre category of Virtual Life, akin to the so-called "God" games like *The Sims* and *Spore*. Games in this genre place the player in the role of an arbitrator or warden of a virtual environment that is capable of functioning in some way on its own; it is up to the player to influence or control certain aspects of the environment, but these games are celebrated for their emergent properties. In other words, the game environment is often capable of changing on its own even during times of non-play.

Ecolibrium allows the player to control a world made up of vaguely earth-like environments and creatures. The goal of the game is to foster a vibrant eco-system made up of cloned animals, plants, and other flora and fauna. Achieving perfect harmony in this virtual environment is difficult. Plants are added to provide oxygen and moisture, yet when animals are

added they begin to eat those plants. Thus, the player must then add a species of carnivores, keeping the herbivores in check. Striking a balance in your ecology is complicated and time consuming, and involves calculations and repeated trial and effort. As one reviewer has written, "Instead of asking you to play god, *Ecolibrium* asks you to play scientist." I highlight *Ecolibrium* here as it exemplifies the power of digital games for representing systems—systems which can be used to effectively illustrate ecological concerns. In the case of *Ecolibrium*, the game serves as an argument for understanding the complicated network of any ecological system, and how these networks work integrally to achieve a harmony and balance capable of maintaining the multitude of living creatures and things. Again, the procedural systems work to keep the player actively engaging the ecological, and the descriptions of these systems and living creatures and plants help educate the player on the various traits and characteristics of different life. These plants and creatures are not of this world, but their written descriptions and visual renderings are analogous to our own; it is easy to figure out what creatures are meant to be horses or lizards, pine trees or fungi. Although the game does not take place on our own planet, a player actively engaging in the ecological system should begin to consider our own vulnerable and interconnected ecology. These games use the capabilities of digital platforms for representing complicated systems, and through interacting with these systems a player can learn to better understand our own ecological system.

Coda

Toward a Posthumanist Critique

This project was motivated by an intense commitment to the philosophical underpinnings of posthumanism. I first came across Wolfe's posthumanism in the fall of 2011, during my graduate coursework at the University of Waterloo. At this same moment, on September 17, 2011, the Occupy Wall Street protest movement began in New York City's Zuccotti Park, located in the Wall Street financial district. This movement received global attention and spawned the Occupy movement, protesting social and economic inequality worldwide. I began to consider my scholarship at the time, and how might my own work be useful for considering the issues raised by the Occupy movement. The central issue at the heart of the Occupy movement, in considering our social and economic inequality in the wake of techno-capitalism, is an issue of taking care. The growing wealth gap and the reality of an economic system which places an enormous amount of wealth in the hands of the few, often at the expense of the many, is a constant reminder that, as a species, we are failing in our ethical and moral responsibilities to other people. The system is such that only a few have the opportunity to thrive, while the rest are tossed aside and forgotten. Posthumanism, through critical thought in the areas of biopolitics, animal studies, and eco-criticism, interrogates our failure in taking care, not only of ourselves and other humans, but of nonhuman subjects and the natural world. It is in the mode of taking care, and in the recognition that a majority of people were frustrated with the systems in place, that I began to conceive of this dissertation as an argument for digital media to provide a conceptual space for thinking through large complex ideas, such as the growing wealth gap, social inequality, animal welfare, and human-made climate change.

This dissertation takes seriously our ethical and moral commitments to rethinking anthropocentrism and humans' supposed superiority in an ontological hierarchy. As stated by Wolfe, posthumanism is not a rejection of humanism outright—rather, it is a reconsideration and reconceptualization of the philosophy. What is key here is not to reject all claims of human uniqueness. The central issue, however, is that our ability to excel in certain areas (such as language acquisition and tool use) should not, and must not, continue to place us on a pedestal, lording over all other creatures. Posthumanism urges us to reject this anthropocentrism, replacing it with an inclusive ethico-political framework predicated on our shared finitude and vulnerability with other living creatures. As I have argued, posthumanism is fundamental to a shift in Humanities departments around the world. As we transition more into the digital realm, as the objects of study are no longer only instantiated in print literature, we must begin to consider new methodologies and modes of critically reading which allow us to move past an engrained anthropocentrism. The posthumanities no longer consider only human nature, but become more open to hybridity, to understanding the affinities between the human, the animal, and the machine.

Electronic literature and video games open a conceptual space for thinking through this hybridity. While print literature is contingent on written words, and is thus able to interrogate questions of human nature, these words are not available to nonhuman subjects. It is fundamentally humanist to consider the question of the animal in terms reserved strictly for human beings. This is not to say that works of print literature with themes of animal welfare and ethics are not powerful or persuasive, but they will always pursue these themes through anthropomorphizing animals. Digital media is anthropocentric as well—we can never truly

escape our own cognition and ways we view the world. We can never truly know what it is like to be of a different species, to properly represent a different phenomenology. Knowing these limits should not prevent us from working conceptually to creatively imagine how these animals might see, feel, or act. Digital media, through its multimodal capability, is suited to consider these questions in unique, creative ways.

The role of posthumanist criticism is to analyze how these new media works help us understand our integration within a complicated assemblage of all living things. Humanism's privileging of human uniqueness has dire consequences for nonhumans and the natural world. Posthumanism argues that we have too long been at the center not only of academic inquiry, but that this privileging of the human is built upon the blood of nonhumans and the wreckage of the natural world. In the name of "progress," we have continually inflicted violence upon the other living creatures on this planet. The posthumanities should not only concern itself with an inquiry into works that are explicit in their thematics. Those works discussed in this dissertation are directly influenced by posthumanist themes, such as biopower, animal phenomenology, and climate change. A more fully developed posthumanist framework, then, and where I see my own scholarship heading, analyzes these themes in all works of art. A posthumanist criticism uncovers what every text says about class divisions and social inequality in the world, the role of the animal and how our ethics and morals view nonhumans, and the growing concern of human-made climate change which threatens all life on earth.

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