Go Touch Some Grass:

Youth, Social Networks, and Virtual Natures in Online Multiplayer Games

By

Juniper Lewis

A dissertation submitted in partial fulfillment of

the requirements for the degree of

Doctor of Philosophy

(Anthropology)

at the

### UNIVERSITY OF WISCONSIN-MADISON

2023

Date of final oral examination: 12/30/2023

The dissertation is approved by the following members of the Final Oral Committee: Maria Lepowsky, Professor, Anthropology Jérôme Camal, Professor, Anthropology Amy Stambach, Professor, Anthropology Anna Gade, Professor, Nelson Institute Susan Ridgely, Professor, Religious Studies

# **Table of Contents**

Acknowledgments	ii
Introduction	1
1. Digital Natures as Restored Environments	22
2. The Struggle to Build Realism	56
3. Buying Into a Digital Self	80
4. Playing with Others	114
5. Thinking with Digital Animals	
Conclusion	179
Glossary	192
Works Consulted	193

### Acknowledgements

To my committee: Dr. Maria Lepowsky, thank you for your guidance and support over the past seven and a half years. Your intellect and expertise have helped me navigate the troubled waters of grad school. Dr. Jérôme Camal, thank you for your curiosity and conversations. You have helped me become a better teacher and scholar. Dr. Amy Stambach, thank you for helping me think through my questions and for asking good ones in return. Your instruction has guided my research.Dr. Anna Gade, thank you for bringing a strong insight and exacting gaze. You have always pushed me to do and think more about my work. Dr. Susan Ridgely, thank you for your kindness and commitment. Our conversations were a great help to shaping my methods and interviews.

Mom, H, and Jules, thank you for always supporting and encouraging me. Your love has been a constant comfort throughout my academic journey.

Andrew Baker, thank you for keeping me sane, fed, and for listening to me talk about every single step of his process. I love you so much, and I can't imagine doing all of this without you by my side.

Spencer, Flynn, and Kai Baker, thank you for being the most incredible kids a step parent could hope for. I can't wait to see all of the amazing things you do.

My friends, especially Ann Marie Itamura and Caitlin Benedetto, thank you for listening and talking through ideas, helping me relax, and being a constant source of joy in my life.

To anyone reading this, thank you for taking the time to read my writing. It truly means a great deal to me.

### Introduction:

## Methods, Key Terms, and Chapter Summaries

In the spring of 2020, life changed. The Covid-19 pandemic swept across the United States and many people stopped going to work or school and instead began conducting their life from home. In order to cope with the pandemic and find some moments of peace and connection, many people turned to video games. *Animal Crossing: New Horizons* was such a popular choice of game that the analysis of how people used the game during the pandemic generated over 4,000 peer reviewed academic articles since 2020<sup>1</sup>. Many of these articles

focused on how *Animal Crossing* allowed players, both as individuals and as family units, to meet their psychological needs. Parents and children used games like *Animal Crossing* as a way to relax and escape from the problems of the pandemic (Pearce 2022). Parents in particular were noted for their increased use of video games during the pandemic.



Adults who would normally be busy with work and transporting children suddenly found themselves with a stark increase in free time and anxiety. In the case of both parents and children, video games were praised for their ability to help ease the struggle of social isolation

<sup>&</sup>lt;sup>1</sup> This number is based on the UW Madison library's article search when searching for articles published since 2020 that include the key terms "Animal Crossing" and "pandemic."

(Tassi 2021). My own household often hosts the sounds of video games being played by myself, my husband, our kids, or some combination therein. While the pandemic did not introduce us to video games, our play time increased once we no longer felt safe outside of our home.

This switch to a more digital life also deeply shaped academia. Many researchers, myself included, found themselves at a crossroad: wait until an unknown end date for the pandemic to conduct research, try and reshape current projects to a world where in-person interaction was severely limited, or create new projects that would be possible in our new pandemic reality. The project entailed here is a product of the third choice. This research focuses on young people and how they use, shape, and respond to virtual natures and social connections. While not designed to study the effects of the pandemic on games or gaming, this project has been heavily influenced by, and was created because of, the Covid-19 pandemic. Though they are not the direct subjects of this research, my own children have also greatly influenced this project. Their expertise in the area of online multiplayer games and digital social networks has helped me shape my questions and analysis. They have functioned, at times, as translators between the young people I interviewed and my own already outdated experience with online social spaces. I first started playing online multiplayer games has changed since then. Digital worlds move fast, and having access to insiders has greatly improved this project.

Here, we will look at how young people living in what is now the United States between the ages of 10 and 14 think about nature spaces, social networks, and self identity in online multiplayer games. My hope is to answer the question: How are these young players thinking about virtual nature spaces and life in online multiplayer games, and how are their experiences shaped by capitalism, gender, and race? In this chapter I will discuss my research methods, define some key terms, and provide a brief introduction to the individual chapters in this dissertation. While I will be providing some literature review here, the majority of analysis will be done within each chapter. My work draws on a variety of disciplines including game studies, childhood studies, and anthropology. Ethnographic texts set in video game worlds (Boellstorff 2008, Nardi 2010) have been key to shaping my methods and research practices. Through taking a digital ethnographic approach that focuses on young people, this work adds to the anthropological literature around childhood, digital worlds, and nature. This dissertation presents a small insight into the lives of young gamers, and much more work should be done to better understand virtual nature spaces as well as the ways young people play and think with video games.

I use the term *nature spaces* to refer to those places in video games where the predominant features of the landscape are created by the game developers to present a place that has had little to no human intervention and is often treated as if it is outside of history. As I will discuss later, the landscapes that are seen as more natural than others by game makers, who are typically from the global north, are shaped by cultural understandings of what nature is or should be. The plants, animals, and lands that exist in video games are always human made. Even when the virtual natures are procedurally generated they can only be produced by the work of a person programming the generator. I use the phrase nature spaces instead of natural spaces to mark the unnaturalness of all natures. As I will discuss in a moment, the category of nature is contested and not universally used. The term nature spaces helps push towards this murky (un)naturalness of the landscapes in and outside of games.

Throughout this dissertation I will typically refer to places in video games as *virtual natures* and places outside of video games as *real natures*. While this does imply that the natures of games are not real, or are less real, than nature outside of games, I am using the term "real" because of its historical use online. The phrase "in real life," typically shortened to "IRL" is used online to refer to things that are happening offline. IRL was first used in the 1990s and continues to be used today by internet users and gamers of all ages. For lack of a more clear and accurate term I will continue to use the emic phrasing of "real" to refer to natures that exist outside of game spaces.

The title "Go Touch Some Grass" is a playful intersection of the subjects discussed here. Grass is a weedy plant, full of meaning and hard to remove once it has settled into the soil. Lawns and their grassiness have their roots in British aristocracy and the ability to have the money to hire laborers to attend to the cultivation of a plant that has no material benefit (Steinberg 2005). Having a lawn represents the American dreams of property ownership and security, an ideal entwined with whiteness and capitalism. Grass and lawns are everywhere in the United States, and it is a crop that takes a great deal of time, water, and space. While the grass referenced in the phrase is not explicitly stated to be lawn grass, the phrase implies that the nearest natural feature is grass. For many people in the United States and other countries in the global north, grass in the form of a lawn, road verge, or median. But telling someone to "touch grass" is not unique to the US, and Google Trends data shows that over the past five years people in the Philippines have searched for the phrase the most. Through the connectivity of the internet, popular phrases can travel and take root, even in places where the local ecosystem is not grasslands.

Online, telling someone to "go touch some grass" is a means of critiquing them for being overly online and therefore out of touch with real life. The command to touch grass supposes grass as more real than the virtual activity, but as I will discuss in Chapter 1, "real" and virtual natures are entwined and co-creating. Grass and lawns are a supremely unnatural landscape created through human intervention for the purposes of British aesthetics (Steinberg 2005). The phrase is also comedic, one used as often in jest as in genuine reproach. One of the most enjoyable aspects of this research was the humor that my interlocutors brought to our conversations. By employing this phrase as the title of my dissertation I demonstrate the tension between real and virtual worlds, the comedy of young people online, and my own request for readers to engage with the grasses of virtual natures.

#### **Key Terms**

MMOs

My research site for this project was digital spaces where people can gather and play pre-designed games together. Games made for this purpose are commonly referred to as "online multiplayer games<sup>2</sup>," but they may also go by the longer name "massively multiplayer online role playing games" or MMORPGs. This second category of MMORPGs is a slice of the online multiplayer game genre where players take on a role or position within a world and then act on the world and others in it from that position. For example, players of the game World of Warcraft take time to design a character, choose a fantasy race, and decide on a class. Their experience of the world within *WoW* is shaped by these character choices. But there are also other types of online multiplayer games. For instance, games like Fortnite and Fall Guys are classified as battle royale games. The term battle royal, having not yet gained the 'e' at the end, can be traced back to the 1670s where it was used to describe three women fighting verbally for the hand of a man (Winter 2018). In its modern context, the term battle royale, with the e, is generally attributed to the 2000s Japanese film based on the novel by Koushun Takami of the same name. In the film, a class of school children are forced to fight each other to the death on a remote island for the pleasure of the government. Games like Fortnite and PlayerUnknown's Battleground are more direct replications of this format. Because these games are not role playing games, though players may impose role playing elements on them, I refrain from using the phrase MMORPGs to refer to my research site. Instead, I utilize the term MMOs and MMOGs to categorize the games I am studying. MMOs technically stands for massively multiplayer onlines, but the implied 'g' for games is well known within the online gaming community and the term is well recognized.

<sup>&</sup>lt;sup>2</sup> I will not be using an acronym for online multiplayer games due to the cultural salience of the shorthand OMG and the potential confusion this could cause.

Occasionally in my research I spoke with young people about games that fall outside of the realm of MMOs. Most commonly, I spoke with people about online games wherein only a small number of people play together. Also, these people tend to already know each other and have offline connections. While these games are online multiplayer games, they are not technically MMOs. I have decided to include these games in my research due to their importance in the lives of the young people I spoke with and the online nature of them. Even when players already knew each other, online multiplayer games that were not MMOs were still typically played by people at a distance. This distance in physical space but not virtual space is of particular interest to this research and the meanings that people make from the experiences in virtual environments.

#### Youth, Children, Kids, Young People

The terms youth, children, kids, and young people, to name just a few, all carry with them a variety of contested definitions and functions. Childhood itself is a culturally constructed category. Amy Kyratzis' article *Talk and Interaction Among Children and the Co-Construction of Peer Groups* defines "children" as those young people ~2 years old to ~13 and "adolescents" as 14 to 18 year olds (Kyratzis 2004).

Youth has been used broadly to refer to adolescent, pubescent people who have aged out of total dependence on parents but who do not yet possess the ability to fully care for themselves. It is a distinct social category found in many industrial and non-industrial societies that has its own cultural practices distinct from the larger cultural milieu it appears in (Mead 1928). Youth functions in many instances as a *shifter* that creates and renews the context of other words, in part this means that the true function of the term "youth" can not be understood out of context (Bucholtz 2002). Young people in their twenties and potentially in their thirties may also be categorized as youth depending on social context and socioeconomic position (Bolten 2020).

The term youth is typically used to denote a lack of knowledge with a topic, a young person is green, not yet matured. While the young people I spoke with fit within an age range typically referred to as youth, a label that I will use throughout this dissertation, it is important to note that while they are young they are also experts. My interlocutors typically played video games multiple times a week or every day. While some had restrictions on their screen time set by parents, these players would occasionally use their social skills to bargain for additional screen time as will be discussed in Chapter 4. In addition to being intimately familiar with the games, most of the people I interviewed also spent additional time watching video game YouTube videos and engaging with game related content online. Though they are young, the young people discussed here are also experts who brought to our conversations deep wells of knowledge.

This combination of youth and expertise was discussed by Priscilla Alderson in her research with children at hospitals (Alderson 1992). She argues that a child's understanding and ability to provide informed consent in a medical context is shaped not simply by their age but by their lived experience and social connections. A child who suffers from the same genetic condition as their siblings and who has talked with their family about that condition is more prepared to make important decisions about their health than an otherwise healthy child who is suddenly in a position to make decisions about their health. Through community and collaboration, people of any age are able to understand their conditions and make decisions. I will return to this conversation in Chapter 4 in my discussion of social networks and the work of child psychologist Lev Vygotsky.

Because my research spans from people aged 10 to 14, terms such as teen and preteen do not capture the breadth of individuals included. Youth, as mentioned above, can refer to people much older than those included in my research. Children is the most broadly accepted

term within the academy for referring to this age group, but it is one that is largely disliked by teens and preteens due to the associations of childhood with a lack of experience and agency (Kyratzis 2004). This tension between categories and titles has led me to use a variety of terms throughout this dissertation. Generally, I will talk about the main subjects of my research as young people, children, or kids. While the term kids is less accepted within academia due to its casual tone, it is for this same reason that many young people prefer it. Kid, like youth, also encompasses a greater spread of ages than the term child. A fourteen year old is more likely to self identify as a kid then as a child. Whenever possible, I will provide the approximate age of the person I am speaking with so that their perspective can be better placed in context.

#### Anthropology, Colonialism, and Nature

Throughout this dissertation I will be discussing nature spaces depicted in video games, places that I will largely refer to as virtual natures. While I will spend time in the next chapter discussing the idea of ecology in video games and my recommendation for how to analyze and conceptualize digital environments, I want to spend time here to discuss the struggles that the discipline of anthropology has had with the idea of nature. Nature as a concept is in some ways more relevant to my research than any attempt to define a tangible working understanding of nature as a real thing. The virtual natures I will be discussing are not made directly in the image of real places but are based on cultural and personal ideas of nature in conversation with real environments. For example, part of the world of the *Legend of Zelda: Breath of the Wild* game is based on the city of Kyoto, Japan (Webster 2017). The game is not attempting to create an exact replica of the city and its urban ecology, instead the game designers are building a new world from a real location, their ideas and memories of that location, and the lore of the *Legend of Zelda* games that already exist. Let us return now to think about how anthropology and

academics have thought about nature and the connection between ideas of nature and colonialism, focusing on North America.

The idea of 'nature' itself is in many ways colonial. The history of ideas of nature and culture in European thought up to the 1800s has been traced by cultural geographer Clarence Glacken in his tome *Traces on the Rhodian Shore*. Drawing largely on philosophers, he groups these thoughts into three main categories: nature existing to benefit humans, nature as deterministic of culture, and humans as the rulers of nature (Glacken 1976). Glacken's documentation illuminates the early idea of nature in the European intellectual tradition that from early on saw humanity as separate from nature. As M. Kat Anderson discusses in her book *Tending the Wild*, Indigenous Californian languages typically do not have a word for wilderness or civilization (Anderson 2013). The distinction between the two is a cultural construct, an idea brought to North America by colonial forces. Not having a word for nature as distinct from humans is not unusual to Native California and can be seen in other parts of North America and around the globe (MacCormak 1980).

Wilderness as well is a contested term across cultures. Bill Cronon discusses this issue in his essay "The Trouble with Wilderness" (Cronon 1995). There, he describes how the idea of a pristine untouched wilderness that exists without human intervention in North America is a falsehood. Colonizing forces in North America saw the land as miraculous and beautiful in spite of Indigenous occupation, not because of it. Since humans arrived on the continent they have been shaping the land. Anderson's work adds an additional complication to the idea of wilderness. She describes how people like James Rust, a Southern Miwok elder, see the "untouched" nature of wilderness not as pristine but as feral (Anderson 2013). For Rust as for other Indigenous Californians, human intervention on the landscape is an important aspect of creating a harmonious and liveable land. Despite the work of Indigenous activist and scholars, the ideas that Cronon pushed against still shape land management practices in North America.

Many residents of the United States believe, and much policy is made around, the false assumptions of the pristine myth. This idea suggests that prior to European colonization of the Americas the land was virgin soil that had never been cultivated, managed, or manipulated by humans. In reality, the land of the Americas was fully inhabited by Indigenous peoples prior to colonization, and the area that is now the United States held Indigenous Nations that built monumental architecture, cultivated crops, traded with other nations, went to war, and made peace (Deloria 1973, Kimmerer 2013). The area was so full of human life that the invasion of Europeans and the genocide of Native people and cultures affected the climate of the planet. The killing of Indigenous people and the subsequent decrease in crop cultivation in the area contributed between 47% and 67% of the decline in CO2 in the atmosphere during the time (Koch 2019). This decline in CO2 led to a decline in surface air temperatures around the planet.

A recognition that human life is actually a smaller part of the environment, a tiny circle within the larger circle of nature, is not a new discovery for humanity but is a relatively new revelation for the colonial academy. Indigenous people around the world have recognized that humans are a part of larger nature systems for centuries, and the hegemonic binary of a nature-culture divide is due to colonial and racist practices of Western Europe (Cronon 1995, Anderson 2013, Finney 2014). As with all destructions of social hierarchies, these shifts in theory benefit both the oppressed and oppressors.

