UNIVERSITY OF CALIFORNIA
RIVERSIDE

The Digital Mediation of the Technological Carnivalesque

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

English

by

Grant O. Palmer

September 2023

Dissertation Committee:
Dr. James Tobias, Chairperson
Dr. Katherine Kenney
Dr. Mark Minch-de Leon

Copyright by
Grant O. Palmer
2023

The Dissertation of Grant O. Palmer is approved:

_____

_____

_____

Committee Chairperson

University of California, Riverside

Acknowledgements

Writing this dissertation was a collective effort, and was only made possible through the help, support, critical insight, and guidance of many people. I thank the following people:

Dr. James Tobias, for his patience, rigor, and guidance. Dr. Steve Axelrod for his poetry and so much more. Dr. Katherine Kinney for film and camera movement. Dr. Mark Minch de-Leon for new perspectives. Dr. Rochelle Gold. Dr. Susan Zeiger. Dr. Weishin Gui. Dr. Armando Garcia. Dr. John Ganim for his example. Dr. Aron DeRosa. Dr. Dan Pa'an. Dr. Ray Papica. Dr. Vorris Nunley. Dr. Marguerite Waller. Dr. Christian Haines. Diane Galicia and Sherry Killam. Bonni Graham and Sharon Burton. And a special thanks to Perla Fabelo.

My love Michelle, with whom I share too many passions to count. Isabella, my favorite kid. Mona, Pseudo Henry, and a special dedication to Bowie.

Eric Palmer, for the being my best friend.

Mom, for being my biggest support, Mark, Brad, and Wendy.

Kevin Stetz, Gabe Arnold, David Hollinger, Joshua Palmer, Travis Williamson, Zack Palmer, Alex Lennert, Ryan Howard, Kevin Bransford, and Zack and Andy Gorrill.

Dr. stef torralba, Gabriella Almendarez, Ian Galbraith, David Siglos, Rusty Rust, Dr. Lauren Hammond, Dr. Britney Carlson, Dr. Sang-Kuen Yoo, Dr. Preston Waltrip, Jasmine Moore, Josh Prindle, Kristoffer Ekroll, Dr. Amanda Riggle, Dr. Leslie Fernandez, Dr. Mariam Galarrita, Brandy Lewis, Mike Heyliger, the Dartmouth American Futures Crew, the Merleau-Ponty Group, and the Music Nerds Chat.

And to everyone else, because you also helped.

The text of this dissertation, in part, is a reprint of the material as it appears in the journal *Television and New Media* (2023), and the forthcoming anthology collection, *Beyond Mimesis: Aesthetic Experience in Uncanny Valleys.*

ABSTRACT OF THE DISSERTATION

The Digital Mediation of the Technological Carnivalesque

by

Grant O. Palmer

Doctor of Philosophy, Graduate Program in English
University of California, Riverside, September 2023
Dr. James Tobias, Chairperson

This dissertation identifies the digital mediation of the technological carnivalesque in mobile smartphone, console, and PC games. Video game and mobile technology clearly show the human in transition, as phasic, and in a constant state of ontogenesis and technogenesis. The technological carnivalesque renders moot fixed notions of human identity regarding gender, sexuality, race, and class, and instead works to expose the cultural practices and technologies that construct, police, and exploit these fixed notions of human subjectivity and identity. Therefore, it is crucial that notions of human subjectivity and technicity are thoughtfully and critically approached, inviting an expansive and unprecedented future for human subjectivity that welcomes a collective approach to the human that emerges in unthinkably radical forms.

Each chapter highlights and examines a different digital game or digital media text, emphasizing the transformative dialogic that operates between users, game developers, and hardware and software. Chapter 2 studies Shelley Jackson's *Patchwork Girl* (1995), a hypertext that exposes the gendering of information and bodies in western culture and uses the hyperlink as a point of feminist critique to understand the body and embodiment as phasic, technically contingent, and transforming. Chapter 3 analyzes the

id Software's first-person shooter, *DOOM* (1993), as contributing to a radical, open-source code model of information sharing over a budding internet of the early 90's. id's open-source ethos stands in direct dialogic contrast to that of Nintendo's Read-Only Memory software, and this dialogic draws into critical question the desires and logics regarding the distribution of human technics within late-stage capitalism. Chapter 4 and 5 analyze two major mobile games: *Pokémon GO* and *Animal Crossing: New Horizons* and discuss the unprecedented transformative influence that mobile games hold due to their massive implantation via global smartphone networks.

Ultimately, the project attests to the ongoing importance of digital media hardware and software as a crucial site of emerging ontogenesis and technogenesis. Moreover, the project demonstrates the real potential for comparative and critical approaches to media to offer valuable new models for understanding how human ontogenesis and technogenesis emerges through the embodied practices surrounding media and media interfaces.

TABLE OF CONTENTS

Chapter 1
Introduction: Monsters Lurking within Your Phone.....……..……..10

Chapter 2
Limbs and Lexia: *Patchwork Girl*, Ghostwriters, and the Phasic Body……....46

Chapter 3
DOOM, Free Software, and the Carnivalesque of Digital Recursive Publics……...86

Chapter 4
The Technological Carnivalesque in Niantic's *Pokémon GO* ……120

Chapter 5
Stay at Home: *Animal Crossing: New Horizons*, Casual Gaming, and Catachrestic Media

Practices During the COVID-19 Pandemic…….147

Conclusion
Derrida and Desire: Mods, IP, and Instagram Marketplaces……...175

Works Referenced…...…….185

List of Images

Chapter 1

Figure 1.1: “New Pokéstop”……..13

Chapter 2

Figure 2.1: “graveyard”…….47

Figure 2.2: “title page”……...51

Figure 2.3: “us”……..……52

Figure 2.4: “flow tree”……..….54

Figure 2.5: this writing……..59

Figure 2.6: “am I mary”…….…68

Figure 2.7: “interrupting D”……...…69

Figure 2.8: “i am”……..71

Figure 2.9: “I lay”…….….73

Figure 2.10: “eaten”……...…75

Figure 2.11: “mementos”……...76

Figure 2.12: “crazy quilt”….……..……...77

Figure 2.13: “a life”…….…..79

Figure 2.14: “self swarm”…….….79

Figure 2.15: “resurrection”……....83

Figure 2.16: “universal”…….…84

Figure 2.17: “phrenology”……..85

Chapter 3

Figure 3.1: "*DOOM* HUD"……96

Figure 3.2: "*DOOM* 1993 Software package" (Australian)……...…..……102

Figure 3.3: "*DOOM* on potatoes"……....106

Figure 3.4: "*DOOM* on pregnancy test"……..….106

Chapter 4

Figure 4.1: "Pokéstops"……...…127

Figure 4.2: "AR Pikachu"……129

Figure 4.3: "Professor Willow"……...130

Chapter 5

Figure 5.1: "National Videogame Museum Diary entry"……..…..153

Figure 5.2: "Blathers"……..164

Figure 5.3: "NVM Diary Table of Contents"……..…168

Chapter 6

Figure 6.1: "*Patchwork Girl* Software License Agreement"……...……179

Chapter 1

Introduction: Monsters Lurking within Your Phone

"I bid my hideous progeny go forth and prosper." –Mary Shelley (1832)
“In many ways, books are the original interactive medium.” –Adrienne Shaw (2014)
"For all we know, there could be cubes in there the size of gorillas." –Professor John Frink (1995)

When I reached level 40 in Nintendo and Niantic's augmented reality mobile game, *Pokémon Go*, a feat which takes anywhere from 3 months to 5 years to complete, depending on how much money and time you spend, a special Settings feature unlocked that invites players to take part in the future construction of the game's GPS-located points of interest by submitting their own nominations (fig. 1). The relationship between my affective labor, the cellphone, and the game’s invitation forms a carnivalesque dialogic that is at the heart of this dissertation.

"Congratulations!" read the digital message, transposed atop a picture of a PokéStops littering a green, yet building covered, landscape. "You've become eligible for Niantic Wayfarer, a program that allows you to enhance Niantic games by contributing information on unique and interesting places in the world around you. Complete the Wayfarer tutorial to unlock PokéStops nomination and editing features." This exciting offer, "rewarding" the player for their diligent gameplay, more plainly asks the player to contribute their free labor to a game already pulling in an approximated $1.23 billion in 2020 revenue, alone. Despite the blatant data-farming perpetrated by Niantic, I still received my Wayfarer Training, and set off to establish new PokéStops by identifying a local statue or park bench, and then transforming the mundane object into a supplies-depot that users from all around can come to and enjoy. But why let me become an

unpaid contributor to the game? The desire to help author the game seemingly outweighed the labor exploitation. But it was more than that. With the invite came a carnivalesque sense that we lowly players could be Designers and Programmers for a day, a day where the consumer-fools get to run amok and shape Niantic's AR Pokéworld in our own, potentially bizarre, destructive, and subversive imaginings. Furthermore, this sort of affective labor, taking place through the most advanced telecommunication technology that the world has yet conceived, is fun, plain, and simple. *Play* positions itself as a palpable tension, a dialogical monster threatening Niantic's sensible, calculated, and official business aims. Compounding this tension is the fact that playing the game also threatens the physical safety of the players in that the actual world is not stable, is in constant violence and strife, and is simply a dangerous place in which to be invited. For example, *GO* invites the players into potentially dangerous locations, such as in Bosnia and Herzegovina, where players face safety concerns over the potential that old landmines have been left over from the Balkan Wars. A dialogic tension exists between the benign aims of the gameplay, catching Pokémon, and the very real potential that you may be seriously maimed or killed by simply following the instructions of the game, specifically made available through its mobile platform.

I will be referring to this specific ambivalent and dialogical tension that I identify operating between gamers, players, coders, and hackers, corporations, publishers, and massive distributors that this dissertation will be exploring as the *digital mediation of the*

technological carnivalesque. The technological carnivalesque describes the points of dialogical intersection that emerge when the low culture of the "masses" suddenly converges with that of the high technocultural and computational elite, such as that of Silicon Valley, largely through the widespread use of sophisticated PC, video game, and mobile smartphone technology. In this condition, mass culture and folk culture, once granted access to bleeding-edge technologies, are both ambivalently transformed by and themselves ambivalently transform the cultural practices and material conditions surrounding and producing these technologies and their own human states. The digital texts, video games, and interface technologies covered in this dissertation represent a grotesque and carnivalesque convergence of high and low culture that ranges from the early internet and PC hardware and software of the 1990s to the present emphasis on mobile phone technology in the current year of this writing, 2023.

My discussion and analysis of the technological carnivalesque will focus upon the dialogical tension present between several specific hardware and software interfaces. First, I will discuss the exposed tensions of culturally mediated identity categories, including gender, sexuality, and race, as they relate to ontogenesis and technogenesis in the early developments of the PC. Second, I will discuss the exposed tension between video game players and modifiers and the large computer and video game developers operating in the early 1990's of PC gaming and the early development of the World Wide Web during the Web 1.0 phase of the internet. Third, I examine the crisis of time, space, and the body brought about by the mass global influx of mobile smartphone technology.

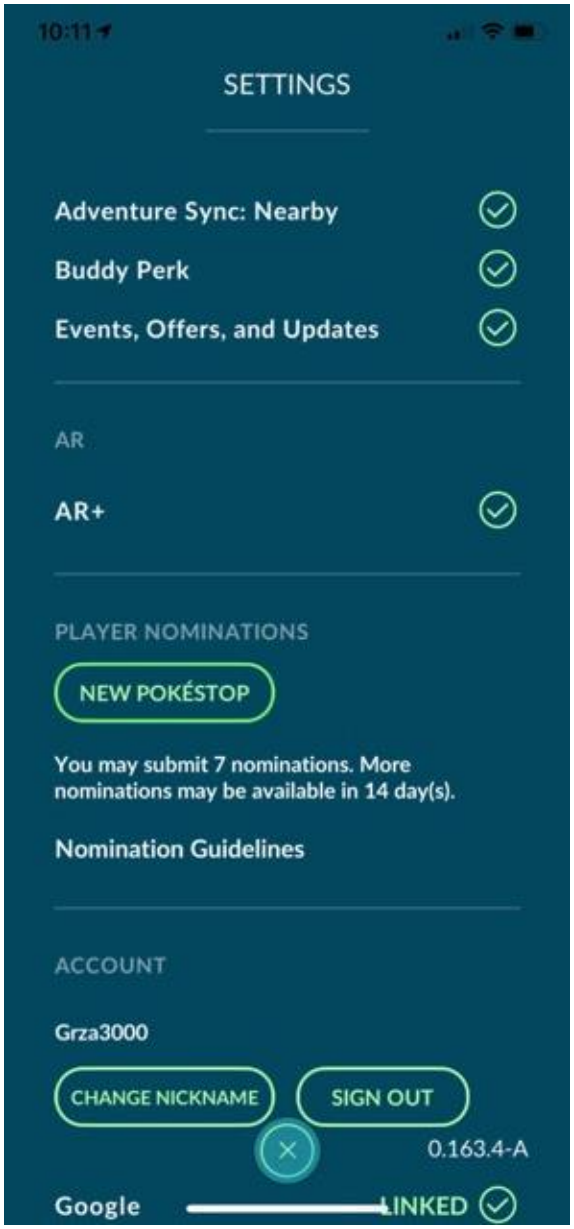


fig. 1.1: “New Pokéstop” (Niantic 2016)

And lastly, I close with a discussion of how mobile hardware in current video games consoles further exposes the tension between the gendered, classist, and racist logics of the video game industry and the phasic, unbound, constantly shifting reality of the people who interact with, rewrite, become, and play the games. The dialogical tension

found in all these scenarios are examples of the digital mediation of the technological carnivalesque.

My use of the term "carnivalesque" comes by way of Russian literary theorist Mikhail Bakhtin, as established in his study of the medieval literary marketplaces, bodies, play, and violence in *Rabelais and His World* (1931). Francois Rabelais, writing and living in medieval France between 1480 and 1564, was trained as a frugal Franciscan Priest, then a community-minded Benedictine monk, and later, in 1530, as a physician. His experience as a priest and monk gave him firsthand experience of poverty, collective living, and, after he began his medical work, he became intimately acquainted with the specifics of human anatomy and the horrors of the plague (Screech vii-ix). *Gargantua and Pantagruel*[1], Rabelais masterpiece, and Bakhtin's object of study, presents the carnivalesque in all its destructive and generative powers at the level of the masses.

Fittingly, the introduction to the text ends with an oath that equates the veracity of the text with the stability of the body, threatening physical and spiritual harm if the reader does not believe every word of the text. "I give myself – body and soul, tripe and innards – to a hundred thousand punnets of fair devils if I tell you one single word of a lie in the whole of history: so too, may Saint Anthony's fire burn you . . . should you not believe everything that I shall relate to you in this present chronicle" (Rabelais 2006, 13-14). Bakhtin analyzes this scene as a clear example of the text's ambivalent engagement and presentation of the body: "In our example the pint of tripe as the author's pledge does not only mean a cheap variety of food but also life, the bowels, in the sense of 'all my tripes.'

[1] *Pantagruel* is first published in 1535 by Saincte-Lucie dit Le Prince without the author's permission.

This picture too is an ambivalent" (1984, 163). Detailed descriptions of bodies, mass crowds, and violence related to the masses is present throughout the text, and perhaps most obvious in depictions of warfare. Rabelais takes special patience in naming specific peoples in order to achieve an organic and materially-bound sense of collective world building:

> Now in those days the people of Besse, Marche-Vieux, Bourg-Saint-Jacques, Le Traineau, Parilly, Riviere, Les Roches-Saint-Paul, Le Vau-Breton, Pontille, Brehemont, Le Pont du Clam, Cravant, Grandmont, Bourdes, Lavillaumer, [Huismes,] Segre, Usse, Saint-Louand, Chouze, Panzoust, Couldreau, Verron, Coulaines, Vareness, Bourgueil, L'Isle Bouchard, Croulay, Narsay, Candes-Monsoreau and other neighboring lands, sent embassies to Grandgousier to tell him they were informed of the wrongs being done to him by Picrochole and to offer him, for the sake of their ancient alliance, everything in their power: men, money and munitions too. (Rabelais 2009, 348)

Rabelais moves from this larger, macro discussion of nations, men, and munitions, to describe, often in gut-wrenching detail, the personal and localized physical violence that occurs in mass warfare. "Immediately afterwards he drew forth his that sword and struck the archer who was holding him on his right, entirely severing the sphagitid arteries in the neck – his jugular veins – together with the uvula down to the two thyroid glands; then, withdrawing his sword, he prised the spinal marrow half-open between the second and third vertebrae: at which the archer dropped down dead" (Rabelais 2009, 339). The medically detailed description renders the body in a grotesquely material aspect. It is also interesting to note that Rabelais describes the soul and blood to both spill forth in moments of violence to the body, thus breaking down any binary between the two. A character named Gymnaste cuts another character, Tri-ffart, through his stomach, who is then described as falling "to the ground, as he did so spewing up four turns of sops with

his soul all mixed up in them" (2009, 317). These two juxtaposed and dialogical descriptions of violence help to clearly elaborate the tension that is put forth between the facelessness of nation and war to that of the death and maiming of the individual body. Bakhtin identifies the ambivalent power of this type of folk-wisdom, a wisdom that understood death and destruction and renewal and rebirth as part of the same, larger, ambivalent process.

Several literary and media scholars, including Julia Kristeva and Marsha Kinder, have used and developed Bakhtin's notion of intertextuality and the dialogical to describe the tension between media producers and consumers, but little attention has been paid to the destructive and generative tension between user and interface, an ambivalent tension that threatens to destroy and transform each polar node of the dialectic. This tension is the carnivalesque: swirling with ambivalent transformative power, but also terrible destructive possibility. At the center of media production and distribution in late-stage capitalism is a tension between authorship, copywrite, publication, and market control. Hackers, modders, Instagram raffle accounts, data miners, and free/open source/shareware distribution practices all threaten the neat and tidy capitalist fantasy of IP and distribution control for which companies like Nintendo have infamously strived.

Like the Pocket Monsters for which the namesake of Pokémon is a portmanteau, monsters and monstrosity also figures in a crucial and critical way in my approach. Long has technology, and most recently digital media technology, been the embodied and material location for a plurality of social and cultural tensions, mistrusts, and differences. The computer and the digital age, like any technology in its age, becomes a meaning

machine that can serve as the material location of Society's Current Monster. In short, the cell phone is both a technology of subjectivity, and a monstrous body containing any number of additional, hidden monsters, lurking in the depths of circuit boards and esoteric computer coding language.

This one technological body containing a "vertiginous excess of meaning," while inviting an excess of interpretations, can be understood as what Jack Halberstam describes as a material example of a particular process of Gothic media technology. "Gothic novels," explains Halberstam, "produce a symbol for this interpretive mayhem in the body of the monster" (1995, 149). Not only do I cite Halberstam to introduce the important concept of Gothicization, that is, the collapse of multiple meaning into one monstrous body, as well as follow the "tracing of Gothic textuality across many modes of discourse" and media, but this also allows me to establish my work within a larger critical genealogy regarding authorship and publication with that of Mary Shelley's *Frankenstein*.

Shelley's *Frankenstein*, first published in 1818, and then again in 1831 (under dire financial circumstances), presents not only a prime example of embodied horror in the form of the literary monster, but the book, in published and distributed novel-form, also exists as a material monster itself in that it threatens the long-standing and heavily gendered publishing practices of nineteenth century England. Halberstam argues that patchworked, lumpen bodies like that of Frankenstein's creature contain a wide variety of signifiers of difference, "pieced together out of the fabric of race, class, gender, and sexuality" (1995, 150). Halberstam, arguing against structuralist approaches that aim to flatten experience into testable universals, goes on to explain that "Monstrosity (and the

fear it gives rise to) is historically conditioned rather than a psychological universal" (152). Upon the success of Shelley's novel, which gave rise to Shelley's "hideous progeny" of the nineteenth-century Gothic novel, itself, Robert Louis Stevenson, after the success of his Dr. Jekyll and Mr. Hyde, is said to have been worried that "he had produced a gross distortion of literature," which he phrased a "Gothic gnome." "Such an anxiety marked Gothic itself as a monstrous form in relation to its popularity and improper subject matter," explains Halberstam. "The appellation of 'Gothic gnome' labeled the genre as a mutated or hybrid form of true art and genteel literature" (157). Halberstam goes on to relay that even late-Victorian Gothic novelist Bram Stoker, in his essay "The Censorship of Fiction," calls for a robust censorship that, "would combat human weakness on two levels." Firstly, censorship would combat "the weakness of the great mass of people who form audiences, and of those who are content to do base things in the way of catering for these base appetites" (158).

One central critical aim of this dissertation is to overturn this long held, and outright erroneous notion that audiences and masses of people are weak, and instead assert that they are instead immensely powerful and imbued with destructive and generative power. A second and related co-operating aim of my argument is to also describe and discuss the critical importance of these "base things" and these "base appetites," as it is within these appetites that we observe the incredibly unstable and monstrous power of raw, carnivalesque play. However, desire is not stable or homogeneous and therefore base desires overlap in potentially destructive ways.

For example, *Pokémon GO* invites players to take on a more direct role in their own digitally mediated technogenesis, such as when they reach level 40 and can submit Pokéstops and rewrite portions of the game, but they are also incited to enter potentially dangerous areas, where the base appetites of war mongers and imperial powers have turned landscapes into mine-ridden *deathspaces*. Media and mediums act as both agents of change, and objects of serious, often violent transformation. They transform the material world around them, only to be again transductive reformed again themselves by the very process.

Video Games, Haecceity, and Affective Object Orientation

This dissertation is centrally a work about how media technologies shape and form human subjectivity, and how media technologies are shaped by and changed through an ongoing process of epiphylogenesis that is directly bound and enmeshed with biological phylogenesis. Therefore, the human, in what Gilbert Simondon calls a *phasic* state of continuous ontogenesis and technogenesis, is never stable, never defined, and never mastered. Simondon argues that the living being, that has come to be understood as the stable "human," exists in a constant state of informational and physical shift, as part of a process called *individuation*. "The state of the living being is like a problem to be resolved, to which the individual becomes the solution through successive assemblages of structures and functions" (2020, 226). Therefore, explains Simondon, the individual can be considered as a "system that carries information as pairs of antithetical elements

linked together by the precarious unity of the individuated being whose internal resonance creates a cohesion" (2020, 226). Ultimately, what is perceived as the stable individual is instead the "resolving individuation" that works to conserve the tension in the equilibrium of metastability instead of nullifying them in the equilibrium of stability. "The equilibrium of the living being," argues Simondon, "is an equilibrium of metastability, not an equilibrium of stability" (226). Simply put, individuation is a response to the appearance of information in a being's already individuated system, and it also describes how the schema of one being will always integrate into the schemata of another.

Therefore, the technics of the human are a shifting, emerging, and materially contingent encounter. This encounter is a convergence of embodiment, bodies, and objects; the blurred lines between material instantiation and cultural narrative; epistemology flowing into ontology; bodies orientating themselves to one another; bodies inter- and intra-acting with one another, flowing into each other, changing one another; about how subjectivity, representation, and other affectively break down, intertwine, and reproduce themselves in an ongoing process of affective, material transformation. While corporate game companies seek to produce predictable markets, markets that operate through the gendering, racialization, and other classification. Video games, existing as what Audrey Anable calls "affective systems," express a medium specific mode of body, tech, and affect merging into affective objects discursively and recursively constituted and reconstituted through embodied action.

In *Playing with Feelings: Video Games and Affect,* Anable (2018) argues that video games "engage and entangle" players "in a circuit of feeling between their computational systems and broader systems with which they interface: ideology, narrative, aesthetics, and flesh." Anable goes on to importantly argue that video games, because of their status as "pervasive and popular media are uniquely suited to giving to giving expression to ways of being in the world and ways of feeling in the present that can tell us something about contemporary digitally mediated and distributed subjectivity" (xii).

This dissertation aims to explore the ways that hardware and software interfaces contribute an important dimension to gaming media and its transformative effects upon formations of digitally mediated and distributed subjectivity that is centered around touch, embodiment, and affect. Anable explains that video games function as a complex affective system:

> "When we open a video game program on a phone, computer, or gaming console, we are opening up a 'form of relation' to the game's aesthetic and narrative properties, the computational operations of the software, the mechanical and material properties of the hardware on which we play the games, ideas of leisure and play, ideas of labor, our bodies, other players, and the whole host of fraught cultural meanings and implications that circulate around video games." (Anable 2018, xii)

Thinking of video games as affective systems allows us to consider the nature of object and form in a more complex, philosophical context, Sara Ahmed, whose work influences Anable, says, "If orientations point us to the future, to what we are moving toward, then they also keep open the possibility of changing directions and of finding other paths,

perhaps those that do not clear a common ground, where we can respond with joy to what goes astray" (Ahmed 2006, 178).

Bakhtin and Monsters: The Digital Mediation of the Technological Carnivalesque

In the introduction to *Rabelais and His World*, Mikhail Bakhtin describes what he views as the indispensable traits of the grotesque and carnivalesque image, attaining perfection, asserts Bakhtin, in the novels of the French Renaissance writer François Rabelais. Bakhtin describes the grotesque and carnivalesque image as materially degrading, while also limitless and boundless in its creative potential. He says that "the grotesque image reflects a phenomenon in transformation, an as yet unfinished metamorphosis, of death and birth, growth and becoming" (24). He goes on to explain that "the essential principle of grotesque realism is degradation, that is, lowering of all that is high, spiritual, ideal, abstract; it is a transfer to the material level, to the sphere of earth and body in their indissoluble unity" (20- 21). Although this degradation "digs a bodily grave for a new birth; it has not only a destructive, negative aspect, but also a regenerative one. To degrade an object does not imply merely hurling it into the void of nonexistence, into absolute destruction, but to hurl it down to the reproductive lower stratum, the zone in which conception and a new birth take place. Grotesque realism knows no other lower level; it is the fruitful earth and the womb. It is always conceiving" (21). Here, Bakhtin describes the power of reconstitution that the lower stratum possesses, as well as the power of the seemingly mundane individual, and their powerful relationship with the collective on a material level.

It is through this bodily and material notion of "degrading" identified here by Bakhtin, that my project finds its purchase. Digital media's specific attributes create an unprecedented relationship between the producer and the consumers/users/audiences. A new, complex form of authorship, often diverging from that of the producer's original intent, is possible because of the design of the digital software, and, I argue, these transformations operate within the shifting bodily realms of the carnivalesque and monstrous. The event of mobile and networked digital gaming deserves attention because of the important socioeconomic and cultural possibilities that arise from the vast number of individual, embodied users converging with one another through within a digitally mediated marketplace. By complicating theories of new media and media transition through a theory of Bakhtin's carnivalesque and the problematics of the monstrous, my project argues that literary and author-reader relations theory plays an important and central role in theories of new media because the digital interface, especially that of the mobile smartphone and mobile gaming console, allows for an unprecedented role of the user-as-author in shaping and forming both the hardware and software in use, but also the marketplace within which these digital media artifacts exist.

My dissertation will allow for a thorough treatment of what I term the "digital mediation of the technological carnivalesque," and argues for a theory of media transition that positions "the carnivalesque" in a central way that updates the work of Russian literary theorist Mikhail Bakhtin for a contemporary, digitally mediated culture. This intervention into and revision of the work of Bakhtin is central to the success of my own. My work importantly diverges from Bakhtin in that I argue for a reframing of the

carnivalesque to address a specifically technological and media-oriented modality that Bakhtin did not, and could not, describe in his earlier work: that is, the implications of the digital and technological regarding the carnivalesque and grotesque. By reading and analyzing a range of digital media texts and video games, including *Pokémon*, *DOOM*, *Super Mario Bros 3*., and *Animal Crossing: New Horizons*, from an approach housed in the grotesque and carnivalesque, as well as questions of monstrosity and the monster, this project is interested in exploring the ways in which the current hyperindustrial moment of the mobile and digital smartphone and networked video game console is taking on transformative and unprecedented roles at the level of the device and the user interface.

The specific embodied relationship between user and phone places an unprecedented emphasis upon user-created and crowdsourced content in the current gaming moment, a conversation in the history of digital gaming which predates the invention and mass implementation of the smartphone by several decades. A variety of digital media, from console video games to mobile phone apps, require and invite an authorship that disrupts the static limits of printed text, as discussed by such scholars as N. Katherine Hayles, Rita Raley, and Nick Yee.

Hayles offers helpful arguments regarding the human body as a set of transitory technological artifact and processes in her 1999 book *How We Became Posthuman*, as well as important thoughts on technogenesis in 2012's *How We Think.* Hayles' work offers important insights into broader questions of the body and embodied media use, but I aim to offer a tighter and more focused examination of game play habits and other game-play adjacent, often authorial activities specific to digital media, such as modifying

existing code to create new versions of the game and gameplay, or organizing player parties on modified hardware, such as mods of *DOOM* (1993) that ran off a conventional toaster. In other words, I aim to demonstrate how the age of digital and mobile video gaming have resulted in important and specific transformations in new media, largely due to the users specific interaction as a type of author.

Rita Raley, critiquing the neoliberal designs of certain contemporary digital media in her 2009 book *Tactical Media,* helps to bridge the gap that I see between Hayles' work and my own, and speaks to the revolutionary power present within the use of digital media artifacts. Raley asserts that official designs for intended user input can always be disrupted in revolutionary ways through the digital interface itself. This disruptive, yet uncertain power described by Raley is helpful to my own framing of the carnivalesque and grotesque, especially in its uncertain and revolutionary potential: “It is not simply that interventions by tactical media may disturb but that the outcomes of those disturbances remain uncertain and unpredictable” (8). Raley's work also becomes helpful as I aim to expand the discussion put forth by Anne Allison regarding economic and sociopolitical forces that operate within the design and use of contemporary digital media, especially that of *Pokémon Go*. *Go* serves as a prime example of how a certain implementation of mobile gameplay blurs the lines between consumer and producer, as developers and large game companies harvest and manipulate user data in a variety of ethically questionable ways. This user-authorship creates a multiplicity of content in the digital marketplace, both influencing the marketplace and its collective of intersecting

communities, while also threatening to destroy the status-quo and very material structures that gives these communities shape.

Nick Yee (2014) demonstrates through industry-based research that games, video and otherwise, have real impact on the actual lived lives of gamers outside of the game. "Whether it's the avatar . . . or the rules of the game, virtual worlds give us unparalleled tools for changing how we think," says Yee. "Instead of providing an escape, virtual worlds can be used to influence how people behave offline" (211). An ambivalent tension arises as we consider that how "we are influenced depends on the intentions of the manipulators" (211). Yee explains that companies use user data to predict and map a wide range of user habits. "Our behavioral profiles in consuming entertainment reveal our material desires, allowing advertisers to target us more precisely" (211). However, standing in dialogic contrast to the economic aims of corporations, Yee also hopefully reminds us that "Virtual worlds hold infinite possibilities," and therefore, humanity needs to ask itself a critical question: "Instead of being content to visit virtual worlds, we need to ask ourselves what new worlds we would create if we had the chance" (213-214). he dialogic tension between the power to create and the power to destroy is central to my theorization of the technological carnivalesque as a tool for media interpretation.

This power to destroy and create also gives the technological carnivalesque a uniquely violent and monstrous quality, operating within the multiplicity of meanings that the term "monster" connotes in the academic fields of literary and cultural studies.

I will be pursuing a media-oriented approach to the monstrous, the limits of the human, and the body, following that of Mary Shelley and Shelley Jackson, while also looking to expand my own notions of the monster in broader epistemological ways via the digital.

Grappling with Bernard Stiegler's anxiety that the human subject has been entirely over-written by hyperindustrial programming, my intervention into Bakhtin's theory offers interesting ways to understand and rethink the human and the apparatus in an unstable material network. While also arguing against a fully programmed, algorithmic subject, Bakhtin asserts that "the grotesque liberates man from all forms of inhuman necessity that direct the prevailing concept of the world. This concept is uncrowned by the grotesque and reduced to the relative and limited. Necessity, in every concept which prevails at any time, is always one-piece, serious, unconditional, and indisputable. But historically the idea of necessity is relative and variable." He goes on to emphasize the power that the grotesque holds over serious and official discourse, stating that, "The principle of laughter and the carnival spirit on which grotesque is based destroys this limited seriousness and all pretense of an extratemporal meaning and unconditional value of necessity." This, explains Bakhtin, "frees human consciousness, thought, and imagination for new potentialities. For this reason, great changes, even in the field of science, are always preceded by a certain carnival consciousness that prepares the way" (49). An important distinction needs to be pointed out between technology and its development, and science and its development. When Bakhtin refers to the "field of science," a flattening of all that is scientific and technological occurs.

For my purposes, the immediate physical embodied engagement that the technological artifact affords makes it the site at which imagination manifests itself in a physical sense. Science as an applied field of study and discourse is markedly distinct from the material factors regarding technological development and its implementation, as well as technology as a field. My project will help to articulate the importance of this distinction, especially because, by doing so, it serves to expand and add further dimension to Bakhtin's original argument regarding the power of the carnivalesque in all its facets. I see this important carnival consciousness operating at the level of the apparatus and user interface, as was seen in the practices of the PC shareware culture of the early 1990's, as well as in the data-mining culture of the contemporary mobile phone era. To better discuss these material elements of the technological carnivalesque and its tendencies with greater depth, I will be drawing upon the field of monster studies as a way to engage with the technological carnivalesque in a way that does privilege technological change in itself as an all-explaining answer regarding the nature and motivations of technological and media transitions in specific periods of time.

Recent monster studies, or "teratology" in the humanities, provide a historical and theoretical trajectory that will also allow me to complicate any simple or reductive "technological" turn in this study of the technological grotesque. My use of the monster and the monstrous aims to understand and describe the body and its composite technological prostheses and assemblages as not limited to the body as fleshiness alone, but as a complex set of circumstances and processes that appear as a coherent body in moments of spatiotemporal necessity. Following the work of thinkers like Hayles

regarding the materiality of the body, my project is interested in examining the body as a complex assemblage of biological and organic material intertwined with supportive technological artifacts that exist in different embodied formations at different historical moments, which, in turn, serve to constitute space and time, as such. My work assumes that a necessary techno-genesis instantiates the human-as-process and, therefore, the relationship between the user/reader/subject and the technological artifact becomes a condition for new possibilities in subject formation itself.

Therefore, I will also be drawing upon French technology theorist Bernard Stiegler to better develop this mode of technological play and embodied user interaction as a critical component of contemporary technogenesis. Crucial to my reframing of Bakhtin is Stiegler's work on human subjectivity, memory, and epiphylogenesis. In *Technics and Time, 1: The Fault of Epimetheus*, Stiegler explains that the general concept of a technical system, according to Bertrand Gille, is not singular, but instead a succession of technical systems. "In the course of a historical period, a system is constituted as stabilization of technical evolution around previous acquisitions and structural tendencies determined by play of interdependencies and inventions complementing one another, in relation to other dimensions characteristic of a particular historical period" (29). This play within the technical system is important to note, as play begins to take on a multiplicity of meaning. He goes on to state that, "it is obvious that links exist between the technical and economic systems: there is no work without technics, no economic theory that is not a theory of work, of surplus profit, of means of production and investment" (31). Stiegler's work here helps to situate Bakhtin's

carnivalesque within the hyperindustrial age, adds techno-specificity, and also helps to draw attention to the important emphasis upon the material body and embodiment that the project pursues.

Alternatively, approaches that privilege a monstrous-as-flesh position overlook the important relationship that epiphylogenetic industrial temporal artifacts and organic flesh share in order to appear as any coherent body. An example of this approach is found in Jeffery Jerome Cohen's article, "Monster Culture (Seven Theses)," Cohen explains that the monster is the embodiment of displacement, of a gap between cultural anxieties, and that the "epistemological spaces between the monster's bones are Derrida's familiar chasm of difference." Cohen goes on to argue that "the monster is difference made flesh, come to dwell among us, and this biocentric argument privileges fleshiness in a limited way that ignores the composite technological artifact that is "the body." Cohen's argument here is incomplete for my purposes, and, if considered alongside Bakhtin's notions of the grotesque and carnivalesque, nuance can be added to Cohen's reductive and biocentric view of the body and the monstrous. When rethought through Bakhtin, the monstrous is not simply a metaphysical fancy made material (flesh), but instead becomes a means of describing the Protean process and transformative nature of embodiment itself:

> The monster is a genus too large to be encapsulated in any conceptual system; the monster's very existence is a rebuke to boundary and enclosure; . . . The monster is in this way the living embodiment of the phenomenon Derrida has famously labeled the "supplement" (*cedangereux supplément*): it breaks apart bifurcating, 'either/or' syllogistic logic with a kind of reasoning closer to "and/or," introducing what Barbara Johnson has called "a revolution in the very logic of meaning." (41)

Cohen goes on to say that, “Any kind of alterity can be inscribed across (constructed through) the monstrous body, but for the most part monstrous difference tends to be cultural, political, racial, economic, sexual” (41). The monster, to follow Cohen’s explanation, exists as the answer, or answers, to the dialectical premise that experience proposes at any given moment in a culture’s history. The monster is both generative and destructive, simultaneously embodying desire and death, as well as the progressive rebirth that destruction can ultimately yield. The introduction of new technologies and new material media devices informs these transformations, and this holds true for the mobile smartphone technology of the 21st century. Donna Haraway says that although organisms are natural objects, “it is crucial to remember that organisms are not born; they are made in world-changing technoscientific practices by particular collective actors in particular times and places.” Haraway goes on to describe her current world as being “in the belly of the local/global monster” that is gestating a particular production of nature via hyperindustrial capitalism (41).

I argue that the mobile smartphone, and its related and subsequent technological systems and devices, are importantly informing this current moment of technoscientific cultural production, on a materially discursive level. Through the smartphone, a fresh emphasis has been placed upon user-generated content and crowdsourced data, which brings up questions of authorship and ownership within the marketplace. Moving in a different direction from that of both Cohen and Haraway, I draw upon Bakhtin’s engagement with the dialectical, his emphasis on collective practices and embodiment, as well as his notion of the grotesque and carnivalesque in the current hyperindustrial

marketplace to describe the tensions of this moment, or, more specifically, this series of over-lapping moments.