Drawing on Indigenous knowledges, often labeled as traditional environmental knowledge (TEK) by the academy, has often benefited those already in power more than the indigenous people whose knowledge is being used. TEK as a category has itself been critiqued for the ways it is used to reshape Indigenous knowledges so that they fit Western ways of seeing the world (Kim 2017). In North America, particularly in the United States, the majority of the biodiversity of the area is clustered in land owned and operated by indigenous tribal governments (Kimmerer 2013). These havens of plant and animal diversity are not an accident, they are the product of indigenous knowledge of land management. Similarly, native nations in

what is now California used to regularly incite controlled burns of brush in the Sierra Nevada Mountains (Anderson 2013). After colonizers arrived, killed native peoples, and outlawed these practices, large wildfires became an ever growing threat to the state's inhabitants. Within academia, native knowledge has often been taken by white researchers and then published in order to increase the prestige of the researcher. This appropriation of knowledge often strips Indigenous knowledge from the place based contexts that are key to understanding the information, and the labeling of this knowledge of TEK has

As I will demonstrate in the next chapter, virtual natures and game mechanics around nature are often based more on the idea of an environment than on the actual ecology of a place. In addition, throughout my dissertation I will use an anti-racist and anti-colonial lens to think through the depictions of nature seen in video games. While these are not the only points of analysis that will appear, they are important frameworks for understanding how ideas of nature get reproduced in video games. Most of the games I will be discussing were made in the United States and Europe, and additional research and analysis should be done that focuses on games made in other countries. For instance, the virtual ecologies of games produced in Japan would be an interesting site to consider.

So, what are virtual natures? Generally, I will use the phrases virtual natures, digital natures, and virtual ecologies interchangeably. In all cases, I am seeking to describe those locations in games that are designed to be set apart or other than spaces designed by humans. I am not arguing that "nature" as a category is separate or distinct from humans. Instead, I use the term more to reference an idea of nature than any actual place. Nature here is in the eye of the beholder and the term functions as a shorthand for those places more populated by plants and animals than concrete. Of course there is overlap here between virtual and non-virtual natures, as often the cultural context of a virtual environment necessitates the examination of human produced goods within that environment. This is not an analysis of the plot and narrative of games, and generally I am analyzing games that do not have a narrative as the driving force

behind gameplay. My dissertation will touch on other topics besides nature in video games, such as creating avatars and social networks, but this work is bookended by analysis of virtual natures.

#### Methods

The research for this project was conducted over an approximately twelve month period beginning in the fall of 2021. Because of the ways real and digital spaces overlap in all of our lives and the lack of a field site that is fully separate from my real life, the start and end points for this research lack clear boundaries. Overall, this research took two main forms: participant observation and interviews. While much of this research, as mentioned earlier, was informed by my own children's knowledge, their expertise is not an official part of this project due to concerns around power dynamics and coercion into participation. Though I have spent countless hours playing games with them and watching them play games, these experiences make up my general background knowledge and are not otherwise captured in my research notes. First I will discuss my participation and observation of online gaming spaces and then I will discuss my interview methods.

Playing games is an important part of game studies research. Not just because one cannot fully understand the in-game experience without playing, but also because kids tend to feel more comfortable talking with researchers about game experiences once they know that the researcher also has some level of knowledge of the game (Squire 2008). I found this to be true during my own research. While the young people I spoke with never outright quizzed me on my knowledge, they often felt more comfortable once they realized I knew about game content. Games are filled with incredible amounts of jargon, and the ability to communicate with the language of the game allowed me to better understand the young people I spoke with. When

interviewing kids it is particularly important to use the language that they use so as to make your questions clear and appropriate (Clark 2011).

For this project, I played a variety of MMOs and did my best to participate as fully as possible. This included trying to engage in the activities of the games, chatting in the text chat box, and using the voice chat feature as was appropriate. All gameplay was done on my personal laptop or on my PlayStation 4. When playing on my computer, I would take screenshots and record my screen whenever possible. This feature is built into *Roblox*, a gaming platform I will discuss in detail later, which made documentation much easier. I kept separate journals for those games that seemed most relevant to my research: *Fortnite*, *Minecraft*, and *Roblox*. Though I would participate in chats in these games, I was surprised to find that voice chat, particularly in *Fortnite*, was not commonly used. Players seemed to prefer using in game communication methods, such as dropping waypoints, to voice communication. This may be because players lacked the technology, were not allowed to by parents, or simply did not want to participate in voice chat. While playing these games was important to my research, I also engaged in communities outside of the game.

Many fans of MMOs also engage with online communities related to those games. These community spaces may be created by the same people who made the game or may be made and moderated by other fans. These affinity groups largely exist virtually or in small groups that meet in person with the exception of fan conventions that draw disparate community members together for the event. Watching YouTube, TikTok, and Twitch streams, running fan blogs on Tumblr, or engaging in forums such as Discord and Reddit were common methods of engaging with game adjacent content for the young people I spoke with. While my research focused on YouTube and Reddit, I spoke with interview subjects about a variety of digital engagements with the games they played. YouTube in particular is a fruitful site because of the comments on videos where fans could respond to content. Reddit was useful for understanding the general subjects around games that were most popular at any given moment and finding memes about games. As Jane Juffer discusses in her own analysis of children's online multiplayer games, memes are an important tool for children's communication online (Juffer 2019). For example when *Fortnite* introduced a no-building mode part way through my research, there was a noticeable bump in content commenting on the change and memes related to people's excitement about the no-build mode. Finally, I also participated in in-person game related events by attending the Midwest Gaming Classic (MGC). The MGC is an annual fan convention and trade show held in Milwaukee, Wisconsin. I will discuss the MGC and my experience there more in Chapter 4. For now, I will describe my interview and recruitment methods.

Because I am working with underage people who are a protected population, I needed to approach recruitment of interview subjects in an indirect manner. While meeting and talking to people in-game works well when doing digital ethnography with adults (Boellstorff 2008, Nardi 2010) is it not a viable method when working with young people. Generally, my interviews came from two sources: in person connections and parents who saw my recruitment posts on social media. While I also made physical recruitment materials, these were less generative. Subject recruitment largely came from posts made and circulated on Twitter and Facebook. There, parents were able to get in contact with me via email if they and their child were interested in participating in this project.

During virtual interviews, parents would occasionally appear at the beginning to say hello and introduce themself, but more often than not the call would begin and end without me seeing or speaking with an adult. Recruitment flyers were distributed in local cafes, conventions, game stores, and libraries. But, despite this range only one research participant was located this way. Personal connections also lead to interviews. These interviews were conducted largely without parental involvement. At the start of the interviews, young participants were assured that there was not a right or wrong answer to my questions, that they had the power to skip questions or end the interview at any point, and that their information would remain anonymous. None of the parents followed up to ask what their children said during their interviews, and some provided unprompted feedback that their child had enjoyed participating in this project.

In addition to the formal interviews I conducted, I also had a variety of casual conversations with kids and parents about their experience with MMOs. One of the benefits of this research project is that I have the pleasure of researching a subject that people want to talk about at length. While finding people to speak with was more difficult than I had anticipated, the interviews themselves were relaxed, comfortable, and engaging.

Overall, I conducted formal interviews with fourteen people. This number does not include casual, not recorded, conversations that also influenced this research. Some follow up interviews were also conducted within this group of interlocutors. While this is not as large a research pool as I had hoped at the start of this project, I am quite pleased with the diversity of research subjects. I interviewed: one game developer, one parent, and a dozen kids. Within this group of twelve children there were six boys, four girls, and two nonbinary youths. The majority of young people I spoke with were white, but a third of them were Black, and some were members of other racial and ethnic minorities.

The income and occupation of the parents of my interview subjects were varied, and parent's jobs included college professors, servers, hairdressers, and warehouse workers. None of the kids I spoke with had regular jobs, but some received an allowance or earned money through mowing lawns. Many of the young people I spoke with were clear that they did not spend additional money on in-game purchases, and most played games that are free to play. Gaming consoles and computers were typically gifts from birthdays or holidays, though many played their games on family consoles and had to share play time with a sibling or other family member. At least three participants lived in single parent households, and because interlocutors were not directly asked about their parent's marital status this is a conservative number.

Interview subjects all lived within the United States and ranged from Hawaii to New York, Texas to Wisconsin. Generally, the children lived in midsize to large cities in either the suburbs

or urban center. Despite their lives being centered in cities, the children I spoke with also participated in activities typically associated with rural communities such as hunting and rodeo events like barrel racing. In order to protect people's privacy, all of the young people and the parent I interviewed will be identified with pseudonyms. Additionally, some details have been moved between different informants in order to keep each participant unidentifiable. The game developer I spoke with will be identified by name, and permission to do so was given during our interview.

Overall, the group of young people I spoke with all lived in the United States but varied greatly in their other demographic markers. Interlocutors came from different socioeconomic backgrounds, racial and ethnic groups, geographic locations, and type of residence, and their parents varied in their affluence and educational background. Despite these differences, all of these children shared similar leisure practices in regards to video games. Video games require having the technology needed to play them and online multiplayer games require a stable internet connection, this is not a low barrier to entry by any means, but access to a mobile phone and internet is becoming increasingly necessary for people's work, education, and social life. Because of this increase in necessity, this technology is also more readily on hand for children's play. Access to the internet and the sharing of play online has allowed for children across the United States from each other to share a similar language and understanding of the games they play.

The Covid-19 pandemic forced researchers to conduct digital ethnographies, but it also made it so that the general population was comfortable and adept at operating video-call technologies. Every young person I spoke with was already familiar with how to operate Zoom, and many of them joined and ended the calls without parental input. Many of the young people I spoke with virtually mentioned that they also use video call platforms to chat with friends while playing MMOs together. While many adults may find video calls a very formal means of communication, this was not the case with the people I spoke with. The use of Zoom also made

the recording of interviews easier. The platform allows screen and audio recording as a pre-existing feature, and the audio quality of these virtual interviews was of a superior quality to those of in-person interviews. In addition to recording interviews, I also took notes during our conversations.

After the interviews, I would type up my notes and import the audio recordings in Otter.ai so that they could be transcribed. After cleaning up these transcripts, the documents with my notes and the transcripts were then ported into NVivo where I could mark up and analyze documents. Screenshots and other visual media were also documented in NVivo. By looking at the interviews and notes in conversation with each other, key themes began to emerge. It is these themes that have shaped the organization and conversations within this dissertation. Though I approached this project with questions in mind, some themes, such as the importance of digital animals, emerged because they are subjects important to the young people I spoke with. By the end of this dissertation I hope you will have gained a greater insight into the complex and heartfelt world of young people's play within online multiplayer games.

### Agency

Agency, the ability to make decisions in one's life and change the shape of one's world, has historically been seen by anthropologists as unavailable to children. Childhood is a culturally constructed category, so as we seek to define it we must acknowledge that these definitions are contested and fluid. Amy Kyratzis' article "Talk and Interaction Among Children and the Co-Construction of Peer Groups" defines "children" as those young people ~2 years old to ~13 and "adolescents" as 14 to 18 year olds (Kyratzis 2004). Children have also been sorted into various stages of development, but this supposedly cross cultural universal means of measuring children's abilities tends to reproduce white supremacy and classism (Schwartzman 1976). Similarly, ideas of agency among youth have also been tied to race, gender, and class.

The sociological analysis of youth has historically been more robust in its analysis of youth in colonial metropoles, but this focus has been at times short sighted. The Birmingham School of sociology was the center for work on youth in the mid 20th century, Hebdige's Subculture: the Meaning of Style being its most long lasting product, and there the focus was on an analysis of class relations and the idea that young people through their fashion and exploits were fighting the class war that their parents could not (Hebdige 1979, Amit-Talai 1995). It was believed that the true activity of youth culture happened conspicuously in the streets and was mainly the arena of boys and young men. While the activity of gaming tends to stay in the household and not in the streets, the consumption patterns and gendered dynamics noted by Hebdige are not dissimilar to the analysis of video games and leisure. Men and masculinity have historically been the main interest of sociologists and anthropologists in part because the work was done largely by men but also because men were thought to be more active cultural agents than women and girls. Similarly, young men are seen as a greater threat to the status quo than young women (Bolten 2020). This issue continues in game studies, where young players are often not considered in the analysis of games and male gamers are taken as the norm (Garrelts 2014).

Hebdig's understanding as style, and thus conspicuous consumption, as a tool of class warfare can be seen in Pierre Bourdieu's analysis of taste as a tool of creating and maintaining class hierarchies (Bourdieu 1984). For Bourdieu, a person's desires and their assessments of whether a thing is aesthetically pleasing or ugly are all a part of their social class. These judgment values can not be fully disentangled from class or visa versa. Class reproduction in Bourdieu's analysis is not simply the transfer of wealth but lies in the transfer of ideas, values, and critiques. Young people are not the focus of this analysis of class reproduction, but they are inherently key players in the learning and continuation of classed ideals. Video games are not in themselves tied to a single social class, but we can see Bourdieu's use of taste and in the history of video games. We will return to this in Chapter 3 and critiques of arcades and pinball.

Despite this history of excluding youth from cultural analysis, there is an increasing effort by researchers in anthropology, childhood studies, and game studies to look at the ways young people are agents in their lives. Catherine Bolten's work *Serious Youth in Sierra Leone* shifts the analysis of youth in a new direction (Bolten 2020). Her use of agency and agentive cuts and her reflection on materiality in the creation of possibility are key tools for understanding youth in our current times. Throughout the ethnography she examines how the young men work to assert their adulthood through performances of seriousness that are often repudiated and "cut" but those in the community who are already seen as adults. Agency is not simply something one has but is a contested field in which the labeling of a person as "youth" is used to cut their agency and reestablish a social order. As Priscilla Alderson stated in her analysis of children' competency to consent to medical care, "Relying on parents' estimations of their child's competence works well when the child and parents agree. Yet competence only becomes a crucial issue when they disagree." (Alderson 1992). A young person's agency is both immensely valuable and most likely to be dismissed when it is in defiance of the wishes of a parent or other adult.

Rachael Shillitoe and Anna Strhan's research on non-religious children's negotiation of religious activities in schools takes seriously the ways young people are pushing against power in their everyday lives (Shillitoe 2020). Like Bolton, Shillitoe and Strhan argue that a child's agency is relational and should be understood in a larger context. Shillitoe and Strhan mention an example of children sneaking toys into the worship service scheduled just before the first playtime of the day at a grade school. The teacher's at the school disliked the practice and were working to stop children from bringing in these toys and had asked them to leave any on a bench at the entrance to the hall. Despite this, children managed to sneak in toys and spend time during the service doing more important activities such as organizing Pokemon cards. "Here children's agency was not only implicated by the adults around them but also by non-human actors. The presence of these objects and the strategies developed by the staff to

stop them being used during worship shows the intricate interrelations of human and non-human actors in which children are located and how their agency is shaped by these networks." (Shillitoe 2020). The tools of play, be they cards or video games, are another part of the context of youth agency.

My research and writing adds to the literature around children's agency and the power of youth to affect their worlds. The low-supervision spaces of MMOs means that they are often heavily shaped by the plans of young players. While adult game developers may set limits on the play possible in a game, just like the teachers trying to stop children from bringing toys to worship service, there are always ways to play against the game and reshape what is possible. The children I spoke with are shapers of their worlds. They push against the power of game developers, capitalism, and their parents. While anthropologists working with children are already pushing the discipline towards seeing youth as full participants in their lives, there is still work to be done. This dissertation contributes to this growing body of literature on youth and agency, and continues to incorporate the importance of objects and non-human actors in the lives of children.

#### **Chapter Summaries**

Each chapter I will focus on a different aspect of nature, social networks, and MMOs. While all inform each other, they are also tied together by an analytical framework that is based on anti-colonial, anti-racist, and anti-capitalist scholarship. Chapter 1 will go into more depth on these academic lineages and how they relate to the analysis of MMOs and children's play. This chapter will also discuss a new way of conceptualizing virtual nature spaces in video games by recommending the framework of restoration ecology. Chapter 2 focuses on realism and the competing ideas of realism seen in the video game industry and among players. It looks at how these ideas of realism affect game development. In Chapter 3, I will turn to the creation of an avatar/player character within the game world. This chapter will focus on the ways capitalism shapes what is possible in an MMO because of the mainstream video game industry's orientation towards and valorization of white heteronormative men. Chapter 4 looks at the relationships and social networks that young people produce in and around MMOs. I will look at both the ways MMOs allow players to access social connections and the ways it provides space for people to harm each other. This chapter will continue conversations around gender in gaming spaces. Finally, Chapter 5 will look at the importance of virtual animals in the lives of young players. These relationships formed with non-human non-player characters are often deeply emotional for players, and they may present game makers with new ways to make people care about the creatures we share this world with.

This dissertation is a small window into a much wider world. Children are not just passive consumers of culture, they are actively engaged in the production and critique of the media they play with. By looking at nature spaces in games and how young people are engaging with them, we can better understand how people think about the environment. I am not so optimistic as to think that playing video games will make people want to stop global warming, impossible if for no other reason than the environmental impact of gaming infrastructure (Chang 2019). But, perhaps, games can give us clearer vision and new ideas for how to approach our current problems. Young people enact change both big and small every day. Youth activists around the world have pushed governments to do more to preserve our environment. Global climate change is not the focus of this work, but just like the Covid-19 pandemic it is impossible to separate our current climate crisis from conversations around youth, capitalism, gender, and race.

## Chapter 1:

## **Digital Nature as Restored Environments**

In early 2020, Kayla and her classmates spent a day in science class learning about climate change. After receiving only a brief introduction to the subject, Kayla and her friends decided to do some research on their own. They learned about the trash island in the Pacific Ocean and the dangers of air, water, and noise pollution. With all of this information, this group of grade schoolers decided that they had to do something. They created an article about pollution and shared it with their friends, families, and classmates. At home, Kayla is an avid recycler and composter who helps keep her parents on the straight and narrow path of environmentally friendly waste management. Kayla is not just a kid who cares about the planet, she is also a gamer who likes to spend her free time in games where she can care for pets, build houses, and explore the nature inside her games.