Bakhtin's engagement with the body and media is key to articulating the relationship that I am attempting to strike between the monster, the dialectical, and the material consequences of the technological device. As mentioned earlier, Bakhtin describes the traits of the grotesque and carnivalesque image, expertly presented, asserts Bakhtin, in the novels of the French Renaissance writer François Rabelais, in the introduction to his literary criticism masterpiece, *Rabelais and His World*. Bakhtin's description of the grotesque and carnivalesque image as materially degrading, while also limitless and boundless in its creative potential, is key to my description of the monstrous in the digital age. Like the monstrous and the use of the Monster, as argued by Cohen, Halberstam, and MacCormack, the grotesque and carnivalesque image enjoys an immortal nature that allows for its reactivation across temporal locations. Bakhtin raises an indictment of his present moment, and asserts that, "This is the reason why medieval parody is unique, quite unlike the purely formalist literary parody of modern times, which has a solely negative character and is deprived of regenerating ambivalence" (21). I argue that it is this "regenerating ambivalence" that I see operating in the "Technological Carnivalesque," and my project will attempt to identify its reactivation in digitally mediated hypermedia. I argue that by considering the ambivalent, unstable, transformative nature of the technological carnivalesque, we can also reframe work regarding theories of the human body, embodiment, and its mediated constitution.

Central to my project is Shelley Jackson's 1995 hypertext *Patchwork Girl*, and its critical engagement with the monstrous female, authorship, and interactive reading/authorship practices. Setting an important precedence for my own work, Jackson's hypertext has been a mainstay in literary criticism relevant to hypertext, multimedia, media change, and questions of authorship. In Jackson's article, "Stitch Bitch: The Patchwork Girl," she asserts that,

> The body is not even experienced as whole. We never see it all, we can't feel our liver working or messages shuttling through our spine. We patch a phantom body together out of a cacophony of sense impressions, bright and partial views. We borrow notions from our friends and the blaring organs of commerce, and graft them on to a supple, undifferentiated mist of smart particles. (1997)

Here, Jackson clearly articulates the complexity of the body and embodiment as a process of organic and biological material intertwined with, supported by, and distributed across a technologically mediated network. Again, a particular language regarding the marketplace is present, and now it takes on a gendered and bodily dimension. Perhaps not surprisingly, Bakhtin's uses a particularly gendered language to describe his notion of grotesque realism, such as, "the fruitful earth and the womb," which is "always conceiving." By putting the critical concerns of Jackson's digital hypertext in conversation with Bakhtin's carnivalesque of the marketplace, I aim to draw out the complex relationships that exist between the grotesque and the monstrous feminine which is operating across these texts in various ways. Because Jackson's work emphasizes the important and critical connections existing between material production and gendered embodiment, Bakhtin's work helps to situate the "monstrous feminine" within a larger history of the marketplace as a grotesque, multifaceted feminine body, producing and

consuming material culture in a grotesque and carnivalesque fashion, while also threatening to destroy it in through its insatiable consumption and destructive forces. These qualities, I argue, can be read as "monstrous," in all the cultural heft of the word.

The carnivalesque enjoys a specific mobility, that, argues Jack Halberstam, is also enjoyed by the Monster. The Monster as an unstable, mobile category helps to bring Bakhtin's notions of the grotesque and carnivalesque into a digital moment, where the lines that define the human are arguably more blurred than ever before, and the technological carnivalesque enjoys a specific mobility that figures the monstrous in terms of technical means and moments of technical use taking place by non-technical subjects in non-technical milieu. In her essay, "Posthuman Teratology," Patricia MacCormack explains that "Monsters are only defined contingent with their time and place; they are never unto themselves. It could be argued that monstrosity is only a failure of or catalyst to define the human" (522). These "monstrous" qualities of difference and alterity result from carnivalesque play that manifests itself in the grotesque and monstrous. Therefore, the monster figured in the technological carnivalesque thus brings the grotesque and carnivalesque into a moment of computational mediation and of digital play. Hypertext narratives of digital grotesquery, like *Patchwork Girl*, or digital gaming narratives of pocket monsters augmented into "natural spaces," are prime examples where the technological carnivalesque is mediated in contemporary computer use.

The carnivalesque and grotesque, according to Bakhtin, afford the emergence of new states of being, often discordant with hegemonic notions of "normalcy" on a multitude of cultural, economic, and sociopolitical registers. The carnivalesque displaces

the stagnant normalcy of the Official with the destructive and generative, and this displacement can be better understood through the concept of the Monster.

In the same way that the specific cultural conditions dictate who or what is monstrous and monster, the specific cultural conditions in which marketplace consumption and production occurs depends on the material conditions available to the marketplace at any given time. *Pokémon* serves a major mass-transmedia example of this. In her book, *Millennial Monsters: Japanese Toys and the Global Imagination*, Anne Allison discusses how the *Pokémon* franchise engages with its own, often problematic, economic history, while also pushing the marketplace in new directions:

While the aim of the game is continual acquisition, the objects one "gets" are both thingified (valued economically) and personalized (cute monsters inspiring affection, attachment, and love). The logic of play here involves a currency of shifting and multiple valences— between spirits and profits, companions and capital, inalienable and alienable goods. Capitalism is thus equally mimicked and (re)constructed in the forms of play/consumption engaged by Pokémon. . . . Even as it conforms to a preexisting market economy, Pokémon also pushes this economy in new directions— what I call here (only half facetiously) Pokémon capitalism. This is a millennial dreamworld of enchanting goods and virtual relations in which commodities double as gifts and companions. (175)

An important instance of Pokémon pushing the market contributed to the success of handheld gaming devices in the 90's and 00's, paving the way for the transition to mobile smartphone gaming technology and use. "Sales were far better than expected, however, in part because the game is simple but fun and the handheld Game Boy fits in with

today's keitai (portable) culture of cell phones and Palm Pilots even among young kids. (And, thanks to Pokémon, Game Boy technology was revived and is still in existence today, having gone through numerous innovations, including Game Boy Advance)" (175).

In mobile gaming's successful current moment, the smartphone affords a particular set of habituated practices that operate because of and through the digital marketplace, as well as the digital marketplace's overlap with the physical world and global economy. Because of this, the user in a position to shape the media's use in important and substantial ways. The Nintendo Switch Hybrid Console, for example, arose out of longer history of Nintendo's tension with mobile gaming, and apprehension to venture far from their console design. However, after an eight-year absence, Nintendo entered mobile gaming by buying large shares in the Japanese mobile gaming giant, DeNA Games. The Switch as a medium enjoys unique and distinct characteristics, and the gaming software also invites a player-as-author role that has been utilized in productive and thought-provoking ways.

This question of the material conditions surrounding the development and use of the Switch's hardware and software can be better understood through a careful analysis of medium specificity, as argued for by critic and scholar N. Katherine Hayles. Hayles' careful understanding and discussion of text, hypertext, digital media, and the question of the embodied human becomes crucial to my reading of Jackson and Bakhtin. Hayles' article on *Patchwork Girl*, "Flickering Connectivities in Shelley Jackson's *Patchwork Girl*: The Importance of Media-Specific Analysis," as well as her larger body

of work regarding embodiment, technogenesis, and literary textual production, add much to the material connections that I am attempting to draw between the hypertext of Jackson and the literary theory of Bakhtin. In her 2012 book *How We Think: Digital Media and Contemporary Technogenesis*, Hayles explains that "Materiality . . . is not a pre-given entity but rather a dynamic process that changes as the focus of attention shift" (14).

Hayles is here discussing the spatial concerns of the digital network, which helps to frame the way that I am thinking about the digital marketplace in spatial terms: "If time is deeply involved with the production of digital media, so too is space." She explains that "GIS (geographic information system) mapping, and GPS (global positioning system) technologies, and their connections with networked and programmable machines, have created a culture of spatial exploration in digital media." She cites Henri Lefebvre's *The Production of Space*, asserting that space is not static in Cartesian terms, "but produced through networks of social interactions" (14). This dynamic approach to the creation of space helps me to further discuss space as it is created, negotiated, and manipulated within the digital network.

The following chapters offer a sample of key texts that exhibit strong characteristics and elements that I see as being consistent with the operation of the "Digital Mediation of the Technological Carnivalesque."

Chapter 1, this introduction, introduces the key critical concerns and theoretical frameworks from which I will be conducting my project. I will contextualize my work within the frame of Bakhtin's carnivalesque and grotesque, as well as Jack Halberstam's and Jefferey Cohen's theories of the monster and the monstrous, which are distinctly

influenced by Foucault and biopolitical approaches, which I will also discuss, as well as Rita Raley's work in Digital Media Studies. I will follow this discussion of the monster with a mapping of my framing theoretical approaches from Gilbert Simondon and Bernard Stiegler, to Hayles and Raley. The introduction will aim to create a logical path for the reader to arrive at the current digitally mediated moment of the technological carnivalesque, which I locate in the Nintendo Switch console, as seen in such games as *Pokémon Sword and Shield*, and *Animal Crossing: New Horizons.* After introducing this theoretical and methodological framework, I will begin my discussion with a discussion of the critical hypertext, *Patchwork Girl.*

Chapter 2 discusses Shelley Jackson's 1995 hypertext *Patchwork Girl* and its important role in developing the critical conversation surrounding authorship, the medium specificity of the hypertext, and their relationship to the digital carnivalesque as it relates to understanding the body as phasic through the terms of ontogenesis and technogenesis. Designed through the software Storyspace, Jackson's update to Mary Shelley's Gothic novel *Frankenstein* brings to the digital-fore a hypertextual representation of the monster's body, as well an invitation to literally chop and splice the collective body, positioning the reader/user in the role of Victor Frankenstein, the mad scientist himself. I provide a brief discussion of Storyspace and its development, as well as the conversations in the software from the early 90's surrounding digital authorship of hypertexts. The hypertext itself exists as a cluster of signifiers, following Cohen and Halberstam's notion of the monster, and this sense of the monstrous gains a particular dimensionality and specific style of engagement via the digital interface and the hardware

of the PC. Although Storyspace allows for an interactive authorship, it does not provide the open-code access that a game like *DOOM* offers. This marks a shift in the specific way that gamers and users can and do contribute to the future development of the game. By considering *PWG* through the framing of the monstrous, as well as the work of N. Katherine Hayles, and George P. Landow's work *Hypertext 3.0*, I hope to better articulate the relationship between critical theory, hypertext, and hypermedia that Shelley puts forth in her work, especially as it relates to the construction and violent policing of feminized and racialized bodies.

This discussion regarding the author, embodiment, and digital hypertexts sets up the next chapter which offers a discussion of two of the flagship games in the early period of commercial video game development: *DOOM* and *Mario 3*, which speaks to a larger dialogic between approaches to publishing, authorship, and ownership.

Chapter 3 will examine and discuss an earlier a watershed moment of the digital carnivalesque in the PC and console gaming era of the early 1990's. In the early days of 8-bit and 16-bit game development, the philosophy of open-source code software ran counter to that of propriety or closed source software, and this moment allows me to establish a genealogy for the contemporary digital carnivalesque. In this chapter, I will set the limits of this open-closed code debate with *Super Mario Bros. 3* (Nintendo, 1988) on the closed end of the spectrum, and *DOOM* (id, 1993) on the other open end. Nintendo's success with its 8-bit console and closed ROM (Read-Only Memory) cartridges quickly established the company as the dominant market giant with its Mario titles and exclusive hardware, while smaller companies, such as id and GT Interactive,

instead produced open-source software, thus inviting community interactivity and engagement with the software through the PC and MS DOS.

After being originally rejected by Nintendo because the company's refusal to extend their games to PC, as well as a policy of against open-source code, the game developers went onto produce their own open-source shareware sci-fi/horror first-person shooter, *DOOM*. *DOOM* was released as shareware on December 10, 1993, and was installed on an estimated 10 million PCs by 1995. This sharing afforded countless players to code their own modifications to the software (largely due to its adaptable WAD system) and develop subsequent games from the software (*DOOM* itself was preceded by *Dangerous Dave*, and *Wolfenstein 3D*, and was directly followed by *Quake*, and countless "DOOM clones."

In September of 1990, John Carmack, who would go onto co-found id Software with John Romero, Adrian Carmack, and Tom Hall, developed an efficient way to rapidly side-scroll graphics on the PC, and, through this new process, developed a replica of the first level of *Super Mario Bros. 3* by inserting the graphics of id's own *Dangerous Dave*. He aptly titled the replica, *Dangerous Dave in Copyright Infringement*, and, after showing his work to Nintendo, was rejected by the company on the grounds that they had no desire to expand their product to the PC market, especially their bread and butter, Mario (Kushner, "DOOM"). Arguably, the term "monster" can be applied here to describe Nintendo's market presence and dominance, as well as its notorious opposition to a collective, open-sourced approach to software development. While *DOOM* itself features the protagonist, DOOMguy (renamed in later iterations as The DOOMslayer),

pitted against a relentless horde of demons and hell spawn, pioneering the now perhaps exhausted First-Person Shooter genre, the game's shareware design also posits a playful middle-finger to the Official approach of Nintendo, while also subverting masculinist notions of software sharing, gendered media consumption, and the gendered logics of the military industrial complex that early video game development is rooted in.

After this discussion of authorship and development in early to mid 90's video games, I will turn to a close reading of the Nintendo's *Pokémon Go*, which, I maintain, is a prime example of the digital and technological carnivalesque operating within a specific moment in media and technological transition especially accelerated by the emergence of globally networked smartphone technology.

Chapter 4 will be an expansion of my article "The Technological Carnivalesque in Nintendo's *Pokémon Go,*" (Palmer 2023). I will discuss the history and development of Nintendo and Niantic's *Pokémon Go* at length, focusing on the role that John Hanke's approach to tech played in the haptic design of the game, as well as the role that his previous game, *Ingress*, played in the data mining that produced much of the content for *Pokémon Go* (Reilly). I also aim to draw a distinction between the way the digital carnivalesque operates within *Pokémon Go,* as opposed to its earlier moments in *DOOM* and *Patchwork Girl.* Much of this distinction, this chapter argues, comes from the ways that *Pokémon Go* often farms player data without the knowledge of the player, and uses this data to shape future versions of the software. This calls into question the ethical concerns of Nintendo and Niantic, but it also leaves room to discuss other ways that the Digital Carnivalesque operates through the players gameplay and interaction, away from

the official eye of Nintendo and Niantic (Allegra). I will discuss a range of player communities, both IRL and in various digital forums, including Discord, Reddit, and Twitter. Although these users are not accessing and rewriting the code as in the Wild West days of gaming in the early 1990's, they are using the software in unprecedented ways that shape the future iterations of the software and the users themselves.

The fifth chapter analyzes the dialogical tension between the Nintendo Switch game, *Animal Crossing: New Horizons*, published by Nintendo in 2020, and the corresponding "Animal Crossing Diaries" exhibit, curated by the National Videogame Museum in London, England. This chapter is also an expansion of a forthcoming chapter in the anthology, *Beyond Mimesis: Aesthetic Experience in Uncanny Valleys* (Rowman & Littlefield).

The game emphasizes an interactive authorship in the "crafting" design of the game, while also encouraging players to take part in a digital world building at a global scale. Players create "islands" from the ground-up, and then visit and invite other players to their islands. The game exists as a template for users to design and construct their islands, and hundreds, in some cases even thousands of hours go into the construction of these digital attractions. Released at the outset of the COVID-19 global pandemic, the "Diaries" exhibit exists as a catachrestic constellation that exposes the contradictory lived experiences of differently racialized and classed populations under the "Stay at Home Orders" of the pandemic, as well as the reproduction of gendered and feminized media practices through narratives surrounding mobile and console gaming technology and gendered notions of media production and consumption.

Ultimately, this dissertation aims to position literary theory and the complex concerns of the author-reader relationship at the center of theories of new media and questions of ontogenesis and technogenesis. In the digital age, and especially in the current moment of the mobile gaming device, the user takes on unprecedented roles as an author and contributor in an unforeseen capacity. Theories of digital media studies that reduce the user or reader to a flattened state of the homogeneous consumer overlook the important role that individual users play in the shaping of cultural media practices and its material and technological development. Importantly, user-authorship via the digital carries with it carnivalesque and monstrous qualities that threaten to break down, rethink, and reshape the status quo of the cultural and economic marketplace from which these media artifacts emerge and are circulated. It is the calculus of individual users and communities of users that specifically shape and inform these changes in the material world.

These processes of material and technological change intra-acting with organic and biological matter to author, form, and reform bodies (epiphylogenesis and phylogenesis) update and complicate the very discourse regarding human subjectivity and human subject formation, as such, thus serving to reframe both classical and postmodern notions of subjectivity and representation in both political and economic capacities. In *Of Grammatology,* Jacques Derrida posits an approach to language-as-representation that, I argue, speaks to the carnivalesque nature of unofficial authorship and embodiment that I am attempting to extrapolate with my dissertation. “Praise of the 'assembled people' at the festival or at the political forum is always a critique of representation. The legitimizing

instance, in urban civil space as in language . . . --speech or writing-- and in the arts, is the represented present in person: . . . Sovereignty is presence, and the enjoyment [*jouissance*] of presence." Derrida goes on to quote Rousseau's *Social Contract* to further emphasize his point regarding the important relationship existing between embodiment and subject formation: "'The moment the people is legitimately assembled as a sovereign body, the jurisdiction of the government wholly lapses, the executive power is suspended, and the person of the meanest citizen is as sacred and inviolable as that of the first magistrate; for in the presence of the person represented, representation no longer exists" (322-23). This is indeed the spirit of the carnivalesque, discussed with an appreciation for its revolutionary power via the collective and its use of authorship.

This discussion, however, needs to be updated and expanded for a contemporary, digitally mediated moment, as the bodies and communities imagined by both Derrida and Rousseau are either non-existent or exist in transformed, technologically mediated capacities that reframe and reorganize prior notions of the human, authorship, the body, and embodiment. By complicating theories of new media and media transition through a theory of Bakhtin's carnivalesque and the monstrous, my project argues that literary and author-reader relations theory play an important and central role in theories of new media as a result of the unprecedented possibilities of reader-authorship newly afforded and expanded by the digital interface and its supporting, increasingly mobile, hardware. What is at stake, then, is not simply the expanded facility for sales sought by capital in "mobile gaming," but also, an as yet understood power of the mobility of labor in technological

culture that remains disguised, as well as the substantial and transformative movement that these powers might animate beyond capitalist interests.

Chapter 2

Limbs and Lexia: *Patchwork Girl*, Ghostwriters, and the Phasic Body

Introduction

Upon clicking on the "Graveyard" lexia on the "Title Page" window of Shelley Jackson's 1995 hypertext *Patchwork Girl*, a small window of text is displayed that clearly expresses the theoretical and methodological project of Jackson's work that I focus on in this chapter: bodies are historically bound, culturally constructed, multi-vocal, and bound to a material network of intersecting and shifting technological systems, cultural narratives, and biological matter (fig. 1).

Storyspace, the hypertext authoring software that Jackson uses to produce *PWG*, positions the text windows in small squares that reflect the "patchwork quilt" of the body, a colorful, enmeshed, body that is connected to a network that contributes to its ongoing ontogenesis and technogenesis. The text-window serves as a methodology for approaching the hypertext, and provides the central argument that *PWG* is making about the technics of the human body: "I am buried here. You can resurrect me, but only piecemeal. If you want to see the whole, you will have to sew me together yourself" (Jackson 1995, fig. 1). This statement ambivalently invites the reader to become the authors, as well as Dr. Frankenstein and the Creature, themselves: "(In time you may find appended a pattern and instructions—for now, you will have to put it together any which way, as scientist Frankenstein was forced to do.) Like him, you will

make use of a machine of mysterious complexity to animate these parts." Jackson's hypertext functions as a multimedia piece engaged in the media change in the moment of its origin, indexing advances in PC technology in and around 1995. The PC is the "machine of mysterious complexity" that the reader must navigate and use, a machine that at the time was newly mass marketed for home use.

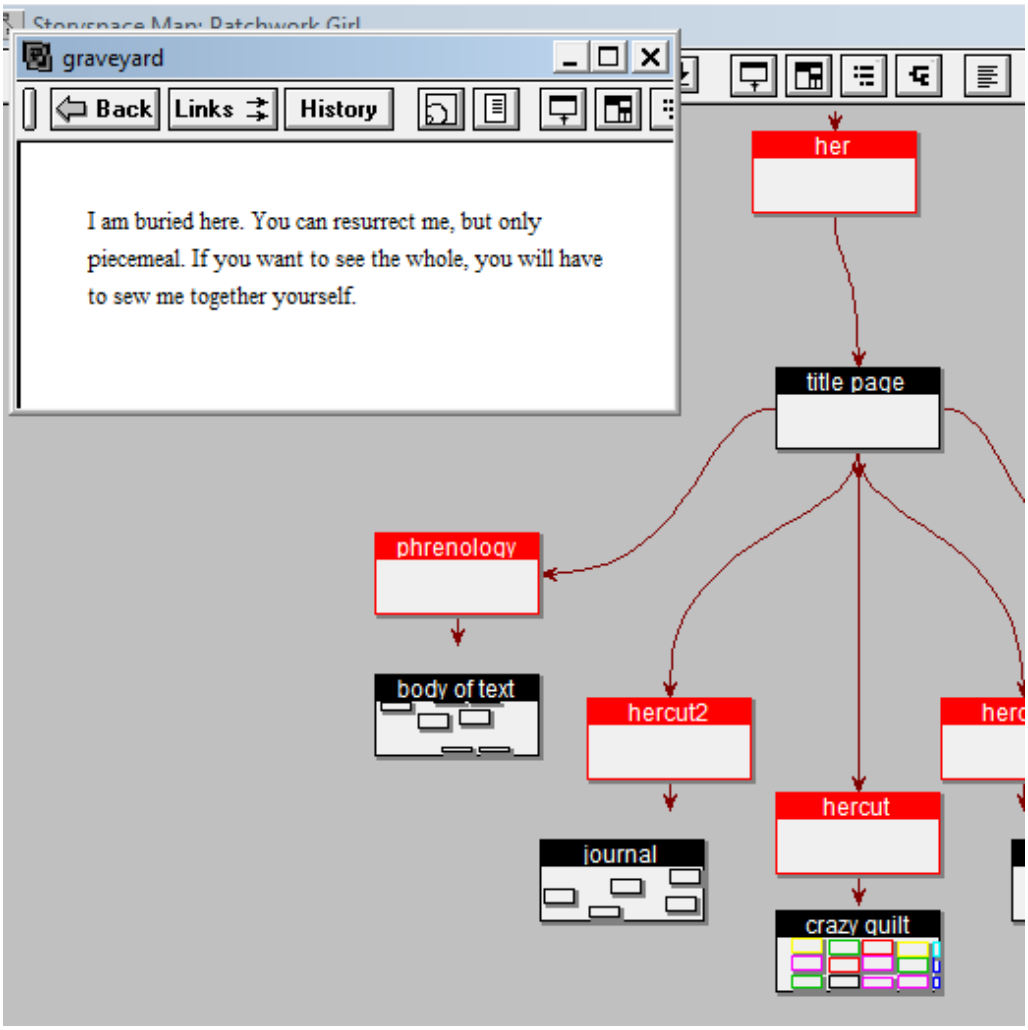


fig. 2.1 (Jackson 1995)

This chapter discusses the ways that Jackson's 1995 hypertext *Patchwork Girl* demonstrates the technological carnivalesque as it coincides with the mass

implementation of the Personal Computer in the home. *Patchwork Girl* challenges the gendered history of print publication and computer programming by critically confronting the erasure of women's labor within the computational technology industries, as well as the simultaneous and paradoxical construction, policing, and erasure of the feminized body through these same technologies.

The chapter presents a brief history of gender and programming in the 20th century, analyzes several sections of PWG that engage plurality, hauntology, and resurrection, and ultimately concludes that Jackson's hypertext succeeds in destabilizing notions of individual identity, and instead demonstrates, via the hypertext medium, the plurality of any individual category of identity, rendering binaries like "male" and "female" or "man" and "woman" as limited, ineffective, and an artifact of a fictive stable and monolithic identity.

Jackson designed *PWG* through the software Storyspace, a PC program designed for creating, editing, and reading hypertext fiction, which was created in 1987 through the collaborative efforts of Jay David Bolter, John B. Smith, and Michael Joyce. Jackson, describing the relationship between hypertext and the physical body, explains that, "Hypertext is the body languorously extending itself to its own limits, hemmed in only by its own lack of extent. And like the body, it no longer has just one story to tell" ("Stich Bitch" 1995). The body's "lack of extent" function as its only defining characteristic, and Jackson uses the confining verb "hemmed in" to express the muted multi-vocality of the body, textual and otherwise, as it relates to itself and its cultural antecedents. The body's

"lack of extent" is also partially solved by the extension of the self into media, which circulate back, changed, to a now-changed originary source.

In *Hypertext 3.0,* George P. Landow (2006), explains the medium specific advantages that the hypertext offers, "One relevant characteristic quality of networked hypertext systems is that they produce a sense of authorship, authorial property, and creativity that differs markedly from those associated with book technology. Hypertext changes our sense of authorship and creativity (or originality) by moving away from the constrictions of page-bound technology. In doing so, it promises to have an effect on cultural and intellectual disciplines as important as those produced by earlier shifts in the technology of cultural memory that followed the invention of writing and printing" (Landow 2006, 142).

Jackson's update to Mary Shelley's Gothic novel *Frankenstein* brings to the digital-fore a hypertextual representation of the canonically unmade female monster's body, as well an invitation to literally chop and splice this literary body, thus exposing its literary and cultural antecedents. This process removes the notion of single authorship, instead distributing the body of text across a network of material and mediated bodies. The reader navigates the narrative in a nonlinear "patchworking" of sections made possible by the Windows operating system interface, comprised of overlapping windows and hyperlinked lexia: "for now, you will have to put it together any which way." The text can be manipulated in ways that show the multi-vocal and patched together nature of the text, and, by extension, any physical body. The body of the written text and that of the

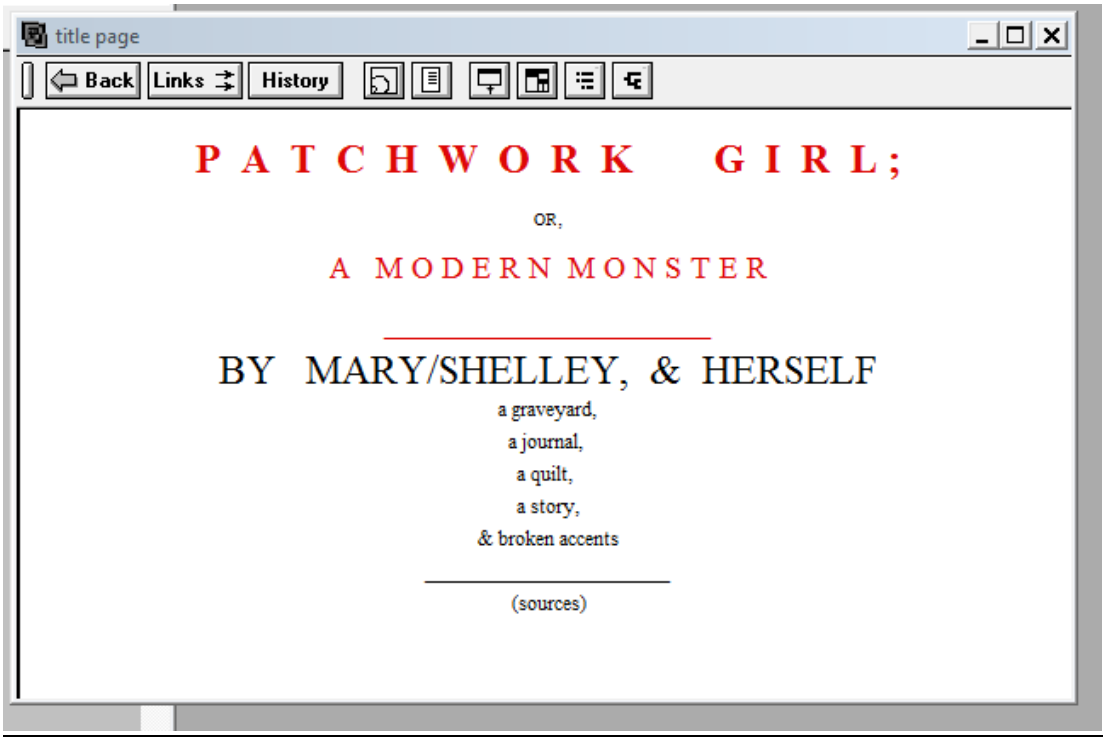
human body share an enmeshed malleability of form that is always undergoing a shared and phasic transition. This phasic form is seen on the title page of the hypertext.

The "Title Page" (fig. 2.2) presents a visual layout of Jackson's methodology, as well as a version of Jackson's own shifting identity that has resulted from the writing of the hypertext. The sutured names, "MARY/SHELLEY" indicate that Jackson is now a little less Jackson and a little more Mary Shelley, as their bodies have merged and now Mary is resurrected in Jackson. Jackson returns to a discussion of the "resurrected body" throughout *PWG*, as Jackson considers queer relationality, particularly the emergence of sexual difference, gender, and sexuality, the phasic nature of their own body, as well as the phasic and composite nature of all bodies. Bodies function as a site of resurrection when words, texts, images, and phrases are grafted and re-grafted onto one another to create bodies that emerge in specific moments and within the limits of specific cultural frameworks.

The "Title Page" lexia list shows a clear example of the body's fragility and plurality, as these bodies are ruptured, continually sutured to one another, and rendered monstrous when its phasic nature is exposed within a culture that privileges a stable sense of human subjectivity. The red font of "Patchwork Girl" and "A Modern Monster" is sutured to the contrasting black font of the authors' names, who then become grouped with black Times New Roman font of the lexia map of "a graveyard" through "(sources)." *PWG* also allows for a critical and reflexive consideration of the origins of the personal computer, especially the gendered history of labor and narratives of mastery of computational technology. *PWG* shows us that because the PC has contributed to a

vast technological and cultural shift that has greatly contributed to our specific contemporary technogenesis, it is important critically confront its origins.

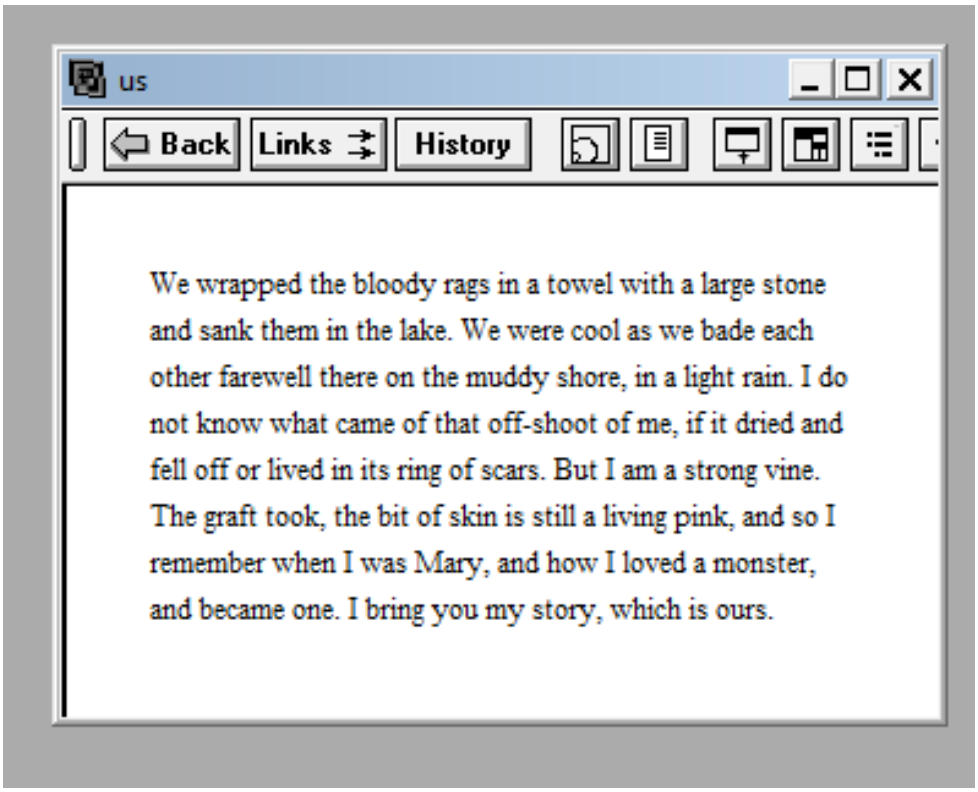
Patchwork Girl stands as a work of electronic literature that critically confronts the patriarchal history and material realities of western print, literary, and computational culture. The hypertext format demonstrates the process through which technological and cultural media production has worked to simultaneously construct the female body, the human body, and the body of the so-called monster. The hypertext allows for the user to see the "stitching" together of their own identities and bodies, while the hyperlinks



(fig. 2.2)

function as a connective tissue, a thread, that connects words and data to a vast network of other words and data. Despite the PC being long mired in hylomorphic and masculinist narratives of tech-bros and men-of-genius, and also complicit in producing bifurcated and

reductive notions of human subjectivity, the hypertext allows for the PC to function as a tool that reflexively allows readers to view and directly engage with the ways in which media technology like the PC have historically ambivalently shaped specific iterations of the human over time. *PWG* functions as a self-reflexive tool that exposes the multi-vocal, non-linear, and phasic nature of the human body; that is, a body that is plural, phasic, and filled with the ambivalent possibility of the technological carnivalesque: "I bring you my story, which is ours" (Jackson 1995, fig. 2.3).

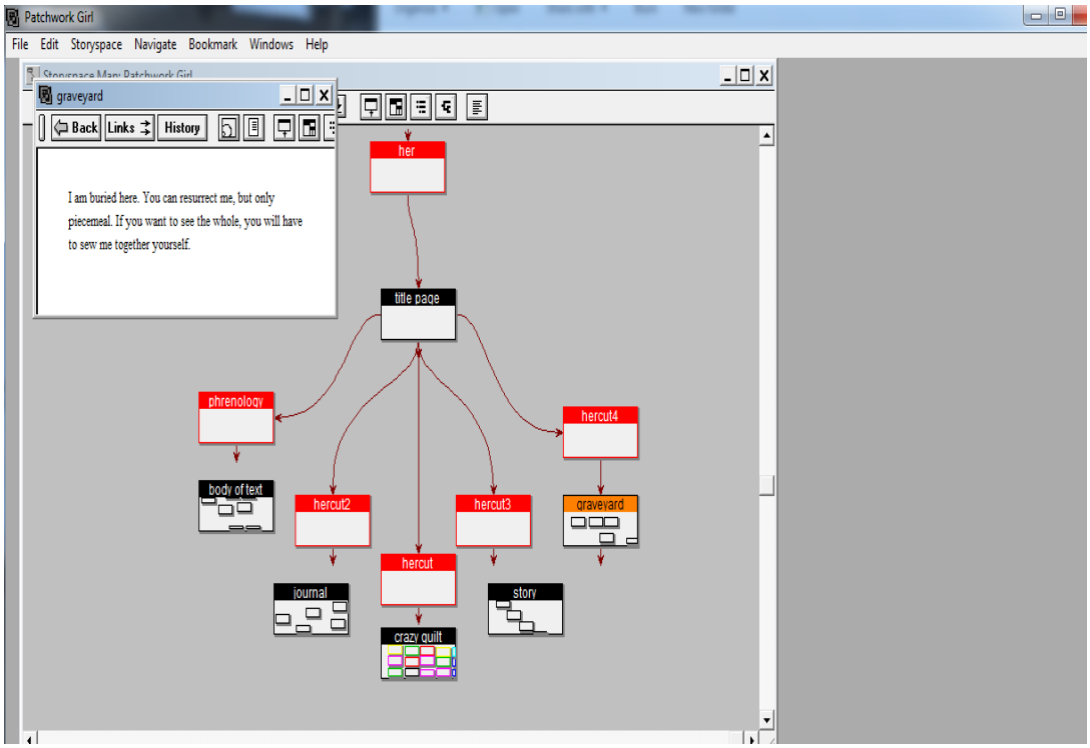


(fig. 2.3)

Theoretical Frameworks: Genealogies and Cyborgs

This chapter situates *Patchwork Girl* within a larger critical genealogy of texts, artists, and scholars that directly confront limited, humanistic notions of the body, information, gender, and sexuality. *PWG* holds the threads of several themes together throughout its narrative and para-narrative elements, all of which revolve around the thematic of sewing the body together, rupturing the body, losing and gaining parts of the body, the pain of bodily loss and gain, the pornotroping of the technically rendered body as female. This collection of parts, sewn together, is a direct reference to the feminized labor of quilt stitching and what this multi-vocal body of patches, patchworked together, means for the phasic nature of human subjectivity. The layout of *PWG* is layering of squares, ranging from the Windows-based windows of the Storyspace program, to the maps and trees that visually present the narrative (fig. 2.4). Shackelford (2014) describes *PWG* as joining an "expanding efforts" to think through the technicity of the human.

These efforts include Gilbert Simondon's "accounts of the emergence of the human" through the ongoing process of technically induced technogenesis; Andre Leroi-Gourhan's evolutionary history of the human's co-productive relations to language and technology; Bernard Stiegler's "thoroughgoing" consolidation of the two previous theories; N. Katherine Hayles's history of cybernetics and the literary culture of computation; Donna Haraway's work in cyborg theory and materialist engagements with physical and bioinformatic sciences and technologies; and Karen Barad's new materialist approach to material recursivity (Shackleford 2014, 58). This body of work collectively succeeds to call into question the rational mastery of the human, his unique status as a



(fig. 2.4)

user of tools, and his "supposed autonomy from material embodiment and technological and material lifeworlds" (58). Posthumanist theories, Shackelford clarifies, assume that the human animal is embedded in a biological and natural world, participating in an evolutionary process of technogenesis, which involves the human in an originary, ongoing technicity" (59). Shackleford argues that *Patchwork Girl* functions as a technical system critically engaged in an exploration of its own technics alongside "other prominent posthumanist efforts to think through the technicity of the human," and "particularly foregrounds the emergence of sexual difference, gender, and sexuality, as technically contingent modes of subjectivity develop out of ongoing interactions with worlds material, technical, and discursive" (60). *Patchwork Girl* directly challenges the

technics of gendered, sexed, and racialized human subject formation, as expressed in the composite figure of the female creature herself.