Virtual nature spaces are a vital part of a video game's world and gameplay, but despite this importance it remains an understudied aspect of video games. This is particularly true for anthropologists who studied gaming communities, but even video games studies researchers have often ignored virtual natures. Books such as "The Ecology of Games" (Salen 2007), use the term ecology to discuss the interconnected networks of actors that are part of games but they tend not to look at the virtual natures within games. Game worlds are often analyzed through a narativologist lens that seeks to understand the way the story of a game is told through the virtual natural and built environments. But while research on nature in video games is relatively new, academics like Alenda Chang and Irene Chien have created detailed and thoughtful analysis as I will discuss in the next section.

Video games and their players are typically critiqued for their disconnect from the "real" world and the outdoors, as seen in this cartoon by Gary Varvel. Concerns that children will be



consumed by the games they play are common across countries, cultures, and political ideologies, and many people are concerned about the effects of screens on young people's minds (Louv 2005, Parkin 2016). But as we saw with Kayla, children can play games and care about nature. Such worries are

beyond the scope of my research, but it is worth noting that other research has shown that games are not as harmful as some have thought (Spina 2004) and may even be good for children (Toppo 2015).

This chapter will describe my method for analyzing nature spaces in video games as well as lay the foundation for major themes throughout my dissertation. I will begin by looking at what others have written about nature in games before putting forward my own framework: digital natures as restored ecologies. We will look at the history of the American West at how colonialism shaped the landscape and people's memory of the area. Then, I will dig into my three main axes of analysis and how capitalism, anti-Blackness, and gender affect both real life restoration ecology and the production and experience of virtual environments. Finally, I will look at the battle royale MMO *Fortnite* to think about nostalgia, nature, and how ideas of nature often supersede the production of "realistic" virtual environments. In the end, I will have demonstrated that digital natures are cultural products that shape and are shaped by ideas of real life nature spaces and provide a framework for the analysis of virtual ecologies.

#### **Nature in Games**

Riley, an 11 year old *gamer* who we will spend more time with next chapter, gave me a tour of her *Minecraft* creations. She loved building homes in the game and took the time to walk me through a few of her favorite creations. Our second stop is her Hobbit Hole, a home built into the side of a hill with a big round door that looks like it came from Middle Earth. Riley explains that she followed a YouTube tutorial that taught how to make the home, but it was clear that she had added some personal touches. On our way to the front gate she turns her character to the left so that we can take in the small pond and bamboo shoots that make up the axolotl sanctuary she has constructed. Her choice to use the word "sanctuary" to describe the habitat she made shows a recognition that the environment she had built this home in was not the natural home of axolotls. Riley has great control over the nature of her *Minecraft* world and is able to mix fictional, natural, and unnatural features to create her own strange ecology.

Games studies has often looked at the value of video games in education (Gee 2008, Fanning 2014), and video game environments have not escaped that trend. While game environments are always teaching players something, there has often been a tension between what young players want out of a game and what adults would like them to learn. As Balmford et al. showed in their article "Why Conservationists Should Heed Pokémon," children in the UK were better at identifying different Pokémon then they were at identifying local wildlife (Balmford et at. 2002). While some have taken this as a sign that children are being irreparably damaged by video games (Louv 2005), others have seen this as proof that video games can be used to help people learn about real natures (Kozik 2019, Crowley et al. 2021). Virtual natures often draw on real nature spaces even when they are not attempting to accurately recreate them.

Players are always learning to interpret game natures both in the context of the game, in the context of real life, and visa-versa. A player who has never traveled along the Oregon Trail by wagon has their imagining and understanding of the environment of the Western United States shaped by the classic game. My research has not focused on formal education, though it is clear from Joanne O'Mara and Kynan Robinson's article "Mining the Cli-Fi World" that video games can be used in environmental education. O'mara and Robinson dive into the use of *Minecraft* as part of a curriculum to help grade school students learn about climate change and renewable resources (O'Mara 2017). The class project was framed for the students as an escape from a dying Earth onto a new planet where they would have to avoid the climate mistakes that their forebears had made. More research will need to be done on the use of video games in environmental education, but let us return to the two key pieces of recent academic literature on nature in video games mentioned earlier.

My work most clearly continues the writing of Irene Chien, an assistant professor of media and communication whose work focuses on race and gender in video games. Though she does not focus on virtual ecologies like Alenda Chang and myself do, she dives into the ways virtual nature spaces are used to reinforce ideas of race and gender. Her chapter "*Journey* into the Techno-Primative Desert" (Chien 2017) is an important look at the way the production of a desert environment in the video game *Journey* is used to avoid and, perhaps accidentally, reinforce particular racialized ideas of deserts. I will return to her writing throughout this chapter and the next in order to analyze the desert of *Fortnite* and the relationship between games and realism.

Playing Nature by Alenda Chang has quickly become a key text in the emerging research on digital environments (Chang 2019). Her work is extremely useful because of its deeper analysis of nature in video games. She looks at a variety of games, from *Neko Atsume*, a cat collecting mobile game, to the *Katamari* series, a collection of stuff-gathering and world-destroying puzzle games. Her approach focuses on analyzing games as a text and draws on the canon of ecocriticism. In order to analyze a wide variety of games Chang borrows a term from ecology: mesocosms. Mesocosms are, she explains, "experimental enclosures intermediate in size and complexity" that allow researchers to recreate naturally existing environments in spaces that they can have more control over. These metaphorically walled off spaces are imperfect replications of the nature outside of them, but they give researchers space to try experiments that would be difficult if not impossible to test out in the wild. Chang argues that we should think about video games as mesocosms: human made replicas of natural spaces that allow people to try, fail, and play.

Throughout *Playing Nature* Chang puts the lens of mesocosms into action by analyzing a variety of nature related games. She discusses how *Stardew Valley* uses its awareness of farming game tropes to create a farm simulator that allows players to experience nature in a multitude of ways. Of course, like any mesocosm, the virtual nature of *Stardew* is purposefully inauthentic. Players never have to worry about their crops becoming diseased or mucking their cow's barns, they can just enjoy the pleasure of cultivating the land and slaying monsters in the local mine. The environment of the game world is not just a backdrop, it *is* the game. While Chang's work is a vital addition to the literature around video game natures, my work looks not at video games as a text but video game natures as an environment to be inhabited.

Both Chang and Chien have greatly shaped the current landscape of writing and research on virtual environments. While my dissertation draws on both, it also works to fill some of the gaps in their work. Irene Chien and Alenda Chang both focus on games as text and rarely look at the experience of players engaging with the game. Neither takes an ethnographic approach to their research. While both take into consideration the larger political and social contexts of the games and their environments, neither captures the immersive power of games. In the next section, I will discuss a new way of looking at virtual environments that focuses on player engagement and experience within the world of the game.

#### **Digital Natures as Restored Ecologies**

In order to capture the importance of player involvement in games as well as the historical biases that shape those landscapes, I am suggesting a framework of restoration ecology for studying virtual nature spaces. This means, in part, that landscapes in games are

seen as reproductions of "more real" and "more natural" natures. These digital landscapes reflect the anthropological struggle with the term over the years that is a continuation of European intellectual movements. Eric Hirsch and Miacheal O'Hanlon's edited volume *The Anthropology of Landscape* brought together a variety of scholars in order to codify landscape in anthropological thought (Hirsch 1995). Landscape came to English from Dutch in the 16th century and was first used in regards to paintings. The term then was taken from paintings and used to describe real life alongside words like picturesque. For Hirsch and the writers in the volume, landscapes are a cultural process, not a static image.

Landscapes are always dependent on cultural context and "there is no absolute landscape" (Hirsch 1995). The origin of the word landscape as a descriptor of paintings brings us back into video games and the translation of natures from extent to depictions. Nature being turned to art shaped how Europeans saw nature, and now nature is being turned back into virtual, inhabitable art spaces. The history of ideas of nature and culture in European thought up to the 1800s has been traced by cultural geographer Clarence Glacken in his book *Traces on the Rhodian Shore* which I discussed in the introduction. While Glacken does not focus on art, it is clear that the art movements analyzed in *The Anthropology of Landscape* were part of the same tradition as the philosophers in Glacken's research. The division between nature and humanity is a particular cultural lens that has influenced current understandings and practices of restoration ecology.

This tension of art, reality, and the ability to be in a landscape or game is seen in video game studies. My use of the lens of restoration ecology pushes anthropologists of virtual spaces to see them as lived in. Unlike Chang's term mesocosms which invokes the idea of spaces created by researchers to do experiments, restored environments are created for people to experience as "real." The key difference is that mesocosms treat the player as an outside force acting on the game while restoration sees players as being in the game. Chang's literary analysis framework does not take players into account in the same way an ethnographic

approach does. This difference of approach is useful in different ways depending on the game genre. Some games, like city builders, do treat the player as an all powerful entity invisibly shaping the world. But when we look at MMOs and role playing focused games, one of the goals of gameplay is immersion. My other hope with using the language of restoration is that it will help bring the critiques of restoration to the environments of video games. Who gets to decide which natures are more real and more natural? How have legacies of colonialism and racism shaped the landscape?

Restoration ecology is the study and practice of recreating environments that have been damaged or destroyed. It has a variety of issues and tensions within the discipline that can also be applied to virtual restored environments. Which landscapes are worth restoring? What are they being restored to? Authenticity is one of the key questions of restoration ecology. Marion Hourdequin and David G Havlick's 2013 article "Restoration and Authenticity Revisited" divides the authenticity of restored environments into two categories: ontological authenticity and epistemic authenticity (Hourdequin 2013). As they explain: "Ontological authenticity focuses on the extent to which a place possesses and retains a genuine identity, whereas epistemic authenticity involves the ways in which a place makes available genuine knowledge and understanding of itself." To put it another way, the ontological authenticity of a restored landscape tends to focus on making the landscape look as untouched and "natural" as possible while epistemic authenticity focuses on the ways visitors to the space are led to see that space as a historical and contested site.

We can see these issues of restoration in video games as well. Some games seek to recreate specific landscapes and the cultural context of those landscapes. For example, while *Red Dead Redemption 2* does not seek to remake a specific American landscape, choosing instead to create a fictionalized location that is meant to exist in an otherwise real America, it does recreate the feel and flora of a variety of landscapes in what we now know of as the United States, and the game includes much of the history of those spaces such as the stealing of land

by white colonizers from Indigenous peoples. This focus on both ontological authenticity, the accurate reproduction of a space, and epistemic authenticity, the historicization of the space on the landscape, is done with great care in *Red Dead Redemption 2*.

The environments and lighting of *Red Dead Redemption 2* are, according to the game's art director Aaron Garbut, not influenced by Western films but by the work of pastoral landscape painters (Gies 2018). The nature in the game is explicitly shaped by European art history and the valuing of vistas and open views as a feature of landscape paintings. As mentioned earlier, a key aspect of considering digital nature spaces as restored ecologies is the ability to bring a different sort of critique and line of questioning to these places. In Chapter 3 we will return to video game production and critique the labor practices that go into creating games in major studios. Rockstar Games, as with most large video game studios, does not undertake all of the labor involved in the creation of a game. Many studios contract the creation of game assets, the three dimensional models that are in the game, out to companies that are typically located in east Asia (Thomsen 2018). Rockstar Games appears to have done most of that work in house for RDR2. According to the credits at the end of the game, 36 people were on the terrain team, 11 worked on vegetation, and 16 worked on animals and creatures. That last number does not include the 2 employees whose work focused solely on the horses in the game. Red Dead *Redemption 2* is not unique in the amount of labor required to create a game of this caliber, and while the world of the game is not the main focus of this chapter it is a useful representation of the ways nature, labor, and history are used to create virtual environments. Let us look at the history of the American West in order to better see how deserts and Americana landscapes in games reproduce troubled histories before turning to another digital representation of the West in Fortnite.



#### **The American West**

The land that is now the United States has been populated by humans for at least 12,000 years, though many sites that go back even further are still contested (Hoffecker 1993). These populations came from the Bering Strait, or possibly from watercraft across the Pacific Ocean, and spread out throughout the American continents. According to proponents of the Kelp Highway hypothesis, maritime travelers may have been able to move down the Pacific coast of the Americas as early as 18,000 years ago (Erlandson 2007). What began as only a small transient population became a variety of diverse and expansive indigenous culture groups. Although they were in contact with people from the European continent for centuries, the voyage of Christopher Columbus in 1492 is the standard grade-school date for the beginning of intense colonization of the Americas by European forces.

The ensuing colonization, genocide of Native Americanas, and mass abuse of African and African Americans through chattel slavery that happened in the last 500 years changed the shape of the world. People have acted upon the land, and the land itself was also seen as an agentive force in the history of the United States. As Catherine Albanese argues in her book *Nature Religion in America*, as summarized here by Kerry Mitchell, nature is "a symbolic center that Americans throughout their history have used to negotiate their relation to ordinary and extraordinary dimensions of life" (Mitchell 2016). In order to look at the intersections of race, gender, and colonialism in the United States, we will look at the history of the pristine myth of American land, the genocide of Indigenous peoples, the enslavement of Black people, and the myths surrounding the American West. While I have covered some of this information in the Introduction, I want to more clearly tie these ideas here into the cultural production of the American West.

The American West is an iconic landscape that exists in its current state because of a history of Indigenous management, colonial devastation, and settler ideologies. European settlers, both those in the British colonies and Spanish conquistadors who entered the continent from further south, sought the complete eradication of Indigenous peoples in North America. They claimed that the land of the Americas was under-developed and misused, and argued that it was their right to take control of the territory and work the land to its potential (Mintz 1985). Such claims by colonizers to the land did not end at the beginning of colonization, and the Revolutionary War brought new forms of violence and genocide to the native population of the British Empire was because they wanted to expand westward into the continent and take more land from Indigenous people. The British were content with the colonies remaining small and had already signed a number of peace treaties with various Native Nations before the Revolutionary War (Deloria 1973). After the United States became an independent nation, it began anew the conquest of Native American land and genocide of Native people as promised in the Constitution.

This process was done through physical violence and warfare as well as cultural and symbolic violence that was done to try and destroy Native ways of life. Outright war was made against various Native Nations, and those people that were not killed in war were often

brutalized, forced off their land, and made to suffer (Mintz 1985, Blackhawk 2006). The normalization of violence and symbolic violence were, and continue to be, ways in which the genocide of native people became acceptable to the white population of colonizers. Violence towards native people became a normal part of life in the United States for colonial forces and the descendents of white colonial settlers. From smallpox jokes to signs made during the Walleye War of the 1970's that said "Save a Walleye Spear an Indian," physical violence towards Native Americans is one of many aspects of colonial culture in the United States (Nesper 2002).

For the colonial forces, one justification for colonization was that Indigenous people were not caring for the land. In order to make the land of the Americas appropriately "productive" white colonizers used the labor of enslaved Africans to work the land. Poor whites worked the land as well, but they did so under their own volition. Conversely, Black people who had been forced onto packed slave ships to cross the Atlantic were sold into chattel slavery throughout the Americas and forced to labor. In the colonies and later in the US, many slaves were forced to work cotton and indigo plantations while others built the structures that are now homes, government buildings, and universities (Alexander 2010).

We can not fully make sense of either white colonial conquest of the land or the genocide and terrorizing of racialized others, such as Native Americans and African Americans, in isolation. Both of these desires for control were interconnected and fed into each other, a feedback loop of racism and colonialism. As the new US began to spread to the west, new myths and discourses were created to naturalize this expansion. Manifest Destiny, the idea that westward expansion by European colonizers was ordained by God, became the colonial cry to explain and justify taking land, removing Native Americans, and abusing Chinese immigrants. This westward movement was said to be not only ordained but preordained by the Christian God for the benefit of white Christians seeking their glory and home in the new territories. One way that these travelers knew that God had meant for them to do all of these things was

because the land that they came across was so incredibly sublime (Cronon 1995). It was believed that the beauty of nature these colonizers were seeing was proof of the power of their divine provenance and thus also proof of the goodness and genuineness of their claim to the land. For many of the colonizers moving west, the land itself was justification for the histories that had brought them there as well as for the future harm that would be done to people in the name of development (Mitchell 2016).

Understanding the oppressive forces of the pristine myth, manifest destiny, and the American West and how they continue to work to this day requires both a historical and an environmental perspective (Pellow 2014). As colonialism continued through the 1800s in what is now the United States, the American West became the myth of freedom and cowboys. While cowboys are often imagined as white in reality, throughout the mid and late 1800s about twenty five percent of cowboys were Black, and many more were Hispanic or Indigenous (Nodjimbadem 2017). Many cowboys rode out onto the plains to work with cattle and other animals as a way to escape white supremacist colonizers intent on expanding westward. The nickname "cowboy" was first used as a racialized insult meant to demean the manual labor of an occupation that was largely not white. But the history of cowboys was reshaped through the popularization of The Western film and the myth of the brave homesteader. Through these movies, ideas of white supremacy, Indigenous mismanagement of land, and manifest destiny were reinforced.

The American West exists through layers of nostalgia, colonialism, and power. In *Red Dead Redemption 2 (RDR2)*, the landscape is meant to resemble the ecologies of the American West but none of the towns or structures are exact representations. Instead, the map of the game is a compression of deserts, prairies, forests, bayou, and snow mountains into a more easily navigable game map. While *RDR2* explicitly discusses colonialism, the murder of Indigenous people, and westward expansion, other games incorporate the aesthetic of the American West without critiquing or examining the origins of those trappings. At the end of this
chapter I will examine *Fortnite* and the ways it creates an impossible desert landscape for players to experience. For now, we will look at three different factors that interface with digital ecologies that I will return to throughout this dissertation: capitalism, anti-Blackness, and gender.