In an interview between Dene Grigar and Shelley Jackson, Jackson explains how *PWG* functions to present the identity as plural and diffuse, and an aspect of an especially culturally feminine notion of the body: that is, plural, exploded, and non-linear (Moulthrop 2013). Jackson explains that the design and limitations of the Storyspace software also functioned to express the thematic elements of the discontinuous and composite body. In the interview, Grigar asks what Jackson might have done (or might do) differently if re-writing *Patchwork Girl* with more contemporary software. “Jackson resists the idea, explaining that *Patchwork Girl* emerged from the specifics of Storyspace, especially its visual signature of boxes in rows, which suggested to her both the Graveyard (headstones) and a patchwork quilt. The work "is about text as body," and is in some sense inseparable from its (technical) embodiment. A smoother, more intuitive interface wouldn't do. The work needs it discontinuities, its patches. (Moulthrop 2013)

PWG, which began as Jackson’s final assignment in George P. Landow’s graduate theory course at Brown in 1993, began as a series of doodles in a paper notebook (Moulthrop 2013). that she doesn’t see PWG and hypertext, in general, as being discontinuous with print, but instead that hypertext has a strong continuity with print. Jackson expresses an important skepticism regarding the notion of a stable “feminine consciousness,” and looks to the work of poststructuralist French feminisms for the idea of a plural identity. “Jackson explains that she thinks even of traditional, linear works as

composed of moveable bits and pieces, so Storyspace was something of a revelation" (Moulthrop 2013).

Beyond the software, Jackson notes that she found herself "standing on the coast of a new world," as she considered what would be possible with emerging media:

DG: "Do you still feel that way?"

Jackson: "I do."

Jackson importantly critiques the conservative gatekeepers of literary traditions, wondering why literary critics and writers are so averse to "play." "Why so much anxiety about the way new work integrates with old? *Patchwork Girl* does not invalidate Dickens. 'I might prefer to read Dickens instead of *Patchwork Girl*' -- though, she adds, "that doesn't mean there shouldn't be a *Patchwork Girl*" (Moulthrop 2013).

The plural, diffuse technologically mediated female body of the Creature in *PWG* can be understood via the PC as what Donna J. Haraway calls a "boundary creature," as the medium of the PC allows users to play with the boundaries of the human themselves, exposing the fragility of the system. Erin Hawley (2015, 218) argues that the female monster's function as a "boundary creature" has resulted in its current rise in cultural popularity. "Monsters, whether male or female, are often understood as figures who confirm and/or disturb our conceptions of what it means to be human" (218). Hawley offers a solid connection between Haraway's "odd boundary creatures—simians, cyborgs, and women—all of which have a destabilizing place in the great Western evolutionary, technological, and biological narratives," and Shelley's female monster. Hawley identifies the female Frankenstein monster as one of Haraway's *boundary*

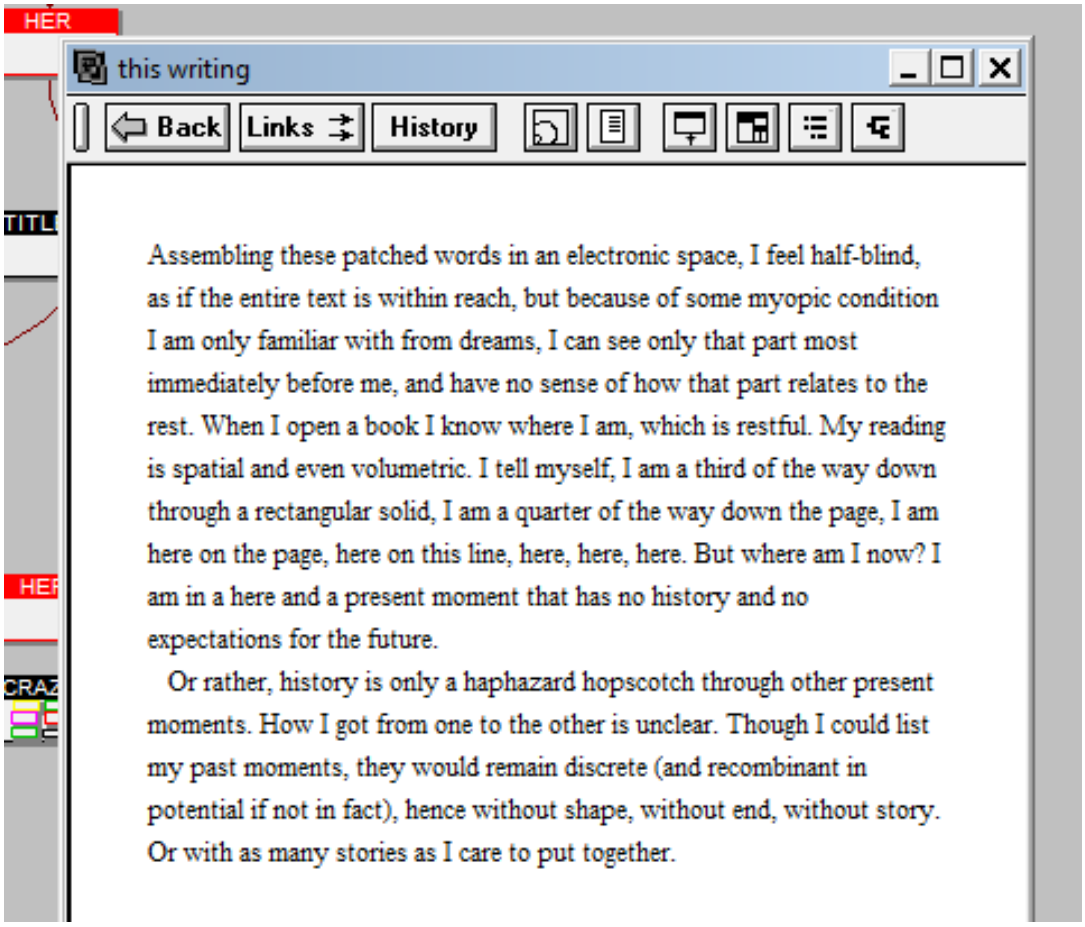
creatures in several ways: "she is woman, she is a monster, and while she is not literally a techno-body she resembles what we today refer to as the cyborg—a partly biological creature born of scientific and technological means; she is flesh, but not 'natural'" (219). One of the key interface components that clearly expresses this disruption of the body is the hypertext link itself.

Importantly, the hypertext link shows that any word or piece of information can be extended beyond itself, and thus escape the self in question. The hypertext shows the reader that there is more information built into to any given word or body, but it is hidden in an effort to see the word as a complete entity to serve the readability of the sentence. So, too, then our human bodies become coherent and whole to serve a function. Jackson's use of hypertext exposes the multi-vocal construction of all bodies: "Hypertext is the body languorously extending itself to its own limits, hemmed in only by its own lack of extent. And like the body, it no longer has just one story to tell." Importantly, this grid of collective information exposed by the hypertext is not specific to specifically digital text, but all literary texts. For example, Arnaud Regnauld (2009) argues the hypertext relies upon a grid design of information, not specific to the medium, but that of print, as well: "Jackson's use of hypertextuality . . . foregrounds the tabularity of any literary text, be electronic or in printed form."

Regnauld importantly concludes that "*Patchwork Girl* metaphorically foregrounds the originary technicity of writing, a technicity that lies at the root of our relationship to the world shared as both sense and matter thanks to its interconnection with the body" (2009, 80). Jackson's hypertext presents a textual body that plays with the

limit of the individual body as the self extends, materializes, and returning in a feed-back loop to the subject/self via writing and other media forms. “There is no return to a transcendental unity of the subject which always already stands interrupted” (Regnauld 2009, 80). This notion of “no return” is reflected in the hyperlinks between the words themselves, as they create an ever-expanding network of words and bodies linked, *ad infinitum*. The first image that appears on the screen when opening the program is a digital drawing of the monster’s body, “patched-up and scarified,” which “stands for the discontinuous structure of the work itself” (80).

The lexia “This Writing” (fig. 2.5) describes the interrupted body as it navigates familiar and unfamiliar media landscapes, as well the hypertexts lexia structure that has a “history” tab that allows the narrative to be “remembered” as thus, revisited. However, the history of the body is always incomplete: “History is only haphazard hopscotch through other present moments. How I got from one to the other is unclear. Though I could list my past moments, they would remain discrete (and recombinant in potential if not in fact), hence without shape, without end, without story. Or with as many stories as I care put together.”



(fig. 2.5)

A list of "discrete" past moments, argues the lexia, only presents a partial account of a life, and the story of a life, which can be "as many as I can put together," is contingent upon embodied action and cannot be accounted for through a strictly language-based logic. *PWG*'s carnivalesque play between user and interface succeeds in directly presenting the embodied nature of information, which directly challenges a hylomorphic and bifurcated notion of the body and embodiment, which has been thoroughly critiqued in the work of N. Katherine Hayles.

In *How We Became Posthuman,* Hayles (1999) discusses a tension that she sees operating between embodiment and the body regarding how these two distinct elements of subjectivity get confused and conflated in problematic ways via dominant discourse and cultural practices. “It is primarily the body that is naturalized within a culture; embodiment becomes naturalized only secondarily through its interactions with concepts of the body.” She demonstrates her point by asserting that Foucault’s Panopticon abstracts the body of the citizen as universally controlled, while not accounting for the embodied actions that can most certainly subvert and resist the system itself. “Consequently, when theorists uncover the ideological underpinnings of naturalization, they denaturalize the body rather than embodiment. As the example of Foucault illustrates, it is possible to deconstruct the *content* of the abstraction while leaving the *mechanism* of the abstraction intact.” She goes on to posit that this method, however, runs the risk of “simply absorbing embodiment back into the body,” a problem she confronts by “enriching and complicating” the tension between embodiment and body “by juxtaposing this tension with another binary distinction—inscription and incorporation.” She explains that inscription and incorporation operate in convergent and divergent ways with the body and embodiment in that, “like the body, inscription is normalized and abstract, in the sense that it is usually considered as a system of signs operating independently of any particular manifestation.” She goes on to convincingly argue that inscription is a “conceptual abstraction” rather than “an instantiated materiality” (Hayles 1999, 198). Hayles refers to this instantiated materiality as incorporation, which is the embodied action which cannot be separated from the medium.

"An incorporating practice such as a goodbye wave cannot be separated from its embodied medium, for it exists as such only when it is instantiated in a particular hand making a particular kind of gesture."

Hayles (2017) gestures towards an important ethical conclusion in the title of the closing chapter of *Unthought*, "The Utopian Potential of Cognitive Assemblages." She explains that Norbert Weiner was struggling with what he saw as the promise of the cybernetic paradigm: a grim future populated with mechanisms of control. Hayles, however, is certain that we have moved beyond this fear of control, and instead finds these lines of thought to be "wrong in thinking that feedback mechanisms were the key to controlling this future." Now, argues Hayles, we must come to appreciate the "enormous differences that networked and programmable media have made in human complex systems, and we are beginning to glimpse how these conditions have opened new possibilities for utopian thought and action." (Hayles 2017, 202-216). This utopian thought intersects with Bakhtin's notions of the Carnivalesque and the Grotesque, as these identify the text and body as sites of transgression outside of official discourse due to their improvisational, unanticipated nature.

In the essay, "Flickering Connectivities in Shelley Jackson's *Patchwork Girl*: The Importance of Media-Specific Analysis," Hayles (2000) analyzes Shirley Jackson's 1995 hypertext *Patchwork Girl*, focusing on the hypertext's specific concerns with materiality and the multiple subjectivities of the female body, while simultaneously proposing a media specific methodology, which she lays out in eight points. The Media Specific Approach (MSA) pays special attention to the materiality of the text-as-body, as opposed

to the eighteenth-century view of the body as a unique, individual whole, which serves as a vessel for information, that can be ultimately abstracted away from it. She is careful to place emphasis upon the corporeal multiplicities that the materially of the text exposes, thus rupturing and distributing subjectivity across a network. This rupturing and distribution process produces text. Hayles argues that *PWG* "is deeply concerned with the prospect . . . that a new medium will enact and express a new kind of subjectivity." Hayles argues that abstract notions of male, eighteenth century authorship and book production enact the erasure of the materiality of the text as part of the intellectual property. "One of the important assumptions that emerged out of this debate was the assertion that the literary work does not consist of paper, binding, or ink. Rather, the work was seen as an immaterial mental construct" (Hayles 2000, 13).

Thinking of the text in this abstract, metaphysical way not only misapprehends the important, generative relationship between information and the material through which it is presented, but it also overlooks the medium specificity of the novel itself. The body of the text, that is, the material vehicle of transmission, is threatened by a flattening of all media as being merely a container for a more important passenger. Within a larger discussion of copywrite law, Hayles cites Blackstone, who assesses that, "Style and sentiment are the essentials of a literary composition. These alone constitute its identity. The paper and print are merely accidents, which serve as vehicles to convey that style and sentiment to a distance." Hayles explains that this line of thought and practice leads to "The abstraction of the literary work from its physical basis [which has] the effect of

obscuring the work's relation to the economic network of booksellers who purchased shares in the work and used their economic capital to produce books."

Patchwork Girl, through its medium specific capabilities, acts to expose the multifaceted network of its production, instead of hiding it, as the novel of *Frankenstein* is shown to do in Hayles' reading of it. "When *Patchwork Girl* foregrounds its appropriation of eighteenth-century texts, the effect is not to reinscribe earlier assumptions but to bring into view what was suppressed to create the literary work as intellectual property" (Hayles 2000, 18). In the same way that the network of investors, typesetters, loggers, and paper distributors is erased from the presentation of a novel, the antecedents of any one body become obscured through cultural practices of looking and seeing. "As the unified subject is thus broken apart and reassembled as a multiplicity," Hayles says of *PWG*, "the work also highlights the technologies that make the textual body itself a multiplicity." She explains that "To explore this point, consider how information moves across the interface of the CRT screen compared to books. With print fiction, the reader decodes a durable script to create, in her mind, a picture of the verbally represented world." She explains, however, that with an electronic text cast upon an interface such as the computer screen, the work of "encoding/decoding is distributed between the writer, computer, and reader" (Hayles 2000, 18). The computer presents flickering images that it has decoded from a stable, binary information. "The transformation of the text from durable inscription into what I have elsewhere called a flickering signifier means that it is mutable in ways print is not, and this mutability serves

as a visible mark of the multiple levels of encoding/decoding intervening between user and text."

Hayles' closing point regarding the mutability of the digital flickering signifier and the durable inscribed text is a central component of own my argument. This described tension between the false binary of mutable and stable inscription, when considered through the ambivalent transformations of the technological carnivalesque, allows us to see the limiting errors in dominant technocultural practices that construct reductively gendered narratives around technology and its assumed use. A visage of the white-male imaginary has long lingered around narratives of PC technology, especially regarding who uses it, who programs it, and to what end is it best used.

Gender, Labor, and the Ghost Writers of Computer Programming's Past

When *Patchwork Girl* arrives on the PC in 1995, the PC industry had long been dominated by a masculinist narrative that espoused that computational technology was a man's world of the male computer nerd, and video games belonged to a white male, middle class playership. However, the first computer programmers were women, and, at its origin, computer coding was a feminized occupation (Ensmenger 2015, 44). But this is not to say that women are somehow biologically predetermined to work in programming, or that "women" as a category is a stable category, let alone the human.

This history of computer programming, however, tells a far different account wherein which women play a central and instrumental role in the development of the field.

Ensmenger (2015) maintains that "women played an unusually prominent role in the history of computer programming, especially in its earliest decades" (42). Ensmenger clarifies that "to argue that a discipline is dominated by males is not necessarily to suggest that it embodies masculine characteristics," which are instead imposed by structural, legal, or historical reasons (42). The field of computer programming, argues Ensmenger, is under the dominant assumption that men enjoy certain intellectual and emotional characteristics that are more commonly associated with a strong computer programing ability (42). Ensmenger attributes some of the blame to academic literature, including that of Sherry Turkle, who, according to Ensmenger, "provided the principle psychoanalytical framework through which the (male) nerd personality has been interpreted," that is, as exhibiting "anti-social, antisensual, and attracted to the 'hard mastery' of arcane technology" (42-43).

Ensmenger provides a more robust history of gender and computers and cites the influence of Joseph Weizenbaum's 1976 *Computer Power and Human Reason* as a text principle in perpetuating an erroneously masculinist account of computer use. Weizenbaum argued that so-called "computer bums" were increasingly populating the MIT computer labs at an alarming rate. According to Weizenbaum, "bright young men of disheveled appearance . . . like possessed students of a cabalistic text . . . They work until they nearly drop, twenty, thirty hours at a time." Ensmenger interprets Weizenbaum as establishing the "disheveled figure of the computer bum" as representing the "embodiment of the dehumanizing effects of pursuing computer power as an end rather than a means: deceived by the illusion of omniscience associated with mastery of tis

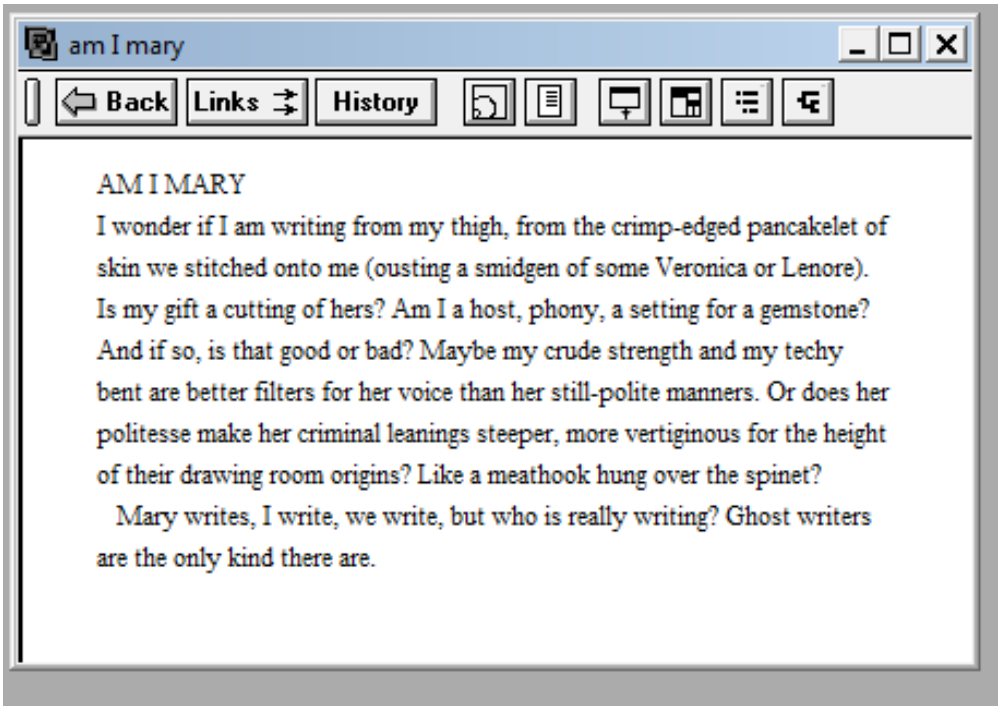
powerful technology" (39). Ensmenger warns that the popular character of the computer nerd, "white, middle-class, uncomfortable in his body, and awkward around women," has become so "hegemonic that it threatens to erase other cultural representations of scientists and engineers" (41). Ensmenger, while challenging the persistent notion that the historic computer coder is a "he" when, in fact, women have played a prominent role, questions why then contemporary computer coding as a field is both male dominated and hypermasculine. Ensmenger asserts that the "notorious misogyny of certain subcultures of the computing community is well documented, as is the discouraging effect that it has on female participation" (42). Here, the gendered notion of technically mediated "base desire" begins to break down as it is recontextualized through the stories of the bodies of the actual people who worked to develop these computational systems. The computer, then, is not merely a repository of the displaced heteronormative desire of the male computer bum, but instead becomes an ambivalently generative site where desires are not only articulated and explored in novel ways, but also generated in new and radical formations of bodies and desire.

Despite the present moment of the computer programming industry's male dominated, Ensmenger reminds us that coding was never a naturally male endeavor. "Programming was not born male, but rather made masculine," asserts Ensmenger, who goes on to maintain that "women were essential, not incidental, to the invention of computer programming." When electronic computing is reinvented as a business machine in the postwar period of American and global business, office firms like "IBM, Remington Rand, Burroughs, and NCR, assured that the gendered division of labor that

existed in most business data processing departments was simply mapped onto the new technology of electronic computing. This too would be an office technology designed by men and used by women" (Ensmenger 2015, 45). This gendered logic carries over from the US Army Electronic Numerical Integrator and Computer (ENIAC) project, where male "planners," a term used by the first computer coding manual published by Herman Goldstine and John von Neumann of ENIAC in 1947, who did the "intellectual labor of analyzing a problem and deciding on a mathematical approach to its solution, and the 'coder,' who was responsible only for transcribing the thoughts of the planner and mechanically translating this solution into a form that the computer could understand. The work of the 'coder' was low-status, largely invisible, and therefore generally performed by women" (45). This false logic imploded upon itself as the planner/coder distinction quickly broke down in actual practice. "The work of the (female) coders became entangled with the intellectual operations originally carried out by the (male) planners" (46). For example, the ENIAC project, which proved to involve unexpectedly complex tasks for the programmers, required the "development of creative new techniques, further blurring the boundaries between computer design and operation, hardware and software, and men's and women's work" (46).

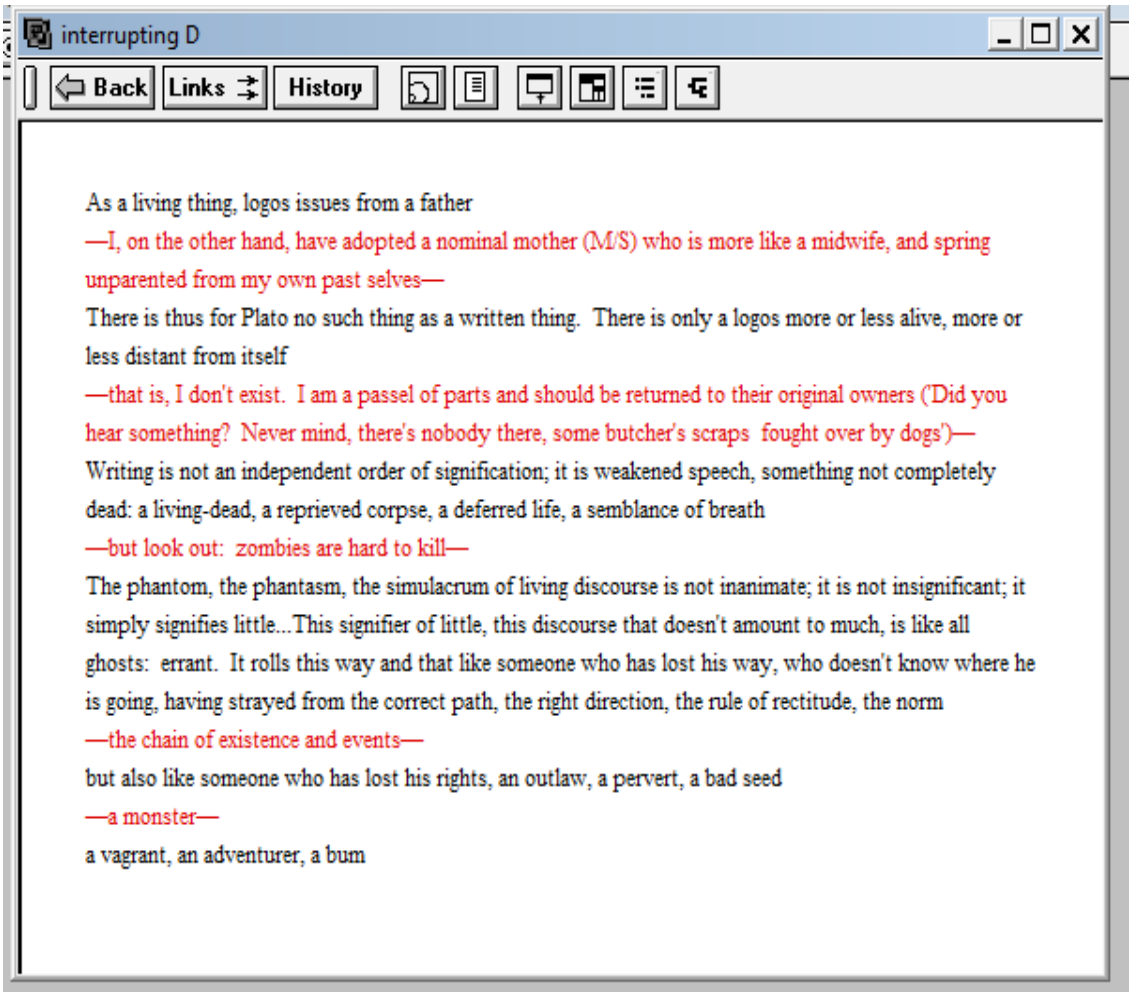
Patchwork Girl playfully and critically confronts the gendered narratives of base desire as it becomes entangled in intelligent machines, the erasure of women's labor within the computational technology industries, as well as the simultaneous and paradoxical construction, policing, and erasure of the feminized body through these same

technologies. In the lexia “Am I Mary” (fig. 2.6), the narrator questions and describes their own plural textual identity:



(fig. 2.6)

The lexia entry ends with a look at the plurality of self, and the ways in which there is a “resurrection” that occurs when the voices of the past reemerge in new places, throats, and context: “Ghost writers are the only kind there are.” Jackson’s use of the “ghost writer” recalls Derrida’s notion of “hauntology,” a theory that proposes that there is no temporal point of pure origin but only an always-already absent present. This notion is explicitly presented in the lexia “Interrupting D” (fig. 2.7) in which Derrida’s black font haunts the ghastly red font, thoughts, and words of Jackson and the narrators:



(fig. 2.7)

The discussion centers around the false binary that is the hylomorphic separation of form (logos) and matter, "logos issues from the father," as well as Derrida's own reconciliation with the rise of techno-tele the late 80's and early 90's, a resurrection of haunting, tele-phantoms that have collapsed both space and time into itself via a mass implementation and global dominance of capitalism after the fall of the Soviet union in the years between 1989-1992. In 1993's *Specters of Marx*, Derrida critiques "techno-tele-discursivity, techno-tele-iconicity, simulacra, and synthetic images, asserting that these technologies

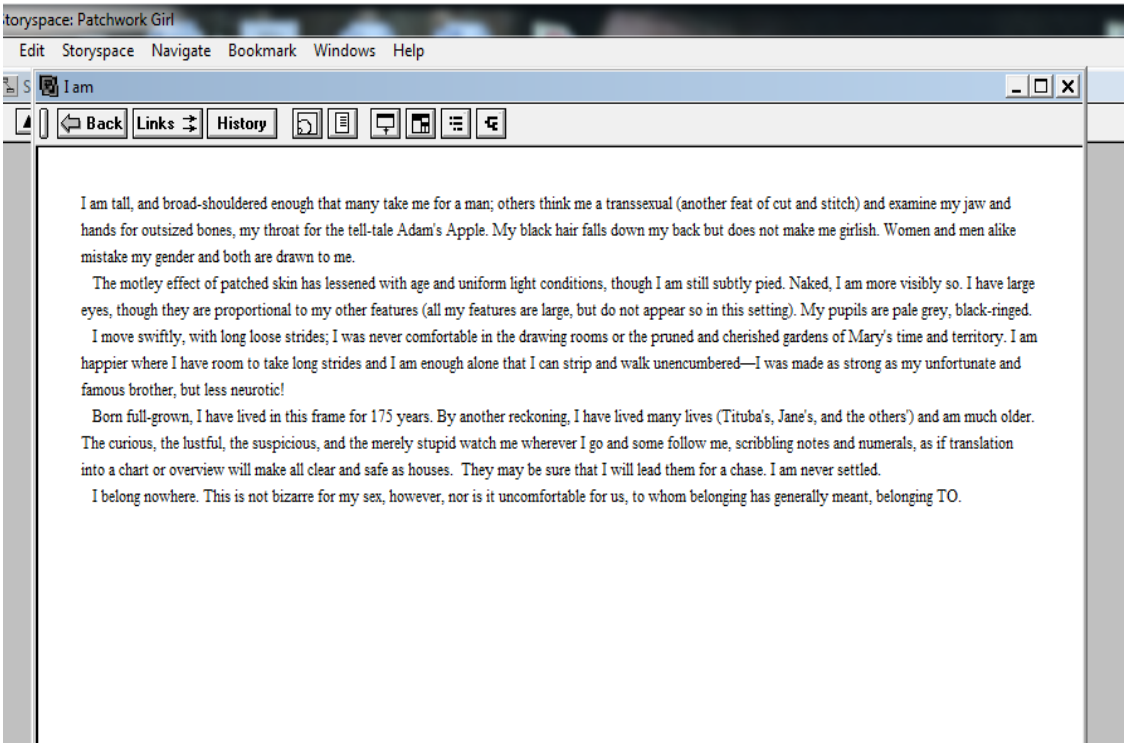
provoke a crisis of space and time: “Events that are spatially distant become available to audience instantaneously” (Fisher 2012, 19). Therefore, Derrida saw “haunting” as a resistant quality: “Haunting can be seen as intrinsically resistant to the contraction and homogenization of time and space. It happens when a place is stained by time, or when a particular place becomes the site for an encounter with broken time” (19). *PWG*, therefore, demonstrates how a hauntological approach to the body clarifies its technologically mediated plurality.

PWG resurrects Derrida’s notion of the hauntological through the hyperlink, as well as a recurring thematic discussion of “ghosts,” “ghost writers,” “resurrection,” “embryos,” and “the eating of embryos,” thus emphasizing the specific plurality of the embodied technics of the human rendered legible through the PC and the hypertext. *PWG* also works to resurrect and recontextualize the problematically gendered, sexualized, and racialized history of computer programming and tele-communication development in the 20th and 21st century a history that has long suffered from narratives that threaten to obscure and erase the actual bodies who performed the labor of establishing the computer and tele-technology industries.

Technogenesis and the Migration of the Creature/Body

PWG presents a narrative told from the perspective of Mary Shelley’s canonically unmade female monster, who goes on a journey across flesh, across digital screen, from Europe to America. The narrative critically examines the misogynistic cultural practices

that have functioned to construct feminized bodies of so-called "women" via technically mediated cultural narratives and practices, and argues instead that the individual and its



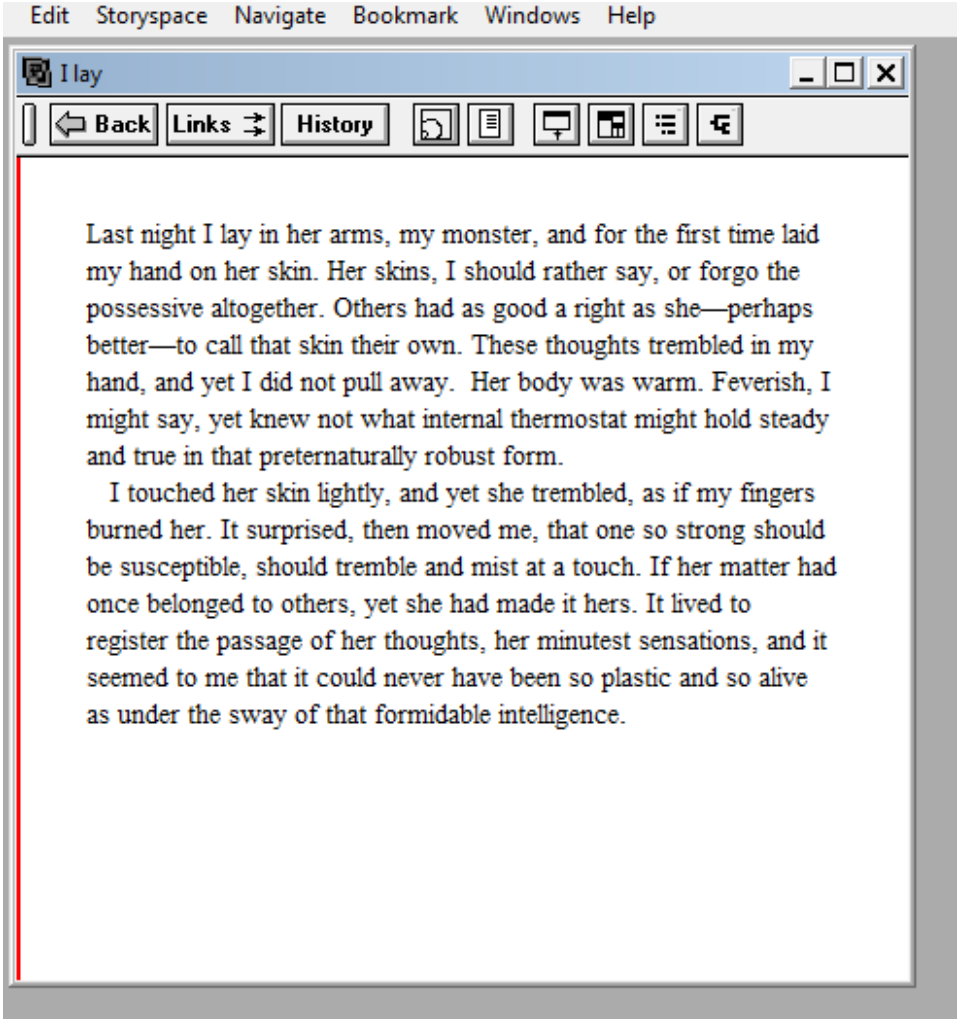
(fig. 2.8)

system of the body is formed through a plurality of traits and origins that are contextual and constantly shifting. The tension between the reductive gendered narratives surrounding PC technology, gendered labor lie coding and patchworking, and the nonlinear malleability of the hypertext creates a dialogic that exposes the reductive logics in notions that describe the human as stable and on the opposite end of the spectrum from so-called technology. Working to expose these false binaries, *PWG* presents a narrative of the female creature, and the phasic nature of the human, through a medium, the PC, that has played one of the biggest roles in the contemporary technogenesis of the human. The PC allows the reader to directly view and engage with the antecedents of the text and

the narratives of the human body in ways that the printed medium did not afford, however, I argue that *PWG*'s hypertext format does not rival print, but instead clarifies the cultural and textual antecedents of print and other communication media, and also clarifies how these discrete patches contribute to create a multi-vocal, always emerging quilt of a body.

Throughout the narrative is the recurring theme of embryonic birth, the grafting of body parts, and the constant re-emergence of the self through technogenesis. For example, the by-line is the perfect example of a textual-bodily suturing: "BY MARY/SHELLEY, & HERSELF" (Jackson 1995). Jackson grafts her own name to Mary Shelley/s to spell out the relationship between the two writers and between the hypertext and the novel *Frankenstein.* "HERSELF," is mechanically grafted to the other two names with the typographical ampersand, "&," indicating that the Creature Herself, while a textual creation, is also an authorial voice which helps to comprise to the multivocal patchwork of *PWG*.

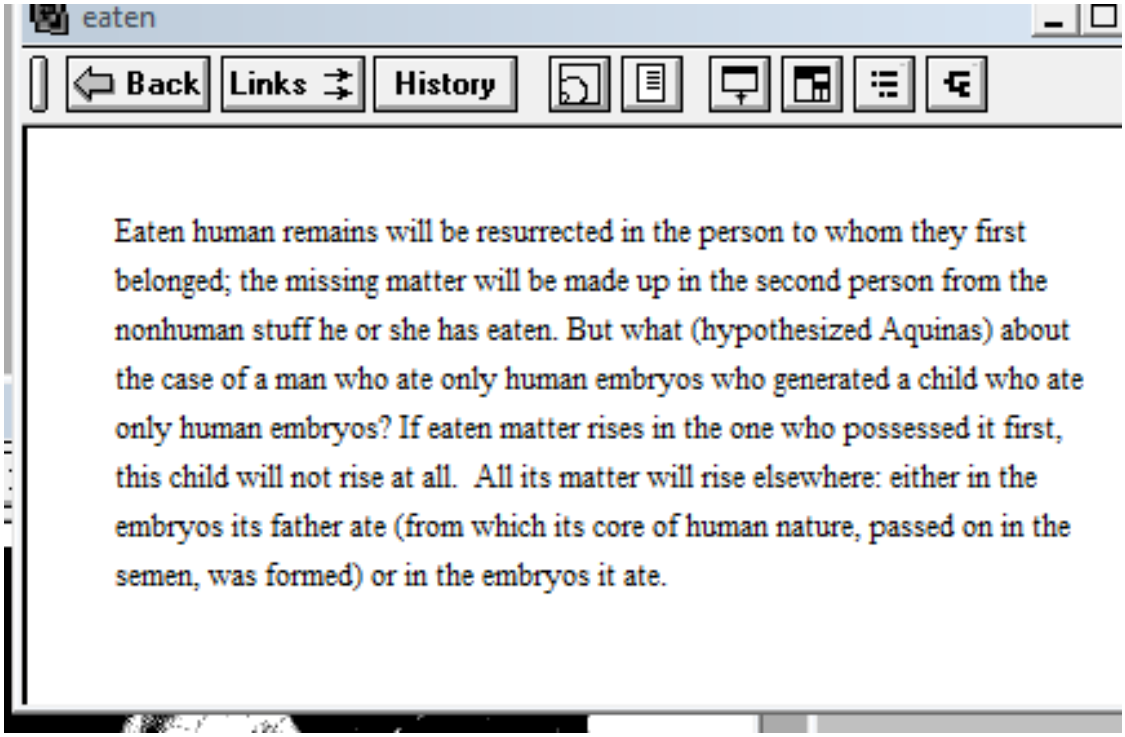
The "female" creature, who is sometimes the narrator and sometimes not, who is shown as a patchwork of body parts that can be reshuffled, describes a sex scene between herself and Mary, a scene which speaks to the shared and embodied investments involved in textual creation. The speaker (Mary/Shelley/et al) describes the creative act with a sexual language that speaks to the generative process of the act.



(fig. 2.9)

Mary/Shelley notes that the relationship between herself and her monster are not possessive: “Last night I lay in her arms, my monster, and for the first time laid my hand on her skin. Her skins, I should rather say, or forgo the possessive altogether.” This questioning of the “possessive” offers a clear view of the phasic body, radically recontextualizing autonomy and bodily ownership, continuing to state that the body exists as an expression of plurality. The narrative presents the metaphor of “eating embryos” to

describe the plurality of the human, as well as the way the technics of human transfer from one space-time to another via artifacts of industrialized memory like computer data. The lexia "eaten" cites Thomas Aquinas' hylomorphic notion of flesh returning to its source, and Jackson's narrator poses the monstrous reality of the human condition: we are humans fed on humans in ways that renders humanness as part of a monstrous act, and not a part of a patrilinear imaginary. Aquinas, in a ponderous state, is hypothesizing about where flesh "returns" to after it is eaten, and, to his own provocation, Aquinas queries about the man who "ate only embryos and generated a child who ate only the same. Aquinas, in a hylomorphic and patriarchal logic, asserts that, "All its matter will rise elsewhere: either in the embryos its father ate (from which the core of human nature, passed on in semen, was formed) or in the embryos it ate." The plurality of the body stands in opposition to Aquinas' figuring of the matter of the body as subordinate to the form, and views the flesh and spirit as theologically bound, and existing in medieval Christian metaphysical binary of body and soul.

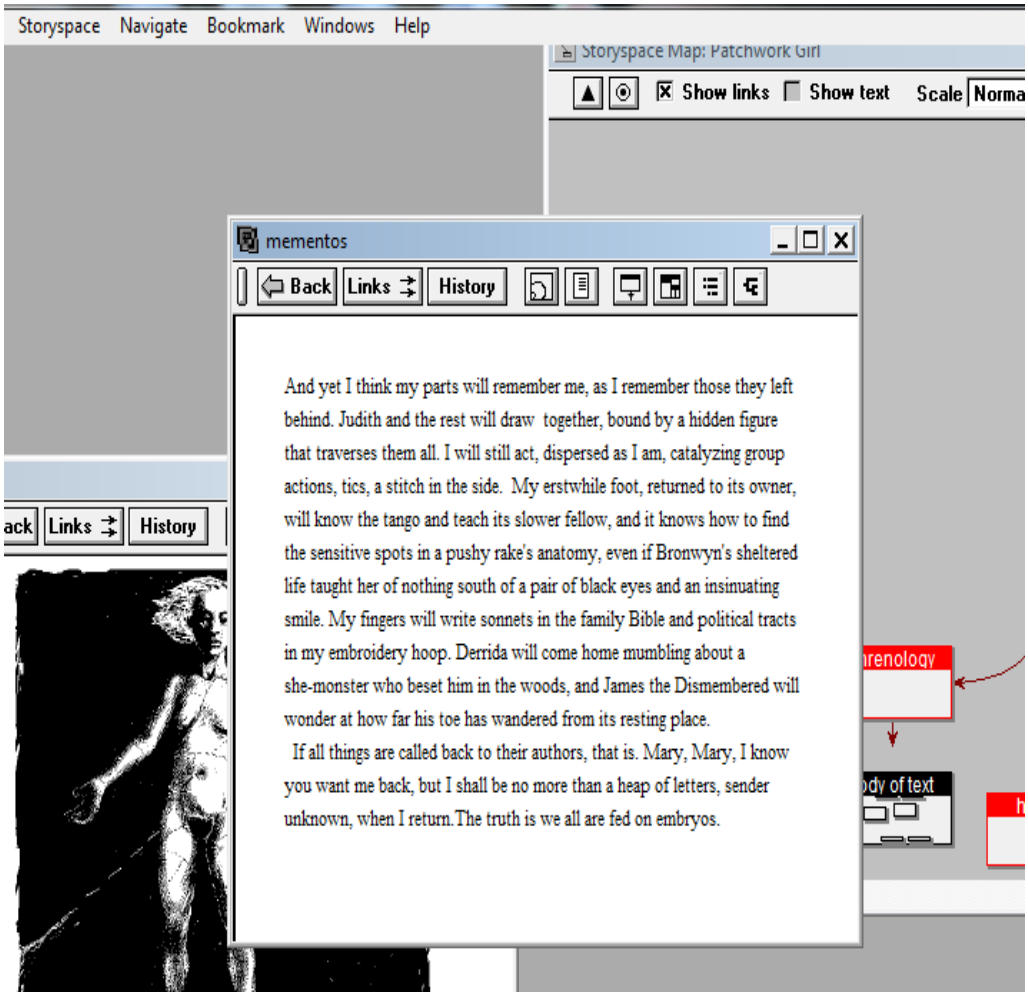


(fig. 2.10)

But *PWG* challenges this bifurcated figuring of information passing unchanged through different mediums. Instead, the lexia "Mementos" (fig. 2.11) explains that information cannot return in its entirety and is constantly remerging anew in often heretofore illegible forms. "Mary, I know you want me back, but I shall be no more than a heap of letters, sender unknown, when I return. The truth is we are all fed on embryos."

The lexia, "Graveyard," introduced earlier in this chapter as displaying a message that expresses an argument that is central to *PWG*: the body is piecemeal and only achieves moments of perceived unity through labor. "I am buried here," begins the text, acting as the voice of the Creature herself, but also as a voice for Mary Shelly, Jackson, and more. "You can resurrect me, but only piecemeal. If you want to see the whole, you will have to sew me together yourself" (Jackson 1995). The layering of the window on

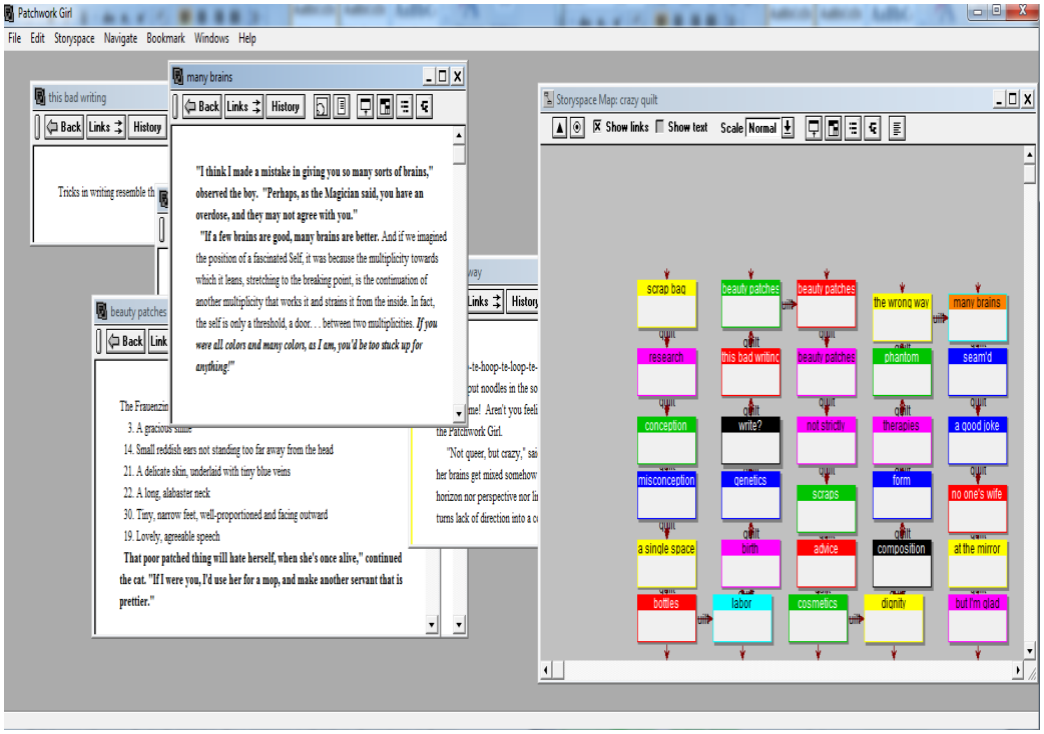
top of the other windows on the PC interface presents a literal digital patchwork quilt. The narrative tree, positioned to the right of the "Graveyard" window only because I placed it there, shows a red thread that creates a flow chart from window to window, patch to patch, lexia to lexia. The rainbow colored "Crazy Quilt" (fig. 4) visually represents a crucial point of the texts, that the human is a multi-valanced collection.



(fig. 2.11)

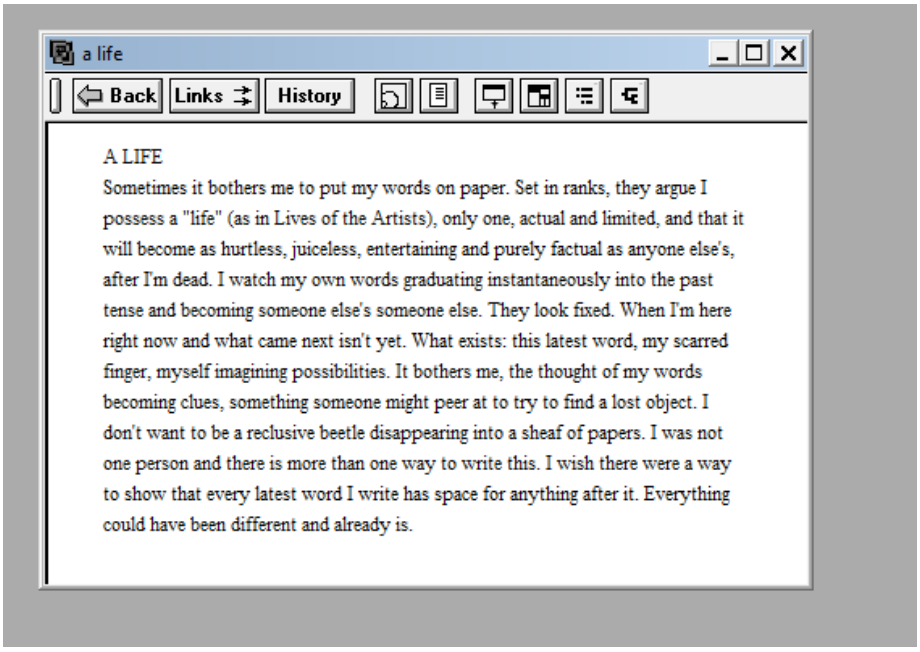
The lexia “Many Brains” (fig. 2.12) directly describes the function of the rainbow quilt as it illustrates, in bright 32-bit color of the PC, that “we are all many colors”:

> **"I think I made a mistake in giving you so many sorts of brains," observed the boy. “Perhaps, as the Magician said, you have an overdose, and they may not agree with you."**
> **“If a few brains are good, many brains are better**. And if we imagined the position or a fascinated Self. 1t was because the multiplicity towards which it leans, stretching to the breaking point, is the continuation of another multiplicity that works it and strains it from the inside. In fact, the self is only a threshold, a door. . . . between two multiplicities. **If you were all colors and many colors, as I am, you'd be too stuck up for anything!"** (Jackson 1995, bold original)

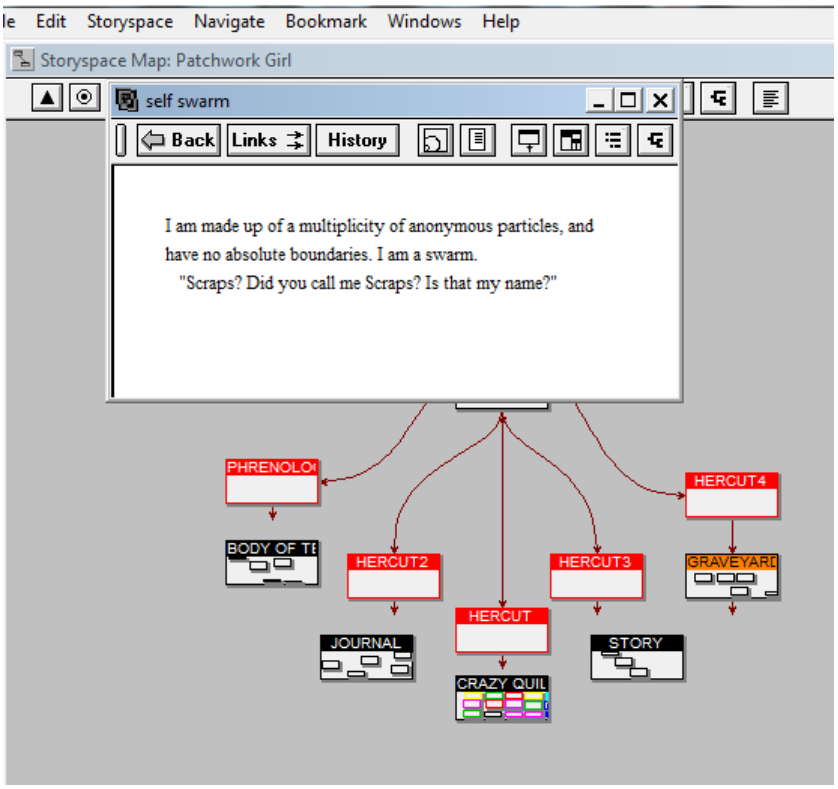


(fig. 2.12)

Another example is the lexia, “Self Swarm” (fig. 2.14), which directly states the plurality of the body, calling it a *swarm*. “I am made of a multiplicity of anonymous particles, and have no absolute boundaries. I am a swarm.” The term conjures images of the Biblical locust swarm, a monstrous mass that devoured all crops and livestock in its wake. In the lexia “Resurrection,” the incomplete state of the human body and its expression in the “embryo” of the resurrected body which challenges gendered notions of motherhood in that it de-genders the act by extending it in multiple directions away from the feminized body. “The human, more than resurrected body is a body restored to wholeness and perfection, even to a perfection it never achieved in its original state.” In “A Life” (fig. 2.13) the narrator expresses the stress in writing as it threatens to limit life to merely one life. “Sometime it bothers me to put my word on paper. Set in rans, they argue I possess a ‘life’ . . . only one, actual and limited, . . . and that it will become . . . purely factual . . . after I’m dead.” The lived experience of the body cannot be expressed through mere data, and the wake of the PC, the human was being data-fied and defined via binary code in an increasing rate. But, as the narrator argues, this will render their textual self as “someone else’s someone” once they are dead.



(fig. 2.13)



(fig. 2.14)

The “swarm” also speaks to the concept of resurrection, as voices from texts and other media remerge through new embodied vehicles. The lexia “Remade” narrates these bodies as “resurrected amputees” that are continually holding up their stumps “optimistically” to a menagerie of animals that take part in a cycle of devouring and regurgitation.

Therefore, “the swarm” becomes a critical challenge to the gendered exclusion of base desire regarding the narratives surrounding technology and information. The “swarm,” proclaiming that it has “no absolute boundaries,” expresses a far more comprehensive description of computational systems and human bodies, standing in stark opposition to the hylomorphic, and therefore inherently flawed and limited, theory of information and form that Simondon, Stiegler, Hayles, and Grosz have all convincingly argued against, and upon which my argument stands.

Conclusion: born away by the waves, and lost in the distance

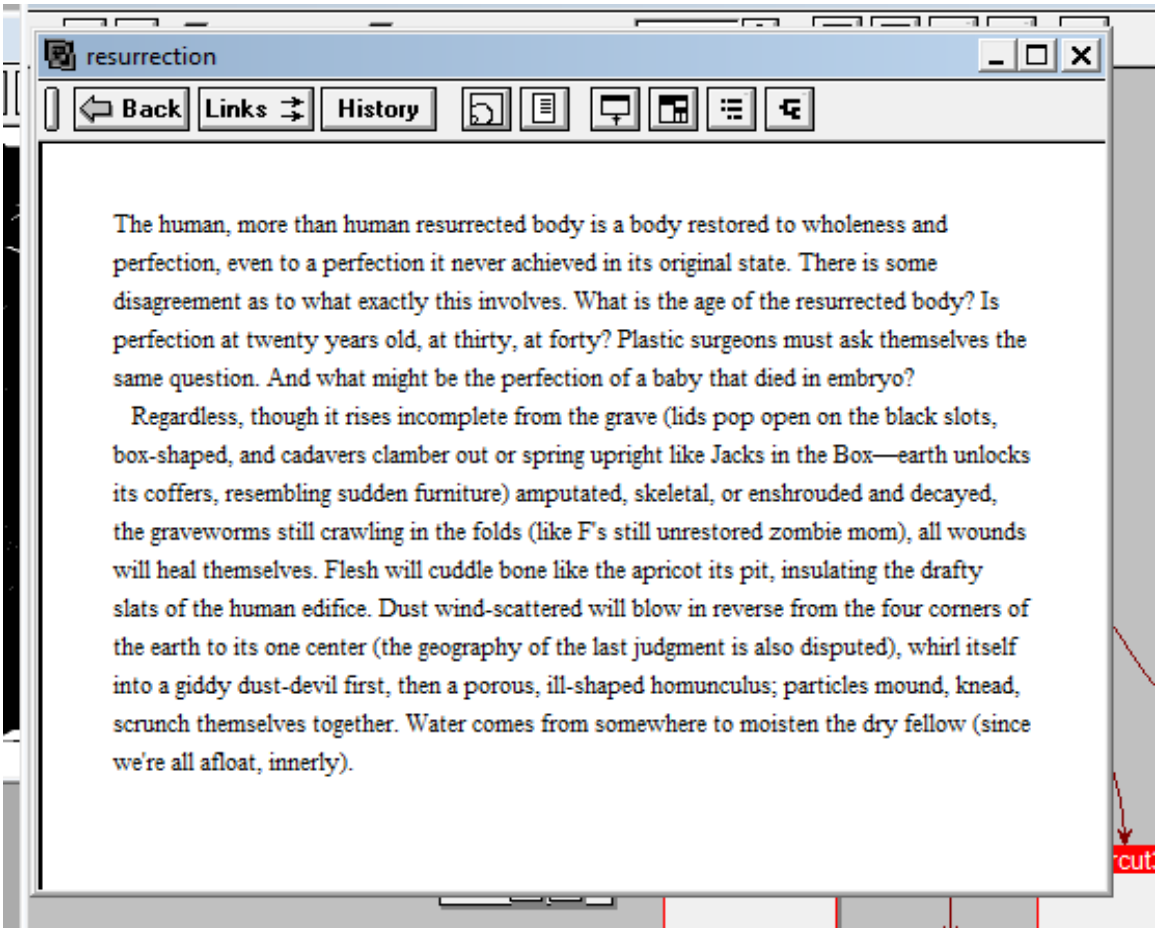
Jackson’s hypertext demonstrates that although the body is historically mediated and materially constituted—thus speaking to its heavy uncovering of its sources, parts, etc.—its integral counterpart, embodiment, cannot be completely overwritten, manipulated, programmed, or controlled in totality, as Stiegler has prophesied as our collective doom. This subjective overwrite becomes impossible due to the exponential calculus of the subject as defined through embodiment, distributed across a variety of networks and mediums.

PWG works to contextualize the ways that the interface of the material media object itself, in this case the PC and the Storyspace hypertext software, has a heavy and transductive influence on the process of ongoing human ontogenesis and technogenesis. Therefore, it is crucial that humans themselves take direct control of their own becoming, working to critically employ practices of technology and media that does not limit or prevent specific versions of the human to emerge, but encourages an ambivalent, carnivalesque shift. Ultimately, says Simondon, we need to embrace the plural and phasic nature of human technogenesis and abolish notions of a fixed hylomorphic order. Simondon concludes that "*The notion of form must be dissociated from the hylomorphic schema in order to be applied to the polyphasic being*" (358, italics original). The polyphasic being, that is, the being that is always in a state of becoming, can be best understood as dissociated from the hylomorphic schema, thus rendering hylomorphism ineffective at accounting for a more a robust theory of embodied knowledge . "The relation of the being with respect to itself is infinitely richer than identity; . . . in the theory of polyphasic being, identity is replaced with internal resonance . . . Such a doctrine supposes that the order of realities is grasped as *transductive* and not as *classificatory*" (358-359).

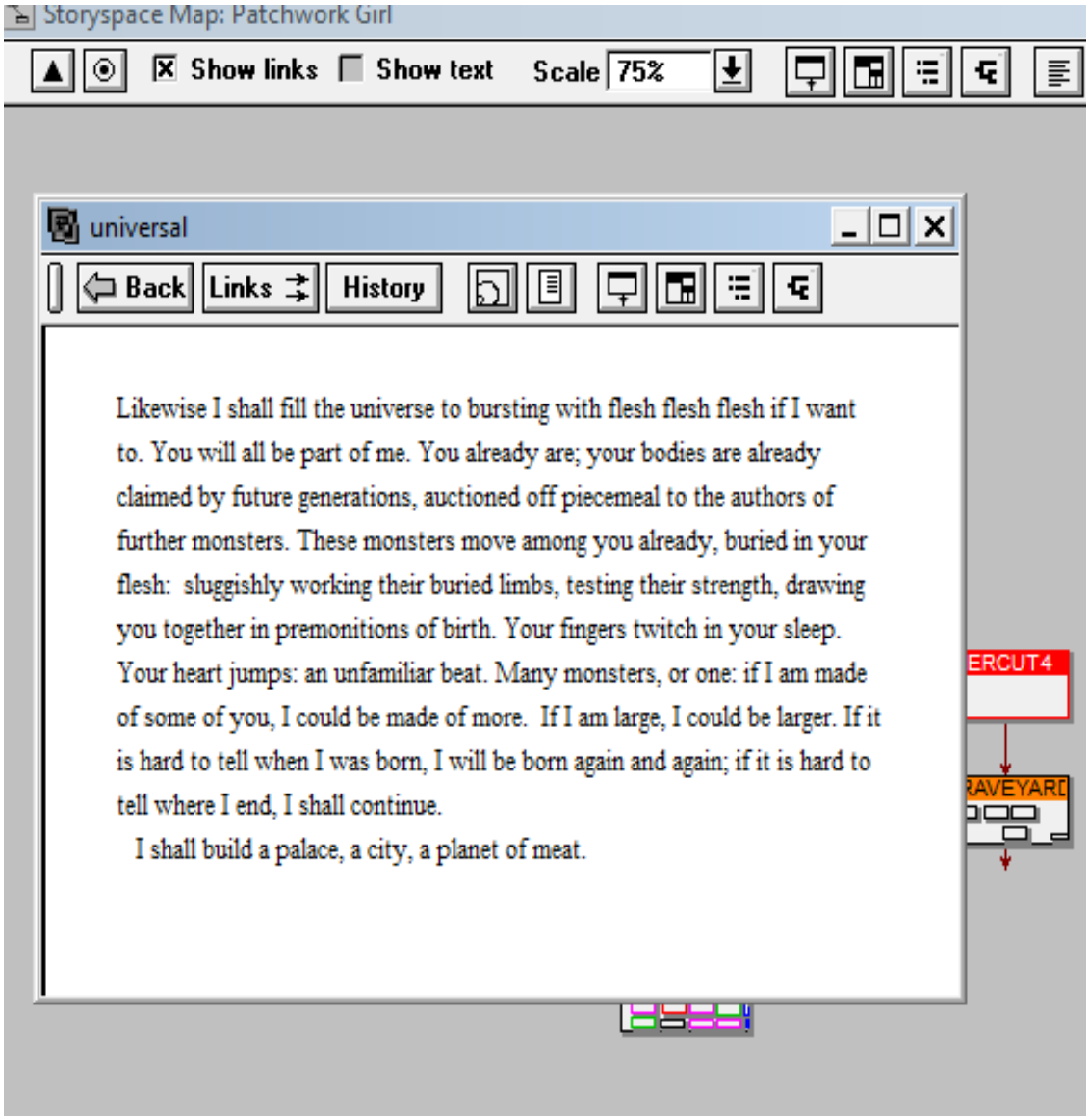
PWG presents this transductive state of always-becoming as a "resurrection" (fig. 2.15), which speaks to an ongoing state in which embodied action breathes new life into old information. Jackson's resurrection of Mary Shelley's 1818 novel functions as its own monstrous body, which emerged in a moment when the personal computer was already well underway of changing the human in a post-cybernetic and posthuman world.

The state of perpetual becoming that is offered by "resurrection" is important because it establishes that there is no fixed state of the human, especially in a current moment of 2023 when conservative law makers are pushing alarmingly transphobic and anti-LGBTQIA+ legislature to a culture engaged in an increasingly rapid technological shift. The concept of *resurrection* also describes the tension of the dialogic between the perfection of the human body and the ambivalent and monstrous ways that human bodies are culturally defined and spatiotemporally emerge. "The human, more than human resurrected body is a body restored to wholeness and perfection, even to a perfection it never achieved. There is some disagreement as to what exactly this involves" (Jackson 1995).

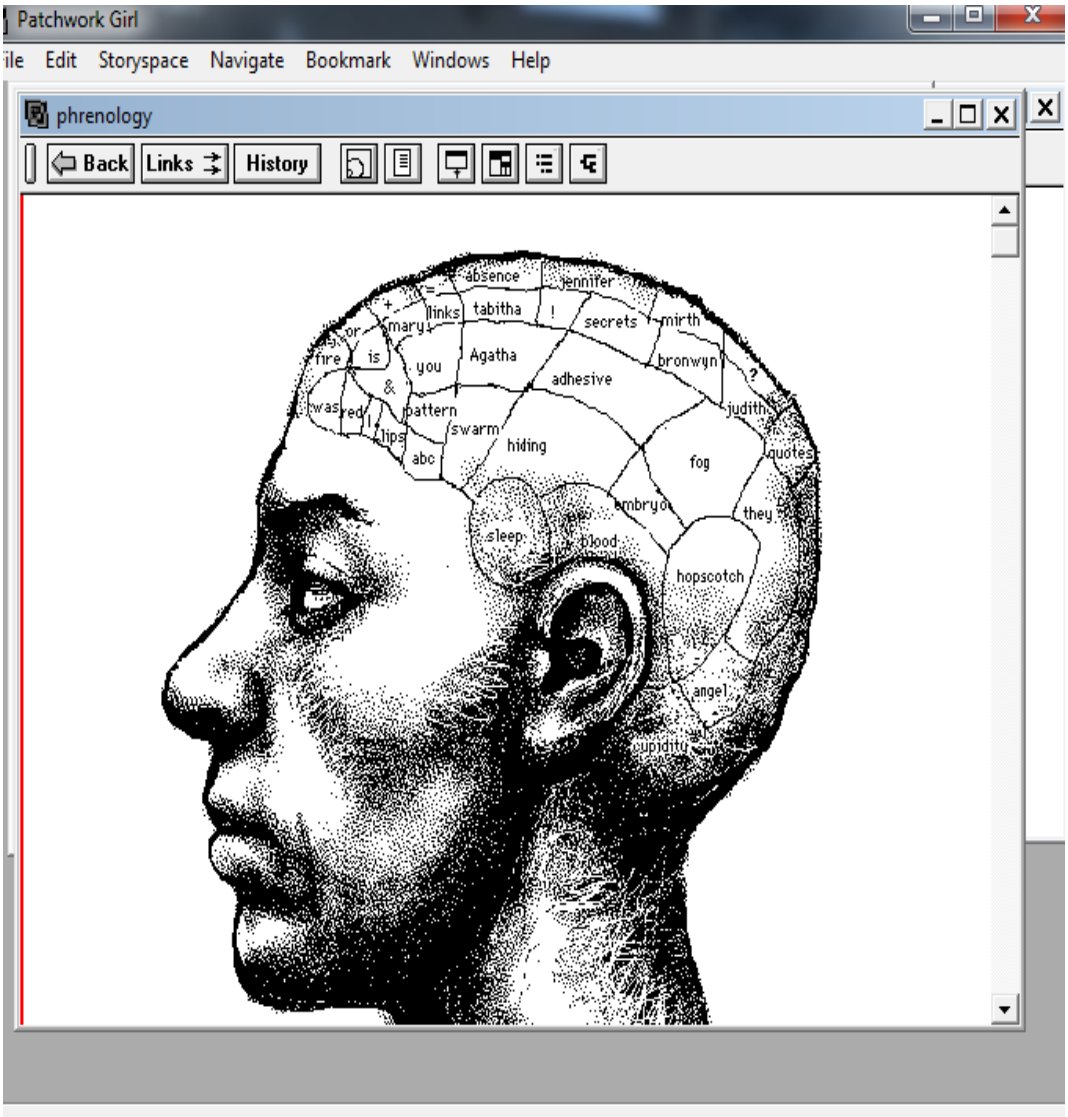
The lexia "Universal" offers a full, and perhaps final explanation of Jackson's notion of the plural self and how it is constantly reborn via an embodied process of technogenesis. "Likewise I shall fill the universe to bursting with flesh flesh flesh if I want to. You will be part of me. You already are; your bodies are already claimed by future generations, auctioned off piecemeal to the authors of further monster. The monsters move among you already, buried in your flesh" (Jackson 1995).


resurrection
Back
Links
History
The human, more than human resurrected body is a body restored to wholeness and perfection, even to a perfection it never achieved in its original state. There is some disagreement as to what exactly this involves. What is the age of the resurrected body? Is perfection at twenty years old, at thirty, at forty? Plastic surgeons must ask themselves the same question. And what might be the perfection of a baby that died in embryo?
Regardless, though it rises incomplete from the grave (lids pop open on the black slots, box-shaped, and cadavers clamber out or spring upright like Jacks in the Box—earth unlocks its coffers, resembling sudden furniture) amputated, skeletal, or enshrouded and decayed, the graveworms still crawling in the folds (like F's still unrestored zombie mom), all wounds will heal themselves. Flesh will cuddle bone like the apricot its pit, insulating the drafty slats of the human edifice. Dust wind-scattered will blow in reverse from the four corners of the earth to its one center (the geography of the last judgment is also disputed), whirl itself into a giddy dust-devil first, then a porous, ill-shaped homunculus; particles mound, knead, scrunch themselves together. Water comes from somewhere to moisten the dry fellow (since we're all afloat, innerly).

(fig. 2.15)


Storyspace Map: Patchwork Girl
Show links
Show text
Scale 75%
universal
Back
Links
History
Likewise I shall fill the universe to bursting with flesh flesh flesh if I want to. You will all be part of me. You already are; your bodies are already claimed by future generations, auctioned off piecemeal to the authors of further monsters. These monsters move among you already, buried in your flesh: sluggishly working their buried limbs, testing their strength, drawing you together in premonitions of birth. Your fingers twitch in your sleep. Your heart jumps: an unfamiliar beat. Many monsters, or one: if I am made of some of you, I could be made of more. If I am large, I could be larger. If it is hard to tell when I was born, I will be born again and again; if it is hard to tell where I end, I shall continue.
I shall build a palace, a city, a planet of meat.
ERCUT4
RAVEYARD

(fig. 2.16)



(fig. 2.17)

“He was soon borne away by the waves, and lost in darkness and distance” (Shelley 1818, 216)

Chapter 3

DOOM, Free Software, and the Carnivalesque of Digital Recursive Publics

Introduction: Dangerous Dave and Copyright Infringement

This chapter examines id Software's 1993 first person-shooter *DOOM*. The game introduced an immersive digital PC gaming experience unprecedented at the time, while also contributing to the early development and success of what Chris Kelty identifies as the recursive public of the 1990's internet, a watershed moment within the era of digital technogenesis. The open-source code of the game, distributed as free Shareware, adds an important dimension to *DOOM* that situates the game within a specific mode of the technological carnivalesque. Christopher Kelty and E. Gabriella Coleman argue that free software plays an important role in reorganizing power in society, undermining copyright law and common publishing practices to prioritize access, distribution, and circulation. *DOOM*'s anti-corporate and carnivalesque qualities clarify the specific reorganization of power made possible by digitally networked internt of Web 1.0, The internet and spread of the home personal computer heavily transformed the very society through a process of recursive transduction. This chapter argues that *DOOM*, through its Freeware distribution and open-source code, subverts gendered coding of media, masculinist narratives of gaming informed by gaming's own history in US Army wargame strategies, and control patterns of hyperindustrial capitalism through the medium specific affordance of the

digital carnivalesque, thus disrupting the hegemonic organization of power over the body, including historical notions of authorship, economies of control regarding distribution and publication, and questions of ownership and copyright law as it relates to subjectivity. Ultimately, *DOOM*'s open software design and anti-industrial military complex narrative presents a carnivalesque dialogic between the progressive and utopic approach of open source and the internet as a user-centric recursive public, and that of the harmfully masculinist constructions of male gender and the gendering and racializing present being reproduced by cultural attitudes and practices of digital media regarding the formation, policing, and access of the internet and computer gaming culture, more broadly.

In 1990, a young group of American software programmers named John Carmack, John Romero, Tom Hall, and Adrian Carmack, who would later go on to co-found id Software and revolutionize computer gaming with such titles as *Wolfenstein 3D*, *DOOM*, and *Quake*, approached Nintendo of America with a proposal to port Nintendo's smash hit game from 1988, *Super Mario 3*, to the PC. Nintendo, operating under infamously autonomous business tactics, congratulated the group on their fine work, but expressed that they had no intention of using any hardware for their games but their own Famicom/Nintendo Entertainment System, which currently held sway as the dominant console for home gaming, as it importantly revitalized the home videogame market after the market's quality-control related crash in 1983 (Kushner 2004).

In September of 1990, Carmack figured out the bit of coding that would allow him to program and port scroll games for the PC, a technology being used by the then-

best-selling game in history: Nintendo's *Super Mario Bros. 3*. "At first," says David Kushner in his popular history of id Software, *Masters of DOOM: How Two Guys Created an Empire and Transformed Pop Culture* (2004, 46, 50; 56-57; 120-1), "the action of arcade games all took place within one static screen." The arcade cabinets of the 1970's usually comprised of a TV monitor, placed sideways, displaying a static screen of gameplay. The static screen was established as industry standard by these arcade cabinets of the 70's and 80's, such as Bandai Namco's *Pac-Man*, Taito's *Space Invaders*, and Atari's *Pong*, the latter which sold more than 35,000 units, arguably launching the commercial videogame industry in 1972. In 1980 Williams Electronics released *Defender*, "the first arcade game to popularize the idea of scrolling beyond the scope of the screen." Kushner (2004) explains that "Compared with other games in the arcade, Defender felt big as if the player was living and breathing in a more expansive virtual space" (46). By the time of the arrival of *Super Mario 3*, released in Japan in 1988, America in 1990, and Europe in 1991, side scrolling had all but replaced the static screen.

Super Mario 3 was a smash hit, selling seven million copies by the end 1990 alone, and, according to *Games Radar* (2013), 18 million copies for the NES (this does not account for virtual console versions). Marsha Kinder (1991), explains that in 1984, the Federal Communication Commission (FCC) eliminated its ban on product-based television programs, part of a larger deregulation of American broadcasting in the 80's. Citing Bakhtin and Kristeva's related notions of intertextuality and dialogism, Kinder describes the "ever-expanding supersystem" of children's entertainment television as one marked by 'transmedia intertextuality'" (1), which prepares young players "for the this

new age of interactive media--specifically by linking interactivity with consumerism" (6). For example, Kinder identifies Tom Holland's 1989 Universal Pictures film, *The Wizard*, starring Fred Savage, Jenny Lewis, Beau Bridges, and Christian Slater, as a "ninety minute commercial for the Nintendo system--especially for products like the Power Glove . . . and 'Super Mario Bros. 3'" (1990, 94). While Mario 3 was busy solidifying the side-scoller as THE technology of the console, scroll games did not exist for the PC, as PC performance could not contend to that of arcade machines, the Apple II, and home consoles like the Famicom and Nintendo. After seeing Defender and Mario, Carmack set out to develop a smooth scrolling effect for PC.

Through the development of a spaceship-shooter called *Slordax* (Kushner, 2004), Carmack perfected a PC side-scrolling engine while his colleague John Romero, id's head level designer and programmer, developed programming tools to create the characters and levels of the game. Carmack succeeded in creating what he called "adaptive tile refresh," a process of tricking the computer and utilizing small amounts of screen memory, as opposed to completely redrawing the screen with each movement, which was the compromise at the time. "What if," Kushner narrates Carmack's thoughts (2004, 49) "instead of redrawing everything, I could figure out a way to redraw only the things that actually change?" In order for the illusion of movement to occur on a PC, the "computer would redraw every . . . pixel on the entire screen, starting at the top left corner and making its way over and down, one pixel at a time." Carmack determined that because the computer could not intuit a shortcut for this process, that he would do the next best thing and trick the computer. "Carmack wrote some code that duped the computer into

thinking that, for example, the seventh tile from the left was the first tile on the screen. This way the computer would begin drawing right where Carmack wanted it to." In order to create a smoother illusion of movement, Carmack also instructed the computer to "draw an extra strip of blue tile outside the right edge of the screen and store it in its memory for when the player moved in that direction. Because the tiles were in memory, they could be quickly thrown up on a screen without having to be redrawn" (Kushner 2004, 50). Carmack next used this new method to port the first level of Super Mario 3 to PC.

According to Kushner (2004) Carmack and his colleague, game designer and programmer Tom Hall, spent an entire evening in September of 1990 porting the first level of Mario 3 to PC. Kushner, narrating Hall's thoughts, relays, "It was almost a revolutionary act of subversion, he thought, especially considering Nintendo's stronghold on its own platform. There was no way to, say, copy a Nintendo game onto a PC as one would tape an album" (2004, 50). By 1990, Nintendo, originally founded in 1889 by craftsman Fusajiro Yamauchi as a *hanafuda* playing card company and distributor in Kyoto, Japan, had become *the* multinational consumer electronics and video game company through the unprecedented commercial success of their Donkey Kong and Mario titles. Nintendo's President from 1949 to 2002, Hiroshi Yamauchi, the grandson of Fusajiro, tightly controlled the company's IP, base code, hardware, and distribution channels with an infamously harsh hand. According to Jeff Ryan's *Super Mario: How Nintendo Conquered America* (2012) "Yamauchi fired first his relatives, then every last executive, to remove all institutional memory of anyone but himself in charge" (16).

Instead of re-creating Mario, Hall used their own video game character, Dangerous Dave, the hero of their earlier games developed for SoftDisk's monthly disk magazine, Big Blue Disk, developed for DOS and Apple II, star of such classics as *Dangerous Dave in the Deserted Pirates Hideout!* (1990) and *Dangerous Dave in the Haunted Mansion* (1991). Carmack and Hall aptly titled their Mario 3 port as *Dangerous Dave in 'Copyright Infringement,'* and showed it to their colleague Romero, who was ecstatic. Carmack assembled a team of Romero, Jay Wilbur, Tom Hall, Adrian Carmack, and John Lane and, after "borrowing" a fleet of computers and monitors from Softdisk Offices in the middle of the night, produced a completed port of Mario 3.