### **Capitalism and Valuing Nature**

Colonialism and the subsequent imposition of a capitalist economic system have had an immense impact on the ways people think about nature spaces. In Chapter 3, I will focus on the ways capitalism works in the production of video games and changes the player's relationship to games. Here, we can think about which natures are worth reproducing in a digital form. As I will demonstrate in my analysis of *Fortnite*, iconic ecosystems become valuable sites worth recreating for players. If a game is not trying to represent a specific location the developers will often try to create a conglomeration of real world natures that can help players feel like they are in a real place like we saw with *RDR2*. Working in tandem, colonialism and capitalism have shaped nature into something to be consumed. We can see this both in restoration ecology and in digital nature spaces by looking at who pays to restore an environment and which environments are seen as worth restoring.

Money for environmental restoration in the United States comes from a variety of sources including private foundations, the US government, and corporations. Though government funded restoration is common, it is not unusual for the cost of restoration to come from the same companies that damaged the environment. The Baytown Nature Center near Houston, Texas, is home to a diverse array of birds and a beautiful wetland restoration. This project was funded because the US government forced the oil companies Exxon, Texaco, and Chevron to pay reparations after dumping millions of gallons of waste into superfund sites in the area (Brown 2022). Capitalism values profits over people, and this can be seen in the oil

34

industry, its pollution, and the use of oil money to restore environments destroyed by the companies paying for the restoration. Pipeline projects, like Line 3 in Minnesota and Wisconsin, disproportionately harm Indigenous communities and lands (Arvin 2021). These lands and peoples are seen as less valuable than the oil flowing through the pipelines. Pushing back against the capitalist tendency to decide value based on profitability is a major struggle in environmental restoration. Oftentimes, tourism becomes both a means and a menace for restored nature spaces.

Ideas of nature brought to North America by European colonizers saw nature as a resource to be gathered and used (Kimmerer 2013). A forest was deemed good because its trees could be harvested for lumber, and its value as an ecosystem was seen as negligible. The ability of land to hold cultural memories and knowledge, as learned by Keith Basso during his time with the Western Apache, was ignored by colonial ideas of truth (Basso 1996). Even after the creation of National Parks and the increased national awareness that it is best not to industrialize and extract resources from all nature spaces, this idea was not extended to all natures. Resource extraction is a major element of gameplay in many games, and in the *Minecraft* community, there are norms around the proper way to extract resources.

Taliah, a middle schooler who loves to play and build in *Minecraft*, introduced me to a frowned upon resource extraction method in *Minecraft*: strip mining. In the real world, strip mining is a process wherein top layers of soil and rock are removed in order to access mineral deposits. Strip mining creates a great deal of environmental damage by upsetting local ecosystems, creating large barren holes, or even removing whole mountain tops. In *Minecraft*, strip mining involves the player digging straight down and creating a one block wide by two blocks tall pathway that is only just big enough for the player character to travel in. The label of strip mining comes from the community and not the game itself.For Taliah, strip mining "break[s] the golden rule" of the game which is to not dig straight down. This unofficial rule is meant to protect players from falling into lava or a ravine and dying deep underground. Taliah was once

playing with a friend who gave her high quality mining tools, but because she dug straight down and died, she lost the tools.

The environmental effects of strip mining in the game are not a concern for Taliah, largely because the game itself does not react to a player engaging in strip mining. Perhaps if the environment in *Minecraft* was as harmed by this mining practice as it is in real life, players would feel differently. But, for the creators of *Minecraft*, creating a realistic consequence for this destructive mining method was not worth including. While Taliah would still occasionally engage in strip mining, she also recognized that it was a less viable resource extraction process for her long term health and safety. Resource extraction always comes with risks, even in games. While some games encourage players to protect some environments and not others, *Minecraft* allows players to use the nature in the game however they see fit.

In real life, those nature spaces that become protected from extractive harm are often those home to unique landscapes, such as Arches National Park, or charismatic megafauna, such as the elk and bison of Yellowstone National Park. Charismatic megafauna, those large animals that catch the attention and imagination of humans, help create protected spaces in part because the chance to see these animals also brings in tourist dollars (Skibins 2013). By valuing only particular natures based on the profits that they can generate, capitalism limits people's ability to interact with environments outside of an economic mindset. Let us return to the American West through the examination of Joshua Tree National Park and the ways Indigenous activists and anthropologists have worked to override colonial narratives. Because Joshua Trees are an iconic plant in the Mojave desert, they are often used in unnatural ways to signal desert and Western landscapes in video games such as *Fortnite*.

# Joshua Tree National Park

This tension between extraction and tourism is also at work in Joshua Tree National Park (JTNP). A desert landscape filled with beautiful and unique flora and fauna, JTNP covers over 1,200 square miles of Southern California. The park is situated in between the Mojave and

36

Colorado/Sonoran deserts and is a transition point between the two ecosystems. JTNP was not established until 1994, though it has been a national monument since 1936. It was instituted as a national monument due to the environmental activism of Minerva Hoyt who continued to



advocate for the land's establishment as a national park until her death (Watt 2011). I want to narrow in on the section of land now called Joshua Tree National Park instead of the larger deserts surrounding it because JTNP and the National Park system in the United States is a structure of colonialism. National Parks were created with the intent to protect land by keeping people off of it, this included Indigenous nations that had called the

land home for thousands of years (Cronon 1995). In the decades after the founding of Yellowstone, laws were introduced that criminalized Indigenous habitation of the area (Ritner 2020). While National Parks have protected threatened landscapes, they are a colonial solution to a colonial problem.

The land that JTNP now sits on is the ancestral land of the Serrano, Chemehuevi, and Cahuilla tribes who were displaced from the area so that the land could be sold to homesteaders, ranchers, and miners. These native groups managed the land in the area, cultivating crops and thriving in the harsh desert environment. While this land was strange to the European colonists traveling west across North America, it was a sacred landscape and home for the Indigenous peoples in the area. The forced removal of Indigenous peoples is often erased from the history of the park told to tourists who visit the area (Watt 2011). Also removed from the narrative are the industrial mines, air force bases, and landfills that continue to operate in the area. Through its signage and visitor materials, the JTNP has reshaped its history into one that removes conflict.

Now that the park is being marketed as a pristine desert with only the occasional brave, white, settler, all evidence to the contrary gets swept under the metaphorical rug. While there has been some effort to add diverse voices and complicate the park's history, these are still typically done with a white colonial visitor in mind. On the park's website when discussing the Indigenous history of the land, the web page opens with this: ""Oooohhhh! Look at all of that food!" Katherine Saubel, a native-speaking Cahuilla describes how she felt the first time she flew over the desert as a guest of the Bureau of Land Management. Mrs. Saubel knows very well that her description points out the difference between the native point of view and the way most people see our desert here in Joshua Tree National Park." (Hunter 2021). Even on the park's website where the writer is making an effort to include Indigenous voices, they are still centering colonial inhabitants. By describing Katherine Saubel's words as "the native point of view" that is distinct from that of "most people," the park is reminding readers that the majority of people on the land there are not Indigenous. Similarly, JTNP is described as "our desert" which emphasizes that through colonization and forced displacement the park is not in the care of Indigenous tribes.

While anthropologists have historically struggled to present Indigenous voices in an accurate way, the work of anthropologist Lowell Bean in collaboration with elder Katherine Siva Saubel, quoted above, prioritized the Indigenous perspective. Katherine Saubel was a Cahuilla tribal leader who worked to preserve her people's language and cultural practices. She taught Cahuilla language and ecology classes to younger generations and helped preserve knowledge that was threatened by colonial forces (Ortiz 2011). Lowell Bean spent his academic career working with the Cahuilla people and documenting their lifeways and relationship to the environment. He and Saubel collaborated for over fifty years and co-wrote the book *Temalpakh: Cahuilla Indian Knowledge and Usage of Plants* which centered Indigenous environmental

knowledge (Bean 1972). Bean's work pushed against anthropological norms of the time and was praised for his research methods (Kearney 1973). Saubel's work has shaped the lands and cultural context of her people, and Cahuilla activists continue to push against the centering of white narratives in the Mojave and Sonoran deserts.

The plants known as Joshua trees are called hunuvat chiy'a or humwichawa in the Cahuilla language and are not trees but instead yuccas (Rodgers 2023). The name Joshua tree came from Mormon settlers embracing manifest destiny and seeking their promised land with little regard for local peoples. Joshua Tree National Park is a complex site of contested narratives. The Cahuilla people and activists such as Katherine Saubel and anthropologists like Lowell Bean worked to preserve and celebrate Indigenous life in the area, but colonial names and stories are often those that continue to be shared.

Indigenous historians such as Ned Blackhawk have also worked to reshape popular understandings of the history of North America. His more recent book *The Rediscovery of America* (2023) looked at North American history from multiple Indigenous perspectives, but let us turn to his older book *Violence Over the Land* (2006) where he focuses on the arid southwest. In *Violence Over the Land*, Blackhawk describes how the peoples of the Great Basin negotiated with various colonial forces and each other up until the arrival of British-turned-American westward expansion which sought to erase all Indigenous peoples through mass murder. These invasions also brought environmental harm as colonizers herded their cattle into the desert and trampled local ecosystems (Blackhawk 2006). Blackhawk's work centers violence as the means for understanding Indigenous-colonial relations and pushes back against popular histories of brave settlers domesticating the West.

We can see similar issues of narrative and continuity at work when it comes to the production of environments in video games. In restored and protected lands creating a realistic nature experience often means hiding complicated histories. Chien's chapter on *Journey* illustrates this well: "The desire for the desert apocalypse is therefore also a racialized, imperial

desire to inhabit Native Americans' presumed primal connection with the natural desert environment, at the moment when Native Americans are no longer a threat" (Chien 2017). Productions of virtual environments are often based on idealized recreations of real world natures that allow players to access and inhabit them in colonial ways. It matters who lives in the desert and who gets to name the plants, even in virtual environments.

### Anti-Blackness in Nature Spaces

Restoration ecology and protected lands must also think about how the history of anti-Black racism has shaped the re-creation and use of nature spaces. Carolyn Finney shows in her book *Black Faces, White Spaces* that Black people in the Americas have had their access to public nature spaces limited by white supremacy through slavery's reshaping of nature symbols, white American ideologies of wilderness, and the explicit anti-Blackness faced by people when they try to access nature. During slavery, many aspects of nature were used by whites to inflict physical and symbolic violence. The image of a tree became twisted into a cruel reminder of lynching, and the natural resources cultivated through slave labor such as cotton, indigo, and sugar were made into reminders of white supremacy (Finney 2014). Plants such as stinging nettle were even used by whites as tools of punishment (Jones-Rogers 2019).

The ways in which white people used nature as a means of terror have resonated through time and still affect the present moment. Environmental racism, including the ways in which toxic waste and poor living conditions are concentrated in Black communities, is also a continuation of systems of white supremacy that devalue the lives of Black people and use nature against people of color. Lynchings also continue to be a means through which white supremacy is reinforced, and white people's understandings and white supremacist manipulations of nature continue to effect Black people's ability to access nature spaces. This is also true for digital nature spaces which are often made by white developers with a white audience in mind. Restored ecologies and digital nature spaces are always creating a "normal" of who is on the landscape and what that landscape should look like.

Nature, and a particular vision of rural life characterized by working-class white laborers and small town conservatism, has been fetishized and valorized by many white Americans as normal, average, and typical. This particular vision of whiteness, born in part from ideas of *terra nulis* and slavery, has been used to mark rural spaces as white spaces. Finney shows in her book how Black Americans have been made unwelcome in nature spaces, like national parks and other rural areas, by both the people who operate the parks and other park goers (Finney 2014). White people working in parks have explicitly denied access to people of color or policed them more than they police white patrons. More subtly, park brochures and guides often fail to depict Black people in their images of park goers. In one example Finney gives, a rock climbing guide included only one Black child in their brochure, "[t]he photo was of a Black girl on a belay, but she was crying and clearly not having any fun" (Finney 2014). It is clear that the creator of this brochure, like many other people creating informative guides and media for National Parks and other outdoor adventure groups, failed to consider how Black people would react to seeing this image.

Nature spaces have also been literally taken from Black people by the US government. These land seizures have happened across the United States, and the story of Bruce's Beach is "particularly egregious but not atypical" of the racism faced by Black landowners (Kahrl 2023). Andrew Kahrl, a history professor and Black Studies scholar, has written books about the history of Black dispossession in the American South as well as articles recounting the history of Bruce's Beach. Willa and Charles Bruce operated a popular resort for Black beachgoers in Southern California in the early 1900s. Throughout their time operating the resort they faced harassment from local whites and white supremacist organizations. In 1924, the city of Manhattan Beach invoked eminent domain and seized the land (Kahrl 2023). When we look at the history of racism and access to nature in North America, it is important to remember that Black dispossession was not an accident. Anti-Black racism has shaped the land of this country.

While digital natures have the potential to reinforce anti-Blackness and racism, they can also subvert these hegemonic pressures and force players to imagine and interact with the landscape in new ways. Part of the problem is, only 4% of game developers are Black according to the International Game Developers Association 2021 report (Michel 2022). This percentage does not get further broken down in the report, though they mention that about 60% of overall respondents were male and 68% identified as straight/heterosexual. Therefore, it is likely that a good portion, though not the majority, of the Black game developers who responded are working against not just anti-Blackness but misogynoir and homophobia. This is not a problem unique to video games, racism, and other forms of bias, are built into the algorithms that shape what people see online (Noble 2018). Games work as "racialized pedagogical zones" where players consume ideas about race and try on racialized identities (Everett 2008). The racial makeup of game developers shapes and limits the potential of games from major studios to engage critically with race and histories of anti-Blackness. Video games have the potential to subvert racist caricature but it is not uncommon to see them instead present opportunities for digital blackface that reinforce racist stereotypes.

Games are always embedded in cultural knowledge and experience, so a culture of

white supremacy is going to, both subtle and overtly, reteach white supremacy through games. As I will discuss in the next chapter, Black characters in games were an afterthought and only became available once there



was a Player 2 option. We saw the power of colonial narratives earlier when discussing how restored landscapes and Joshua Tree National Park can reinforce white supremacy through their presentation of a whitened version of the past. Like the parks, this is done in games in part because these virtual and real spaces are made largely by white men for a slightly more racially diverse audience of young men. Even when a game attempts to recreate a universal human experience outside of race, nationality, and gender, as with the desert puzzle game *Journey*, the end result tends to rely on ideas of otherness to produce a supposed blank slate (Chien 2017). I will return to this conversation in Chapter 3 where I will be discussing avatars, skins, and the ways race is experienced by players in online multiplayer games. For now, it is important to remember that the nature spaces of games, just like the parks and nature spaces of the real world, are shaped by anti-Blackness.

### **Gendered Nature Spaces**

While heteropatriarchy also shapes game landscapes and development, the shift away from a cisgender heterosexual male perspective is happening quicker than the shift away from a white one. Masculinity has long been the norm for video games and the culture surrounding them, and shifting the focus away from men is still a slow process. This centering of maleness shows up in many aspects of game design, including in digital natures. This centering did not come from nothing, and we can see how anthropological ideas of nature and gender can be reproduced in games.

Originally published in 1964, Claude Levi-Strauss' book *The Raw and the Cooked* sought to categorize the contents of Indigenous American mythologies into colonial binaries (Levi-Strauss 1963, 1990). Part of his analysis was the creation of the eponymous categories of raw and cooked that divided the world into binaries of nature/culture and female/male thus lumping together the concepts of raw-nature-female and cooked-culture-male. These binaries were not uniquely used by Levi-Strauss, but they were valorized and canonized by him in

particular ways. It was through this work that the patriarchal disenfranchisement of women and nature became sealed in co-constituting categories in anthropology. As Sherry Ortner discusses in her chapter "Is Female to Male as Nature is to Culture," Levi-Strausses work and the forcing of complex categories into clean, fixed, and hierarchical binaries has created a form of misogyny that paints nature as the feminine in need of male control (Ortner 1974).

Carol MacCormak's chapter opening chapter to the volume *Nature, Culture, and Gender* continues this conversation and critique of Levi-Strauss (MacCormak 1980). She described how Levi-Strauss saw binary structures as encoded into the human brain. But, as discussed in the introduction, the binary divide of nature-culture is not universal (Anderson 2013). MacCormak also delves into the ways womanhood and nature became intertwined in European intellectual history. Because women became seen as more natural they were also seen as needing to be controlled by men (MacCormak 1980). Similarly, children were also seen as closer to nature than adults. MacCormak and Ortner's work began the push in anthropology towards the ontological turn, the recognition that anthropologists are not mapping cross-cultural experiences onto a more real way of seeing the world but are learning about the many equally real ways people live and understand their lives.

While researchers have often worked to understand the experience of women and girls who play video games, sometimes researchers accidentally reinforce gendered binaries in their



analysis. Bonnie Nardi's book "My Life as a Night Elf Priest" examines the MMORPG *World* of Warcraft (WoW) using John Dewey's theory of aesthetic experience (Nardi 2010). In her analysis, *WoW* should be understood as an interactive art object. In addition to her analysis of player actions, she also argued that the design of the game itself was appealing to female, and some male, players. "On the contrary, varying palettes of tertiary colors, the sounds of water or frogs croaking, beautiful night skies, the use of curves and soft shapes, and snug inns, shops, and storefronts, constructed a visual experience congenial to most female players." In contrast, Nardi states that masculinist games tend to be more industrial, with sharp edges and few natural spaces. While I think gender is an interesting frame through which to examine digital nature spaces, particularly because so many are designed by men, I find this focus on the aesthetics of a space to be lacking. The reproduction of the nature-culture/female-male/raw-cooked binary into video game analysis is, like structuralism more generally, far too simple. As I will discuss in later chapters, a more fruitful means of discussing gender in games is by looking at the possibilities a game allows for gender play and exploration.

Regardless, Nardi is not wrong in many respects. Ideas of gender do influence game design. Games are "mostly created by young and middle-aged white and Asian men, to be sold to a similar if slightly younger and slightly browner audience of consumers." (Clark 2017). These men also tend to be in their 30s and 40s, slightly older than the average player but younger than the average consumer. While young men have never been the only people who play video games, women and girls are often shepherded towards different games and seen by developers as a unique market. Carolyn Cunningham's book *Games Girls Play* examines the ecology of girls and video games (Cunningham 2018). Cunningham looks at the issues of marketing, leisure, play, and game design by interviewing girls, conducting focus groups, and examining the material and media productions of games. She found that girls tend to play more "casual" games and that the majority of game developers, about 75%, are men. Girls often played fewer games than their peers and male siblings, and they also seemed to feel more pressure to use their free time productively. Game mechanics, aesthetics, and stories are often designed with a

male player in mind, but defining some types of digital natures as masculine and others as feminine is treacherous terrain.

Queerness has also been used as a framework for thinking about digital natures (Phillips 2014, Moore 2022). Amanda Philips argues that the cyclical time and animal reproduction mechanics of *Minecraft* can be read as a queer example of algorithmic ecology (Philips 2014). Kaitlin Moore's analysis of *NieR:Automata* looks at how queerness, nature, and robotics mingle in a post apocalyptic future (Moore 2022). This queer addition helps move past binary gender analysis in game studies and into a more complex analysis of gender in games. Additionally, works such as those in the *Queer Game Avantgarde* show how queerness can also create new possibilities in games (Ruberg 2017). For the authors of these pieces, queerness is not simply about sexuality but about moving and being in the world differently. Similarly, queer natures in games are those that push against normative understandings of bodies and time.

Non-normative analyses of video games, such as a queer critique, are drawing on the traditions of speculative fiction and Afro-futurism. These traditions, in part, create and critique fictional worlds in order to think deeply about our current times and the future we want to build. Sami Schalk's analysis of Black women's speculative fiction weaves together the complexities of dis(ability), race, and gender in order to demonstrate the value of a Black feminist disability studies framework for seeing how these identities intersect and co-create lived experiences (Schalk 2018). For my work here, it is useful to think about the layers of nonrealism created in MMOs. There is not only the nonrealism of the gameworld, there is also the limitless possibility of the worlds created by players as they inhabit these worlds. Games allow for recontextualizations and worlds that allow players to think beyond our current reality. Additionally, even in the most realistic reproduction of the real world in a game, players are still able to reimagine and disrupt presupposed norms through their play.

While some of the young people I spoke with self identified as members of the LGBTQ+ community and I am myself queer, a full analysis of LGBTQ+ youth and games will have to be a

46

future project. I do want to note here that queerness was a part of the gameplay of some of the young people I spoke with. One young girl who had a bisexual pride flag in the background of our video chat, correctly, assumed I was queer. When discussing a home she had made in *Minecraft*, she chose to walk me through how to build a rainbow pride flag in the game. While she never outright stated her sexuality and I never mentioned my queerness, it was clear throughout our conversation that our shared membership in the queer community shaped her comfort level during the interview. I never noticed an inverse negative reaction from any interlocutors or their parents, but I also chose to not make my queerness clearly known during the interviews.

Games studies works have previously taken an ethnographic approach to adults, queerness, and online multiplayer games such as Jenny Sundén and Malin Sveningsson's analysis of *World of Warcraft* (Sundén 2012), and an analysis of youth in a similar context would be fruitful. My work is influenced by queer studies but does not engage in an explicitly queer analysis of youth, nature, and online multiplayer games. I have written elsewhere about queerness and games (Lewis 2022) and hope to return to the subject at a future time. Gendered and queer analysis of games are an important part of the future of game studies, and we will return to an analysis of gender in the next chapter. For now, let us turn to the world of *Fortnite* to see how young players are engaging with the landscape of the game.

### The Many Nostalgias of Fortnite

I will be including a variety of second person vignettes throughout my dissertation as a way to introduce you, the reader, to the game world in a way that mirrors how players first encounter it. To begin, strap on your parachute, it's time to jump off the Battle Bus and into the world of *Fortnite*.

You, or at least the avatar you have chosen to represent you, looks down from the Battle Bus upon the island. Green hills, arid deserts, snowy peaks, and tropical beaches cover the landscape. Having already placed a waypoint on your mini map, a blue glowing beacon visible only to you lights up your destination: Rocky Reels. You watch the distance to your drop spot diminish as the Bus continues its flight until you are as close as you can be. Then, you jump.

You, on the couch controller in hand, look on as you, your avatar, skydives towards the red rock earth. Streams of colorful light streak behind you, and you can see the colorful glow of other players as they too head towards the island. From this height you can see so much of the landscape, the rivers



rushing between rocky buttes have large spider webs that you can bounce off of. Joshua trees sit beside red stoney arches and a variety of cacti crowd the land. Occasionally a saguaro has a traffic cone on one of its ends. Down in Rocky Reels, the drive-in theater and small town have been overtaken by the Imagined Order, a faction of NPCs trying to gain control of the island. Eventually, your glider of choice slows your fall and you land in the dirt, camera whipping around looking for other players who may have chosen a similar spot. Quickly, you gather weapons and ammunition, preparing for the match ahead.

*Fortnite* has dominated the battle royale online multiplayer game world for years. Based out of North Carolina, *Fortnite* is a product of the studio Epic Games. Battle royale games involve a large number of players spawning on or dropping down to a combat arena where they will fight to the death. This genre of game is inspired by the Japanese film *Battle Royale* which came out in 2000 and has been the inspiration for books and movies as well as games. Another popular title in the genre is *PlayerUnknown's BattleGround* (PUBG) which was first released in beta in March of 2017. Only a few months later, *Fortnite* was released that July. While *Fortnite* has a more colorful and cartoonish art style, PUBG has a grittier and more realistic look meant to invoke games like *Call of Duty*. Because of these aesthetic differences and varying marketing tactics, PUBG tended to be played by older players and *Fortnite* tended to have a younger audience. The main difference in gameplay between *Fortnite* and other battle royal games is that *Fortnite* allows the player to gather materials and build structures that they can use to gain an advantage over other players. While its popularity has dropped overall, *Fortnite* is still a well known and often played game that has begun to have more older players while still remaining a popular game for children.

In general, I chose which games to research based on what the young people I interviewed were fans of and were already playing. But nearly the opposite is true for *Fortnite*. In an interview with Joe, a young man who I will return to in Chapter 4, he mentioned that he loathed Fortnite. A few summers before we met, a lot of his friends had gotten very into the game and spent their whole summer playing with each other. Joe was already disinterested in the game at that point, but the rupture it caused in his social life made him hate it. And, for this reason, I knew I had to play it. Any game that could conjure such strong emotions would at least be an interesting research site. To my surprise, I greatly enjoyed playing *Fortnite*. The gameplay was a good mix of skill and luck, especially when half way through my research the game became available in a no-build mode where the resource gathering and building mechanic was removed. One of the unique features of *Fortnite* is that players can gather building materials and construct bases and towers from which to defend themself. Though this game mechanic was a key feature of *Fortnite*, many players, myself included, were excited to see it become optional. For me, I could never get a hang of the building mechanic and had given up on it. In the next chapter I will dive into the world of architecture and Minecraft, but future research on the vernacular architecture of *Fortnite* would be intriguing. As a player who could not successfully

use the building mechanic, I instead spent my time in the game within premade structures and the virtual ecology of *Fortnite*.

Fortnite has had three different islands that players have dropped down to. There is only ever one island at a time, and changes to the island are often built into the lore of the game. The island is not a static map but one that changes with the seasons. For example, the tundra snow in the North West corner of the Chapter 3 map in this chapter used to take over half of the island but now only covers a small section. The main biomes of the island are ocean, desert, grasslands, tropical islands, forests, and tundra. In each of these places there are lone buildings or whole cities where players can find items and weapons.



Fortnite does not itself categorize the different sections of the map into biomes. I am using that language both for its use in the natural sciences and because it is how different regions are classified by fans. During my interviews, especially in discussions of *Minecraft*, biome was a term used by the young people I spoke with. While some of these biomes are clearly drawing from specific real world locations, others may draw from fictional worlds or are formed from a cacophony of influences.

While there are interesting natures throughout *Fortnite*'s Chapter 3 map, I will focus on the arid desert on the southern edge of the island. The desert is currently constrained by the ocean to the south and grassy hills to the north. With golden sands and red rock arches, this desert is home to some pre-made structures as well as crows, chickens, and the occasional tornado. This part of the map is a recreation of the American West built on nostalgia and a prioritization of the idea of the west over the specificities of actual desert biomes. The deserts of Fortnite are home to unique natural structures and plants that can't be found anywhere else on the island. Let us look at how ideas of the American West, desert landscapes, and nostalgia have shaped the desert in *Fortnite*.

Cacti are an important part of the desert map. While some have clear real world analogs like the prickly pear and the saguaro, others seem to have a less specific real world analogy. With over exaggerated spines poking out of the bulbous blue green stalks, the cacti are less about making the desert look like a real desert and more about making it *feel* like a real desert. This is particularly noticeable when it comes to the Joshua trees. As discussed earlier, Joshua trees are a unique and alien plant that only grows in a small part of the American southwest. Here in *Fortnite*, Joshua trees can be found alongside the large red stone arches and buttes like those found in Arches National Park, Utah. Unfortunately for *Fortnite*, the actual range of Joshua trees does not reach that far into Utah. And while the saguaro and the Joshua tree have some overlap in range, this overlap only occurs in western Arizona near the California border. Again, it is not a real desert being reproduced but the feeling of a desert made real for players who may not have spent a lot of time in remote deserts.

In addition to the odd mixture of flora in the desert of Fortnite, the architecture also tells a particular story of white settler nostalgia. Outside a building called The Butter Barn, not far from Rocky Reels, right next to a green gas station, is a decorative covered wagon. Covered wagons such as this one, particularly in a tourist oriented Western-themed location, are symbols of colonization. In the real world, wagons like this were used by white settlers to travel westward

across North America to claim land that belonged to Indigenous nations. Through violence and cruelty the US Government and individual settlers stole land and tried to destroy Indigenous lifeways. This history is often erased



and turned into a "Little House on the Prairie" story about white families and learning to make do. The inclusion of a covered wagon in the desert of *Fortnite* is another aspect of the ontological authenticity that the developers looked to create with little regard to the epistemic authenticity outside of the game's lore. In order to make the desert *feel* like a desert, symbols of settler nostalgia become uncritically included in the recreated landscape. These symbols allow us to think about who is this land made for. Like the parks discussed earlier (Finney 2014, Brown 2022), the natures recreated in Fortnite are not apolitical or ahistorical. The way the game developers imagine the past shapes the ways the space is used and played in by people playing the game.

There is another sort of nostalgia at work in *Fortnite* too, a nostalgia for older versions of the island. When talking about *Fortnite* with Taylor, a twelve year old gamer and singer, they mentioned that Rocky Reels was one of their favorite places to drop in the map. This was in part because Rocky Reels tends not to be directly under the path of the bus which means it will be less populated and allow Taylor to get some early eliminations. But more importantly to them, Rocky Reels is a recreation of Rusty Reels, a map location from Chapter two that they had loved.

When the beginning of Chapter three Season one it [Rocky Reels] was on the map and I think that that was like the second place I ever dropped, and I just really liked that area because it kind of reminded me of some of chapter two stuff. You didn't play then, but in chapter two all the seasons had this one place...like a drive in movie...there was just one place that had the exact same thing that Rocky Reels had...which was I just like going there after I landed...So it kind of gave me some nostalgia from chapter two, and also I just like that little area for some reason.

For Taylor, the locations within the game become themselves nostalgic and newly desirable as the landscapes of the game change. Their "really lik[ing]" of the area did not spring from nothing but from fond memories of playing the game in its earlier iterations. As I will discuss in Chapter 4, Taylor also played *Fortnite* with friends and family, and the memories of good times with others also led to a love of the place. Rocky Reels is not a perfect reconstruction of Rusty Reels. The original drive in was on green grass and surrounded by trees and old cars. As of this writing, Rocky Reels sits in the desert, the stucco walls of the buildings reminiscent of Spanish colonial architecture. Nostalgia is not just an influence on *Fortnite*, it is also a strategy for player retention.

Finally, Rocky Reels builds on a final nostalgia through its usage of a drive in theater: nostalgia for the Golden Age of American capitalism, the 1950s. The influence of the 1950s on the landscape of *Fortnite* can be seen not just in the drive-in theaters, but in the design of many of the houses on the island as well as the area called "The Joneses." The 50s are often harkened back to in political discourse in the United States as a time when the country was great, but of course that "greatness" only existed for a small few. For middle and upper class white Americans the mid 1900s were quite idyllic, but segregation, homophobia, police brutality, the creation of the suburbs, and recovery from the internment of Japanese Americans left most of the country struggling. The influence and disruption of the American Dream of the 1950s is not unique to *Fortnite*, games like *Fallout 4* (2015) literally blow up their techno futurist depiction of the 50s in the first few minutes of the game. In *Fortnite* this engagement with the time period is a bit more subtle. Rocky Reels is both a site of nostalgia for an American past that never truly existed and one of the strongholds of the Imagined Order, the main enemy of the players in the, often ignored, lore of the game. As one teen boy I spoke with told me, nobody cares about the lore of *Fortnite*. While the nostalgic reminiscences of the 50s are at play, it is the nostalgia for older game mechanics that overtakes them for players like Taylor.

Through *Fortnite*, young players who have never visited the American West, never been to a drive-in movie, and never traveled in a covered wagon are still able to be enticed by the trappings of an idealized frontier town. The International Game Developers Association 2021 report showed that 64% of responding game developers were over 30 years old, and 22% were over 40 (Weststar 2021). For the people making these games, they are able to draw on their own imaginings and nostalgias, but they too are too young to have experienced the idealized vision of the 1950s being reproduced in *Fortnite*. Instead, developers and players are playing telephone, sharing images and ideas shaped by power structures to create an idealized desert landscape. Many game developers are drawing inspiration from other games as well, referencing other virtual worlds that made their own alterations. While not possible in the scope of this project, a genealogical analysis of a game landscape that traces player to developer's influence and on down the rabbit hole would be a worthwhile study. For now, through an analysis of *Fortnite*'s desert we can see the ways structures of power are brought into the game.

# Conclusion

Digital nature spaces such as these are not just texts to be read but worlds to be explored and inhabited. Like all restored ecologies, digital ecologies are shaped by the people who use them. Through this framework, researchers can create richer analysis of digital natures in games and other virtual environments. The effects of racism, capitalism, and sexism have changed not only people's relationships with nature spaces but those spaces themselves. (Re)Interpretations of the landscape and user created rules about how one should inhabit a place have a large influence over players and game makers. By diving deep into the history of the American West, we are better able to understand the desert in *Fortnite* and how players like Taylor are becoming nostalgic for game worlds. In the next chapter, I will spend more time looking at the production of games and how "realism" functions for developers and players. Creating realistic nature, as we saw here, is often more about creating landscapes that feel right regardless of their accuracy to real world ecologies and histories. Similarly, conversations around realism in video game spaces often imply high quality graphics, a production goal that has caused harm to video game developers. In the next chapter I will compare the ways game studios work towards photorealism in games with the way young people playing *Minecraft* think about building realistic buildings within the game.

# Chapter 2:

# The Struggle to Build Realism

The siren call of realism has been thrashing game studios against rocks for decades. This intense focus in the industry has been described by game studies scholars as a fetish (Nitsche 2008). Triple-A game studios, those that are the largest in terms of people and capital, tend to be the most enamored with the pursuit of realism. In this context, realism often refers almost exclusively to the fidelity of the gameplay graphics and producing a photo-realistic animation, but realism is also more than that. Having character dialogue and movement that reads as natural, removing any immersion breaking bugs, and making a world that feels real to the player are all key aspects of realism in video games. For game developers, the software engineers who create the code that turns a game from a concept into a playable piece of digital tech, the goal of creating photo realistic games is limited by a variety of factors including their own skills, their time, the system the game is being played on, and the quality of the game engine that they are building off of. When asked what they would change about their favorite game *Fortnite*, one eleven year old lamented that when they play on their Nintendo Switch, the graphics don't render the birds and the butterflies in the game. If they could change anything, they would like to be able to see the small creatures that inhabit the island in *Fortnite*.

In Sydney Crowley's discussion of the farming simulator *Stardew Valley*, she states that "The complex social, political and ecological systems that exist in real life would take Herculean feats of planning and coding to accurately bring them to a digital medium. Consequently, a video game designer must make choices on what to include and what to exclude in their vision." (Crowley 2023). Game developers, also known as "devs," must always make choices about which aspects of the game world to focus on, there is no way to do it all. As the author Neil Gaimen wrote in his novel *American Gods* "The more accurate the map, the more it resembles the territory. The most accurate map possible would be the territory, and thus would be perfectly accurate and perfectly useless." (Gaimen 2001). Video games suffer from the same problem as maps, there is simply no way to create full realism. A perfectly real game cannot exist, and as I found in my conversations with young players, realism for them was not always the same as the realism invoked by game companies.