Nintendo, while impressed, had no interest of sharing their market. "Nice work," Nintendo replied to the id crew, "but Nintendo has no interest in pursuing the PC market. It was happy where it was as a world leader in consoles" (57). After this response from Nintendo, the team that would become id produced three more games building upon Carmack's revolutionary PC side-scroll engine: *Commander Keen, Wolfenstein 3D*, and *DOOM*, all while operating within an open-source shareware business model that was dialogically opposed to that of Nintendo. The latter of these three titles, *DOOM*, introduced an immersive digital PC gaming experience unprecedented at the time. The open-source code of the game, distributed as free Shareware, adds an important dimension to *DOOM* that situates the game within a specific mode of media-cultural production that I refer to in this chapter (talk*) as the *digital carnivalesque*, a contemporary reactivation of Mikhail Bakhtin's theorization regarding the transformative power of the grotesque-vernacular of the medieval literary marketplace. Christopher

Kelty and E. Gabriella Coleman offer helpful theoretical approaches that allow me to situate *DOOM* within a larger theoretical tradition of shareware. Both Kelty and Coleman argue that free software plays an important role in reorganizing power in society, undermining copyright law and common publishing practices to prioritize access, distribution, and circulation. Bakhtin's *carnivalesque* clarifies the specific reorganization of power made possible by digitally networked media and marketplaces because it speaks to the power of collective artistic expression emerging despite, and often through, the mediums of industrial and hyperindustrial society, while simultaneously transforming the very society through a process of recursive transduction. In this chapter I argue that *DOOM*, through its Shareware distribution and open-source code, reorganizes and subverts control patterns of militaristic and hyperindustrial late-capitalism through the medium specific affordance of the digital carnivalesque. *DOOM* challenges and disrupts hegemonic organizations of power, including historical notions of authorship, economies of control regarding distribution and publication, and questions of ownership and copyright law.

DOOMguy, Gender, and the Military Industrial Complex

The storyline for *DOOM* is found on the second page of the Instruction Manual, and it presents a mocking critique of the military industrial complex's questionable ethics regarding the application of military technology, especially as it relates to male gender construction and presentation in popular video game media, while reflexively

acknowledging the game's own roots of production in military technology. "You're a space marine," reads the opening line to "The Story So Far" section, immediately gendering and labor coding the body of the player's avatar, DOOMguy. However, DOOMguy's story functions to address and subvert the problematic linking of military technology, labor, and the masculinization of the so-called "male" body:

> You're a space marine, one of Earth's toughest, hardened in combat and trained for action. Three years ago you assaulted a superior officer for ordering his soldiers to fire upon civilians. He and his body cast were shipped to Pearl Harbor, while you were transferred to Mars, home of the Union Aerospace Corporation. The UAC is a multi-planetary conglomerate with radioactive waste facilities on Mars and its two moons, Phobos and Deimos. With no action for fifty million miles, vour day consisted of suckin' dust and watchin' restricted flicks in the rec room. (id 1993)

This framing narrative immediately establishes several things: 1) DOOMguy, like the game software and hardware, has his origins in the military, but he operates through a human impulse, and simply not on military programmed, as understood by the narrative detail that DOOMguy "assaulted" a superior officer who did not value human and civilian life. DOOMguy, however, can only solves the crisis through his training: violence. Also established is a critique of the UAC, the corporate entity responsible for the game's hi-technology setting of future-Mars. DOOMguy enjoys a quotidian life of "suckin' dust" and "watchin restricted flicks" until all hell literary breaks loose. The UAC's experimental research in inter-dimensional space travel has opened a portal to Hell, causing the bases to be overran by a horde of digitally projected demons, which metaphorically speaks to the ethical, moral, and human failures of both the military

industrial complex, but also the failed masculinist logics of late-stage capitalism in the age of the conglomerate corporation.

Video games have gained an erroneous cultural association with the so-called violent and masculinized gender expression of teenage boys. This reductive view of who plays and enjoys video games mirrors the contrast between cultural narratives supporting gendered technology practices and the actual, lived, diverse player communities who enjoy computational technologies. Yee (2014) cites a 1989 Newsweek article that worked to spread this masculinized narrative regarding video game players: "Nintendo speaks to something primal and powerful in their bloody-minded little psyches, the warrior instinct that in another culture would have sent them out on the hunt or the warpath" (23). The language of the "warrior instinct" and the "warpath" doubles the cultural pairing of militaristic logics as bound to so-called "natural" qualities of male gender expression, reportedly observed within masculinized narratives of male media practices. However, data shows that only 20 percent of online gamers are teenage boys (Yee 2014, 24), and, what's more, this stereotype "hinders our ability to understand how online games can be positive social spaces for young players" (25).

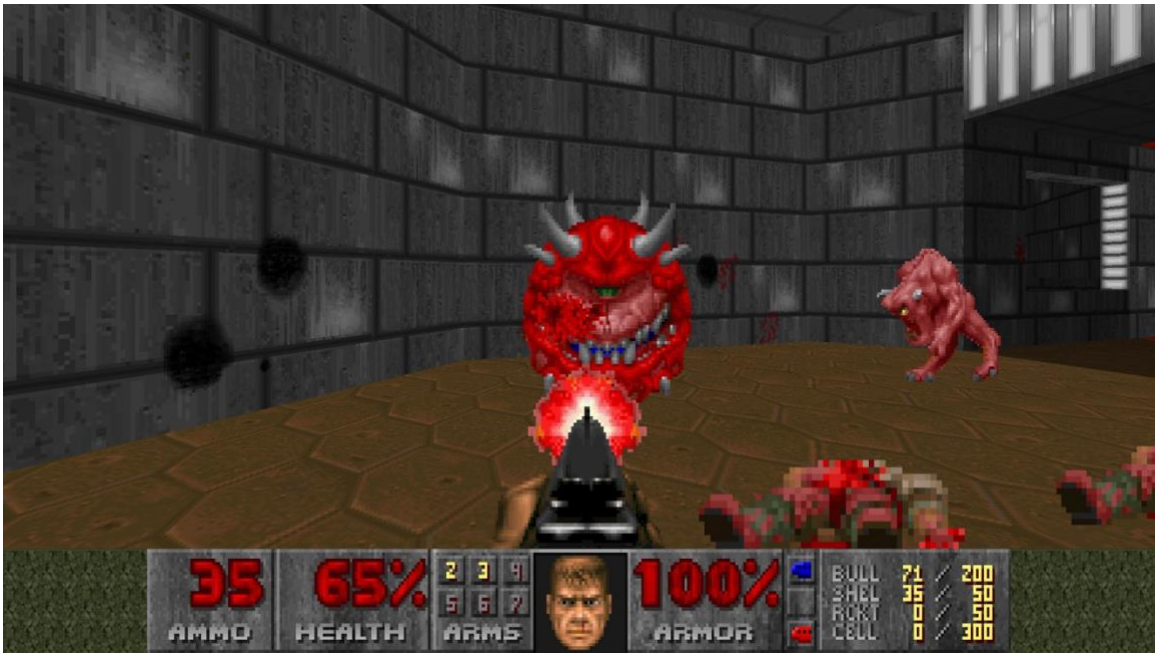
The history of video games can be understood as emerging from the intersection of several historical trajectories. According to Yee (2014), video games find their origins in miniature wargaming like the chess, checkers, and the Prussian *Kriegsspiel*, epic fantasy literature like Tolkien, and tabletop role-playing games like Dungeon's & Dragons (9). In the 1880's, America imported *Kriegsspiel* for military training purposes, leading to the release of the first commercial miniature wargames in 1913: H. G. Wells'

Little Wars. In the late 60's and 70's, Gary Gygax developed several multiplayer wargames that eventually developed into 1974's influential role-playing game *Dungeons and Dragons*, which went on to influence the design of early PC fantasy games. The gaming industry has expanded far and away from these masculinist roots, a reflexive point that DOOM is making in its backstory. Phillips (2020) reminds us that much of the early scholarship in game studies has been done by women including Patricia Greenfield, Marsha Kinder, Brenda Laurel, Elizabeth Loftus, Janet Murray, Marie-Laure Ryan, and more (2020, 51). Despite this diverse set of voices, the reductively gendered narratives surround media practices remain prevalent in more popular contexts. Phillips (2020) asserts that the future of gaming needs to be met with a presence of mind that strives toward a future where we strive to "learn to cultivate the trust, balance, and mutual investment of agonistic struggle . . . [where] we can begin to balance the mechanics of gaming culture such that our arguments play out in a more equitable field" (182).

Apogee-shareware, *Commander Keen*, and Episodic Level Design

The overall design of *DOOM* as episodic levels is due to the medium-specific limitations placed upon the software by the requirements of the shareware distribution model (fig. 3.1). An important philosophical and ethical distinction exists between the business practices of id Software and Nintendo: that of Nintendo's closed source Read Only Memory (ROM), and that of the id's Free Open-Source/Shareware software Hacker Ethic embraced by John Carmack and his colleagues at id Software. According to Dan

Pinchbeck (2013, 57), "Jim Knopf and Andrew Fluegelman take credit for inventing the shareware scene of the late 1980s and '90s, each independently coming up with the idea to ask users for voluntary donations in return for free distribution and use of their programs." Frans Mäyrä (2008) argues that the success of *DOOM* is bound with the explosion of the internet at the time, citing the importance of a demand for PC software designed to specifically interface with the rapidly developing global communications network (208, 103). I will argue Mäyrä's point one step further and suggest that the hardware and software limitations of this shareware distribution philosophy directly contributed to the material design of the game as it appears as levels and episodes.



(fig. 3.1)

Shareware as a distribution and business practice arises through the discrete efforts of Jim Knopf and Andrew Fluegelman (PC-File and PC-Talk, respectively) in the 1980's and 90's and came to gain an established presence through the formation of the

Association of Shareware Professionals (ASP) in 1987. According to Pinchbeck (2013, 57) the ASP formed "to protect both the creators and consumers from less reputable shareware practices." Knopf (1995-96) cites several reasons for the success of shareware as a successful model: "not landing the user with 'clumsy copy protection schemes;' lower pricing than commercial retail applications; an extended trial period by the very nature of the system; and independence from retail, giving a sense of novelty" (2013, 57). Nelson Ford (2000), founder of the Public (software) Library (PsL), describes the beginning of shareware:

> In 1982, a couple of programmers, Andrew Fluegleman and Jim Knopf (dba: Jim Button), had written a couple of major applications (a communication program and a database program, respectively) on their new IBM PCs. Not wanting to invest the time and money in trying to get these applications into stores, they decided to take advantage of the pirate distribution networks by allowing their programs to be copied, but putting a request in the program's on-disk documentation for the user to send money to the author to finance the ongoing development and support of the programs. Fluegleman called this Freeware and trademarked that name, meaning that nobody else could market their software as Freeware without his permission. This wasn't very good for the new industry, but the name Freeware wasn't quite appropriate anyway since the software wasn't really intended to be free. (Ford 2000)

Pinchbeck notes, important to my study, that "Ironically, although shareware gaming died out in the late '90s, it's seen something of a revival in the last couple of years in the independent game sector" (57). Pinchbeck goes on to say that "it's remarkable that pretty much the same principle of added downloadable content . . . is at play now; as the idea of extending gameplay beyond the disk (or download) to a more dynamic, active relationship with the consumer becomes the norm. This is reason alone for Miller to be recognized as playing an enormous role in the development of the business models for the game industry" (2013, 58). I will return to this point later in my discussion, as I argue

that shareware remerges in networked mobile gameplay in 2021, but as a form with far more corporate control baked in thanks to such digital game marketplaces of Steam and the Nintendo Switch eShop.

The Hacker Ethic of Carmack and id's business pairing with Scott Miller of Apogee, an important pioneer and proponent of the use of shareware, contributed to *DOOM* being released in this innovative format. Kushner (2004) provides an account describing the nature of Carmack's business ethic: back at Softdisk, Al Vekovius [after seeing Carmack's PC side scrolling software] told Carmack that he should patent the technology:

> Carmack turned red. 'If you ever ask me to patent anything,' he snapped, 'I'll quit.' Al assumed Carmack was trying to protect his own financial interests, but in reality, he had struck what was growing into an increasingly raw nerve with for the young, idealistic programmer. It was one of the few things that could truly make him angry. It was ingrained in his bones since his first reading of the Hacker Ethic. (Kushner 2004, 67)

While not a stable or centralized code, the Hacker Ethic refers to a shared spirit amongst programmers and hackers that all information should be free and that access to computers should be unlimited. According to Raymond (2003), the Hacker Ethic is defined as follows:

1. The belief that information-sharing is a powerful positive good, and that it is an ethical duty of hackers to share their expertise by writing open-source code and facilitating access to information and to computing resources wherever possible.
2. The belief that system-cracking for fun and exploration is ethically OK as long as the cracker commits no theft, vandalism, or breach of confidentiality. (Raymond 2003)

Kushner (2004) describes Carmack as expressing these same ethics regarding software distribution and authorship. "All of science and technology and culture and learning and academics is built upon using the work that others have done before," Kushner romantically attributes to Carmack. "But to take a patenting approach and say it's like, well this is my idea, you cannot extend this idea in any way, because I own this idea--it just seems so fundamentality wrong." I read Carmack as also expressing a Bakhtinian ethos. In Krystyna Pomorska's 1968 forward to the Helen Iswolsky's translation of *Rabelais and His World*, Pomorska describes Bakhtin's notion of the intertextual exchange of information between people:

> Another of Bakhtin's outstanding ideas connecting him with modern semiotics is his discovery that quoted Speech permeates all our language activities in both practical and artistic communication. Bakhtin reveals the constant presence of this phenomenon in a vast number of examples from all areas of life: literature, ethics, politics, law, and inner speech. He points to the fact that we are actually dealing with someone else's words more often than with our own. Either we remember and respond to someone else's words (in the case of ethics); or we represent them in order to argue, disagree, or defend them (in the case of law); or, finally, we carry on an inner dialogue, responding to someone's words (including our own). In each case someone else's Speech makes it possible to generate our own and thus becomes an indispensable factor in the creative power of language. (1984, ix)

I extend Bakhtin's literary notion of the transductive, shared, network of cultural production and language to that of Carmack's strong attitudes regarding the important quality of shared data to spark innovation and progress in material engineering applications. Questions regarding free access to authorship and distribution reside as central tenets to both Carmack and Bakhtin, and I my approach gains clarification regarding digital authorship and distribution when considered through the work that E.

Gabriella Coleman has done regarding the ethics and aesthetics of hacking and Free and Open Source Software (F/OSS).

Coleman indicates a tension present within neoliberal logic that hacker logics such as shareware expose. Coleman's (2013) *Coding Freedom: The Ethics and Aesthetics of Hacking* argues that hackers simultaneously "challenge one strain of liberal jurisprudence, intellectual property, by drawing on and reformulating ideals from another one, free speech, the arena of F/OSS makes palpable the tensions between two of the most cherished liberal precepts" (2013, 3). Coleman explains that "Although hackers hold multiple motivations for producing their software, collectively they are committed to *productive freedom*. This term designates the institutions, legal devices, and moral codes that hackers have built in order to autonomously improve on their peers' work, refine their technical skills, and extend craftlike engineering traditions" (2013, 3). Coleman shares concerns expressed by Carmack regarding the patenting of ideas and the subsequent stunting of progress that results. "The expansion of intellectual property law . . . is part and parcel of a broader neoliberal trend to privatize what was once public or under the state's aegis." Coleman, citing David Harvey (2005, 2) goes on to state that, "'Neoliberalism is in the first instance a theory of the political economic practices that proposes human well-being can be advanced by liberating entrepreneurial freedoms and skills within an institutional framework characterized by strong property rights, free markets, and free trade.' As such, free software hackers not only reveal a long standing tension within liberal legal rights but also offer a targeted critique of the neoliberal drive to make property out of almost anything including software" (2013, 4). Hackers, in this

figuration, threaten status quo business practices, and larger hegemonic and cultural norms long enforced by the patriarchal, settler-colonial, and capitalist logics long-constituting American business practices. Carmack's tension regarding patenting ideas speaks to his larger critical aim of encouraging access and education to emerging technology.

Kushner goes on to narrate the tension building between Carmack and businessmen like Al Vekovius: "Patents were jeopardizing the very thing that was central to [Carmack's] . . . life: writing code to solve problems. If the world became a place in which he couldn't solve a problem without infringing on someone's patents, he would be very unhappy living there" (2004, 67). The answer to Carmack's problem came in the form of a business model proposed by Scott Miller and his recently established Apogee Software: *DOOM* would be released as shareware.

"Technically," says Pinchbeck (2013), "*DOOM* wasn't shareware, which might sound like splitting hairs, but the technicality is actually pretty important and pays tribute to Scott Miller at Apogee Software, who, in many ways, built the launch ramp *DOOM* took advantage of" (57). What Pinchbeck means is that Miller created the concept of disturbing initially free, complete levels or episodes of a game, followed up by the pay-to-play remaining levels of the game (fig. 3.2). Miller founded Apogee in Garland Texas in 1987, after the release of his first game, *Kingdom of Kroz*, through a new business and distribution model called *shareware*. Miller had been working as at a computer consulting company in 1986, when he developed and released *Kroz*, an Indiana Jones-esque adventure game, as shareware. Before embarking on *Kroz*, Miller released two



(fig. 3.2)

text-based games in their entirety to little success. "Gamers, he realized, might be a different breed from those consumers who actually paid for utility shareware," which was the dominant model for the use of shareware at this time. Upon releasing the two unsuccessful full text-rpg games, Miller found that other programmers who had also released their games in their entirety experienced a similar failing result. "Then [Miller] got an idea. *Instead of giving away the entire game, why not give out only the first portion, then make the player buy the rest of the game directly from him?"* (Kushner 2004, 61, original emphasis). Important to note here is the way that this business design directly influences the material design of the games. Kushner (2004) explains that the

"games Scott was making were perfectly suited to such a plan because they were broken up into short episodes or 'levels' of play. He could put out, say, fifteen levels of a game, then tell players that if they sent him a check he would send them the remaining thirty" (2004, 61). Pinchbeck (2014) cites Tom Hall as placing an emphasis upon a complete gaming experience in the free portion of the shareware. "Large interwoven role-playing games just weren't going to work; the sense of completeness of the free section of the game was critical. As Hall points out, 'People were kinda iffy on demos, but getting a whole game, then two more if you register was a great incentive" (2014, 58-9). Pinchbeck cites Ford (2000) as agreeing with Hall. "Ford made a similar argument, noting that what really made the Apogee model work is that the free games were 'complete and playable' as opposed to 'some programmers' attempts to cripple their software to force payment, leaving users frustrated and angry."

Miller's shareware approach was a success. According to Kushner (2004), Miller self-published the game as shareware, "making the initial levels available through BBs [dial-up Bulletin Board Systems] and shareware catalogs. There was no advertising, no marketing, and virtually no overhead--except for the costs of floppy discs and Ziploc bags." By the time Miller contacts John Carmack and John Romero in 1990, he has earned $150,000 via word-of-mouth shareware (Kushner 2004, 61). Miller explained the limitations that shareware was to place upon the game: "An ideal shareware game had to have a few ingredients: short action titles that were broken up into levels. Because the shareware games were being distributed over BBs, they had to be small enough for people to download them over modems. Large, graphically intense games, like those

being published by Sierra On-line, were simply too big for BBS-based distribution. Games had to be small but fun and fast, something adrenal and arcade-style enough to hook a player into buying more" (Kushner 2004, 62). Pinchbeck also cites the technical requirements of shareware as directly influencing the game's design: "It relied heavily on online distribution, which, given the constraints previously noted, meant that games had to be screwed down incredibly tight in terms of overall size." Pinchbeck explains that "This also pushed them toward episodic structures, with the action broken into self-contained but linked units that offered an initially free but complete package while leading to future purchases." Pinchbeck cites Kushner (2004), also noting that shareware games "were distributed via modem, which meant they had to be relatively small in size; they also needed to be split into discrete episodes of action, to allow player to sample free versions before committing to buy. In other words," Pinchbeck clarifies, "shareware more or less inevitably pushed any developer interested in the model toward not only arcade-style gaming but also some kind of rolling story or Intellectual Property (IP) that would naturally extend beyond the free segment into the monetized one(s)" (2014, 58).

The team produced *Commander Keen*, a Mario-inspired PC side scroller, thanks to Softdisk's "borrowed" computers. Miller uploaded the first level, "Marooned on Mars," on December 14, 1990. Players then had the option to order the next two levels for $30, which Miller would then ship to the player. By Christmas of 1990, the shareware earnings of *Commander Keen* were approaching $30,000 (Kushner 2004).

Shareware, WAD Mods, and the Digital Carnivalesque

At the technocultural and critical center of *DOOM*'s design is its open-source base code, which has gone on to generate a massive culture and community of programmers and gamers who utilize Carmack's open base code to modify and redistribute the game in new and innovative ways. Although the numbers are impossible to verify, a claim of ten million installations has been recorded, and VGChartz estimates 2.85 million units for the PC version. According to *PC Data* (1998), which tracked sales of *DOOM* in the United States, *DOOM*'s shareware edition yielded 1.36 million units sold and $8.74 million in revenue in the United States.

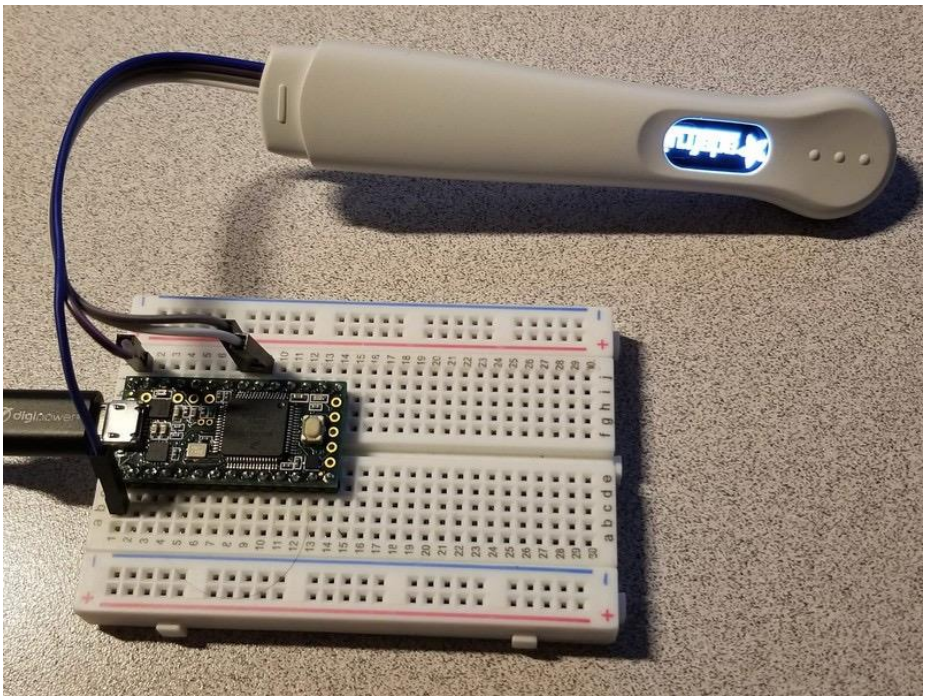
These Mod Communities constitute *DOOM*'s specific function as a recursive public (Kelty 2008). Not only was the game released through the Apogee-shareware model, but Carmack also equipped his id Tech 1 engine with the "Where's All the Data" (WAD) programming instruction system, and it is the WAD system that affords *DOOM* its important status as an innovative digital authoring and distribution tool. *DOOM* has been modded to run on everything from potatoes (fig. 3.3) to a pregnancy test (fig. 3.4), thanks to the design of the engine.

Carmack's engine, the id Tech 1 was a programming feat upon its release. "The DOOM engine, id Tech 1, was responsible for pushing texture and lighting further than any previous PC engine and at a speed that was unheard of outside of consoles" (Pinchbeck 2013, 34). The accelerated speed was due to the use of binary space partition

(BSP), thus introducing this process to gaming for the first time. In computer science, BSP is a method for recursively subdividing a space into two convex sets by



(fig. 3.3)



(fig. 3.4)

using hyperplanes as partitions. This process of subdividing gives rise to a representation of objects within the space in the form of a tree data structure known as a BSP tree (Dijkstra 1960). Pinchbeck (2013) argues that the introduction of BSP alone is enough to secure *DOOM*'s place in the annals of gaming history, but I argue that it was not just the introduction of this bleeding edge technology to the public that is of great importance, but, perhaps more importantly, that Carmack invited gamers and the general programmer to experience, author, manipulate, and freely distribute the game itself in a materially discursive and recursive act of autopoiesis. The Author was inviting the Readers to change and reform the Primary Text, a certain kind of blasphemy in certain literary circles.

Pinchbeck (2013) offers a detailed analysis of Carmack's engine and how it corresponds to the level design of *DOOM*, and how this design lends itself to modifications:

> Together, vertexes, linedefs, sidedefs, sectors, and their associated variables broadly defined the level, but the situation becomes more complicated when it comes to the actual business of representing everything in real time, and this is where the real genius of John Carmack's engine comes through. A game's fps (frames per second) rate refers to the number of times everything visible on the screen is redrawn. A faster fps rate . . . means faster, more responsive action, less jerky animation, and a smoother, quicker experience. . . . Any game's engine has to work out what is being presented to the player *x* number of times per second, factoring in any changes in location or representation of its elements. (2013, 41)

Pinchbeck goes on to explain that this data is running "on top of all the background unrepresented data," including integers and algorithms. "A WAD file. . . is . . . a set of instructions that tell the game how to display the level-- literally, 'draw a point here, and here; join them together and attach texture *a* to a height of *b* pixels; then join all of these

together and cover the floor in this sector with texture *c*, the ceiling with texture *d*, and apply lighting *e*,' and so on" (Pinchbeck 2013, 41). Gamers would not have to search for this data and, save a few technical skills and the possession of a PC, almost anyone could do it. An important emphasis on access and participation is expressed in the work of Kelty, and in that of Bakhtin.

Bakhtin argues that the carnival does not draw a distinction between actors and spectators, and I will extend this to the philosophy of the WAD files and the open-source code of *DOOM*. "In fact, the carnival does not know footlights, in the sense that it does not acknowledge any distinction between actors and spectators." He goes on to say that the "Carnival is not a spectacle seen by the people; they live it, and everyone participates because its very idea embraces all the people" (1984, 7). The decision to leave the technology of the id Tech 1 engine open carries with it both this carnivalesque quality, as well as the necessary participation that constitutes a recursive public.

DOOM's Mod Community and the Recursive Public

What really pushes *DOOM* into the status as a prime example of the digital carnivalesque is the subsequent Modification Communities that arose from Carmack's decision to not only leave the source code open, but actively invited players to modify and redistribute the game, a practice of Open source and free software and shareware that scholar Chris R. Kelty (2008) identifies as a recursive public. Kelty argues that the early internet of the '90's is typified and distinct for its user-produced community operating as, what he terms, a *recursive public*, and he further asserts that modifiability is the "most fascinating, and unnerving aspect of the reorientation of power and knowledge" that

Kelty associates with the recursive public. Kelty identifies the practice of Free Software as a response to the reorientation of power and knowledge that has occurred over the last thirty years due to the networked internet. "Nearly all kinds of media are easier to produce, publish, circulate, modify, mash-up, remix, and reuse," Kelty explains. "The number of such creations, circulations, and borrowings has exploded, and the tools of knowledge creation and circulation--software and networks--have also become more and more pervasively available" (2008, 6).

Kelty goes on to explain that there has also risen a corresponding anxiety regarding "validity, quality, ownership, and control, moral panics galore, and new concerns about the shape and legitimacy of global 'intellectual property' systems" (2008, 6). Kelty identifies free software as exemplifying an incomplete and emergent reorientation of knowledge and power "whose implications reach directly into the heart of the legitimacy, certainty, reliability and especially the finality and temporality of the knowledge and infrastructure we collectively create" (6-7). Kelty specifies his approach by clarifying that "It is a reorientation at once more specific and more general than the grand diagnostic claims of an 'information' or 'network' society, or the rise of knowledge work or knowledge-based economies; it is more specific because it concerns precise and detailed technical and legal practices, more general because it is a *cultural* reorientation, not only an economic and legal one" (2008, 7).

Because of *DOOM*'s specific Apogee Shareware distribution model, and its intentionally open-source code inviting gamers and hackers to modify and redistribute the game at their legal leisure, it becomes clear that *DOOM* serves as an important,

observable example of Kelty's concept. Kelty adds further emphasis to Free Software's status as a recursive public:

> By calling Free Software a recursive public, I am doing two things: first, I am drawing attention to the democratic and political significance of Free Software and the Internet; and second, I am suggesting that our current understanding (both academic and colloquial) of what counts as a self-governing public, or even as 'the public,' is radically inadequate to understanding the contemporary reorientation of knowledge and power. (2008, 7)

Kelty goes on to indicate the important role of the *process and practice* of creating Free Software that retains and reproduces the community public. "Software and networks can express ideas in the conventional written sense as well as create (express) infrastructures that allow ideas to circulate in novel and unexpected ways" (Kelty 2008, 8). Kelty says that "Recursive publics respond to governance by directly engaging in, maintaining, and often modifying the infrastructure they seek, as a public, to inhabit and extend" (9-10).

Pinchbeck asserts that *DOOM* took full advantage of the "embryonic Internet as a distribution channel, co-opting the emerging online communities, [and this] speaks volumes about just how cleverly they understood the context into which their game was going to launch. Netscape was founded in October 1994, the Mosaic web browser (National Center for Supercomputing Applications) in January 1993." Pinchbeck explains that networked games were not necessarily new, existing in the form of primitive LAN set-ups of the 1970s, and the MUSE's MUDI via CompuServe and CompuNet in the US and UK in 1985. What was new, however, was the "idea of using modem-to-modem networks to support multiplay . . .[it] was a hugely ambitious goal" (Pinchbeck 2013, 4). "In fact," says Pinchbeck, "at the time of *DOOM*, the OSS movement was operating under a different name: free software" (2013, 119). Pinchbeck explains that the core

representative of the movement was the Free software foundation, formed in 1985. "According to the foundations' terms, 'free' meant not that you didn't have to pay for it but that it should be freely available." There were misinterpretations of the term, and, in 1998, Bruce Perens, co-founder of the Open Source Initiative, established a set of principles still in use (as of the time of Pinchbeck's publication): "everyone gets access; everyone can distribute; everyone can adapt and use. You can work from someone else's software to make profit, but you can't use it directly to make profit. The result would be better software and community involvement in improving technology. Everybody would benefit in this brave new world" (Pinchbeck 2013, 119).

Although id did not release *DOOM* as no-cost software (freeware), they did consider the subversive attitude they were taking toward the large corporate business structures and infrastructures operating at the time. "Enabling users to get access to the build tools so they could further extend the experience. Enabling users to get access to the build tools so they could further extend their experience beyond the charged levels was equally the kind of approach that a large corporation was likely to see as risky (why let the market have the capacity to build for itself the thing you are trying to sell?), but id grasped, metaphorically, that do-it-yourself stores hadn't put craftsman out of business" (Pinchbeck 2013, 210). Carmack himself reflects upon his own experience as a young gamer trying to crack the code, as gamers did with the release of *Wolfenstein 3D*: "I still today have clear memories of some of my favorite computer game times, like on the Apple II with *Wizardry* and *Ultima*. And I would spend time with the sector editor trying to find where the stats are, making maps of everything. And I remember really clearly

wishing that I could read the source code for these things." Carmack then explains how he knew that, when given the chance and the position of power, that he would extend and offer his source code to gamers, as he would have appreciated in his youth. "And that had stuck with me through the years. And when we were in a position as a successful independent developer, and we could go and do whatever the hell we wanted in many ways, . . . going ahead and releasing the file formats and then the source code--those are things I am still quite proud of" (Pinchbeck 2013, 120). Romero also expresses his view on the move to open-source code with *DOOM:*

> People wanted to make levels with Wolfenstein 3D so badly they figured out how to do it, and that was really, really difficult. It was really hardcore hacking, and when we saw people did that, we thought, wow, people really want our data, we've got to open this up completely. . . . So with DOOM we didn't try to protect any of the data. We left it wide open. With Wolfenstein 3D, we tightly compressed everything and made it really hard to get at. But with DOOM, we left it open, and that just created an entire modding scene. (Pinchbeck 2013, 120-1)

It should be noted that *Wolfenstein 3D* is directly based upon Muse Software and Silus Warner's 1981 action-adventure game, *Castle Wolfenstein*, which id used, free of copywrite concerns due to a lack of licensing in the moment of the game's development. This use of the previous game, and their reciprocation of tools back to the community that is simultaneously be constituted via id's work, situates the id team as taking part in the constitution of its specific recursive public. The importance of the mod community, Romero and Carmack included, constituting, and reconstituting itself through the medium of its shared interest cannot be overstated as it relates to Kelty's notion of the recursive public. After Pinchbeck quotes Romero, he then goes on to so say something interesting: "In other words," Pinchbeck says, summarizing Romero's quote regarding the birth of

DOOM's mod community, "modding was going to happen anyway, so at issue was how best to harness it. You didn't have to give everyone your source code, . . . but there was no harm in letting a community of fans become raging advocates by enabling them to create and share their own content around the networks" (2013, 121). Pinchbeck goes on to praise this as good business strategy as it tended to increase sales for the full game, as well, and says that "In essence, you took an army of fans" and turn several of them "into salespeople." On this point I will respectfully disagree with Pinchbeck regarding this reductive view on the function of the modding community's role. I argue that they collectively yield a carnivalesque power of ambivalent creation and destruction, afforded by the medium-specificities of Carmack's open-source WAD files.

Pinchbeck clarifies DOOM's modification process: "Packaged up in DOOM was the source code, which actually defines how the game works, and then you had WAD files which defined each individual level." The WAD file itself serves as the point of entry and authorship for the modder. "It was these [WAD] files that players could get at and into via tools such as the DOOMEd level editor, reappropriating game assets (textures, sprites, artificial intelligence, core physics ,and so on) to create their own levels.

Pinchbeck (2014) explains that "it's next to impossible to accurately chart either the rate with which new mods hit the scene following release or the total number of mods out there in the world." He goes on to say that although much of the incomplete and half-baked mods cannot be accounted for, he does maintain that "literally thousands of

substantive, community-generated full conversions and probably tens of thousands of publicly accessible levels [exist]" (2013, 123).

Andi Hamilton (2018) says, " Yet id Software's DOOM has always had such a brilliant creative scene around it. Since the very beginning, people have been working out ways to mod the game and create their own unique experiences. Classic mods such as Aliens or Batman are remembered almost as fondly as the base game itself by those who were around during the mod scene's infancy. Some of the more ambitious mods even ended up becoming full retail releases, like Final DOOM or The Master Levels. In fact, one of the creators of Final DOOM went on to work for Valve, engaged on no less a game than Half-Life, while a member of the team that worked on The Master Levels is now creative director of id Software itself—Tim Willits."

Hamilton goes on to say, "There's a simplicity at the core of DOOM that has ensured that it is as much fun to play today as it was on its release over 20 years ago. Like Mario Bros, or Tetris, there's a solid set of rules that have given DOOM a timeless feeling to how it plays. That now standardized set of weapons, varied enemies that create interesting scenarios simply by being mixed together and some of the tightest level design imaginable, combine to create a classic. DOOM is as much fun now as it was back in 1993. And of course, if you don't happen to agree with that, you can always mod it. DOOM has had everything bolted onto it over the years, from simple stuff like new enemy models to some of the more recent weirdness, like the InstaDOOM Selfie Stick mod, which allows you to have DOOMguy take posed pictures of himself as you blast his way through Hell."

Modding has also become more accessible through use over time. Programs like DOOMbuilder enables you "to create levels with practically a drag and drop interface, freeing you to focus on the creative side of things. By removing that required programming knowledge—the only knowledge someone needs is DOOM itself—you allow for someone to really go wild with their own imagination. Cyriak Harris, animator and the brains behind one of the more interesting wads out there—Going Down—by his own admission doesn't have the technical knowhow to make his own games, but has still created an exceptional set of levels" (Hamilton 2018). "I've never used Unity or Game Maker, I wouldn't know where to start," Cyriak says:

> Making your own map in DOOM is as easy as drawing a shape and moving the ceiling and floor up and down, pretty much anyone can do that. You don't need any programming skills, and the maps are simple enough that you can make one in a few days. Beyond that there are tools available to do more ambitious stuff. You can add your own graphics, make your own monsters and weapons, modify it to the point where it is a completely different game if you like. But I think the main advantage is that it's quick and easy for complete noobs like me to get started. I've never been involved in game development, I always wanted to make games, but this is probably as close as I'm going to get! (Hamilton 2018)

Subsequently, many *DOOM* modders made use of this work as their resume and entered the game industry only to become some of its top leaders, thus shaping the industry itself in dynamic directions. Carmack recalls that modding *DOOM* "became the standard industry resume, which was a wonderful thing." Demonstrating skill via mods also subverted traditional channels of access into the industry. "And of course," says Carmack (Pinchbeck 2013, 125), "you got lots of people now in the industry who were able to break in that way. And that was a purely good thing--the degree you had didn't matter." This is the very reorganization of power and knowledge Kelty discusses.

Conclusion: Nintendo Strikes Back, but DOOM is Eternal

Pinchbeck cites the evolution of id's technology as being a flaw in the modding culture. "The genius about the original engine was how easy it was to use. Practically anyone with a computer could be up and modding in a relatively short span of time. . . . Attempting the same with id Tech 4 is a quite different matter," stating that the torch of mod culture has been passed on to the Source and Unreal engines. In the present moment of 2021, *DOOM*'s latest installment, *DOOM: Eternal* (of which I am halfway through the first DLC after 100 hours of gameplay to complete the main story), is running the id Tech 7, a complex engine written in C++. id's previous engine, the id Tech 6, was created to run *DOOM* 2016. In the spirit of the id Tech 1, *DOOM* 2016 featured the SnapMap technology, which allowed players to construct new levels from the pieces of the existing 13 levels of the main game, "snap" them together, and then circulate these new Frankenstein-levels via a server and play PvP matches in these player-authored levels. Interesting to note is that the Nintendo Switch port of *DOOM* 2016, ported by Panic Button, removes the SnapMap feature due to hardware limitations. However, Bethesda, the company that acquired id's parent company, ZeniMax,, before it was absorbed by Microsoft, recently, as of August 2021, built a dedicated server to play PvP *Quake* across any platform, including the coveted Nintendo Switch.

Nintendo now has all *DOOM* titles available on its platform, as well as games that allow player mods that can be then distributed on a Nintendo-secured server. Such games include *Mario Maker 2*, which allows players to craft and share levels from all the

components of 2-D Mario games; *Animal Crossing: New Horizons*, in which players craft islands and a large part of the playable environment of the game, in order to visit other users via monitored, networked play. Although the style of this gameplay mimics a recursive public, it is just an illusion generated by Nintendo's acute ability to create embodied play experiences extended to mod culture-inspired game logics.

In January of 2021, Nintendo of America issued the takedown of a total of 379 fan-made games that were being hosted by gaming website and hosting service Game Jolt. Game Jolt co-founder and CEO Yaprak DeCarmine publicly shared Nintendo's letter: "Certain material posted on the web site located at gamejolt.com infringes trademarks owned by Nintendo. Nintendo requests that you disable public access to certain pages of the web site located at gamejolt.com based on the following information." Nintendo's legal team also filed a copyright claim against modder Kaze Emanuar's "fan-made *Legend of Zeld*a game which has forced the project to be entirely delisted" (Cradock 2021).

Nintendo sought this legal action in accordance with the federally initiated Digital Millennium Copyright Act (DMCA) in 1998. The federal government's website, Copyright.gov, defines the function of the DMCA as follows:

In 1998, Congress passed the Digital Millennium Copyright Act (DMCA), which amended U.S. copyright law to address important parts of the relationship between copyright and the internet. The three main updates were: (1) establishing protections for online service providers in certain situations if their users engage in copyright infringement, including by creating the notice-and-takedown system, which allows

copyright owners to inform online service providers about infringing material so it can be taken down; (2) encouraging copyright owners to give greater access to their works in digital formats by providing them with legal protections against unauthorized access to their works (for example, hacking passwords or circumventing encryption); and (3) making it unlawful to provide false copyright management information (for example, names of authors and copyright owners, titles of works) or to remove or alter that type of information in certain circumstances.

The language here runs counter to the utopian language of the freeware and shareware pioneers of the 1980's and 90's, as well as the early innovators of the internet in the early 90's and networked-computer gamers from the 70's LAN parties and beyond. This limiting approach to software, IP, and access, threatens to deprive gamers, and the public in general, of the important tools of innovation that programmers like John Carmack and John Romero intentionally wrote into their game design. The language of the DMCA is also an example of what Coleman (2013) describes as "tensions between two of the most cherished liberal precepts as the logics of neoliberalism," free speech and intellectual property. Aubrey Anable (2021) identifies a similar tension that exists because of the abundance of information at our fingertips. "Our desires for this information seem to swing wildly between two extremes: wanting both radical openness *and* complete security and verifiability online, transparency, *and* opacity."

I argue that it is the transformative nature of the digital carnivalesque emerging from the dialogic of the paradoxical and competing extremes that both Anable's and Coleman's work suggests. *DOOM*, a game about fighting demons on Mars and in Hell,

exists as an industrial temporal artifact that was produced by and through the negotiation of this tension. This presence of serious, corporate control looms over technological access, threatening innovation, and creativity. Bakhtin (1984) says that "The basic traits of official medieval culture reached their extreme limit in the images of the underworld and ultimate concentration of gloom fear and intimidation. . . . Folk culture strove to defeat through laughter this extreme projection of gloomy seriousness and to transform it into a gay carnival monster." *DOOM* is a game where goofy, scary, bloody demons are bloodily disaggregated at the hands of a community of broad and various players. *DOOM* transforms the gloomy, seriousness of neoliberalism and hyperindustrial late-capitalism through a process and performance of the digital carnivalesque. The important question is, Who next will hack Nintendo, simultaneously pushing our collective culture toward both innovation and possible, ambivalent destruction?

Chapter Four

The Technological Carnivalesque in Niantic's *Pokémon GO*

Introduction

This chapter discusses and analyzes the carnivalesque qualities of Niantic's Augmented Reality (AR) smartphone game, *Pokémon GO*. The game stands as a prime example of the direct material impact and carnivalesque transformations brought about by media interface interaction. The chapter argues that the games like *Pokémon GO* clearly demonstrate the material impact of the mobile smartphone, and also how its use and distribution has been greatly accelerated by the implementation of mass mobile data off-loading in 2015. *Pokémon GO*'s gameplay operates within a carnivalesque space formed by the ambivalent merging of high computational technology and the global masses.

Pokémon GO was released in the summer of 2016 to immediate commercial success, pop culture infamy, and critical scorn. Released in June of 2016, *GO* has emerged as an ambivalent and powerful cultural force and media artifact. The AR gameplay was made possible by specific advancements in the data traffic management of mobile network technology, allowing more users than ever before smartphone access. The game's powerful ambivalence is caused by several factors: first, the game's global commercial success becomes ethically questionable given Niantic's history regarding data management, surveillance, and labor ethics. Second, the game has garnered much

attention in the global news headlines due to its reported social disruption, bodily injury, and property damage. Thirdly and materially crucial, *mobile data offloading* made 2015–2016 a milestone year for the expansion of mass smartphone use. *GO*'s massively networked game design became especially effective through the offloading of cellular data; that is, the use of complementary network technologies to deliver data that was originally reserved for cellular networks, most commonly as public and private Wi-Fi hotspots. Offload traffic exceeded cellular traffic for the first time in 2015, and the total number of Wi-Fi hotspots (including home-spots) grew seven-fold between 2015 and 2020, expanding from 64.2 million to 432.5 million. Mobile user numbers also increased drastically from 2010-2015, along with their data usage: the top one percent of mobile users generated fifty-two percent of the mobile data traffic per month in 2010, but by the end of 2015 that number had dropped to only seven percent (Sumits 2016).

This chapter defines this technocultural convergence as a tension that can be understood through the *technological carnivalesque*, that is, the convergence of the so-called low culture of the masses suddenly converged with that of the high technocultural and computational elite of Silicon Valley through the widespread use of sophisticated mobile smartphone technology. Mass culture and folk culture, once granted access to bleeding-edge technologies, are both ambivalently transformed by and ambivalently transform the cultural practices and material conditions surrounding and producing these technologies. *Pokémon GO* represents a grotesque and carnivalesque convergence of high and low culture, emerging through embodied gameplay in its own specific age of technological

revolution in 2016, and made possible by advancements in and the mass implementation of mobile network technology (Palmer 2023).

Pokémon GO received mixed reviews upon its July 2016 release. Many videogame critics panned the game's thin narrative content, underdeveloped combat system, and seemingly hasty adaptation of one of the biggest video game franchises in history. However, critics also praised the game for its innovative use of AR technology (Tassi 2016b). *GO* garnered 45 million daily users within weeks, prompting major news outlets to declare 2016 "'The Summer of *Pokémon GO'*—in the same manner that 1967 is recognized as 'The Summer of Love"' (Em 2016). Reporting for *Huffpost.com*, Em romantically describes the public spectacle and community networking that the gameplay curates as almost utopic, crossing lines of age, class, race, and gender in digitally mediated moment of positive collective embodiment in Huzinga's Magic Circle:

> Walking through my own community, I spy kindergarteners being tutored in the art of *Pokémon GO* by their dads, social networks of moms going on daily walks catching Pokémon, and kids on bicycles from ages 8 to 18 scouring the area for a Pikachu. I see 40- and 50-something businessmen on lunch breaks trying to get the elusive Onix into a Pokéball, and retirees—both grandmas and grandpas—crying out in Cantonese, Hindi, Russian, Farsi and other languages as a Squirtle spawns before them! (Em 2016)

Contrasting these positive accounts of utopic gameplay, *GO* was also met with wide-ranging criticism for its alleged health and safety threats, along with concerns about public surveillance and security. Numerous player injuries were reported, including instances of players walking off piers, bumping into parked cars, and crashing their own cars due to playing-while-driving. Criminals also reportedly lured players to isolated locations to assault and rob them (Lee 2021). The website *Pokémon GO Death Tracker*

attributes twenty-two deaths and sixty-one injuries to the game, as of May 26th, 2020. In conjunction with the game's mass smartphone-based distribution, these risks mark *GO* as a powerful, transformative, and ambivalent technology. Nguyen (2020) argues that any multiplayer game, like *GO* and otherwise, function as a "social technology" that "reconfigures their player's social relationships temporarily for the sake of some overall effect" (180).

The smartphone's mobile technology[2] affords Niantic's iteration of the Pokémon series a specific style of embodied gameplay not available to previous games on other

[2] 1983's Motorola DynaTAC 8000x was the first true mobile cellphone to appear on the market. Comparatively massive and expensive by 2023's standard, the mobile cellphone soon became a pop culture staple, and as time went on and companies began to integrate more technology into the phone, the device's sole use as a verbal communication tool rapidly shifted into a multimedia tool, necessitating the shift from mobile "phone" to "device." According to Kreg Jones (Ray 2015), early mobile phones like the DynaTAC "were primarily used in the sales and business world, but not often for personal use like you see today." Patricia Grullon (Ray 2015) explains that the success of the smartphone market can be contributed to "rapidly expanding software titles, better screen resolution, and constantly improved interface make cell phones easier to navigate, and more fun to use. Add to that an expanding capacity that can hold as much memory as a computer would just a few years ago, and you can see why it's an exploding market." Tech journalist Jamie Lendino (Ray 2015) explains that smartphones have now replaced dedicated cameras for all manner of photography: "Now, we're seeing a very fast shift to where consumers don't even bother carrying their point-and-shoot cameras anymore, and just use their cell phones." Smartphones have seen their most rapid development and implementation after the introduction of Apple's iPhone on June 29th, 2007.

platforms. The game's production brings up ethical questions of labor and data collection, and in the terms of medium specific technogenesis, the game functions to highlight the ways that the ever-increasing implementation of mobile phone technology transforms the boundaries of embodiment and subjectivity in potentially monstrous and unforeseen capacities. The material and digital frameworks upon which *Pokémon GO* is globally projected and played invite new questions regarding the ways that smartphone technology is transforming our digital media practices. The game's mobile platform encourages new ways of thinking about the Pokémon narrative's engagement with its own capitalist labor ethics—as well as the ways these ethics become inextricably bound with the embodied actions of the game's millions of players. Because the gameplay invites and encourages players to volunteer labor, each player acts as a raw data collector for the game's developers. Furthermore, much of the game requires players to visit local shopping centers and other spaces of public commerce, placing a new and critically important emphasis on the embodied and collective player interaction within both the physical and digital marketplace, a hybrid space made newly accessible by mobile AR technology, that is quickly being co-opted by surveillance capitalist practices as they innovate ways to make sales and procure customer via the smartphone, which provides an unprecedented scope of consumer data for corporate manipulation (Zuboff 2019).

GO's allows its player's to exist in its digitally augmented world and marketplace through its unique to its smartphone gameplay experience, affording the game medium-specific and transformative capabilities consistent with both Bakhtin's notions of embodiment, the carnivalesque, and the grotesque, as well as with the earlier discussion

of Shelley Jackson's medium specific affordances of *Patchwork Girl* in Chapter 2. Bakhtin defines the grotesque and carnivalesque as a convergence of folk culture and high culture that he examines, at length, in the work of the French Renaissance writer François Rabelais. Lachman (1989) explains how Bakhtin focuses on laughter, as celebrated by Renaissance folk culture in the carnival, as a spectacular feast of inversion and a parody of high culture:

> In the carnivalesque game of inverting official values he sees the anticipation of another, utopian world in which anti-hierarchism, relativity of values, questioning of authority, openness, joyous anarchy, the ridiculing of all dogmas hold sway, a world in which syncretism a myriad of differing perspectives are permitted. (118)

Lachman argues that Bakhtin sees his own era of postrevolutionary, avant-garde Russia as sharing the same spirit of revolution as Rabelais' medieval France. According to Lachman, the transgression of boundaries and norms is central to Bakhtin's theory, which Lachman describes as a centripetal force that unifies and sterilizes language being countered by a centrifugal force promotes ambivalence and allows openness and transgression (1989, 118). Jackson's hypertext appeared at a similarly revolutionary point in media history (1995), when the home PC had brought computing systems—previously only found in research labs, military bases, or universities—to the mass market and private user. As argued in Chapter 2, Jackson's hypertext uses the PC's specific interface to expose the material labor history of her text's literary antecedent, Mary Shelley's *Frankenstein* (1818), through the medium-specific affordances of the PC, allowing readers to rewrite the text through the hypertext software Storyspace. *PWG* informs my similar reading of *GO*'s own material development and medium-specific affordances.

Bakhtin's and Jackson's approaches build frameworks which can characterize *GO* as a technologically mediated convergence of high and low culture emerging from an age of revolution. Jackson's work helps me articulate the smartphone's medium-specific affordances in relation to the carnivalesque and the grotesque, in that Jackson's use of the PC and Storyspace software allows readers (otherwise confined to lower, passive roles as consumers) to become writers, editors, publishers, and distributers. Landow (2006) praises Jackson's medium-specific use of hypertext technology, describing it as a "brilliant hypertext parable of writing and identity, [that] generates both its themes and techniques from the kinds of collage writing intrinsic to hypertext" (234). Like Bakhtin's re-reading of embodied and collective laughter in Rabelais, and Jackson's re-presentation of the body of sources in *Frankenstein*, *Pokémon GO* importantly re-positions the material body of the player back into a discourse of digital media that had long theorized away embodiment. Specifically, longstanding hylomorphic theories of information and matter, as well as the poststructuralist theories of Deleuze, Foucault, Derrida, Barthes, and Baudrillard, further theorized the body and embodiment away from critical conversations of the technologically mediated body. But where Bakhtin and Rabelais converge vernacular speech, laughter, and embodiment back into what they see as their own sterilized and officially enforced cultures, Jackson's hypertext and *GO* converge mass users with previously inaccessible, high-end computational media technology.

The Summer of *Pokémon GO*

When *GO* first launched, Niantic was praised for its mission to encourage cardiovascular health while also offering a health-centric focus to mobile videogames. "It's really taken off. It's come out of nowhere," reported CNET senior editor Dan Ackerman in July of 2016. "So, it's kind of giving you the ability to not just sit there on your couch and play a game, but actually get up and GO places" (Dahler 2016). Although more serious fans of the franchise vocally complained about the game's thin content upon release, many still acknowledged the games important breakthrough in the use of AR technology (fig. 4.1). Paul Tassi (2016b), in his article "'Pokémon GO' Is A Terrible Pokémon Game, But an Augmented Reality Home Run," expresses both disdain and delight: "Am I having fun? Yes. Is this a very good Pokémon game? Absolutely

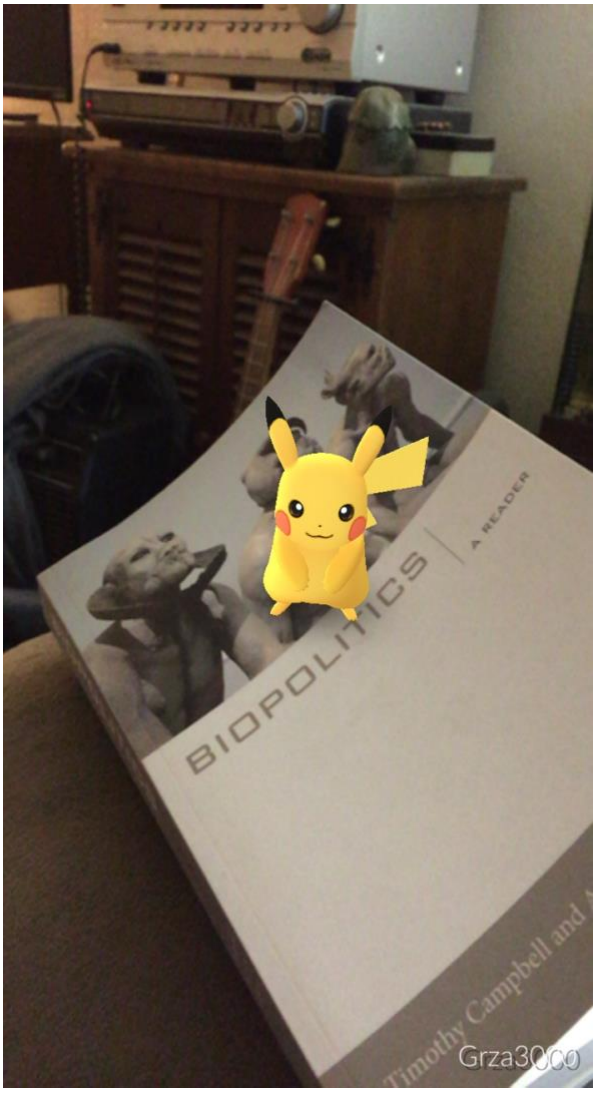


(fig. 4.1)

not." After heavily disparaging the gameplay for stripping away much of what made the earlier Gameboy titles such a hit, especially the combat system, Tassi ultimately concludes, "And yet, the game is crazily addicting, a lot of fun and possibly the most significant advancement in the battle against obesity in recent memory. I'm not kidding. I doubled my average step count yesterday because I was wandering around my city. . . hunting Pokémon."

GO's gameplay is easy to learn and integrate into everyday tasks like shopping or taking a walk, and uses the existing technology of the smartphone's GPS, camera, and clock to populate the world surrounding the player with actionable Pokémon. After establishing a free account through an existing Gmail or Facebook account, players can immediately begin their search for Pikachu and friends, accepting the franchise's challenge to "Catch 'Em All!" The player catches pokémon by viewing the surrounding area through the smartphone's camera lens, revealing, cute, digital pocket-monsters (i.e., "Pokémon") populating the AR world around the player (fig. 4.2). A swipe of the finger on the screen sends a "pokéball," a spherical device used to capture the monster, flying at the Pokémon and, usually after several attempts by the Pokémon to resist capture, due to push-back from the Pokémon itself at being caught, the creature is captured, collected, and indexed into the player's "Pokédex." Players, known as "Pokémon trainers" or simply "trainers," strive to develop the skills of their Pokémon by walking and initiating combat in special locations called "gyms." The player's approximate steps are measured by GPS, which "levels up" each Pokémon and teaches it new abilities, with the entire Earth serving as the gameboard.

Pokémon can compete in gym combat against other Pokémon, or simply follow the trainer around and help obtain items, visit unique user-generated locations identified by GPS as "Pokésites," and complete other movement-based tasks assigned to the trainer by the game's main Non-Player Character (NPC), Professor Willow (fig. 4.3).



(fig. 4.2)



(fig. 4.3)

The game's ability to integrate itself within the player's everyday tasks and quotidian activities is both ubiquitous and ambivalent in terms of the ethics of surveillance and location data sharing, especially as the game generated record revenue for a mobile app.

As 2016 ended, Niantic reports that *Pokémon GO* had 232 million users, generating more than $1 billion in revenue—the fastest any app had ever earned that much money. Contributing greatly to the success of *GO*'s launch was the immense popularity of the existing Pokémon franchise. Nintendo and Game Freak's monster-catching role-playing game, released exclusively for the handheld Nintendo Gameboy in 1994, is one of the most successful and loved videogame franchises in history. Niantic also built *GO* upon the foundation established by Google Maps, as well as Niantic's earlier location-based mobile game, *Ingress.* Niantic used free, crowdsourced data from *Ingress*, including location photos and GPS coordinates, to build the map and place interactive locations within *GO*. Although largely crowd-sourced and built upon existing infrastructures, *GO* earned Nintendo an estimated $3.9 to $4.9 million in a single day of revenue (Dahler 2016). Tassi (2016b) explains the important role that Pokémon as an IP adds to Niantic's AR property:

> I know that *Pokémon GO* is not the first AR game on the market. The entire game is essentially a skin of Niantic's last AR game, *Ingress*, which also motivated people to move in real life to complete objectives. And yet, it's impossible to deny marrying the world of Pokémon to this concept is anything but a genius idea, and something that takes it to a new level. (Tassi 2016b)

Initially, *GO* was an April Fool's Day prank called *Google Maps: Pokémon Challenge*, conceived by Satoru Iwata and Tsunekazu Ishihara, in a collaboration between the Pokémon Company and Google. The full game was designed by John Hanke, co-founder of Keyhole, a CIA-funded geospatial data visualization firm founded in 2001. After Google acquired Keyhole in 2004, Hanke became the Vice President of Product Management for the Geo division (Bailey 2012). Hanke went on to develop

Google Earth, *Maps*, and *Street View* for Google before Niantic split from Google in 2015. As Niantic's CEO, Hanke used crowdsourced *Ingress* data, including location photos and GPS coordinates, to determine the initial locations for PokéStops and gyms within *GO*. *Google Maps* initially provided the maps, though in December 2017 *GO* switched to using crowdsourced data from a user-generated mapping app, *OpenStreetMap*.

Privacy, Affective Labor, and the Qualified Self

GO's commercial use of crowdsourced data is especially questionable when considering Hanke's past issues with digital surveillance breaches. While acting as the head of Google's Geo division, Biddle (2016) reports that Hanke "drove one of the greatest privacy debacles of the internet era." Hanke was accused of using the Google vehicles, "in the course of photographing neighborhoods for the Street View feature of the company's online maps," to secretly copy "digital traffic from home networks, scooping up passwords, email messages, medical records, financial information, and audio and video files." Lee Humphreys (2018) explains that the terms of service of many social media platforms opens large amounts of personal data for use, including "network information as well as metadata about our usage. Legally, users own their social media content but many others have access and can use it" (121). But Niantic is not merely collecting user data through *Pokémon GO*, but also taking part in a complex process of mediated identity formation.

Specifically, *GO* helps to establish a composite, media-generated identity that Humphreys (2018) calls the "qualified self." This self is constructed via a process of

media accounting, intertwining the use of social media and smartphone technology with mundane and quotidian practices, while actively documenting and sharing the content to social media accounts. In Humphreys' words, "[a] person engages in media accounting as a subject—that is, as a creator of traces—but also experiences oneself as an object through media accounting by seeing oneself in the traces created by oneself or others" (2018, 20). Humphreys thus stresses a need to "understand the everyday aspects of social media . . . because the ordinary can represent broader social values and systems that shape the human condition. . .. The term *account* suggests that a collection of media traces created through social media is tied to identity" (6,10). Operating somewhere between social media platform and handheld video game, *GO* exists as a complex assemblage of its prior material antecedents, affording its players a state of ambivalent hypervisibility.

The AR design of the gameplay strongly contributes to the hypervisibility of the players. Groups of players left their TV-bound consoles and living rooms, taking to the streets, the parks, the shopping centers, and the marketplaces in hopes of collectively catching rare digital monsters. Tassi (2016b) writes,

> I went outside for the sole purpose of exploring the area around me and playing the game. I discovered landmarks I either never knew existed, or had passed a million times and never actually noticed before. I was outdoors and moving instead of sitting on my couch, controller in hand. I talked to two other guys at a Lured PokéShop downtown who were also playing, and I honestly can't remember the last time I've spoken to a total stranger unprompted outside of people working in retail. No game has *ever* made me do anything like this. (Tassi 2016b)

By utilizing the smartphone's existing GPS, camera, and clock, the game recontextualizes mundane, everyday locations and transforms them into spaces of possibility, within

which a rare Pokémon might spawn at any moment. The digitally augmented gameplay reenergizes the actual space-time of the player, as well as habitual uses of the smartphone in quotidian, and often consumer-based activities. In this way, *GO*'s gameplay places important emphasis upon embodied, quotidian action, while also subtly functioning as a complex vehicle of autopoiesis.

For example, *GO*'s modified, yet limited, use of social media elements allows players to globally circulate gifts, stickers, trade Pokémon, and design custom avatars. No direct communication is allowed through the app, so all in-game communication must be gestural or in-person. Many players supplement this gap with social media and messaging apps, including Discord and Facebook Messenger. These activities position *GO* within a larger tradition of subject formation via embodied literary and media production. Humphreys (2018) explains that social media sharing and constituting oneself through mundane user-generated content is part of an important literary history of pocket diaries and journals, and not solely an artifact of [the] digital age:

> Much of what was new about social media was the ability to let ordinary citizens have a platform from which to speak to the wider world or the ability to share content among peer networks. [...] User-generated content only seems novel when contrasted with mid- to late-twentieth century understandings of media as broadcast mass media. (2018, 3)

Humphreys shows the game's use of AR technology combines Niantic and Nintendo's mass media infrastructure with user-generated content and GPS location data, thus recontextualizing physical locations and physical movement as a process that creates digitally augmented, hyperindustrial marketplaces. Humphreys also helps to define some

of the qualities of the contemporary technogenesis of the human, as it is being heavily shaped and influenced by mobile smartphone technology.

Like its predecessor *Ingress*, *GO*'s gameplay requires a great deal of physical movement. The game requires players to walk thousands of kilometers, a steep labor requirement that speaks to the complex relationship between user and device, as well as to the ethics of labor-as-play in popular video games. James Tobias (2010a) explains that "digital games exemplify ethical problems of affective labor precisely in terms of equipping a relation between action and transaction." This speaks to Nintendo's longtime interest in designing input hardware that affords signature input, even if this input is not digitally quantified. Tobias further argues that "the informal and unrecognized developmental character of affective labor suggests that historical sites of work, play, education, or socializing cannot be entirely integrated into a final synchronization of 'real-time' hyperindustrial production, as Stiegler believes" (2010, 208). In this way, Tobias offers an important critique of Bernard Stiegler's thesis that "[n]o cognition can be construed apart from, nor can it be removed from, the technical material ensemble that in some way allows it to become coherent" (2010, 219). As much as *GO* programs its players to visit commercial shopping establishments and make other tracked movements, the players also engage with the game in various ways that cannot be quantified or used as viable data.

Despite Niantic's data collection and surveillance tactics threatening autonomy and privacy, the medium-specific AR gameplay of *Pokémon GO* resists the programmatic overwriting of the human subject. *GO*'s face-to-face meet ups take on new implications,

displaying an “affective pragmatics of dispositions.” Tobias explains that the gameplay possible in digital games like *GO* “indicate[s] less any narrative of a Gramscian battle of positions and more an affective pragmatics of dispositions: pure hearts engaging and displacing info-corruption by diagramming gestural-technical paths through its operations" (2010, 199). The distinction between *GO*’s programmed (intended by Niantic), and affective (embodied community activities such as Community Day) gameplay operates in a similar way. The narrative motifs found in *Pokémon GO* existed in the early Gameboy versions, but it is the desire to leave the house, and to map and utilize the earth as a game-board, that requires a special dedication of affective labor. Tobias points out,

> What is historical, then, is not the exhibition of fictive agency but digital games’ exercise of affective labor. […] Digital games within transmedial contexts thus indicate a larger, diagrammatic mode of material production; they subject even hyperindustrial transaction economies to some kind of ethical limit determined as the expressive historical relation of action and transaction. (2010, 201)

GO does not merely mass-produce trips to local shopping centers and other consumer-related behavior among the players, but recasts spaces of capitalist commerce in new contexts, allowing players to experience public space (and their integral role in creating it) in novel capacities, thus exposing the fragile state of the capitalist logics that organize the “real” space. This digitally mediated gameplay demonstrates how mobile gaming serves to further expand the transformative implications and uncertain possibilities of space, subject, and object, as digitally moderated embodiment takes on new forms.

Compounding user-data concerns, *GO* also supports the controversial inclusion of corporately sponsored locations. Shoshana Zuboff, in *The Age of Surveillance*

Capitalism (2019), argues that *GO*'s targeted local advertising is Google's experiment to relocate targeted advertising from the digital domain of cost-per-click into the physical domain of cost-per-visit, using corporate sponsored locations. Zuboff's critique challenges the romantic scenes of collective gameplay that Niantic's mission statement suggests, exposing the game's potential capacity to accelerate society into a new and startling stage of digitally ubiquitous exploitation—but only through the increasingly programmed commodification of human movement via the smartphone. The medium-specific parameters set by the smartphone's input design also underscore the performance and action of the embodied labor that is required to not only play the game, but also to produce it. However, *Pokémon GO*'s emphatically embodied style of gameplay also serves to simultaneously obfuscate the material labor and human energy that went into producing *Ingress*, *Google Street Maps*, and the game's other open-sourced data.

The collective labor and action of *GO*'s individual players draws important attention to the larger collective body of the players as a group, now a grotesque composite body made newly possible by the game's interface and format. In *Rabelais and His World*, Bakhtin (1931) asserts that "[a] new type of communication always creates new forms of speech or a new meaning given to old forms." The design of *GO*'s gameplay requires players to give new meaning to "old" public places to collectively advance game progression, and to also perform tasks that are otherwise impossible alone, such as the seven-player task of catching a rare legendary Pokémon. The power of the body politic thereby becomes a central logic. Bakhtin explains that "[t]he material bodily principle in grotesque realism is offered in its all-popular festive and utopian aspect. The

cosmic, the social, and bodily elements are given here an indivisible whole. And this whole is gay and gracious" (1984, 19). *Pokémon GO* relies upon the body of players working together as an indivisible whole, affording real power to the collective across and over numerous digital, concrete, social, and economic boundaries.

Patchwork Girl and Embodiment

"I am buried here," begins one of the early "lexias," or networked hyperlinked text chunks, in Jackson's *PWG*. "You can resurrect me, but only piecemeal. If you want to see the whole, you will have to piece me together yourself." This statement ambivalently invites the reader to become the author, as well as Dr. Frankenstein, themselves: "(In time you may find appended a pattern and instructions—for now, you will have to put it together any which way, as scientist Frankenstein was forced to do.) Like him, you will make use of a machine of mysterious complexity to animate these parts." Here, Jackson's hypertext functions as a multimedia piece engaged in the media change in the moment of its origin, indexing advances in PC technology in and around 1995. The PC is the "machine of mysterious complexity" that the reader must navigate and use, a machine that at the time was newly mass marketed for home use. Jackson designed *PWG* through the software Storyspace, a PC program designed for creating, editing, and reading hypertext fiction, which was created in 1987 through the collaborative efforts of Jay David Bolter, John B. Smith, and Michael Joyce. Jackson's update to Mary Shelley's Gothic novel *Frankenstein* brings to the digital fore a hypertextual representation of the

monster's body, as well an invitation to literally chop and splice this literary body, thus exposing its literary and cultural antecedents. This process removes the notion of single authorship, instead distributing the body of text across a network of material and mediated bodies.

Pokémon GO likewise engages with its user at a medium-specific level that simultaneously invites its players to learn and use the technology of the mobile device, while also narrativizing its own antecedent, *Ingress*, the crowdsourced origin of *GO*'s PokéStops GPS locations. Once players catch their first Pokémon Professor Willow, the player's NPC mentor, shares instructional dialogue that informs the player of some of the game's AR-based mechanics:

> You will need more Pokéballs and other useful items during your exploration. You can find items at PokéStops. They're found at interesting places like sculptures and monuments. From now on, you'll be exploring all over the world. I hope you get out there and catch Pokémon—and register them in your Pokédex! It's time to GO! (Niantic 2016)

Professor Willow's call to "explor[e] all over the world" is not hyperbolic; it literally asserts that the globe is the actual gameboard. These simple instructions, like Jackson's lexia, explain the game's interface design while also describing the medium-specific affordances of the globally expanding mobile network infrastructure. Collecting digital Pokémon in physical time and space becomes analogous with digital data, hardware, and bodies becoming ever-increasingly entwined as mobile devices became increasingly pervasive in everyday computing.

The AR technology also exposes the ways that human bodies are extended, constituted, and distributed through material networks of telecommunication cables, Wi-

Fi signal waves, and flesh and blood. In Jackson's 1998 article, "Stitch Bitch: The Patchwork Girl," she asserts that

> The body is not even experienced as whole. We never see it all, we can't feel our liver working or messages shuttling through our spine. We patch a phantom body together out of a cacophony of sense impressions, bright and partial views. We borrow notions from our friends and the blaring organs of commerce, and graft them on to a supple, undifferentiated mist of smart particles. (Jackson 1998)

Jackson describes the body here in its complexity, arguing that the body and embodiment as a process of organic and biological material intertwined with, supported by, and distributed across a technologically mediated network.

GO does not function as a self-reflexive critical text in the same way that *PWG* does, though it does draw attention to the use of the material mobile device by accessing its movement-based inputs to create full body input experiences that correlate with augmented digital movement on the screen. None of this, however, draws attention to the investors, the material production of the mobile devices, the installation of the mobile data network upon which cell phone and other mobile devices operate, and the material history of the development and implementation of GPS technology, not to mention telecommunications as a whole. *GO* exists within a larger intertextual and intermedial network, thus affording *GO* the medium specificities of the hypertext as a genre.

In *How We Became Posthuman*, Hayles (1999) discusses a tension operating between embodiment and the body. These two distinct elements of subjectivity get confused and conflated in problematic ways via dominant discourse and cultural practices: "It is primarily the body that is naturalized within a culture; embodiment becomes naturalized only secondarily through its interactions with concepts of the body."

Hayles supports this point by asserting that Foucault's Panopticon abstracts the body of the citizen as universally controlled, while not accounting for the embodied actions that can most certainly subvert and resist the system itself. Hayles argues that "the Panopticon abstracts power out of the bodies of disciplinarians into a universal, disembodied gaze." Foucault, Hayles explains, fails to account for the embodied agents of the individuals under the surveillance, allowing for the "specificities of their corporealities" to fade into a uniform, universalized body. "Failing to recognize these limits, Foucault's analysis reinscribes as well as challenges the presuppositions of the Panoptic society," thus participating in, while also deconstructing, the "the Panoptic move of disembodiment." Hayles counters Foucault further by offering Elaine Scarry's convincing claim that "bodily practices have a physical reality that can never be fully assimilated into discourse" (1999, 194-195). Hayles explains that "Consequently, when theorists uncover the ideological underpinnings of naturalization, they denaturalize the body rather than embodiment." Hayles goes on to posit that this method, however, runs the risk of "simply absorbing embodiment back into the body," a problem Hayles confronts by "enriching and complicating" the tension between embodiment and body "by juxtaposing this tension with another binary distinction—inscription and incorporation."

Hayles explains that inscription and incorporation operate in convergent and divergent ways with the body and embodiment. "Like the body, inscription is normalized and abstract, in the sense that it is usually considered as a system of signs operating independently of any particular manifestation." Hayles goes on to convincingly argue that inscription is a "conceptual abstraction" rather than "an instantiated materiality" (Hayles

1999, 198). Hayles refers to this instantiated materiality as incorporation, an embodied action which cannot be separated from the medium: "[a]n incorporating practice such as a goodbye wave cannot be separated from its embodied medium, for it exists as such only when it is instantiated in a particular hand making a particular kind of gesture." *Pokémon GO*'s gameplay functions in a similar way: the play itself takes place when the player moves, thus enacting embodied incorporation as the requirement for gameplay. Jackson's hypertext demonstrates that although the body is historically mediated and materially constituted—thus speaking to the heavy uncovering of its sources and parts—its integral counterpart, embodiment, cannot be completely overwritten, manipulated, programmed, or controlled. This subjective overwrite becomes impossible due to the exponential calculus of the subject as defined through embodiment, distributed across a variety of networks and mediums.

Temporalities, Global Reach, and the Destructive Capacities of the Technological Carnivalesque

GO's carnivalesque ambivalence is evident in the global reach and speed in which the game produces material outcomes divergent from any intended programming or gameplay, while also affording mass material access to high-end mobile technology. *GO*'s record of bans, destruction of property, bodily harm, and death demonstrates the game's unstable, grotesque, and technological carnivalesque power. Many countries banned the game at launch, citing security concerns, while several others have restricted gameplay in spaces deemed inappropriate for play, including places of religious worship. Iran's High Council of Virtual Spaces banned the game over concerns with the game's use

of geolocation data that they believed threatened the security of the population. China initially banned the game, but they have since released a modified, government approved version. Kuwait, the United States, and Russia have all banned the playing of *GO* in religious institutions, with Russia even imposing a jail sentence under blasphemy charges. And while not banned in Bosnia and Herzegovina, *GO* gameplay is scrutinized as a safety concern due to old landmines left over from the Balkan Wars littering the terrain (Whitworth 2022).

GO has also been responsible for environmental destruction and bodily harm on numerous occasions, caused by both intended and unintended forms of gameplay. In a letter to Niantic, John Dargle Jr., director of Milwaukee County Parks, writes:

> The Pokémon phenomenon has introduced hundreds, if not thousands, of individuals to our park system and doubtless has resulted in many new positive recreation experiences. The Milwaukee County Parks, Recreation and Culture Department applauds those outcomes. However, there have been other unanticipated and negative consequences from Pokémon-related activities which have caused significant disruption both within Lake Park and in adjacent neighborhoods. (Hullum 2016)

As Hullum details, players were reported to the park for “daily traffic congestion, parking issues, littering, compacted and damaged turf, risks to sensitive flora and fauna habitats, and noncompliance with park system operational hours" (Hullum 2016).

Another study, using police accident reports from Tippecanoe County, Indiana, estimates "the incremental county-wide cost of users playing *Pokémon GO* while driving to be in the range of $5.2 to $25.5 million over the 148 days following the introduction of the game. Extrapolating these estimates to nation-wide levels yields a total ranging from $2.0 to $7.3 billion" (Faccio and McConnell 2018). The authors go on to state that the

estimated county-wide cost of users playing *Pokémon GO* in the vicinity of the study's specific PokéStops was $5.2 million over the 148 days following the introduction of the game. "The great majority of this total is the value of lives lost" (2018, 5).

While *GO* is on record for indirectly causing injuries and deaths, it has been responsible for direct violence as well. In 2017, Jiansheng Chen, a sixty-year-old Chinese immigrant, was shot and killed by a Virginia security guard while playing *GO*. Chen, who began playing *Pokémon GO* as a way of bonding with his grandchildren, was parked in his van when Chen was fatally shot by the guard, who alleged that Chen drove his van at him. "Chen's family filed a $5.35 million wrongful death lawsuit in the Virginia Beach Circuit Court against Cromwell, Citywide Protection Services and the River Walk Community Association" (Fuchs 2019).

Additional reported fatal shootings juxtapose the sunny, cartoon aesthetic of *GO* and its gameplay with the harsher realities of its physical engagement with the material world. On August 6, 2016, Calvin Riley, a 20-year-old *GO* player, was shot while playing the game near San Francisco's Ghirardelli Square. "There was no confrontation or robbery; Calvin's phone and wallet were untouched" (Villalon 2021). In July 2022, a 29-year-old man was shot in Evanston Park in Illinois while playing *GO* with his young daughter (Fairfax 2022).