Michael Nitsche's 2008 book *Video Game Spaces* looks at the history, production, and experience of 3D space in video games. While the graphic capabilities of video games fifteen years ago were not what they are today, Nitsche was already critiquing the drive towards photorealism. "[Video games] can be so detailed that they trap us in their perfection and their presentation can become too flawless, too clean. They reach the uncanny valley where the distance between nature and virtual worlds become reemphasized by the gradual progression towards realistic graphics" (Nitsche 2008). As he says, even if a game can produce a realistic look, it would become unrealistic in its hyperrealism. Even a perfect visual reproduction would become offputting and strange.

Nitsche's invoking of the uncanny brings a new frame through which to understand the worlds and natures of video games. The term uncanny was brought into popularity by Sigmund Freud (Freud 1919), though the term "canny" as in knowing or prudent comes from Old English and is still a part of the vocabulary of many English speakers on the British Isles. For him, the uncanny can be triggered in a person's mind either when repressed infantile complexes are stirred or when a person's fundamental understandings of reality are shaken. It is this second meaning of uncanny that is used by Nitsche. Virtual natures are a battle ground of reality through photorealism as well as through the power structures that shape which natures are seen as real for players. As discussed in Chapter 1, the realness of virtual natures is tied to the ways they draw on or ignore history, ecology, and power. Virtual worlds, especially those that

are rendered in a photorealistic way, can push at our sense of reality by making it difficult to judge what was generated by computers and what was the capturing of light on film. But even non photorealistic virtual natures can be uncanny. Whenever a virtual environment is not quite right and makes the player question their own senses, that too is uncanny. Game developers can use uncanniness as a tool for digital worlds to play with the player and shake them, but it can also happen by accident.

Though my research does not focus on the uncanniness of games, conversations about realism and virtual worlds always teeter on the edges of the uncanny. The Jonses', a neighborhood in Fortnite meant to resemble a 1950s suburb, as discussed in Chapter 1 may feel uncanny for a player who grew up in a similar neighborhood. For something to be uncanny it must first in some way be familiar (Freud 1919). Both canny and uncanny virtual natures rely on a player's ability to read the world as real, or at least real within the context of the game. The players I spoke with were largely willing to accept the level of realism offered by the game. Riley, a *Minecraft* fan we will return to later this chapter, designed her workshop in *Minecraft* to have a large skylight "to get all the natural light in here." Even though the light was virtual, because it came from a natural feature of the in-game world, the sun, and not an unnatural light source, such as a lamp, Riley accepted it as more natural and more real than other light sources.

While the quest for realism is in many ways foolhardy, not least because of its slippery descent into the uncanny, it is not entirely without merit. Games worlds must still be legible to players. In her discussion of performance, race, and gender in her book *Worldmaking*, Dorinne Kondo emphasizes the necessity of legibility in regards to genre. "When actors step on the stage and writers sit at their laptops, they enter a world defined by assumptions about art in general and about drama in particular. What counts as theater? What counts as a play? What is "good" acting? In short, what is aesthetically proper, pleasing, and above all intelligible?" (Kondo 2018.) These same types of questions are useful for interrogating video games and their digital landscapes. What counts as a video game is not a simple answer, and the extent to which a

game fits a player's presuppositions about what a game is shapes the player's experience. The same is true for game landscapes. As we saw in the previous chapter, players bring to their play a variety of memories, nostalgias, and critiques to the worlds their characters inhabit. A virtual landscape that strays too far from legibility, though not necessarily realism, becomes unplayable.

The makers of the MMO *No Man's Sky* ran into the issue of legibility and realism in the production of the game. To catalog *No Man's Sky* as "massive" is an understatement, the game play space takes up the equivalent surface area of 7 *trillion* Earths. The game is about exploring the galaxy and visiting the innumerable planets and moons that populate space. Creating this much virtual space by hand would take many lifetimes, so instead the creators used procedural generation to create the worlds of the game. Procedural generation is also used by games like *Minecraft*, which I will discuss at length later in this chapter, where the world seed produces a random combination of biomes for the player to explore. In order to make sure that these planets are all playable, the game developers had to consider the question Kondo posed above: "what is aesthetically proper, pleasing, and above all intelligible?" In a 2013 interview, the developers stated that "We are designing a set of rules, we're not designing a game." (Smith 2013). For the developers the rules that produce a planet must follow nature's rules around mineral content, atmospheres, and physics.

Aesthetic realism is both tied to and different from legibility, and only one is truly necessary for video games. Game worlds had to be limited so that a planet could not be generated where the sky, water, and earth were all the same color because that world would be illegible and unplayable (Smith 2013). For the developers of *No Man's Sky*, the production of beautiful and legible worlds also meant setting limits to the algorithm of the game. Developers must balance a variety of competing factors in the creation of their worlds in order to create something that feels new while also remaining intelligible to their audience.

In this chapter, I will look at how ideas of realism shape the economic reality of game developers and children's experience within games. The quest for realism in gaming graphics has become a key selling point for many triple-A games, and this pursuit has not been without casualties. After that, I will return to my conversations with young players to see how they think about realism in their own gaming. Here I will focus on the game *Minecraft*, a game whose popularity is unlike that of any other game, since its launch over 300 million copies of *Minecraft* have been sold. Instead of focusing on graphics, these young players typically tied realism to consistency of an internal logic, theme, or aesthetic. This can be best seen in discussions around proper home building techniques and styles within the game. The value of this approach is born out not just in the relationships formed in *Minecraft* but also in the ability for researchers to use *Minecraft* in fields such as urban planning. But before we can look into a world of blocks, home decor, and mushroom houses, let us first look at the production and marketing of the game *Horizon Forbidden West* so that we can better understand how ideas of realism currently function in the video game industry.

# Horizon Forbidden West and Crunch

The quality of the realism in a game is largely tied to the quality of its graphics and ability to mimic the real world, and it is often touted as a part of its marketing. Triple-A games, those produced by mid-sized to large game publishers, are more likely than independent publishers and developers to focus on realism in their graphics. Independent developers, more commonly known as indie devs, are gamemakers who code games but do not do so as employees of a major game studio. Instead, indie devs may work on a small team, be self employed, or make games as a hobby. The games I looked at ranged from small scale indie games to well funded triple-A titles, and some games, like *Minecraft*, do not neatly fit into either category because what had begun as a small independent game became the foundation for a large studio.

The title of "AAA" for a game studio originated in the American bond credit classification system which denoted AAA bonds as those that were the best financial investment (Bernevega 2022). Now, "what it essentially stands for are games with large teams, larger budgets, and largest prospective returns, aimed as selling the highest possible number of final products to recoup the astronomical investment: *games as commodities*" according to game studies researchers Alexander Bernevegahttps and Alex Gekker (Bernevega 2022). For game companies of all sizes, advertising a game as triple-A or indie can be a means of setting player expectations and denoting a particular relationship to the game. A triple-A game is expected to look more photo-realistic than an indie game, and players hold triple-A games to a higher standard than games from indie devs.

We can see the importance of realistic graphics at work in Guerilla Games' 2022 release *Horizon Forbidden West*. The *Horizon* games are set in a post-apocalyptic Western North America in the 31st Century where scattered bands of humans hunt robot animals for parts. While the game itself has many interesting things to say about humanity and the environment (Simelane 2022), I want to focus on the media response to the game's graphics. There are a cornucopia of articles praising the beauty and realism of *Forbidden West* (Notis 2021, Hastings 2022). Julia Anderson, writing for pop culture site *CBR*, praised the graphics of the game as seen in screenshots: "What stands out about these screenshots is the incredible degree of detail. Every piece of straw, every bead, and almost every strand of hair is distinct, and the coloring and lighting are so masterfully done that it takes a careful eye to realize it isn't real." (Anderson 2022). Realism for players and video game journalists here means that the game's graphics look as indistinguishable from real life as possible.

61



Of course, the ability to look like a high definition photograph and the ability to accurately mimic the intricacies of real life are very different. Just as the nature of Joshua Tree National Park, as discussed in the previous chapter, is presented as real and untouched in a particular narrative that erases the pains of colonialism, the realism of the *Horizon* games skips past the realism of existence and zeros in on the realism of aesthetics. The mechanical animals of the *Horizon* games are designed to look like not just modern animals but extinct megafauna such as dinosaurs as well. The imaginings of a future are turned into an aesthetic chimera that pulls together time and space. I will return to issues of aesthetics later in this chapter to see how young players are thinking about realism in the game *Minecraft*, a game that does not focus on visual realism but was still lauded by the young people I talked to as a realistic game.

Like Line 3 and the Baytown Nature Center, the issues that come with valuing a particular vision of nature in video games comes not just at the expense of the real landscapes, though the energy consumed by the production and consumption of video games does have environmental repercussions (Chang 2019), but also at the cost of human time and health. Capitalism values productivity and output more than it values quality of life (Kimmerer 2013),

and this can be seen in the video game industry by the idea of "crunch." Crunch refers to the period of time towards the end of a video game's production when employees are expected to provide extra, and typically unpaid, labor in order for a project to be completed (Cote 2021). This practice is not unusual in game development but is more strongly associated with large, triple-A game studios. According to the International Game Developers Association 2021 report, 62% of game industry employees experienced crunch more than twice in the last two years (Weststar 2021). Crunch time harms workers mentally and physically (Mendes 2022), and creating realistic graphics is an important driver of crunch. As we saw with the media response to *Horizon Forbidden West*, having impressively realistic graphics can be a key selling point for a Triple-A game. While there has been push back on this drive for more realistic games from game devs and players<sup>3</sup>, it is unlikely that companies will stop trying to make increasingly realistic games anytime soon. The value added by realism is seen as more important than the harm done to developers.

Valuing only one vision of nature that fits into a colonial ideal is not just apparent on real landscapes but also in digital nature spaces and the push for "realism" in games. Developers are often pushed to work overtime with no added pay in order to complete these hyper realistic triple-A games. As we will discuss in Chapter 4, this type of labor malpractice is often seen as the cost of working a "dream job." But despite the mass amounts of effort that are put into making these blockbuster games, the realism put into the graphics was not seen as equally valuable or necessary by the young players I spoke with. As we will discuss next, realism is not just about graphics, it is also about cohesion, problems, and historical accuracy.

<sup>&</sup>lt;sup>3</sup> This pushback can be seen in the popular tweet: "i want shorter games with worse graphics made by people who are paid more to work less and i'm not kidding" by @Jordan\_Mallory. <u>https://twitter.com/jordan\_mallory/status/1277483756245442566?lang=en</u>

# Creating Realistic Landscapes in Minecraft

You are alone. Stretching out around you is a landscape that no one has seen before, a world created just for you. Blocky hillsides and cubic streams flow past as a rectangular sheep bleats at you. In your



block of a hand is a pick ax. There are no instructions, no guidance for how to think about the vast stretches ahead of you. Should you go to the woods? Find a cave? Are you actually alone? You are new to this world, but while there are dangers and trials ahead your only real limitation is your imagination. It is time to build.

*Minecraft* was first released in beta in 2009 by the indie developer Markus "Notch" Persson who later transformed his one man operation into what would become Mojang Studios. Persson is Swedish and Mojang Studios is based in Stockholm. When Persson decided to leave Mojang in 2014, the company was sold to Microsoft for \$2.5 billion. While Mojang is treated as its own studio that is focused on *Minecraft*, it is now a part of a global network of game studios owned and operated by Microsoft. In the course of a dozen years, *Minecraft* has transformed from one man's passion project to the best selling videogame of all time (Trayanov 2021). This popularity has helped *Minecraft* expand from a single game to a franchise selling multiple games, clothing lines, home goods, and more. Originally just a single player sandbox game<sup>4</sup> where players could enter survival or creative mode, *Minecraft* now includes multiplayer servers, both public and private, as well as an online multiplayer mini game platform called CubeCraft. Many YouTube channels have found success in playing or creating narratives within the game (Gu 2014), and many of the young people I spoke with watched YouTube videos related to *Minecraft*. Even academics have not been immune to the pull of *Minecraft*, and the edited volume *Understanding Minecraft* (Garrelts 2014) focused solely on the one game. What has been surprising about the literature around *Minecraft* is the lack of attention paid to the experiences of young people playing the game. While there are articles that look at children's in-game experience (O'Mara 2017) these often focus on the educational potential of the game, and most of the writing on *Minecraft* players think about creating realistic and authentic spaces in the world of *Minecraft*.

Realism, as it was discussed earlier in relation to *Horizon Forbidden West*, is not a key feature of *Minecraft*. The world and everything in it is made out of oversized cubes almost like a *LEGO* set. Animals, trees, flowers, and people are all made out of blocks. There are no soft curves to be found in the game. Though three dimensional, this cubic design is reminiscent of early low bit video games. There are two main ways to play *Minecraft*, creative mode and survival mode. In survival mode, players must face down dangerous creatures like giant spiders, skeletons, zombies, and "creepers": pillars of mottled green about the height of a person that have four legs, dark blank eyes, a frowning open maw, and explode on contact. Creative mode allows players instant access to all materials and the ability to fly so that they can have creative freedom without the threat of danger. As one may guess from the name, mining and crafting are two of the main gameplay mechanics.

<sup>&</sup>lt;sup>4</sup> Sandbox games are games where players have a great deal of control over their actions and movements within a game. They may lack game objectives and tend to be open world.

Players must gather materials in the world and then use those materials to make useful objects. It is a game of alchemy and inventory management. But while gathering materials is an important aspect of the game, it is unnecessary in creative mode since all materials are already provided. Crafting and gathering were of equal importance to the young people I spoke with, and while this chapter will focus on creation in *Minecraft*, Chapter 5 will touch on the gathering of materials in relation to animals. The goal of *Minecraft* has never been to make a game that looks like the real world, but it still has its own internal logic that shapes the visuals and interactivity of the world. For many players, creating a realistic space within *Minecraft* means creating one that blends in with the game's environments and mimics real life design.

*Minecraft* is made up of a variety of biomes<sup>5</sup> each with their own unique mobs (hostile and friendly non player characters), landscapes, and plant life. Some of these virtual natures are based on real world biomes such as plains or desert, but others are creations of the game devs such as mushroom islands. Within *Minecraft*'s gameplay the word biome is not used, *Minecraft* provides very little textual information to its players, but the term is used in other official contexts. Trophies, which are cataloged in the system operating the game, reward players for achieving in-game goals or going above and beyond them. Biomes exploration is a part of *Minecraft*'s trophies such as the "Adventuring Time" trophy which rewards players when they "Discover 17 of 40 biomes." Additionally, the game's changelogs which note alterations to the game made in each update use the word "biomes" throughout. In update 1.20.40 (Bedrock), the developers note that "Zombified Villagers now have the correct biome overlays" and "Cartographers from different biomes will sell a different selection of maps." While changelogs may seem niche, some of the players I spoke with discussed them and made reference to specific game updates. If a player is engaging with *Minecraft* in any way beyond gameplay through reading changelogs, trophy hunting, watching YouTube videos, or reading the *Minecraft* 

<sup>&</sup>lt;sup>5</sup> These biomes are (as of writing): plains, forests, jungles, mountains, deserts, taiga, snowy tundra, ice spikes, swamps, savannahs, badlands, beaches, rivers, oceans, mushroom islands, The Nether, and The End according to the Minecraft website.

fan wiki, they will have encountered "biomes" as the definitive way to discuss different ecological regions within the game.

When a player begins a new game of *Minecraft*, a world seed is created that randomly spawns these biomes and sets the player down into the world. Each game world is unique and massive. While no two worlds are the same, each biome is consistent in type, though not consistent in exact content, across games. This consistency allows for a particular normal, an authentic experience of a biome, to be understood by players who have never set foot in each other's game worlds. Biomes are also generally based on real life landscapes. As Sammie said while I watched them look over some distant mountain peaks in the game: "It looks like real life!" Because this young player lives in an area near real mountains, *Minecraft* and the mountains near their home become overlapping lenses through which they could see both. The mountains in the game look like real mountains, and the real mountains look like the ones in the game.

The place where the player begins in each new world is random. Players may end up in a favorable location or one that makes survival more difficult. Taliah, who we will spend more time with in Chapter 5, is a *Minecraft* player and artist who likes to make animations. She described to me the "perfect" spawn point that she was lucky enough to get in a new *Minecraft* game. There at the mouth of a cave, Taliah found herself near a small pond and surrounded by blooming tulips. While Taliah prefers digging her own path instead of mining in caves, starting the game near a cave means easy access to important resources. Players also turn caves into their homes and cut down on building time and material cost by working with the pre-rendered environment. While a cave can be useful, the field of tulips was what made this place perfect. Flower forests are Taliah's favorite biome, and getting to begin the game in one was a lucky turn of events.

Players often have preferred biomes that they will seek out when playing the game if they were not fortunate enough to spawn into that environment. Zoe, a 6th grader and horse enthusiast, explained to me that her favorite biomes are the plains, snowy tundra, and the

67

desert. The plains, she explained, are great for survival mode because players have a good line of sight to see incoming mobs. They also provide a clear foundation for building. Snowy tundra, while more difficult to survive in, has a completely different "feel" and "vibe," her terms, from the rest of the biomes. Igloos, polar bears, and ice caves are unique to the biome and make it fun, but it was also Zoe's personal experience of going out into the snow on adventures with her dad that made it a favorite. The exclusivity of game elements to different biomes made them more interesting to Zoe. The desert biome often has desert temples in it that have treasure and are "really cool." She talked enthusiastically about the details and different animals that the biome was home to and was very knowledgeable of the world of *Minecraft*. While different children had different biome preferences, the logic that Zoe articulated for choosing a favorite held true for multiple players. Personal experience and unique qualities made a biome all the more exciting to explore. Through a personal connection to place, players were able to feel like a landscape was more realistic despite the purposeful lack of detail in the game's visuals. As with Freud's uncanny, realism for players began with familiarity. A place's realness came from proximity to experience regardless of the detail in the visuals.