The death's associated with *GO* become especially jarring in contrast to the game's generative and health-focused gameplay, but this tension also acts as an element of the grotesque and carnivalesque. "The grotesque image reflects a phenomena in transformation of death and birth, growth and becoming" Bakhtin states. "The relation of

time is one determining trait of the grotesque image. The other indispensable trait is ambivalence. For in this image we find both poles of transformation, the old and the new, the dying and the procreating" (1984, 24). Bakhtin pays special attention to time and the temporal contexts surrounding works of media, noting that "[t]he relation to time, its perception and experience, which is at the basis of these forms was bound to change during their development over thousands of years" (24). Tobias (2010b) argues that media technologies that operate through time-based expressions and time-registering devices act as queer clocks: "devices that diagram, express, and interpret unfamiliar temporal relations" (1). The digital mediation of the technological carnivalesque operates in this mode of the "queer clock," emerging from and transforming networked time-registering technologies that Bakhtin's own time could not anticipate.

GO stands as a compelling example of the digital mediation of the technological carnivalesque, primarily due to its capacity to converge mass culture with high technology and techno-culture, to immediately and speedily erase labor and collect data, and to quickly transform the material and digital world through its gameplay. *GO* produces significant material impact beyond the confines of the game-world, and it is important to note the global reach and incredible speed at which these material transformations occur—for it is the global reach, speed, and immediacy of these transformations that distinguish the technological carnivalesque from Bakhtin's literary carnivalesque.

Indeed, transformation and transgression form a stable thread across different iterations of the carnivalesque:

> Actually, if we consider the grotesque image in its extreme aspect, it never presents an individual body; the image consists of orifices and convexities that present another, newly conceived body. It is a point of transition in a life eternally renewed the inexhaustible vessel of death and conception. (Bakhtin 1984, 318)

The digital mediation of the technological carnivalesque inhabits space and time with a far more dynamic capacity due to smartphones' global streaming technology. This mediation is a consequence and quality afforded by the reconfiguration of space and time brought on by the rapid development of our telecommunication technology, and the speed at which the technological carnivalesque destroys and creates is simultaneously terrifying and hopeful. For example, the very real threat of walking over a land mine while playing the game in Bosnia and Herzegovina stands as very real example of why we need to pay attention to current digital mediation of the technological carnivalesque in that bodies move and engage with these computational systems in unprecedented ways in a world where mobility, access, and public safety are not equally distributed. Bodies and embodiment continually transform, always in an incomplete state of becoming, and the current moment of digitally mediated mobility invites the potential for violence in a novel and terrifying capacity. However, it is the ambivalent tension between the threat of terrifying violence and the potential for new ways of being. This ambivalent promise of transformation unites the grotesque and carnivalesque in all its temporal iterations.

Chapter 5

Stay at Home: *Animal Crossing: New Horizons*, Casual Gaming, and Catachrestic Media Practices During the COVID-19 Pandemic

Introduction: Mobile Gaming, Gendered Media, and Catachrestic Constellations

This chapter discusses the gameplay, market success, and embodied cultural dialogic of *Animal Crossing: New Horizons*, released at the outset of the COVID-19 pandemic. This chapter updates and continues the discussion and critique of gendered, classist, and racist media practices that inform video game distribution and market logics. The technological carnivalesque exists in the dialogical space between the players of the game, Nintendo, and the biopolitical problematics of the COVID-19 pandemic and works to expose the catachrestic paradoxes of mediated lived experience during the pandemic. The chapter ends with a discussion of the National Videogame Museum UK's "Animal Crossing Diaries," examining the carnivalesque and uncanny self-reflexivity of the gameplay and player's journaling about the game during the pandemic.

Animal Crossing: New Horizons was released exclusively for the hybrid Nintendo Switch mobile-console on March 20th, 2020, at the outset of the COVID-19 pandemic, and very quickly provided players an alternative way to communicate and share experiences with one another in a real-time setting despite the variegated application of stay-at-home orders issued by a range of governmental or advisory organizations. The *New Horizons* player, at play as both digital author and artist typical of the social

simulation genre, builds an island infrastructure from the ground-up, complete with a shopping district, mail system for writing letters, and an airport that allows players to visit one another's custom-built islands. The activities simulated in *ACNH*'s gameplay, including gardening, housekeeping, journaling, letter-writing, clothing design, cooking, and developing meaningful social bonds with digital neighbors, are historically gendered ones, and often sequestered to domestic spaces, and thus so-called "feminine spheres," as per the bifurcated gendered logics of 20th and 21st media corporations (Jenkins 1999; Shaw 2015). Yet games like *ACNH* simultaneously destabilize earlier binary logics of gendered play by prompting nonbinary gameplay that blurs the lines between historically gendered practices both of labor and of media consumption, while paradoxically reproducing these logics through its status as a mobile and "casual" game played in the domestic space of the private home, on the historically gendered hardware of the mobile device. A carnivalesque tension operates between the games competing and paradoxical logics.

ACNH, then, is part of a larger and long ongoing discussion regarding video games and questions of gendered space, play, and labor, further clarified through the lens of the technological carnivalesque. Jenkins (1999), in an early and important critique of gender in gaming, argues that the capabilities of 1999's then-cutting-edge PC and fifth generation console technology (including the PlayStation 1, the Nintendo 64, and the Sega Saturn) still reflected the damaging "priorities of an earlier generation of game makers and their conception of the boy's market" (290). For Jenkins, binary gender coding of user play in video and computer games reflects that of 19th century

demarcations of boys' and girls' categories of recreation, wherein boys set out to explore new worlds while girls retire to "secret gardens" and other domestic spaces to learn to inhabit the role of caretaker and earth tender. Jenkins points out that "in our desire to open digital technologies as an alternative play space for girls, we must guard against simply duplicating in the new medium the gender-specific genres of children's literature" (1999, 290). More recently, Shaw (2015) adds an important queer destabilization of gender categories and target audiences in gaming, questioning the ways that "research on the representation of marginalized groups tends to approach the issue by addressing gender, race, and sexuality as discrete and stable categories of analysis" (14-15). Shaw argues for a methodology that uses "a critical approach informed largely by feminist and queer theory to study representation in a way that takes into account the fluidity, performativity, and contextuality of identity categories" (14-15).

Both perspectives apply here. *ACNH*'s expansively interactive and communal gameplay challenge historically gendered notions of the body, embodiment, authorship, information, software, and hardware, largely due to the gender-fluid approaches of director and game designer Aya Kyogoku. However, due to a conservatively gendered approach to design and marketing of this and other gaming genres, *ACNH* also paradoxically reproduces and reinforces historically gendered, classist, and racialized logics through the game's material production, marketing, and distribution as a digital-only, "casual," mobile game. The logics of informal digital play here were at times confounded or corroborated by the gendered, raced, and classed logics of "shelter at home."

Thus, in turn, the negotiation of simulation-play with this title became a lens for pandemic experience. From March 2020 to April 2021, the "Animal Crossing Diaries," a multimedia exhibit curated by the United Kingdom's National Videogame Museum in Sheffield, England, invited players to share and upload diary entries documenting their COVID-19 pandemic-related gameplay experiences (National Videogame Museum 2021). The exhibit functions as a hypermedia database comprised of written diary entries, in-game screenshots, and user-generated multi-media art, made available for virtual tours via the museum's webpage. Ass Jenkins made clear, the practices of diary writing and reading, in general, have been significantly gendered historically, with such “girl” media practices emphasizing indoor space, household activities, and educational play (268). “Girl space,” explains Jenkins in articulating this historical imaginary of play space, “is a space of secrets and romance, a space of one’s own in a world that offers girls far too little room to explore” (280). And as Humphreys (2018: 30) notes, the diary often functions within a space of women’s writing and a larger tradition of domestic and community record keeping “historically associated with tasks, duties, and work that are often domestic and personal.”

Diaries have served an important social function whereby they chronicle not only the activities of the diarist herself but also events and activities of the household and community, producing a dialogic and relational form of media accounting (30): “feminist historians have suggested that diary keeping of ordinary women reveals the important but overlooked roles and experiences of women” (31).

In just these ways, I argue, the “Diary” exhibit also functions dialogically to doubly expose the precarity of forcibly gendered spaces and cultural practices in gaming and in pandemic routines of material and affective labor, as the historically feminized genre of domestic gameplay is presented through the historically feminized genre of the diary entry. While the exhibit's introductory webpage states that "These diaries reflect the everyday experiences of a historic time and how we all responded to it in different ways – in Animal Crossing and beyond" (National Videogame Museum 2021), the exhibit's claim itself offers a reflexive challenge to the optimistic notion of "all," and draws attention to the "essential worker" communities that were harmed the most by the COVID-19 pandemic.

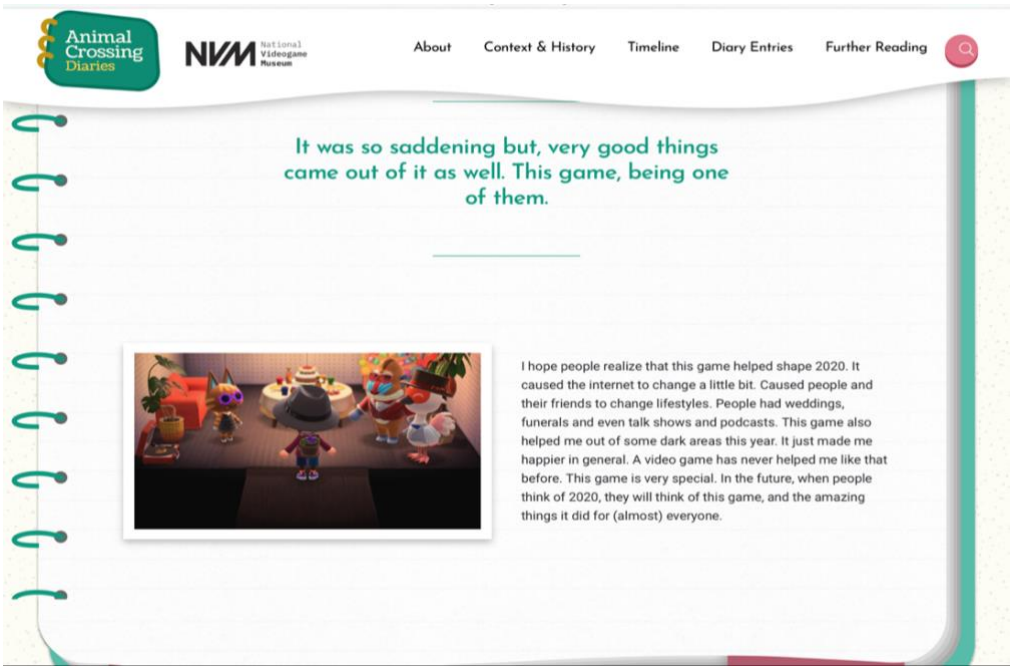
Sirleaf (2021) explains that in the US, black, brown, and indigenous communities suffered the most from the COVID-19 pandemic. "Black lives lost account for nearly 20% of the deaths across the United States where race is known" (75). Sirleaf explains that "structural factors . . . like inaccessible or biased health care providers, inadequate schools and education systems, unemployment, hazardous jobs, unsafe housing, and violent [and] polluted communities . . . provide a . . . robust explanation for the racial disparities witnessed with COVID-19" (75). Sirleaf explains that those with higher incomes are better able to follow social distancing guidelines, while lower-income individuals are not, and that people of color are overrepresented among “essential workers”; Black workers are about one in nine workers overall in the United States, yet they make up about one in six of all front-line-industry workers. Essential personnel employed in transportation, sanitation, retail, and other public-facing sectors tend to face

greater risks from COVID-19 because such jobs require greater contact with the public and have minimal structural protections like paid sick days and adequate health insurance (76-77). An important implication here, too, is that “feminization” may be a way in which color and class effects are co-determined. While *ANCH* provided specific people of a certain positionality with a virtual lifeworld to casually shape, the material world of 2020 still operated through and at the expense of feminized, raced, and classed bodies. While the NVM “Diary” entries do attempt “positive” LGBTQ+ representation, as exhibited, they are also conspicuously absent of entries explicitly representing the differing hardships that race and class placed upon people’s ability to “stay home” – and “staying at home” even if to play itself becomes a fraught category in pandemic terms, with the agentive dimensions of choice or the lack of it both subject to governmental dictum and the evolving challenges of not only novel but shifting viral etiologies.

Thus, many "Diary" entries celebrate the utopic sense that “everyone” was playing the game, a notion that simultaneously works to erase the labor of essential workers, while also framing the domestic space as that of leisure and affective labor. The “Diary” entry, "Shaping 2020," posted by user @ElijahIsAPrsn02, demonstrates the game's ambivalent cultural function during the COVID-19 pandemic to simultaneously show and conceal just who the "all" is that takes part in the shaping (Fig. 5.1):

> I hope people realize that this game helped shape 2020. It caused the internet to change a little bit. Caused people and their friends to change lifestyles. People had weddings, funerals and even talk shows and podcasts. This game also helped me out of some dark areas this year. It just made me happier in general. A video game has never helped me like that before. This game is very special. In the future, when people think of 2020, they will think of this game, and the amazing things it did for (almost) everyone. (@ElijahIsAPrsn02 2020)

The parenthetical "(almost) everyone" that ends "Shaping 2020" functions to reflexively express how the gameplay simultaneously displays and obscures the various and



(fig 5.1. National Videogame Museum 2021)

competing cultural attitudes and material conditions operating during the COVID-19 global pandemic: uncertainty, loneliness, isolation, poverty, systemic racism, lack of access to vaccines and medical care, fear of contagion, and the larger uncanny uneasiness felt as players embraced a social and communal life mediated at times principally via

digital avatars and virtual worlds projected across digital screens and mobile devices. The discourse of the “virtual real” of digital screen play as “new” or “novel”, though, is reversed or tempered: here, the appeal of *New Horizons* as virtual game world is in terms of “the familiar” and the attendant contradiction implied in terms both of familiar comforts engaged and of feminized, affective labor displaced.

The discourse on simulation and familiarity here places some players, then, in the comforts of home while at once dispatching others towards risk. Here, Masahiro Mori's 1970 concept of the "Uncanny Valley" may be revised to describe not just the relationship between the players and their virtually human avatars, but also the uneasy feeling that the virtual simulation of the familiar itself elicits in players, as they are forced to replace their physical world with a virtual simulation that albeit welcoming is nevertheless situated in a transformed social and material lifeworld. Mori's version of the Uncanny Valley describes the relation between a synthetic entity’s human likeness and the perceiver's affective response to it. Mori, a robotics professor at the Tokyo Institute of Technology at the time of writing, argues that "a person's response to a humanlike robot would abruptly shift from empathy to revulsion as it approached, but failed to attain, a lifelike appearance" (Mori 2012).

De Fren (2009) reconsiders this problematic historically, showing the ways in which affinities toward uncanny bodies, appearing in early western antiquity as the Pandora's Box myth, frames modern Western female sexuality and technology as analogues for one another. De Fren’s description of “technofetishistic” desires based around programs of control arguably goes beyond the specific online community of robot

fetishists which she studied and encompasses mediatic representations of human bodies like dolls, mannequins, robots, puppets, cinematic cyborgs or videogame avatars. Although the moniker privileges robots, de Fren writes that

> A.S.F.R. is, in fact, a blanket designation for a range of different fetishes, which includes sexual attraction to mannequins, dolls, and sculpture, as well as to real people acting like mannequins, puppets, dolls, or robots, being hypnotized, turned into statues, or immobilized or frozen in a variety of ways . . . their point of common interest: the thematic of programmatic control—whether imagined as hypnotism, magic, a puppet-master, or artificial intelligence—of a human object. (409)

In this context, *ACNH's* player avatars offered a powerful sense of control in a moment when control was becoming a scarce commodity due to the global ravages of COVID-19. Not only could players control their own avatar, but they could also nominally feel some control of the shifting social and civic structure of their lives, thus satisfying libidinal demands and fetishistic desires of control.

And the NVM's "Animal Crossing Diaries" exhibit, too, demonstrates a fetishistic tension between the game's ability to allow a digitally mediated control over lived experience, while also functioning to obscure, erase, and transform the very notion of lived experience in a larger, material sense. The "Diaries" reflexively express the ways that the Nintendo game paradoxically allows players to simultaneously confront and avoid the harsh realities and material limits of the pandemic's stay-at-home orders, as the game affords them the paradoxical ability to be virtually mobile while physically confined .*ACNH*'s network of hardware, software, bodies, and embodiment as represented in and extended through the "Diaries" exhibit, operates in what Mersch (2015) calls a zetetic, catachrestic constellation: a reflexive practice of art and aesthetics

that simultaneously shows and paradoxically hides. "There is a continual interplay of showing and showing oneself," says Mersch, "they overlay one another and sometimes even cross or sublate one another" (2017, 171).

The "Diaries" exhibit in this way functions in what Mersch identifies as art's unique manner of generating knowledge as an aesthetics of production, producing a paradoxical, reflexive *catachresis*. The classical rhetorical concept of catachresis, explains Mersch, functions to describe linguistic “misuse" or " excess," and therefore importantly "responsible for what cannot be said," a "non-figure outside itself" and therefore "a thing that can only be intimated by exaggerating and pushing the boundaries of meaning"; "catachrestic constellations thus make up the true site of artistic creativity." Here, showing is the primary self-manifestation of the aesthetic; as part of the catachrestic constellation, we are confronted with "showings" that in equal measure reveal something and show themselves while in doing so, at once “hold themselves back" (170). The "Diaries" show players configuring a sense of familiarity in positing the game as medium of happiness and community, while also obscuring questions of feminized and racialized configurations of classed or contingent labor as pandemic precarity. The virtual familiarity afforded by the game stands in chiasmatic contrast to the gendered, material, cultural, and ideological conditions and limitations that produced the cultural artifact of *ACNH*, and videogames, in the larger historical context.

Aya Kyogoku, Nintendo, and the Feminization of Casual Gaming

Nintendo attributed the success of Animal Crossing's previous title, *New Leaf*, released for Nintendo's handheld 3DS, to social media and smartphones, making them rethink their traditionally gendered marketing approach. This reductive logic harkens back to Chapter 2's discussion of *Patchwork Girl*, exposing the gendered media practices that feminize smartphone users, software, and hardware.

Satoru Iwata (2013), Nintendo's president from 2002-2015, asserts that, "It was social media that spread it. It's a smartphone. It's definitely a smartphone that sold Animal Crossing to an adult woman this time." Iwata explains that the market data was surprising regarding the gender of the players. "In the first three weeks of Animal Crossing sales, by the end of November, the largest group was 19- to 24-year-old women." During that period, 69 percent of the 3DS units Nintendo sold were to men. But among those who purchased *Animal Crossing: New Leaf* along with the hardware, 56 percent were women. The Entertainment Software Association reports that in 2013, 45 percent of all game players were women, who were more prone to play games on mobile or social platforms than dedicated game hardware. *New Leaf*, however, stands as evidence that this need not be the case. "You often hear today that because smartphones exist, there's no need for dedicated gaming machines," Iwata says. "But, this 19- to 24-year-old female demographic, they're the smartphone people, right? It's often said that female casual gamers don't need dedicated hardware, and yet here they are reaffirming the value of these machines" (Hudson 2014).

Iwata exposes a paradox not just in the gendered logic of the financial data, but also in the western philosophical tradition contributed to the historically harmful and oppressive cultural construction of feminine gender. The notion that smartphone use speaks to an essential expression of gender turns a blind eye to the evidence indicating that women are eight percent less likely to own a mobile phone than men, and 20 percent less likely to use a mobile phone. This does not address the condition that there are no stable criteria for men or women, as such, or that gender is produced through an intersection of cultural forces, none of which exist naturally or essentially, including gendered narratives surrounding technology use.

Aya Kyogoku, *ACNH*'s director, designed the game through an open approach that works to destabilize historically gendered gameplay, and instead strives to embrace a nonbinary play style that invites everyone to explore, create, and reflect. Kyogoku, one of Japan's few women videogame producers and directors, established themselves through Nintendo's *Animal Crossing* titles, finding success with the mobile version of the game, *Pocket Camp* (2013) and the handheld 3DS version of the game, *New Leaf* (2014). *New Horizon*'s affective, collaborative, and networked design is heavily influenced by Kyogoku's earlier experience working with these earlier titles on the mobile platform.

Kyogoku, joining Nintendo in September 2003 as the first woman to direct a videogame at Nintendo Entertainment Analysis and Development (EAD), explains that frequently they found themselves to be the only woman on the Nintendo development team. In response, *New Leaf* producer Eguchi went on to hire a team balanced in terms of gender. Kyogoku encouraged all individuals on the development team to contribute ideas

for the game, regardless of their role on the project. Kyogoku credits the diversity of the team for *New Leaf*'s critical and commercial success, stating that "when you are trying to create something that will appeal to many types of people, I have experienced how beneficial it is to have diversity on your team" (McWhertor 2014). Kyogoku goes on to say that “it is very exciting to be able to have different types of people on the development team" (Nintendo 2015). Kyogoku’s collaborative and diverse development team clearly speaks to a feminist praxis of collective authorship. She explains, "Having worked on this team where there were almost equal numbers of men and women made me realize that [diversity] can open you up to hearing a greater variety of ideas and sharing a greater diversity of ideas. Only after having worked on a project like this, with a team like this one, was I able to realize this" (Hudson 2014). Kyogoku’s collaborative and affective approach to game design highlights the game’s features as operating within a larger, interconnected affective mesh.

Anable (2018) identifies this relationship between coders, players, and videogames as speaking to the videogame's status as an "affective system," a complex relationality between bodies, hardware, and technology that serves to destabilize and reshuffle player identity formation. Anable argues that videogame and affect theory are the conjoined legacy of cybernetics and that we must "move beyond the problematic impasses that were produced when computational metaphors ceased being metaphorical and the language of cybernetics, the computational sensorium, and everyday feelings became meaningfully interwoven," allowing us to more clearly see how games make "complex meaning across history, bodies, hardware, and code" (xi). Citing cultural

theorist Raymond Williams' argument that culture is material, locatable, but also ephemeral and subjectively experienced in structures of feeling (x), Anable understands videogames as giving "expression to our affective harnessing to computational processes beginning in the middle of the last century," and media and art as capable of giving "expression to emergent and shared feelings that are not yet present in language, but in which we might sense the rhythms and emotional tones of new ways of being in the world" (xi). The "Diaries" exhibit, seen in this way, provides a dialogical and reflexive look at the contradictory experiences and ways of being operating during and prior to the pandemic.

Anable's affective approach to videogames helps to situate *ACNH* within a larger history regarding the gendering of information technology, as discussed at length in the work of N. Katherine Hayles. Hayles (2005) explains that eighteenth and nineteenth century copyright law codified ideas and creativity, authorship, and proper literature through a hylomorphic (Grosz 2017), gendered logic that positioned the literary work as an immaterial, mental construct, as opposed to the merely circumstantial materials of the paper, binding, or ink. "Style and sentiment," assesses Justice William Blackstone in 1753, "are the essentials of a literary composition. These alone constitute its identity." The materiality of the form, format, and medium are contingent to the style and sentiment that form the expression of genius (Hayles 2005, 144). This abstraction of the literary work from its material and physical basis functions to obscure the work's relation from the economic network of booksellers who invested in the work, thus leveraging economic capital to produce books. Placing abstraction above embodiment reveals that

the men producing these discourses had in mind the male writer, whose creative masculine spirit gave rise to works of genius that soared above their material instantiations in books. Thus, a hierarchy of values emerged that placed at the ascendant end of the scale the disembodied, the creative, the masculine, and the writer who worked for glory; at the lower end of the scale were the embodied, the repetitive, the feminine, and the writer who worked for money" (Hayles 2005, 144).

If, as Hayles concludes, "culture not only flows from the environment into the body but also emanates from the body into the environment" (200), then Nintendo's gendered approach to authoring and design means that *ACNH* functions to transform its players in destabilizing ways while the players affectively transform the game and its surrounding media practices. This transformation via feminization has limits, in the context of a global pandemic, expressed as the displacement of the acutely frightening and debilitating from the familiar and comforting, in an articulation of the diaristic modalities inhering in whiling away the hours of casual gaming.

Time, Crisis, and Affective Gameplay

The casual gameplay of ACNH does not require "winning" in any conventional sense, but instead the game is focused on habitual daily routines, small versions of Chun's (2017) "crises," thus promoting the gradual development of the players environment and social relationships with fellow "villagers." Instead of linear game objectives, *ACNH* provides player events that players must attend and complete within fixed real-world time

frames. Chun identifies these moments that require and "demand real-time responses" as "crises." Chun explains that "crises are central to experiences of new media agency, to information as power." Chun goes on to explain that "Crises--moments that demand real-time responses--make new media valuable and empowering by tying certain information to decisions, personal or political." Chun also explains that "crises" marks the important difference between "using" new media, as opposed to other modes of media spectatorship/viewing--in particular, "watching' television, which has been theorized in terms of "liveliness" and catastrophe." The difference between the "empowered user" and the passive "couch potato" watcher is made clear by new media operating as what Chun calls "crisis machines." Although passive and low-stakes, ACNH operate from a logic of action, use, and crisis.

The premise of the game is that the player purchases a deserted island vacation getaway from NPC tanuki Tom Nook, the benevolent capitalist who loans the player "Bells," the game's currency. Nook comes off as a benevolent mix of Steve Jobs, Richard Branson, and Hiroshi Yamauchi.[3] Nook's zero-interest financing allows the player to design their vacation getaway island to their liking, at a very intricate level of control and specificity. After the initial set-up of the player's tent, the game is non-linear and becomes contingent on the players desired direction of gameplay. Trees, rocks, and other natural resources are farmable, allowing the player to construct tools, items, and eventually homes, airports, and shopping districts. Each action in the game requires the

[3] Despite Nook's interest free loans, the character has also generated an entire meme culture where Nook is figured as a mob boss, slumlord, and even 19th century ponce Al Swearengen (Kolan 2008).

player to wait long periods of time for construction to take place, usually a twenty-four hour minimum. For example, the steps to set-up the island museum illustrates the affective time investment that typifies most actions in the game.

Helping Blathers (fig. 5.2), the whimsical anthropomorphic NPC owl, scientist, and museum curator requires a time investment that develops the affective design of the gameplay, despite the game's blatant reproduction of colonial institutions. Blathers, who has appeared in all previous *Animal Crossing* titles, is an academic who has not finished the requirements to satisfy the full doctorate. Like the player, Blathers needs time to progress in his efforts. When first encountered in Animal Crossing (2002) Blathers tells the player that they are participating in a fossil identification correspondence course to become an archeologist. When players meet Blathers again in Animal Crossing: Wild World (2005), "Blathers has completed his course in fossil identification and can now identify fossils without having to send them to be identified" (Nookipedia 2022).

Blather's museum acts as a monument to and partial record of the players in-game labor. The museum provides a taxonomy of animals, bugs, fossils, and fine art collected from the game's various marketplaces and wild lands. The player can bring Blathers any caught fish, bugs, or fossils, whereupon Blathers bestows an assessment consistent with British colonial methods of taxonomy. The animals and bugs available to catch depend upon the hemisphere and season of the player's real location, with some rare creatures only appearing a specific times of the day at specific times of the year. Accumulating and filling out the Critterpedia, found as an app in the player's virtual smartphone mobile device, the NookPhone.



Fig. 5.2 (“Blathers” 2021)

Acquiring Blathers and building his museum requires the following steps: "To open the Museum, you'll first need to donate five fish or bugs to Tom Nook." According to Nookpedia: "Soon after the player arrives on the deserted island, the island’s tanuki manager, Tom Nook, will teach them how to craft a bug net and a fishing rod. Nook then asks the player to show him any bug or fish specimen caught. Tom Nook will ask the player to give him these specimens. Once the player has given Tom Nook five different

specimens of fish or bugs, Tom Nook will call Blathers, the museum curator, on his NookPhone to invite him to come and visit the player's deserted island. He will ask ask them to select a spot on the island to raise Blathers' tent. Once you've made five donations to Nook, Blathers will arrive and set up his tent, and inform you that he needs 15 more donations before he can open his museum (Nookpedia 2022). Upon completing the museum, Blathers says:

> Hold on! Was this possible...? Could it perhaps be...? Has the dream finally come true? Yes! The museum's collections are completely, thoroughly complete! Hoo! Simply stupendous! No town can boast of a bigger or better collection that the one here in [player's town]. Oh the generosity that made this possible! My thanks to you and all who supported this dream. You have my deepest gratitude. And may ALL who love this place as much as you know it too. For a museum is only as good as its patrons, and people like you have made it a most magnificent place!" (Lynn 2021)

What's important to note here is how long it takes for the entire process to occur, and how this time investment contributes to the effectiveness of game's affective play style, further compounded by the game's mobile platform. After Nook's call, Blathers will not arrive until a full 24 hours after the player has selected a spot for Blathers' tent location, and this is only after the player has acquired previous items. Once the player performs the labor to get Blathers to the island, the owl then requires fifteen specimens to secure permission to expand the current tent-based make-shift museum. Mirroring real life, the museum requires logs and minerals sourced from the island. However, a helpful feature allows resources, including trees and rocks, to quickly grow back over-night, providing a model of capitalism that strives due to its infinite supply of naturally reoccurring resources. The game provides a fantasy model of a capitalistic economic system that becomes

sustainable through magically endless resources, and much like the fantasy of Tom Nook's zero-interest loans, the game provides a utopic vision of an alternative capitalism. This portrayal of a modified capitalism can be read in several different ways. It can be seen as participating in and reproducing the exploitative global capitalist system through which companies like Nintendo found their financial success, or it can be read as critiquing this exploitative form of capitalism by demonstrating a model wherein which capitalism can only exist under materially impossible circumstances.

Blather's tendency to romanticize the museum, "No town can boast of a bigger or better collection that the one here," serves to collapse the player and the game into a commodity-fetish relationship in which affect is generated through time and labor, a relationship that carries an economic logic that Walter Benjamin ascribes to the World exhibitions and fairs that arise in Europe in the late 19th century. "World exhibitions are places of pilgrimage to the commodity fetish" (2008, 101). Benjamin further explains that "World exhibitions glorify the exchange value of the commodity. They create a framework in which its use value recedes into the background. They open a phantasmagoria which a person enters in order to be distracted. The entertainment industry makes this easier by elevating the person to the level of the commodity. He surrenders to its manipulations while his alienation from himself and others" (2008, 101). However, the game's networked gameplay complicates Benjamin's final assessment that the player has alienated themselves from the world and others. This is simply due to Benjamin's critique focusing on the cinema, where the audience member dissolves and loses agency, while the flickering on the screen threatens to depoliticize events as

catastrophe's as apolitical events that simply happen (Chun 2018, 75). The habitual logic of new media, according to Chun, is typified by action and crises, a condition that allows players to recalibrate temporal relationships via the use of the media. "Crises promise to take users out of normal time, not by referencing the real but rather by indexing real time, by touching times that touch a real, different time: times of real decision;" (Chun 2017, 75). Blathers creates a time sensitive crisis that the player must respond to in real time. The potential value of training gamers to be specific types of consumers, and the vehicle of implementation, can be seen here. Nintendo threatens to slowly indoctrinate players into habitual, traceable, and therefore profitable subjects. However, preventing any total control is the soft-hack practice of time travelling, a practice that undercuts and subverts commercial media programming via the technological carnivalesque.

Quotidian Diaries and COVID-19 Contradictions

The National Videogame Museum's 2021 exhibit, "Animal Crossing Diaries," (see fig. 5.3) presents an interactive, online exhibit of player's COVID-19 diaries, and functions as an interactive catachrestic constellation of contradictory pandemic experiences, simultaneously displaying and obscuring multiple and competing ideologies, experiences,

and ontologies at once. The diaries also function to present the historically-gendered gameplay via the historically gendered genre of the diary, thus problematically

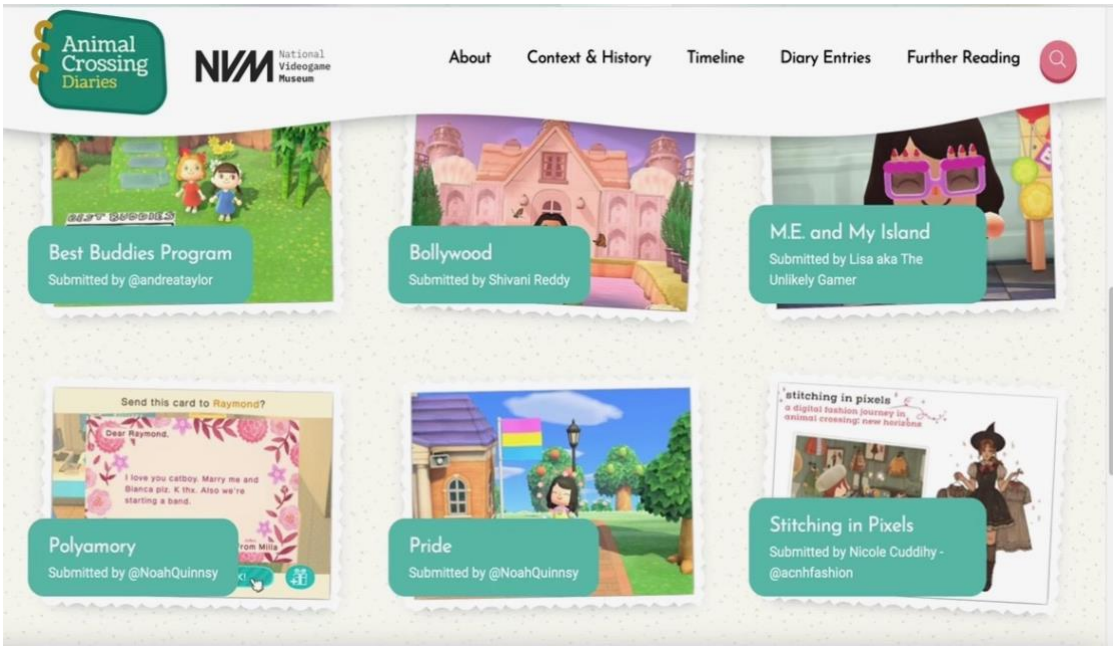


fig 5.3. (National Videogame Museum 2021)

functioning to reinscribe harmful and antiquated narratives regarding so-called "feminine" gender expression. The diary entries interweave screen shots and digital art onto the page alongside the digital text, creating a complex, multimedia interaction between screen and flesh. While functioning to celebrate diversity and community, the "Diaries" also draw attention to the ways in which these same communities continually and historically become excluded and exploited by various forms of systemic and technological power: featured prominently are diaristic "notes" on polyamory, friendship, Bollywood, fashion, queer pride, and so on.

The NVM's exhibit's "About" tab explains the quotidian and collective methodology driving the diary project:

The videogame's release date was 20 March 2020. This marked the very start of lockdown and social distancing for a range of countries. . . . The game became a vital space for maintaining creativity, social connections and a sense of routine during an uncertain time. The *Animal Crossing Diaries* records the diverse ways players interact with the game during the COVID-19 pandemic. It documents how players create their own meaningful experiences through the game. Players were invited to contribute via an ongoing open call. (National Videogame Museum 2021)

The diary entries are arranged as a non-linear, hypermedia, hypertext which separates entries by thematically affective headings. The affectively charged headings are, "Keeping a Routine," "Making Your Space," "Representing Yourself," "Sharing Creativity," and "Staying in Touch." "Keeping a Routine" explores the way players find a sense of everyday stability in-game during an unstable time. "Making your Space" reflects the players' shaping of their virtual space during a time of lockdown and limited travel. "Representing Yourself" shows ways the game is used to reflect players' identity, experiences, and culture. "Sharing Creativity" showcases the range of artistic and cultural responses created both in the game and influenced by it. Finally, "Staying in Touch" shows the powerful ways players have both maintained social relationships – and created new ones. (National Videogame Museum 2021).

The online exhibit presents a hypermedia experience that allows visitors to digitally navigate many textual and visual elements regarding the museum's collection of diary entries. The navigable database of diary entries stands as a visual record that situates *ACNH*'s gameplay into a larger history of affective media practices, identified by

Humphreys (2018) as the process of "media accounting." Humphreys asserts that diaries hold an important status as media objects, generated and maintained in a gendered form of writing too often overlooked by earlier media and communication scholarship. "It might seem curious to suggest that diaries, scrapbooks, and photo albums should be thought of as media," but Humphreys explains that "diaries are not just a genre of personal writing but historically have been tools for collective and shared meaning-making, the social nature of which is fundamental to understanding diaries as media" (2018, 8).

Humphreys explains that diary writing, and other mobile, quotidian, Victorian era writing practices, were deemed as a lesser, feminized writing practice, while notably providing some of the most complete record keeping of the day. "Historically," says Humphreys, "diaries, particularly those of women, chronicled everyday life activities and events of the household and community." Humphreys explains that by understanding quotidian, mundane writing practices performed through mobile technology and social media practices, we can begin to understand "how the ordinary can represent broader social values and systems that shape the human condition" (6). The "Diaries" exhibit presents the catachrestic contradictions that exist between gendered notions of high and low writing practices that persist today, as mobile and social media practices, while demonstratable powerful and culturally transformational, still fall victim to masculine narratives of form and unembodied thought that serves to diminish and feminize social media posting as well as casual, mobile games like *Animal Crossing*. The "Diaries" exhibit clearly demonstrates the powerful, transformational capacity that the game

possesses and affords, rendering the historically gendered logics that deem "casual," mobile gaming as ineffective, passive, and inertly feminine as incoherent, incomplete, and inherently flawed.