### Architecture and Nature in Minecraft

Making buildings is an important part of the fun of *Minecraft*. Because the game offers no instructions and an ending to the game wasn't added until 2016, seven years after its release, most of the fun of the game is created by players setting and meeting personal goals. In survival mode players must gather any resources they want to use, but in creative mode players have unlimited access to as much of all of the resources as they'd like. This abundance means that players have a lot of options for what to create, and many of the young people I spoke to talked about the self imposed limitations they had put on their crafting. For many players, creating realistic and authentic spaces in the game was important, and being true to the biome that the

building is being created in was a key part of creating authentic spaces. Realism revolved not around graphics but around a narrative authenticity wherein the buildings being created needed to slow with the landscape. As Michael Nitsche states in *Video Game Spaces*, "game spaces evoke narratives because the player is making sense of them in order to engage with them" (Nitsche 2008). Nature spaces in games, and the ability of players to build on those spaces, requires a narrativization of game places that do not already possess a plot. Zoe told me that one of her favorite creations, typically referred to by players as "builds," was one that she made with her dad in survival mode:

This is the big lake that goes to this area that I have the bridge over, and then it goes into this tiny bit of land where we have our house...so it's very safe in the beginning because we were able to keep mobs, they're just predators like zombies and skeletons, out. And so it was very nice. And then over across the bridges we have a beautiful farm area that I've worked so hard on and decorated and made it very Zen and vines and like just making it look very natural and like how a real farm would look.

Then I have this little, like, forest behind our house. And I took tree bark and I made, like, a fallen down tree with leaves and tree bark and then I added a fence around it. And I hollowed out the tree more and it now is like, um, a fox enclosure and I'll have, like, berry bushes in there and other stuff. So it really blends.

For Zoe, as for many of the players I talked with, creating a realistic home meant making one that looks "very natural" and blends with the pre-existing biome around it. Kayla, a twelve year old artist and environmental advocate, explained to me that she thinks a lot about what sort of home to make: "I try to shape the house to fit that biome. So let's say I spawn in like a dark oak forest, maybe I make a spooky mansion. But if I spawn in just a big field with flowers, I try to make more of, like, a spring type house that's more open and airy. With birch wood." Proper materials for a building are often those found in that biome, a sort of naturalistic approach. While using easier to find materials makes sense from a gameplay perspective, these self imposed
limits to creation were also used by players in creative mode when access to resources did not need to be considered.

While there are many real world architects and architectural movements that have had similar focuses on the use of local materials, such as the Arts and Crafts movement and architect Frank Lloyd Wright, these were not references invoked by the young people who make homes in the game. Instead, some players categorized houses in terms of "modern" and "classic." When I asked Taliah, a fifth grader and *Minecraft* house building expert, what advice she would give to other players who did not know how to make a good looking house, she explained that: "I'd probably say if you were going modern, you'd probably want to use guartz



and maybe like a rectangle base. If you go like classic or starter, then you'd make, like, oak logs around the corners like a classic villager house. Cobblestone floor, cobblestone around the edges, oak in the corner. Then like plank walls." The houses used by the villagers in the game are different depending on the biome the villager lives in. Pictured here is a villager house from the plains.

Village homes tend to be made of materials available in the local environment. For *Minecraft* players, a home's ability to be "classic" is about both its look and its unmodded nature. Classic houses use materials that can be found not only in the game but that are ideally materials found in the same biome that the home is being built in. These classic homes also tend to be simpler and better suited to survival games.

But regardless of if one is making a classic or modern home in the game, realism is still a consistent goal for players. This can be achieved in part through the use of a variety of textures/blocks. Instead of building a house that uses the same type of wood all the way around the outside, a well textured and realistic wall should use three to five different types of blocks according to Riley, a sixth grader who loves frogs. Realism and aesthetic cohesion were an important aspect of Riley's *Minecraft* builds. At one point during our conversation she scrolled through images of older versions of the game, expressing disgust at the ugly textures for comedic effect.

Riley's love of design extended beyond the world of *Minecraft*. She watches YouTube videos of people playing home renovation games, but did not mention playing any of these games herself. In her real life, Riley's family had just finished remodeling their bathroom at the time of our interview, and she was particularly excited about the accent wall. As a part of this renovation the family had recently gone on a trip to Ikea, the Swedish furniture and home goods store, where Riley enjoyed seeing the store's many displays. She walked away with "so many ideas" about how to design her spaces both in person and in game. In addition to YouTube, Riley also gets design inspiration from the image sharing platform Pinterest. Through these various avenues, Riley has developed a diverse design lexicon and strong sense of personal style.

Many of the young people I talked with were avid architects in the world of *Minecraft*, but Riley was one of the most dedicated I encountered. This became especially apparent as she showed me around Community World, the village that she and her friends had built and played in together. Surrounded by a palisade wall and watchtowers made from different types of wood blocks, the fortifications are strong while remaining easy on the eyes. As you enter the town you are greeted by a notice board that has a few signs attached including "Stop by the community garden today!" and "Iron mine now open!" There are four covered shops in the main square that are operated by Riley and her friends. Iron is their chosen currency, a resource that takes some work to accumulate but is typically an early game acquisition. The design of the village square is cohesive and homey, reminiscent of a small farmers market.

Within the walls were also the homes of Riley and her friends. Each home has a mailbox so that they can all write letters to each other and keep in touch even when playing

71

asynchronously. The homes are beautiful and use the resources available in the game in creative and unexpected ways. One roof is made out of stone and wood with pumpkins mixed in to add more texture and interest. While the houses are not identical, they all have a similar classic look to them in that they utilize wood, vines, and glass instead of rarer or more expensive materials like gold and quartz. Though there isn't an explicit homeowners association guidebook that explains what one can and cannot do with their home, Riley is clear that there are limits on how one should build within the walls of the community. When I asked about someone wanting to build something that doesn't fit the aesthetic she has in mind, she replied they could "As long as you don't use pink concrete."



Creating a realistic looking home and community in *Minecraft* involves a clear understanding of the game mechanics, aesthetic styles, and interpersonal relationships. Making a good house is not just about making a place to survive.

Communities like that made by Riley and her friends demonstrate a variety of different expertise. Realism comes not from looking like a photograph but by creating narrative and aesthetic cohesion that fits the biome and relationships one has in that world. Because players have so much control over the world of the game, the natures in *Minecraft* become an extension of the player's design and making of their world. In games where the digital natures are less easily manipulated by players, the meaning of those spaces changes. Realism is never just one thing, and while triple-A studios often focus on graphics, the young people I spoke with saw that creating a game that feels real takes more than making one that looks "real." But even though the design of *Minecraft* does not look like the real world, researchers have often used the game to shape real locations.

# **Changing Real Spaces With Urban Planning**

While the graphics of *Minecraft* may not allow for picture perfect replicas, the freedom within the game to create and design spaces has made it a tool for urban planners who want to get community feedback on designs. The Block by Block foundation, a collaboration between Mojang Studios, Microsoft, and UN-Habitat, was founded in 2012. Using *Minecraft*, the foundation hosts workshops around the world where people of all ages can collaborate on new designs for their neighborhoods. Their hope was that by using a collaborative tool like *Minecraft* stakeholders with a variety of interests would be able to give their input on changes to the space. Providing both the workshop and the funding for implementation, Block by Block has changed real spaces. But Block by Block is not the only team using *Minecraft*, researchers have also spent time testing the value of *Minecraft* for the redesign of public spaces. While Block by Block is the main organization that follows through with the production of the space, others have tested and analyzed the value of *Minecraft* as a tool for community input on urban planning projects.

The effectiveness of using *Minecraft* in order to get urban planning input from children was analyzed by a group of researchers in Tirol Town, Brazil (de Andrade 2020). Working with the teachers at the only school in the town, the researchers engaged a group of children aged four to fourteen. Tirol is a mountain town founded in the mid 1800s by immigrants from the Tyrol region of Austria, and the article does not discuss whether there were indigenous groups living in the area at the time. After recreating the landscape of the Tirol area in *Minecraft* as a private server, the researchers asked the children "If you were your ancestor from Tyrol, Austria, arriving in a mountainous region, a forest far from the city, what would you build?" and then had them create those buildings in their *Minecraft* server (de Andrade 2020). What they found was

that "Children focused their attention on the design of a house, which involved choosing the location. This required reflection on topography, road width and visibility to other buildings." (de Andrade 2020). While the researchers did not discuss or share the children's own perspective on their building in this article, it is evident that the children they worked with took a similar approach to their home construction as those that I interviewed. In the paper, they mentioned that the students would typically reference real buildings in the town or that they had seen in larger cities nearby. "Although children had no guidance or recommendations regarding the ecological dimensions of designing their town, they built natural light-centric buildings incorporating rainwater re-use, community gardening, and vegetation conservation." (de Andrade 2020). While the study would have benefited from more conversation with the children involved in the research, it is interesting to see the ways that ecologically and community minded design was implemented into the children's recreation of the space. Another downside of this project was that they only had one computer available to use, so children could only be on the server one at a time. Additionally, the researchers chose not to allow multiple children to be on the computer at the same time and instead had the children play one at a time in thirty minute slots. Future research should look to incorporate the collaboration and community of children in their analysis and project design. Villages such as Riley's Community World are born out of collaboration and limiting the ability of children to work together on the design seems antithetical to the way children play outside of research settings. Let us now turn to another urban planning *Minecraft* workshop to see how a broader participant pool shapes the design of public areas.

In early 2021, James Delaney, an architect and member of the Block by Block board, conducted a virtual workshop in order to see how the usefulness of *Minecraft* as an urban design tool had changed due to the pandemic (Delaney 2022). Delaney used University College London's main quad as the site to be redesigned. Because participants would be engaging with the digital rendition of the quad remotely and asynchronously, Delaney set up the server so that it used a plot system. When participants joined the server a new and identical version of the UCL quad was rendered in a plot just for them. Players were unable to affect other plots unless they had been given permission by the owner of that plot. Participants were recruited virtually by sharing about the project on a variety of platforms, and of the 72 participants, 16 were younger than 16 and the average age was 18. Though the majority of participants were already familiar with *Minecraft*, some had never played before. At the end of the workshop, there were dozens of unique and inventive ideas for how to redesign the UCL quad to encourage outdoor learning.

Participants in the workshop showed a surprising amount of collaboration and engagement. Some expanded the original design created by Delaney in order to show the street outside the quad and even the storefronts across the way (Delaney 2022). Extra research on the quad was done by these participants in order to see the context of the site. "Some participants took this a step further and used features such as the game's weather patterns to invoke a digital environment that represented Central London. As a light- hearted comment on the UK's notoriously rainy weather, one participant permanently changed the weather cycle to "rain" on their plot, meaning that both themselves and any visitors could only experience their



Figure 6. Minecraft plot by PixelatedSun: UCL Quad in the rain.

design amidst a digital downpour in Minecraft (Figure 6)" (Delaney 2022). The environment and larger context of the quad were seen as valuable information by participants, worth

seeking out and incorporating into their redesigns. Many participants also added narrative elements, such as signs, to their designs in order to make them more engaging. Additionally, many of the players who participated in the workshop built their designs collaboratively and

allowed each other to make changes to their plot. Participants were remote and had likely never met before, but they worked together anyway. While de Andrade et al. (2020) had actively limited collaboration in their research, it appears that players are inclined to work together, even with strangers.

The limits of *Minecraft*'s graphics often come up in the literature about using it as a tool for input on urban planning designs. De Andrade et al. compares *Minecraft* to other games that seek to recreate spaces: "*Minecraft*, however, does not provide a realistic visualization, as it is a pixelated gaming environment and only an approximation of visualized reality." (de Andrade 2020). While some researchers have lamented this limitation, such as in Shotaro Nishi and Shin Aiba's description of their town planning workshop (Aiba 2022), others have embraced it. James Delaney argues that the simple block nature of the game makes it even more suited for community involvement in urban planning (Delaney 2022). For Delaney, the limits of *Minecraft*'s detail meant that participants did not get bogged down. "Instead, Minecraft was used as a three dimensional sketching tool and proved useful for quickly depicting an idea or concept in the virtual space." (Delaney 2022). For Delaney, and for many of the participants in all of the above workshops, the graphics are just realistic enough to be fruitful.

#### **Realistic Problems**

Realism is about more than the look of a game, it is also about the gameplay experience. Kayla, one of the *Minecraft* home designers mentioned earlier, was very in tune with the tensions of realism in her play. *Minecraft* is not a game with "realistic" graphics, but she tries to make her builds fit in with the biomes. Like Riley, Kayla makes a point of using a variety of textures and block types to create a varied and realistic look to her buildings. In addition to creating aesthetic consistency, Kayla also values the ways that *Minecraft* creates realistic and unrealistic problems for her to overcome. Endermen, the elongated pitch black humanoid figures that sometimes appear in the world, are an unrealistic problem. But the potential for a thunderstorm to light a player's house on fire is a realistic problem. As Kayla explained, the inclusion of realistic and unrealistic problems was part of how *Minecraft* provided an escape from real life concerns. But while Kayla sees her in game house potentially catching on fire as a realistic problem, how real that problem is is not the same for everyone. Escapism for some in brutal reality for others.

Blake is a young white boy and a big fan of baseball. While he plays a variety of games, the *Call of Duty* (CoD) franchise has been his favorite for a few years. For him, one of the best parts of CoD is that the levels are often based on real life events. Call of Duty: WWII is his favorite game of the series, though he plays mostly Call of Duty: Black Ops which is set in the 1960s during the Cold War. I got to sit with Blake and watch him play a few levels of Black Ops set in Vietnam. He had played most of these levels over twenty times, but still found the missions enjoyable. Since he had played through the various levels, he was familiar with the pacing and frights of the game. During his playtime he seemed overall unphased, but he was apologetic about the amount of blood on screen. Throughout the gameplay Blake sliced throats, shot enemies, and threw grenades in order to achieve victory. Because of the content of these games, the CoD games are all rated by the publisher as meant for players 18 and older, but many teens and children also play the games. War is a favorite subject of Blake's, not just in games but in his free time. He reads books and comics about war in school and for fun. Black Ops is a bloody game, and while the blood and guts were not a selling point for him he was clearly unbothered by their inclusion. For Blake, the game is another way to get at history, to live in the past.

Games like those in the *Call of Duty* franchise are notoriously controversial for their depictions of war and violence. These games are mainly marketed towards male players, and the first game in the franchise to have a playable female character came out in 2021, eighteen years after the first game in the series was published. While video games have not been proven

to make people violent (Spina 2004, Goldstein 2005), recent research shows that violent games can desensitize players to violence and reduce their empathy response (Brockmyer 2022). My research does not delve into the psychology of playing violent games at a young age or the choices a parent should make about which games their children can play. As a parent, I have personally experienced the struggle of trying to decide in what ways I should or should not limit my own children's access to media. Joe, a teenager who I will discuss in later chapters, recommended that younger players looking to play a first-person shooter should begin with a game like Halo where the enemies being shot are aliens and not other people. In Fortnite, there is no blood or gore despite the inclusion of guns and other weaponry. More research will need to be done on the effects of video games as well as what types of violence in games are violent enough or gorey enough to make a difference. Concerns about empathy and the internet are well founded, but are beyond the scope of this study. We will continue this conversation by returning to the place of gore in video games in Chapter 5. When it comes to realism, creating realistic problems in a game also means realistic repercussions for players. In Black Ops blood is both the signal that an enemy has been harmed and the warning that your character is injured.

## Conclusion

History is full of violent real problems. For Blake, these are problems he can revisit again and again and emerge victorious. For those who experienced the actual battles that have now become the plot of video games, those problems haunt them. This is not to say there should never be games about war, that is a bigger conversation not suited for this setting, but the realism of a problem is tied to the player. Creating realistic nature, realistic problems, and realistic games will never be universally possible because interpretations of what is realistic are not static. This is why players like Kayla and Zoe can see *Minecraft* as such a realistic game despite its unrealistic graphics. We saw this same problem in the previous chapter. Realism in regards to ecological restoration does not mean the same thing all of the time everywhere. Creating a "realistic" landscape involves subjective decision making and historical context or erasure. A national park that is a vacation destination for some is a reminder for others of the colonization that has stolen land from Indigenous people. Efforts for realism are not without cost, either in video game production or in environmental restoration. The pains of crunch time on game developers are seen as a worthwhile price to pay in the pursuit of realistic game graphics. But realism is not so simple. For players of *Minecraft*, realism looks less like a photograph and more like aesthetic cohesion and narrative continuity. The lack of visual realism is not a failing of the game but a positive. When used as a tool in urban planning, the simplicity of the shapes in the game meant that ideas could be conveyed quickly by a variety of users. As researchers and developers think about realism in games, it is important to put ideas of realism in conversation with each other and understand how players interact with these varying interpretations.

As we saw in Kayla's description, one of the goals of realism in video games is the possibility for immersion and escapism. In the next chapter, we will look at race, gender, and capitalism in order to see the limits and costs of immersion. Who has access to immersive gameplay experiences, and whose real life is seen as unrealistic to depict.