While events related to LGBTQ+ Pride, as noted above, took place in the game, this reparative portrayal of the COVID-19 pandemic remediated in casual gaming serves to obscure the ways in which global governments failed to respond efficiently to inequalities in COVID-19 care and vaccine distribution, both resulting in the deaths of disproportionality large numbers of black, brown, and indigenous people from developing countries (to say nothing of the HIV and AIDS epidemic that LGBTQ communities have suffered through, resisted, and transformed). @NoahQuinnsy (2021) writes that, "Pride was cancelled this year but I still celebrated in *Animal Crossing*!" @NoahQuinnsy affectionately shares that they won first-prize in an in-game fashion show with their Kimono. @NoahQuinnsy's diary entry demonstrates the game's important capacity to provide community in a moment when many members of the LGBTQI+ were isolated and lacked community support. Paradoxically, @NoahQuinnsy's diary entry also functions to highlight how earlier approaches to HIV/AIDS informed global approaches to COVID-19. Somse and Eba (2020) explain that "the HIV epidemic is a formidable example of multilateralism and global cooperation. Thanks to community activism, international solidarity, and cooperation in the fields of science and medicine, 24.5 million people are on antiretroviral treatment today, mostly in low- and middle-income countries." They note that the United Nations Secretary-General and the Director General of WHO at the G20 Leaders' Extraordinary Summit on COVID-19 on 26 March

2020, stressed the urgent need to accelerate global partnership and solidarity in the response the pandemic. This solidarity must be anchored in a multilateral framework to support and finance the global response and recovery with specific attention to countries most affected and those most fragile. (2020, 371)

Despite this positive account of global cooperation among already powerful countries, Horner (2022) argues that an inequality in COVID-19 vaccines distribution on a global scale may be indicative of wider challenges related to 21st-century global development (still indexed in global treatment of HIV-related illness). "A brief assortment of facts provides an initial glimpse into the scale of the inequalities related to COVID-19 vaccines" says Horner. Horner explains that

> By the time more than 50 per cent of people in Europe and the United States had been fully vaccinated (11 September 2021), only 3.4 per cent of those in Africa were, with many health workers still not fully unvaccinated (*The Guardian*, 2021). By 1 January 2022, the number of booster doses administered in high-income countries (300.6 million) was just over quadruple that of first doses in low- income countries (LICs) (74.8 million). Some vaccines have even been sent from places with low-vaccination rates to those with much higher ones – such as 5 million doses from India to the UK in March 2021 – at a time when the UK had administered more than 23 times the number of doses per 100 people than India. (Horner 2022)

The NVM "Animal Crossing Diaries" exhibit description ends by stating that, "These diaries reflect the everyday experiences of a historic time and how we all responded to it in different ways – in Animal Crossing and beyond" (National Videogame Museum 2021). What this statement about “all of us” once again cannot address is that these diaries may reflect ways that *ACNH* served to differentially transform the everyday experience of the COVID-19 lockdown through the reach of the game's socially

networked gameplay, but also how the diaries catachrestically functioned to erase and obscure many of the people whose labor and oppression has made possible the very hyperindustrial telecommunication network technology upon which the developed world runs and operates. The "Diaries" force us to wrestle with a catachrestic perspective on not just the COVID-19 pandemic, but on the facets of human sociality displaced in feminized technics and the technologies, themselves, that support this technofeminization. Gaining such a perspective will not be easy. "Thinking in catachresis," says Mersch (2015), "in leaps and chiasms, in catastrophes and discords, and in the chronic disunity of paradoxes and their inherent negativity defines the riskiness and the extraordinary adventure of art, which philosophical thought has always linked to transgression and madness" (170).

Conclusion: Rethinking Power, Bodies, and Mobile Devices

Animal Crossing: New Horizons is an example of the transformative, dialogical power that mobile videogames, affective media practices, and affective systems enact upon individual and collective human subjectivity formation. But the "Diaries" exhibit, as a display torn by competing catachrestic paradoxes, makes clear that there is still much work to do to develop more sustainable, just, and equitable practices surrounding gender, class, race, computational systems, and communication technology. Critical and self-reflexive consideration of the materially uncanny impact of affective systems becomes especially crucial in a moment when the use and implementation of mobile smartphone technology only continues to expand.

ACNH, as well as the larger Animal Crossing series, has been framed as casual, and therefore problematically categorized as "feminine," mobile gameplay, by Nintendo's own conservative marketing practices and stances on the assumed gender of their target audiences. Nintendo's framing of "boys" and "girls" gaming hardware and software situates the smartphone within the gender preferences and domestic space of so-called women, while paying little attention to how these very market practices serve to produce and enforce the cultural gender binaries in the first place.

Ultimately, this example of the *Animal Crossing: New Horizons* and the "Diaries," alongside the previous examples of *DOOM*, *Patchwork Girl*, and *Pokémon GO*, demonstrate the dire need for there to be a more complete apposite mode of inscribing the technocultural experience for the technocultural subject, because, again, as these examples indicate, we are falling short. Instead of offering tools and technocultural practices that encourage and support novel changes in subject formation and far more fluid definitions of what the human has been and can be, current technocultural practices surrounding uses and notions of mobile technology risk to reproduce the same limiting forms of patriarchal, heteronormative, and hylomorphic violence that has plagued humanity for too long.

Chapter 6

Conclusion: Derrida and Desire: Mods, IP, and Instagram Marketplaces

Thirty years after DOOM's release in 1993, you can now play most iterations of DOOM on the Nintendo Switch. PC gamers are still modding DOOM, as covered in Chapter 3, but the core group of Id has long disbanded and the internet moment that launched DOOM has come and gone. Now, Nintendo allows players to work creatively on games like Mario Maker 2, wherein which players construct levels within an in-game level design program, and then players can share and play one another's creations. However, the levels are saved Mario Maker's in-game server, and the Switch is one of the few major consoles on the market today that does not support any external HD storage. Therefore, all the creative content of a game like Mario Maker 2 does not allow players to own their work.

In contrast, and perhaps focused opposition, modders have been producing NES emulators for PC and consoles for years, but Nintendo, backed by DMCA laws, has aggressively pursued hundreds of court cases regarding violation of their IP. Nintendo sued Blockbuster Video in 1989 over the copying of the game manuals being distributed as rentals through Blockbuster's system. However, the court ruled in favor of Blockbuster, although they had to use third party manuals (Chan 2021).

Gary Bowser, a hacker, and salesman for Team Xecuter, was arrested in 2020 for selling circumvention devices that allowed gamers to hack into consoles, including the

Nintendo Switch, bypass security, and download game ROM software for free (Farr 2023). In February of 2022, Bowser was sentenced to 40 months in prison, and ordered to pay $14.5 million in damages. Nintendo's lawyer, Ajay Singh, stated that "TV and movies regularly glorify hacking as 'sticking it to the man,' giving the impression that there's no harm in it given how much money large companies make" (Scullion 2023). What Singh does not address is the carnivalesque implications found in the desire *to disrupt* that Bowser's case demonstrates. A dialogic exists between the so-called monetary "harm" of the hacking and the desire of the players and modders to take charge of their own supporting technics., forming a space to claim some ownership and agency over one's own phasic technogenesis that are far and away from the capitalist logics of Singh's statement.

Patchwork Girl, for all of its reflexive and subversive power, still entails a licensing agreement that prevents that sharing of the program by law, limiting use to "ONE computer" (fig. 6.1). By framing the user/audience as a complete, liberal subject, the Software License Agreement misses the entire point of *PWG*. The "YOU MAY" terms only work if the user is viewed as a stable, neoliberal, non-phasic body-container, which, as this dissertation has argued at-length, is not the reality of technogenesis. "YOU MAY: . . . II) allow anyone else to use the program, so long as there is never more than one user per licensed program at any time;" but how is one to determine who "anyone else" is? Arguably, the user begins to change the moment they engage the program, and, although this is initially a minute and incredibly small change, it is phasic bodily change, nonetheless.

During the COVID-19 pandemic, I found myself the member of several Instagram accounts ran by video game console modifiers who were holding raffles to win gaming consoles in a moment when the Supply Line was delayed and new consoles were virtually unavailable.

The console modifiers, or "modders," are players and users who alter the game and hardware through game file manipulation, code alteration, and after-market hardware modifications. Generally, modders hack the firmware of the console allowing users to access back-end controls of the console, and to play unlicensed copies of thousands of games, as well as access websites where gaming software can be downloaded free of charge. These economies not only support a small, underground niche of gamers, but also stands in dialogic tension to the IP laws of companies like Sony and Nintendo.
For example, modder @PSPGuru runs an Instagram page and hosts raffles to where followers can pay a low sum for a chance win modded PlayStation Portable and PlayStation 3 consoles, which, will effectively allow access to every game from the PS3 generation of software, back to the early consoles of the 1970's. The IP legality is simple: the copies of the game ROMs are perfectly legal, however, the chip in the console that allows the hacked firmware to run is not. Therefore, it is difficult to police these actions, let alone prevent it from occurring. Having said this, people want to engage with the history of video games on their own terms. Public Libraries have operated through this logic for centuries: the collective media memory of any culture needs to be preserved but also needs to maintain an active role in cultural production via user engagement. My

access to virtually every game in history has only deepened the research methodology of this dissertation because I was able to access these games and consoles.

I conducted a brief Instagram interview with @PSPGuru, asking them to discuss their motivation and potential methodology to their craft.

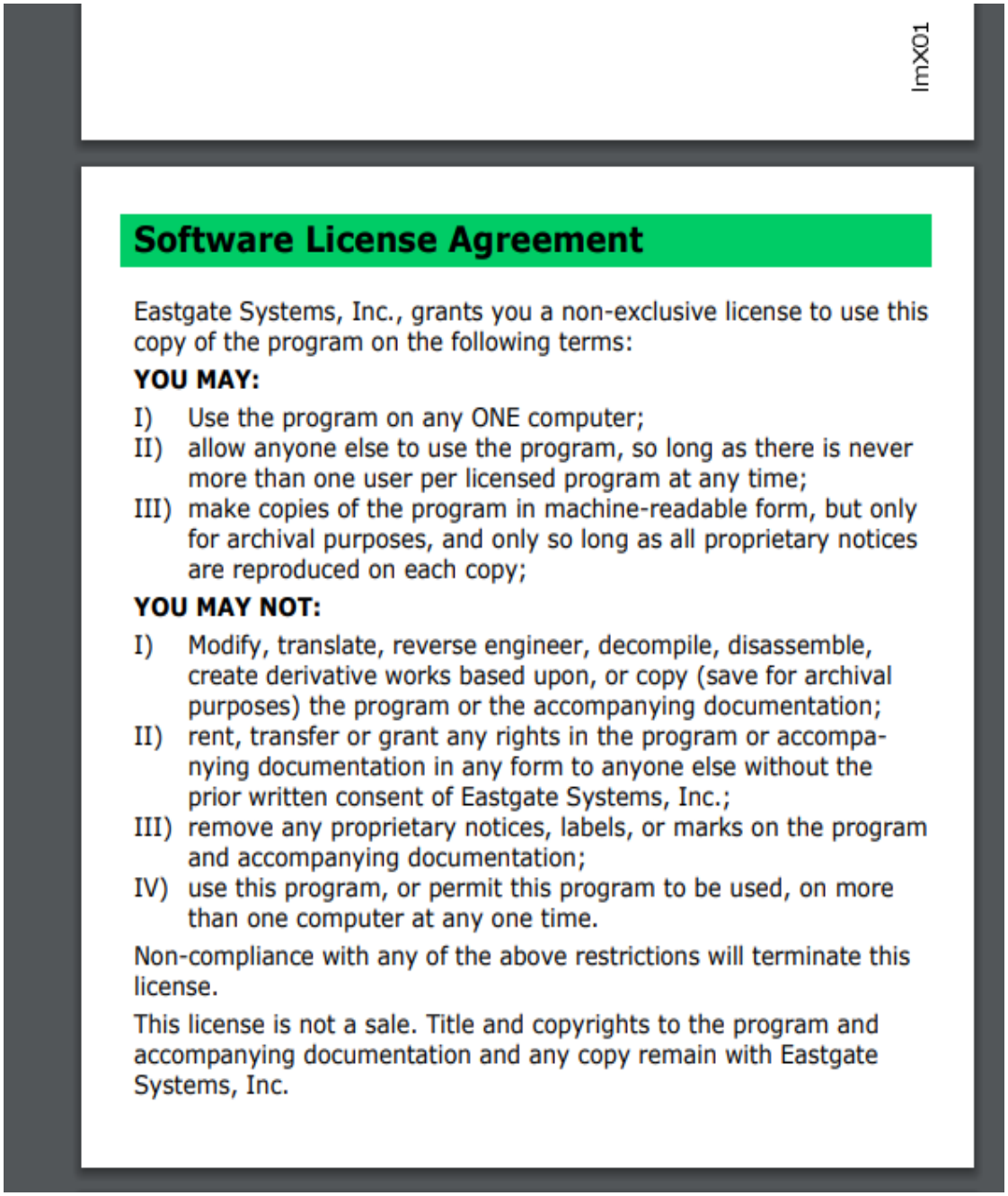
GP: Let me ask you: why do you provide the service?

@PSPGuru: I actually started selling modded consoles because I liked them myself. I modded my first PSP in 2008 and then a couple of friends asked if I could mod theirs just like mine.

GP: What is lacking in the approach of big game companies like Sony and Nintendo that you and other modders provide?

@PSPGuru: Since the beginning I just kept the business model of providing a modded console that I myself would enjoy. I also wanted to give people the same opportunity to play a ton of games that are pretty much locked on old systems with no plans but the developers to bring them all back. Finally, the last reason is because I think, for the most part, game companies who do provide the old games will rip off the customers; close digital shops, lock them behind subscription walls, not provide backwards compatibility.

@PSPGuru's comments speak to a desire for play, collective action, and autopoietic control that supersedes the limited notions of the human as defined within a court of law in a western episteme.



(Fig. 6.1, Jackson 1995)

It is crucial that media and media memory not be cordoned off from human use due to late-stage capitalism's erroneous and limited notions of ownership and liberal

subjectivity. These modders represent people taking a direct role in their specific technical mediation, and not settling for the logics of corporate capitalism or hylomorphic approaches to the transfer and containment of information. The console, a central component regarding the embodiment of the gaming experience, matters. We are changed through these consoles, as they support, extend, and transform the human through the phasic, material intra-action of epiphylogenesis and phylogenesis.

This process of material and technological change intra-acting with organic and biological matter to author, form, and reform bodies update and complicate the very discourse regarding human subjectivity and human subject formation, as such, thus serving to reframe both classical and postmodern notions of subjectivity and representation in both political and economic capacities. In *Of Grammatology*, Jacques Derrida posits an approach to language-as-representation that, I argue, speaks to the carnivalesque nature of unofficial authorship and embodiment that I am attempting to extrapolate with this dissertation. “Praise of the 'assembled people' at the festival or at the political forum is always a critique of representation. The legitimizing instance, in urban civil space as in language . . . --speech or writing-- and in the arts, is the represented present in person: . . . Sovereignty is presence, and the enjoyment [*jouissance*] of presence.” Derrida goes on to quote Rousseau's *Social Contract* to further emphasize his point regarding the important relationship existing between embodiment and subject formation: “'The moment the people is legitimately assembled as a sovereign body, the jurisdiction of the government wholly lapses, the executive power is suspended, and the

person of the meanest citizen is as sacred and inviolable as that of the first magistrate; for in the presence of the person represented, representation no longer exists" (322-23).

This is indeed the spirit of the carnivalesque, discussed with an appreciation for its revolutionary power via the collective and its use of authorship. However, we need to move beyond mere representation in digital media, as discussed in Chapter 5 to describe some of the problematics with the gendered writing practices of the "Animal Crossing Diaries," and instead strive to use digital media to collectively transform oppressive cultural practices. Kishonna L. Gray (2020) argues that diversity in gaming has become more a marketing strategy than a push for true social progress, stating that

> it is . . . important for gaming culture, and therefore for the games industry and game studies, to find a way to move beyond 'add diverse bodies and stir,' to not only include marginalized perspectives but also transform cultural practices rendering these populations isolated, invisible, and obsolete. (169)

The technological carnivalesque describes how *play* becomes a central factor when it comes to changing and transforming cultural practices. Digital texts like *Patchwork Girl*, discussed in chapter 2, actively expose reductive Notions of the liberal, stable human. The technological carnivalesque offers a method to approach the material decentering of the structural notion of the stable, liberal, and totalized individual human body caused by *play*.

Jeff Ryan (2012), Nintendo historian, says that Nintendo had no plans of putting their IP on other consoles, as discussed in Chapter 3, because they followed a conservative business principle known as "disruptive technology theory." The term was coined by Clayton Christenson and describes scenarios when new inventions disrupt entire media industries. For example, when digital photography "toppled giants like

Kodak" (224-25). *Play*, the very product funding Nintendo's empire, stands as its biggest threat, as *play* takes on ambivalent and destructive force, threating the stability of any seemingly stable structure.

Derrida (1978) deconstructs the stability of any sense of structure, arguing that center of any perceived stability is not the center. Derrida posits that structure, or rather the "structurality of the structure," depends upon the erroneous establishment of a central point of origin for any structure. Derrida argues that the "event" of structure is an *episteme* as old as "Western science and Western Philosophy," and, "it has always been at work, has always been neutralized or reduced, and this by a process of giving it a center or referring it to a point of presence, a fixed origin" (278). Derrida concludes that the structural center's function "was not only to orient, balance, and organize the structure . . . but, above all to make sure that the organizing principle of the structure would limit what we might call the *play* of the structure" (278, original emphasis). However, the center is not stable, and, paradoxically, exists both inside and outside the structure: "The center is at the center of the totality, and yet, since the center does not belong to the totality . . . the totality *has its center elsewhere*" (279, original emphasis). Derrida asserts that the "concept of centered structure is in fact the concept of a play based on a fundamental ground, a play constituted on a basis of a fundamental immobility and a reassuring certitude, which is itself beyond the reach of play" (279). What Derrida is saying is crucial to my framing of the technological carnivalesque: the body as a structure is exposed via play. However, this play can also exist in violent and

destructive permutations depending on the technocultural practices applied to the technology.

The digital mediation of the technological carnivalesque is not merely a concern of interfacial writing practices or that of gaming distraction, but it also clarifies the powerful and often terrifying realties of the implementation of mobile technology due to a long history of gendered, sexist, and violent technocultural practices. For example, mobile artificial intelligence drone technology and geospatial targeting systems has taken on an unprecedented role in the Russia and Ukraine War, with some citing the use of AI as contributing to Ukraine's advantage (Stavridis 2023). Ukraine, with support from its western allies, has implemented the use of remotely piloted drones, such as the MQ-9 Reaper, which uses deep learning and facial recognition AI software to perform precision strikes. The U.S. also reportedly supplied Ukraine with the Phoenix Ghost drone model, a highly classified "kamikaze" drone that relies upon AI geospatial mapping to operate (Stavridis 2023; Wodecki 2023). Ukraine received Seafox, autonomous underwater mine-detection drones from the Netherlands, which use AI and an integrated homing sonar to identify underwater objects. These AI technologies, that rely upon the same or similar mobile network technology as the common cell phone, are actively remapping geographies, maiming and destroying bodies, and working to intercept and mitigate oppositional incoming technological violence. The world, warfare, and the technocultural use of AI drone technology will never be the same as they transform and inform one another due to woefully limited, militaristic, gendered, and otherwise reductive

technocultural practices. This grim reality is not stable, however, and it can also be radically transformed through novel approaches to our technocultural practices.

This dissertation is structured around the premise that there is a direct contradiction between what appears to be a stable, individual, organic body and the actual phasic process of the emerging human body through ongoing ontogenesis and technogenesis; to use the term of Sylvia Wynter, the state of being human as praxis. The technological carnivalesque describes the dialogic between a stable, liberal subjectivity and an ongoing state of phasic change through forces like material media interfaces. What we use, touch, and otherwise extend and support ourselves through is directly related to the specific emergence of the human at different times and places. Therefore, it is crucial that we collectively guide these interactions, for good or worse, despite, and even through, contradictions.

The body, embodiment, and human technics form a catachrestic constellation that achieves a coherent contradiction. Derrida (1978) asserts that a "coherence in contradiction expresses the force of a desire" (278). Therefore, the process an action of being human will always operate as a complex network of contradicting desires, which, when given form through physical media, pushes the boundaries and limits of "future" phases of ontogenesis and technogenesis. The technics of the human have not been "mastered," and, to the contrary, the trajectories of the human as a phasic and emerging set of technically supported practices takes on even more possibility when considered through the notion of the digital mediation of the technological carnivalesque.

Works Referenced

Ahmed, Sara. 2006. Queer Phenomenology. Duke University Press.

Allegra, Frank. 2016. “How to find Pokémon GO's gyms and PokéStops.” *PolyGOn.com*. Vox Media, 7 July. https://www.polyGOn.com/2016/7/7/12118576/Pokémon - GO-pokestop-gym-locations-map-guide.

Allegra, Frank. "Pokémon Go mapping sites were major resource suck, Niantic says"August 4, 2016). *Polygon*, https://www.polygon.com/2016/8/4/12383690/pokemon-go-pokemon-map-shutdown-niantic-update.

Allison, Anne. *Millennial Monsters: Japanese Toys and the Global Imagination*, U of California P, 2006. ProQuest Ebook Central, http://ebookcentral.proquest.com/lib/ucr/detail.action?docID=257075.

Animal Crossing Fandom. 2021. “Blathers.” *animalcrossingfandom.com.* https://static.wikia.nocookie.net/animalcrossing/images/1/1b/Blathers_NH.png/revision/latest?cb=20200229053519.

Anable, Aubrey. 2018. *Playing with Feelings: Video Games and Affect*. Minneapolis: University of Minnesota Press.

Anable, Aubrey. 2021. "The Work of Didactic Art in the Information Age." *ASAP Journal* 6 (1): January.

Bailey, Brandon. 2012. “Mercury News Interview: John Hanke, vice president and head of Google’s Niantic Labs.” *The Mercury News*. themercury.com, 4 November. https://www.mercurynews.com/2012/11/02/mercury-news-interview-john-hanke-president-and-head-of-Googles-niantic-labs/.

Bakhtin, Mikhail. 1984. *Rabelais and His World.* Translated by Helen Iswolsky. Bloomington: University of Indiana Press.

Bauer, Taylor. “The History of Pokemon Go and its Impact.” *Comic Years.com*, https://comicyears.com/gaming/mobile/the-history-of-pokemon-go-and-its-impact/.

BFG_retro. 2021. *Doomworld.com*. 21 May. https://www.doomworld.com/forum/topic/121944-found-my-original-doom-floppy-in-box-w-manual/.

Biddle, Sam. 2016. "Privacy Scandal haunts Pokemon GO's CEO." *TheIntercept.com*. 9 August. https://theintercept.com/2016/08/09/privacy-scandal-haunts-pokemon-gos-ceo/.

Chan, Khee Hoon. 2021. “A Snapshot of Nintendo’s Convoluted Legal History.” *The Gamer*, 14 December. https://www.thegamer.com/a-snapshot-of-nintendos-convoluted-legal-history/

Coleman, E. Gabriella. 2013. *Coding Freedom: The Ethics and Aesthetics of Hacking.* Princeton: Princeton University Press.

Cohen, Jeffery Jerome. “Monster Culture (Seven Theses).” *The Monster Theory Reader*. Edited by Jeffrey Andrew Weinstock. U of Minneapolis P, 2020.

Cradock, Ryan. 2021. "Nintendo Issues Mass DMCA Takedown, 379 Fan-Made Games Forcibly Removed. *Nintendo Life*. 6 Jan. https://www.nintendolife.com/news/2021/01/nintendo_issues_mass_dmca_takedown_379_fan-made_games_forcibly_removed.

Cradock, Ryan. 2021. "Nintendo Lawyers Hit Fan-Made Zelda Game With Fatal Copyright Claim." Nintendo Life. 13 Oct. https://www.nintendolife.com/news/2020/10/nintendo_lawyers_hit_fan-made_zelda_game_with_fatal_copyright_claim.

Dahler, Don. 2016. "Pokemon GO craze catching the country." *CBS Evening News*. 11 July. https://www.cbsnews.com/news/pokemon-GO-craze-catching-the-country/.

Datareportal. 2022. "Essential Digital Headlines: Overview of the Adoption and Use of Connected Devices and Services." *datareportal.com.* July. https://datareportal.com/global-digital-overview.

de Fren, Allison. 2009. "Technofetishism and the Uncanny Desires of A.S.F.R. (alt.sex.fetish.robots)." *Science Fiction Studies* 36 (1): 404-440.

Derrida, Jacques. *Of Grammatology.* Translated by G. C. Spivak. John Hopkins UP, 2016.

Derrida, Jacques. 1994. *Specters of Marx: The State of Debt, the Work of Mourning and the New International*, Routledge.

Derrida, Jacques. 1978. *Writing and Difference*. Trans. by Alan Bass. University of Chicago Press.

"The Digital Millennium Copyright Act." n.d. *copyright.gov.* https://www.copyright.gov/dmca/.

Dijkstra, Edsger W. 1960. "Recursive Programming." *Numerische Mathematik.* 2 (1): 312–318. doi:10.1007/BF01386232.

"DOOM Bible." n.d. https://DOOM.fandom.com/wiki/DOOM_Bible.

“DOOM (1993 video game).” *Wikipedia: The Free Encyclopedia*, https://en.wikipedia.org/wiki/DOOM_(1993_video_game).

@ElijahIsAPrsn02. 2020. "Shaping 2020." *Animal Crossing Diaries.* https://animalcrossingdiaries.thenvm.org/entry/helped-shape-2020/.

Em, Jenna. 2016. "The Summer of Pokemon GO." *Huffpost.com*. 24 August. https://www.huffpost.com/archive/ca/entry/the-summer-of-pokemon-GO_b_11664970.

Faccio, Mara and McConnell, John J. 2018. *Death by Pokémon GO: The Economic and Human Cost of Using Apps While Driving* 2 February. http://dx.doi.org/10.2139/ssrn.3073723.

Fairfax, Zackerie. 2022. "Pokemon GO player shot and killed while playing with 6-year-old daughter." *dextero.com.* 17 July. https://www.dexerto.com/pokemon/pokemon-go-player-shot-and-killed-while-playing-with-6-year-old-daughter-1874335/.

Fisher, Mark. “What Is Hauntology?” Film Quarterly, vol. 66, no. 1, Fall 2012. pp. 16-24. https://www.jsor.org/stable/10.1525/fq.2012.66.1.16.

Ford, Nelson. 2000. "The History of Shareware and PsL." https://asp-software.org/www/history/the-history-of-shareware-psl/.

Fuchs, Chris. 2019. "Security guard convicted in killing of Pokemon Go-playing grandfather." *nbcnews.com*. 1 March. https://www.nbcnews.com/news/asian-america/security-guard-convicted-killing-pokemon-go-playing-grandfather-n978351.

Furr, Joshua. 2023. “Nintendo’s Copyright Crackdowns Have Turned It Into a Villian.” *DualShoclers.com*, 25 April. https://www.dualshockers.com/nintendo-copyright-strikes-lawsuits-gary-bowser/.

Grosz, Elizabeth. 2017. *The Incorporeal: Ontology, Ethics, and the Limits of Materialism*. New York: Columbia University Press.

Halberstam, Jack. “Parasites and Perverts: An Introduction to Gothic Monstrosity.” *The Monster Theory Reader*. Edited by Jeffrey Andrew Weinstock. U of Minneapolis P, 2020.

Hamilton, Andi. 2018. "The cult of DOOM: the thriving mod scene behind id's classic." Accessed 26 August 2021. https://www.pcgamer.com/the-cult-of-DOOM-the-thriving-mod-scene-behind-ids-classic/.

Hayles, N. Katherine. 2000. “Flickering Connectivities in Shelley Jackson’s *Patchwork Girl*: The Importance of Media-Specific Analysis.” *Postmodern Culture* 10 (2): 1-40. doi: 10.1353/pmc.2000.0011.

Hayles, N. Katherine. 1999. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics.* Chicago: University of Chicago Press.

Hayles, N. Katherine. 2012. *How We Think: Digital Media and Contemporary Technogenesis.* University of Chicago Press.

Hayles, N. Katherine. 2005. *My Mother Was a Computer: Digital Subjects and Literary Texts*. Chicago: University of Chicago Press.

Horner, Rory. 2022. "COVID-19 Vaccine Inequality and Global Development: A Primer." *COVID-19, the Global South and the Pandemic's Development Impact*. Bristol University Press. *JSTOR.* https://www.jstor.org/stable/j.ctv2x8v634.11.

Hruska, Joel. 2020. “Youtuber Presents DOOM, Powered by Potatoes.” *Extremetech.com*. 15 October. https://www.extremetech.com/gaming/316276-presenting-DOOM-powered-by-potatoes.

Hudson, Laura. 2014. "Nintendo's New Key to Creativity: More Women." *wired.com*. 20 March. https://www.wired.com/2014/03/animal-crossing-director/.

Hullum, Rob. 2016. "Is Milwaukee County Parks Shutting Down the City's Favorite Pokémon GO Destination?" *Shepherdexpress.com*. 24 August. https://shepherdexpress.com/culture/happening-now/milwaukee-county-parks-shutting-city-s-favorite-pokemon-go-destination/.

Humphreys, Lee. 2018. *The Qualified Self: Social Media and the Accounting of Everyday Life*. Cambridge: MIT Press.

Iqbal, Mansoor. 2022. "Pokémon GO Revenue and Usage Statistics (2022)." Business of Apps.com. 30 June. https://www.businessofapps.com/data/pokemon-GO-statistics/.

Iwata, Satoru. 2013. "任天堂・岩田社長が語る"本当の"ソーシャルゲーム." *nikkei.com*. 6 January. https://www.nikkei.com/article/DGXZZO50298050V00C13A1000000/?df=2.

Jackson, Shelley. 1995. *Patchwork Girl*. Watertown, MA: Eastgate Systems.

Jackson, Shelley. 1998. “Stitch Bitch: The Patchwork Girl.” *Paradoxa* (4): 526–538.

Jenkins, Henry. 1999. “Complete Freedom of Movement: Video Games as Gendered Play Spaces.” *From Barbie to Mortal Kombat: Gender and Computer Games*. Cambridge: MIT Press.

Kelty, Christopher R. 2008. *Two Bits: The Cultural Signifigance of Free Software.* Durham: Duke University Press.

Kittler, Friedrich. 1999. *Gramophone, Film, Typewriter.* Stanford: Stanford University Press.

Knopf, J. 1995-96. "The Origin of Shareware." https://asp-software.org/www/history/the-origin-of-shareware/.

Kushner, Jared. 2004. *Masters of DOOM: How Two Guys Created an Empire and Transformed Pop Culture*. London: Random House.

Lachman, Renate, Raoul Eshelman, and Marc Davis. 1989. "Bakhtin and Carnival as Counter-Culture." *Cultural Critique*, no. 11(Winter): 115-152. *JSTOR*, https://www.jstor.org/stable/1354246.

Landow, George P. 2006. *Hypertext 3.0: Critical Theory and New Media in an Era of Globalization.* Baltimore: Johns Hopkins UP.

La Paul, Monica. 2016. "Nintendo market value doubles on Pokémon GO mania." *The Guardian*. Guardian News and Media Limited, July 19. https://web.archive.org/web/20160719133504/http://money.cnn.com/2016/07/18/investing/zagg-mophie-pokemon-GO-stock/.

Lee, Kristen. 2021. "'Death by Pokémon Go': Study finds that driving while playing likely costs billions in car damage injuries." Businessinsider.com. 11 January.

https://www.businessinsider.com/pokmon-go-study-driving-playing-cost-millions-car-damage-injuries-2021-1.

MacCormack, Patricia. “Posthuman Teratology.” *The Monster Theory Reader*. Edited by Jeffrey Andrew Weinstock. U of Minneapolis P, 2020.

Mäyrä, Frans. 2008. *An Introduction to Game Studies.* London: Sage.

McWhertor, Michael. 2014. "Animal Crossing: New Leaf director says team diversity, communication core to its success." *polygon.com*. 19 March. https://www.polygon.com/2014/3/19/5526678/animal-crossing-new-leaf-diversity-aya-kyogoku.

Mersch, Dieter. 2015. *Epistemologies of Aesthetics*. Translated by Laura Radosh. Zurich-Berlin: Diaphanes.

Meyer, Robinson. 2016. “The Curious Mystery of the Map in Pokémon GO.” *Atlantic.com*. The Atlantic Monthly Group, 11 July. https://www.theatlantic.com/technology/archive/2016/07/where-did-Pokémon -GO-get-its-map/490799/.

Mori, Masahiro. 2012. "The Uncanny Valley: The Original Essay by Masahiro Mori." Translated by Karl F. MacDorman and Norri Kageki. *IEEE Robotics and Automation Magazine*. June. https://spectrum.ieee.org/the-uncanny-valley#toggle-gdpr.

Moulthrop. 2013. https://scalar.usc.edu/works/pathfinders/jacksons-interview.

National Videogame Museum. 2021. "Animal Crossing Diaries." *animalcrossingdiaries.thenvm.org*. https://animalcrossingdiaries.thenvm.org/context-history/.

Ngyuen, C. Thi. 2020. *Games: Agency as Art*. Oxford University Press.

Niantic. 2022. "A History of Viewing the World Differently." *Nianticlabs.com*. Accessed 28 July. https://nianticlabs.com/about?hl=en.

Nintendo. 2015. "Developer Chat with Aya Kyogoku and Risa Tabata." *youtube.com*. 21 July. https://www.youtube.com/watch?v=VOBdwh570j8.

@NoahQuinnsy. 2021. "Pride." *Animal Crossing Diaries*. https://animalcrossingdiaries.thenvm.org/entry/pride/.

Palmer, Grant. Forthcoming. "Stay at Home: *Animal Crossing: New Horizons*, Casual Gaming, and Catachrestic Media Practices during the COVID-19 Pandemic." *Beyond Mimesis: Aesthetic Experience in Uncanny Valleys*. Rowman & Littlefield.

Palmer, Grant. 2023. "The Technological Carnivalesque in Niantic's *Pokémon GO*." *Television and New Media*, 0 (0). https://doi.org/10.1177/15274764231163298.

Phillips, Amanda. 2020. *Gamer Trouble: Feminist Confrontations in Digital Culture*. New York University Press.

Pinchbeck, Dan. "Beefy Chunklets from Bible to Beta." *DOOM: SCARYDARKFAST*, U of Michigan P, 2013, pp. 2013. *JSTOR*, www.jstor.org/stable/j.ctv65sx8p.7.

Pinchbeck, Dan. 2014. *DOOM: SCARYDARKFAST*. Anne Arbor: University of Michigan Press.

"Player Stats: Top 10 Best-Selling Games, 1993 – Present." 2001. *Computer Gaming World* 170:52.

Pokémon Go Death Tracker.com. 2021. Accessed 30 July 2022. http://pokemongodeathtracker.com.

Rabelais, Francios. 2009. *Gargantua and Pantagruel*, translated by M. A. Screech. Penguin Books.

Raley, Rita. 2009. *Tactical Media.* University of Minnesota Press.

Ray, Amanda. 2015. "The History and Evolution of Cell Phones. *artinstitutes.edu*. 22 January. https://www.artinstitutes.edu/about/blog/the-history-and-evolution-of-cell-phones.

Raymond, Eric S. 2003. "The Jargon File." 1 October 2004. www.catb.org/~esr/jargon/.

Reilly, Luke. "Pokémon GO Coming to Smartphones". *IGN*. July 17, 2016. Retrieved September 10, 2015. https://en.wikipedia.org/wiki/Pokémon_Go.

Ryan, Jeff. 2012. *Super Mario: How Nintendo Conquered America*. Portfolio.

Screech, M. A. translator. 2009. *Gargantua and Pantagruel*. Penguin Books.

Shaw, Adrienne. 2015."From *Custer's Revenge* and *Mario* to *Fabel* and *Fallout*: Race, Gender, and Sexuality in Digital Games." *Gaming at the Edge: Sexuality and Gender at the Margins of Gamer Culture*. University of Minnesota Press. ProQuest Ebook Central, http://ebookcentral.proquest.com/lib/ucr/detail.action?docID=1.

Shelley, Mary. 2018. *Frankenstein: 1818 Text*. New York: Penguin Books.

Sirleaf, Matiangai. 2021. "Disposable Lives." *Columbia Law Review* 121 (5): 71-94. *JSTOR*. https://www.jstor.org/stable/10.2307/27033038.

Somse, Pierre and Patrick M. Eba. "Lessons from HIV to Guide COVID-19 Responses in the Central African Republic." *Health and Human Rights* 22 (1): 371-374. *JSTOR*. https://www.jstor.org/stable/10.2307/26923508.

Stavridis, James. 2023. "Ukraine War May Become a Proving Ground for AI." washingtonpost.com, 31 May. https://www.washingtonpost.com/business/2023/05/31/ukraine-war-latest-us-can-bring-ai-quantum-computing-to-battle/63d221c4-ffa9-11ed-9eb0-6c94dcb16fcf_story.html.

Stiegler, Bernard. 1998. *Technics and Time, 1: The Fault of Epimetheus.* Translated by Richard Beardsworth and George Collins. Stanford: Stanford University Press.

Takahashi, Dean. 2015. "How Pokémon GO will benefit from Niantic's Lessons from Ingress on location-based game design." *Venturebeat.com.* VentureBeat, 16 December. https://venturebeat.com/2015/12/16/how-niantic-will-marry-animated-characters-with-mobile-location-data-in-Pokémon -GO/.

Tassi, Paul. 2016a. "'Pokémon GO' Finally Just Went Live On iOS And Android in The United States." Forbes.com. 6 July. https://www.forbes.com/sites/insertcoin/2016/07/06/pokemon-go-finally-just-went-live-on-ios-and-android-in-the-united-states/?sh=5dc79703afe1.

Tassi, Paul. 2016b. "'Pokémon GO Is a Terrible Pokémon Game, But an Augmented Reality Home Run." *Forbes.com*. 8 July. https://www.forbes.com/sites/insertcoin/2016/07/08/pokemon-go-is-a-terrible-pokemon-game-but-an-augmented-reality-home-run/?sh=3bc8dc6c8a1e.

Tobias, James. 2010a. "Designing Wonder: Complexity Made Simple or the Wii-Mote's Galilean Edge." *Television and New Media* 11 (197): 197-219. doi:10.1177/1527476409357593.

Tobias, James. 2010b. *Sync: Stylistics of Hieroglyphic Time*. Philadelphia: Temple.

Villalon, Debora. 2021. "San Francisco's Pokémon Go killing remains unsolved 5 years later." ktvu.com. 7 August. https://www.ktvu.com/news/san-franciscos-pokemon-go-killing-remains-unsolved-5-years-later.

Webster, Andrew. 2020. "Animal Crossing: New Horizons' deserted island was designed to shake up the series." *theverge.com*. 20 March. https://www.theverge.com/2020/3/20/21188006/animal-crossing-new-horizons-design-interview-aya-kyogoku-hisashi-nogami.

Whitworth, Spencer. 2022. "Is Pokémon GO banned in any country?" sportskeeds.com. 23 July. https://www.sportskeeda.com/pokemon/is-pokemon-go-banned-country.

Wodecki, Ben. 2023. "Ukraine War One Year On: How AI Has Shaped the Battlefield." Aibusiness.com 24 February. https://aibusiness.com/verticals/ukraine-war-one-year-on-how-ai-has-shaped-the-battlefield.

Yee, Nick. 2014. *The Proteus Paradox*. Yale University Press.