# Chapter 3:

# Buying into a Digital Self

Online, you can be anybody–for a price<sup>6</sup>. The internet allows users to shape their own digital fingerprint and show the world a particular version of themselves. As art and media scholar Colleen Macklin writes when discussing the queerness of games, "Games release us from ourselves and let us try on new identities. They give us the space to explore familiar pleasures and desires." (Macklin 2017). But access to these spaces and changes are limited by capitalism and the racism and sexism built into the system. This is not about the price of games but about the ways particular identities become seen as valuable and worth depicting. In online multiplayer games, the combination of anonymity and creativity appears in part in the character creation and selection process. In many video games, players begin their experience of the game world by designing or choosing their character. Games vary in how much they allow players to participate in the creation process for the character they play as, commonly known as their avatar. The term avatar comes from Sanskrit and is used in Hinduism to describe "the material incarnation or embodiment of a deity on earth." (Snodgrass 2023). For players, their avatar is the digital representation of their ability to act upon the game world. Not all games have avatars, in some games, like the Sims series, the player is never represented and instead acts on the world from above. In many single player games, the player has no control over their avatar and instead embodies a predesigned person.

<sup>&</sup>lt;sup>6</sup> A play on the 1993 New Yorker cartoon "On the Internet, nobody knows you're a dog," variations of the phrase are now a common meme. The cartoon was released the same year the World Wide Web was released to the general public and ushered in a new era of the internet.

Avatars are an important feature of online multiplayer games because they allow players to interact with each other in the game world and not just in text. Because of this, players often spend a great deal of time shaping their avatar. In *Fallout* 76 (2018), players can tweak the minutiae of their character's face by selecting different features or even using the sculpting tool to pull and push different features into place. Most games allow some level of character personalization, but almost all online multiplayer games allow some level of character personalization. Unlike a single-player game where the main character has a personality and style that becomes the way players experience the world, online multiplayer games need to give players a way to connect to their tabula rasa character, so "skins" and customization become the means for connection. Skins are what change the appearance of the player's avatar but do not affect the player's abilities. Different avatars may have different wireframes, the skeleton of the character, which change how they move through the world and interact with objects. A single wireframe can have a wide variety of skins.

For most MMOs, skins become the way that players decorate and personalize their avatar. In games like *Fortnite*, players are given a variety of avatars to choose from. Each of these avatars can then have a variety of skins that change the avatar's outfit and colors while still looking like the same character. Unlike *World of Warcraft* where character choice influences game play and stats, such as some character options being stronger or better at magic, skins in *Fortnite* and most other MMOs have no effect beyond the cosmetic. Skins can be collected in a variety of ways. Some are free and come with the game, others can be earned by completing challenges or events, and others can only be purchased with in-game currency or real world money. This system is similar to that of many other games, and collecting skins for characters and weapons is an important part of some player's gaming experience. Skins and avatars allow for players to move between identities and to change how others see them.

When Taylor, a white preteen with blue hair, plays *Fortnite*, they prefer to use skins that are colorful and a bit unusual. They are a kid who is comfortable standing out and likes to

express themself through their clothes and hair. When playing video games, choosing a fun skin acts as an extension of this self expression. As I will discuss later, Taylor is a music fan who finds new music and enjoys going to concerts in *Fortnite*. In order to enhance this experience, they sometimes use the "Harmonizer" skin which turns their character into a thin woman with pink hair and clothing that lights up when music plays in the game. Harmonizer looks like a person, but Taylor also likes to use skins that transform them into nonhuman characters. One of their other favorites is "Fish Stick", an orange bipedal fish with bulging eyes and simple coveralls. Whether they are wearing the Harmonizer of Fish Stick skin, Taylor uses these looks to imbue their own style and personality onto their *Fortnite* character.

The anonymity provided by skins is akin to that provided by the internet in general. Whether someone is posting on message boards or commenting on YouTube videos, they are typically doing so with an expectation of a certain amount of privacy. While people tend to feel anonymous online, unless a person has gone through a great deal of effort to hide themself most people are being tracked through cookies on websites and companies such as Meta and Google which sell user data to advertising companies (Burgess 2024). Players are often willing to act differently online then they would in their daily life due to an expectation of privacy. Privacy and anonymity may also make a parent feel safer about sending their child out into the wild world of the internet. Skins allow a middle ground between limitless customization and limited preset choices. Because of this, skins provide anonymity while still allowing players the fun of creating their character. For developers, skins and other cosmetic changes are key to generating revenue, and for players they can be key to self expression.

Avatars and skins are more than just looks. In chapter seven of Greg Toppo's book *The Game Believes in You* (2015), titled "I'm not good at Math, but my Avatar is," Toppo looks into the ways teachers have used pre-existing MMOs and created their own MMO like structures in order to facilitate learning, group cohesion, and excitement. Playing as an avatar, the "you" in the game that you get to design and control, allows young people to play with identity and to

take risks they might not take in real life. Players not only shape their avatars, but playing as a character that one feels they can truly embody affects the player too. Sundén and Sveningsson describe a *World of Warcraft* player who began to feel cold when it began to rain in the game. As that player said, "What connects me in reality with that which is me in WoW is some sort of shared soul." (Sundén 2012). The shared soul of the virtual avatar and the player connects back to the original meaning of the term as the embodiment of a higher power in a lower plane (Snodgrass 2023). Avatars are an extension of the self that can allow players to act in ways that are outside of their abilities, or perception of their abilities, in real life.

For players, having an avatar that feels real can allow for a different and fuller experience of a game, but creating that real feeling is not easy. The WoW players that Sundén and Sveningsson interviewed were able to connect with their avatars in part because of control they had over the appearance of their avatar (Sundén 2012). This ability to customize the looks, skills, and actions of their character meant that players bought into their avatar's existence as an extension of themself. But even when players are unable to mold their character they are often deeply connected to their avatar. When I played *Fortnite*, I often found myself physically reacting to the stimuli in the game. As I wrote after one of my early matches "I feel like I'm getting noticeably better at the game quickly, though the stress of it (particularly when I place high) is not ideal. There is a very different anxiety playing a game versus real people than playing versus computers." In that match I had managed to reach 13th place, the furthest I had made it in the game up to that point. As I ran from house to house trying to hide from other players while also tracking down weapons my heart beat faster and faster and I leaned forward towards the screen. Even though I had only a bit of control over how my avatar looked, I felt deeply connected to my character through the intensity of the game. The unpredictability of real players made the experience of the game all the more stressful. While my avatar never batted an eye at the high pressure environment they found themself in, I could feel my heart beating in my chest as I ran from virtual gunshots.

The connection between player and avatar is about more than looks or stress, it is also connected to the mechanics of the gameplay itself. When I play the classic puzzle game *Snake*, I do not feel like I am the snake trying to eat the apples. But when I play *Fortnite*, I feel deeply





connected to my avatar. A key element of this is the mechanics of the game itself. The seamlessness of the gameplay, the ability of the character to respond to the buttons pressed by the player in a way that feels natural, smooth, and accurate, adds to the immersion of the player and their connection to their avatar. *Snake*'s limited controls and my computer's inability to run it smoothly complicates my gameplay experience. Connection to an avatar requires not just a well made game, but the technology necessary for the game to run well. Later in this chapter I will discuss the concept of flow as described by psychologist Mihaly Csikszentmihalyi (1990). The ability for a player to enter into a flow state, to feel out of time and deeply entrenched in the game they are playing, is connected in part to their avatar and the ability of the game to respond to their input. The psychology of gameplay is not the focus of this chapter, but flow states and avatars are both key aspects of a player's ability to feel connected to a game.

Additionally, different parts of the avatar and gameplay experience matter more to some players than others. As Eugene Kukshinov and Adrienne Shaw found in their analysis of the effects of player demographic on avatar selection, finding an avatar that looked like the player mattered more to players further from the dominant subject position of white and male (Kukshinov 2022). White male players cared less about finding an avatar that looked like them as compared to players with marginalized identities and were "consistently making non representative choices." Kukshinov and Shaw theorize that because whiteness and maleness are historically the default in representation, white males did not need to factor race and gender into their selection of an avatar. Marginalized players who are less likely to have the option to choose an avatar that looks like them were then more likely to take the opportunity to see themself in their choice. Avatars are a complicated part of the online gaming experience, and they are one often mediated by player's access to capital and proximity to a white, male, able bodied physique that is seen as profitable in these spaces.

In this chapter, I will discuss how race, gender, and capitalism are at work in young people's experience of MMOs. Whiteness has historically been the norm in video game characters, and Black avatars emerged first in the genres of fighting and sports games (Everett 2005). Similarly, maleness has dominated the realm of video game protagonists. Cultural norms in the United States around who plays video games and who those players would want to be are shaped by racism, sexism, and expectations of the video game market. Capitalism and the desire to desire more, the need for constant accumulation, shape games and gameplay. The young players I spoke with often critiqued and discussed the ways games like Fortnite partnered with other media properties and celebrities. Some saw these connections as fun while others dismissed them as selling out and ruining the game experience. Parents often fear that their children will become addicted to games due to the ways video games have fostered desire in their players (Griffiths 2004, Hart 2022), and video games are actively working to engage and ensnare players into the pleasurable feedback loop of gameplay. Through this chapter, I will demonstrate the ways capitalism shapes player experience and the production of game mechanics. More importantly, I will share the critiques and conversations young people have in relation to video games and capitalism. First, let us focus on games and race, particularly the experiences of Black players in MMOs.

#### **Digital Racialization**

Digital spaces are always already talking about race even when they try to not consider race a factor. This is because racism, and other forms of bias, are built into technology (Noble 2018). As Safiya Nobel shows in *Algorithms of Oppression*, Google and other search engines use human guided algorithms that do not simply show the best information. They instead show information based around profit and the desires of those in power. There is a sort of hegemony of search that limits what people see online and how they are able to access new information. Because of the financial incentives to prioritize some information over others paired with the hierarchies of power already at work in the United States, search engines and other digital tools, such as artificial intelligence, center whiteness. We can see this as well in games and the ways they are often designed and coded to prioritize the desires and comfort of white players.

As discussed by Anna Everett and S. Craig Watkins (2008), games work as "racialized pedagogical zones" where players consume ideas about race and try on racialized identities. Video games have the potential to subvert racist caricature but it is not uncommon to see them instead present opportunities for digital blackface that reinforce racist stereotypes. Drawing on Salen and Zimmerman (2005) Everett and Watkins underscore that games are always embedded in cultural knowledge and experience. A culture of white supremacy is going to, both subtle and overtly, reteach white supremacy through games unless it is actively pushed against. We can see this at work especially in media with Black protagonists. Whiteness gets rendered as neutral through white supremacy and thus uneventful. When a Black character is in the spotlight, their presence becomes marked as "other" due to the overrepresentation of white protagonists. The actions and interpretations of those actions are particularly relevant to the analysis of single player games where a player is entering the world as a pre-made avatar.

Even when a game, or other piece of media, isn't attempting to say something about race, there will typically still be a community of people that discuss the "social and political

implications of those representations," (Russworm 2017). In her article on *The Last of Us*, TreaAndrea Russworm discusses how blackness functions ideologically in post-apocalyptic video games. She notes that in this genre, Black characters often die in order to teach non-Black characters a lesson about the world. Black subjectivities are seen not as viable in their own right, but as stepping stones to be used by other, typically white, characters.

Looking back through the history of video games, Black characters have often functioned as Others for the main player to set themself in opposition too. Rico Norwood



documents this history in their article "Coding Blackness." (Norwood 2021). They cite the 1976 Sega Arcade game *Heavyweight Champ* as the contested first instance of a Black character. The characters in that game are simple stick figures made of chunky grayscale pixels where one character is darker than the other. This racial ambiguity was

made explicit in the later regeneration of the series. *Heavyweight Champ* is emblematic of Blackness in games, as the games that have historically included the greatest number of Black characters have been sports games. Beat-em-up fighting games in the 1980s also began to include a greater variety of Black characters, but these were often restricted to player two, the main character was always white. During this time, enemies were often darker skinned so as to easily Other them from the main characters. As recently as 2009, the game *Resident Evil 5* fell into this same trope by pitting white protagonists against Black zombies (Brophy-Warren 2009). Now, video games are a mixed bag wherein some rehash the old stereotypes and othering of Blackness and others seek to create a more nuanced and detailed depiction (Norwood 2021). White supremacy has long shaped the way Black characters have appeared in video games, and it also shapes the experience of Black players in online multiplayer games.

In online multiplayer games where everyone gets to feel like the protagonist, race and racism are ever present. Lisa Patti discusses in her chapter "Entering the Picture": "Participants

in online worlds...are subject to the same forms of intolerance and aggression that people with minoritized and marginalized identities in the offline world confront" (Patti 2017). Ideas about race in video games do not disappear in online gaming spaces, and in fact they are often heightened by the pseudo anonymity that MMOs present.

This barrage of racism faced by Black gamers has been turned by creator SilkSheets into a popular series of TikToks. His "COD [Call of Duty] SLUR SPEEDRUN" series has garnered millions of views on his personal YouTube channel. In these videos, SilkSheets, a

Black man, attempts to get another player to call him the n-word over voice chat in a *Call of Duty* (*CoD*) lobby as quickly as possible. In one video, he says: "In order to get the most toxic players, we switched from hardcore to core CD, still using the OP [over powered] 'I'm Black' strat [strategy. Hopefully we'll break sub-1 with this, let's get ready. I'm Black." In only .46 seconds, another player responds over voice chat calling him the n-word. SilkSheets then yells and celebrates his "success" at beating his old record. Being called a slur is such an expected part of being a Black player in an online server that Black gamers can anticipate this reaction. For many players, this



means that they must hide or downplay their race in order to have a "normal" play experience. As Rico Norwood, a queer Black graduate student, wrote about their own experience playing online games: "escapism is a privilege that's allotted to those of the ruling racial, gender, and economical class, and that my ticket to pixelated paradise came with restrictions that no cheat codes could allow me to bypass." (Norwood 2020).

While none of the young people I interviewed brought up race as a major factor in their gaming experience, almost all of them stated that they only have open voice chat on when playing with friends. While playing *Fortnite*, I was also concerned about turning on voice chat for

fear that strangers would be constantly shouting abuse into the microphone. I was surprised to find that other players rarely had their mics on. While I did occasionally hear men and boys on the voice chat, the only time I heard female players was when a mic was left on by accident such as when I overheard a group of friends deciding on a dinner order. Part of the difference between the voice chat in *CoD* and *Fortnite* is that in *CoD* everyone can hear everyone in the lobby, and in *Fortnite* players can only talk with their squad members during the game. A squad is at most four people, and this reduction of anonymity and the ability of players to report each other for abuse makes players of *Fortnite* less likely to encounter strangers spewing hate. Of course this does not fully resolve the issue, but it does limit racist people's access to strangers to abuse online.

White characters made up the majority of those appearing in popular games from the last 5 years (Lin 2022). While MMOs have begun to increase the number of character skins



players can use that are Black and brown, this increase in representation is not the same as having main characters in narrative games that are not white men. Unlike protagonists in single player narrative games, the race of characters in MMOs only matters in some games. For instance, in

*Overwatch* a character's personality, race, and background are connected to their lore and to their move set. Their racial, ethnic, and national identity all tie into the way the character looks, acts, and moves through the game world. Conversely, in a game like *Fortnite* a skin has no effect on a character outside of looks because that character rarely has backstory or lore unless they are already connected to a different media property as I will discuss later in this chapter.

Similar to choosing the skin color of the emojis in one's phone, there are *Fortnite* skins like the one above that are the same skin with different options for different racial groups. While the choice of a different skin tone for one's avatar does not affect the mechanics of a game, virtual representations of skin tone carry with them the anti-Black racism or real life. Just as we saw above where Black players are harassed for their race, users of darker skinned emojis tend to be seen as less trustworthy in a study of virtual communication (Babin 2020). The addition of racial representation to games like *Fortnite* means more players will be able to play a character that looks like them, but these characters only have as much depth and lore as a player is willing to imagine for them.

Dorinne Kondo's book *Worldmaking* discusses the importance and value of representation, particularly in the realm of theater. She states that "Theater, film, and other domains of the cultural can confer existence in the public sphere." (Kondo 2018). Being visible on stage or screen is not just about representation in media, it is about being able to live a full life offscreen. Kondo describes the power of being represented as life-giving and offering the possibility of "reparative mirroring." But, she also warns of the potential for harmful stereotypes and negative representations to be scenes of affective violence that can take days or years to recover from (Kondo 2018). Being able to see one's self, to play as a person that looks like one's self, in a game is about not just the games but about life. As Kondo asks: "Who is a protagonist, and who is a dispensable supporting player?" (Kondo 2018). All too often in games, the role of protagonist has been reserved for white men. In many ways, online multiplayer games and character creation presents the possibility for player's to change this narrative and to see themself on screen.

Jodi Byrd discussed the tension of representation in their talk "Settler Reasons Why: Playing Games Towards Queer Indigenous Relationality" (Byrd 2023). There, they described the pursuit of representation in games, in terms of race, gender, and cultural background, as the "utopic dream and dystopic trap." They elaborated that while players are in many ways forced to argue for representation, representation is always limited and never perfect. Representation, while nice, does not represent an ideology of inclusion for the sake of inclusion but may simply represent a shift in market values. Kondo and Byrd both argue for the production of more media, more plays and more games, that is produced by minoritized people. While being a part of a marginalized group does not guarantee that the game produced will allow for reparative mirroring (Kondo 2018) it does increase the possibility. This is true not just for people from marginalized races in the US, but also marginalized genders. Let us now turn to seeing how representation and the market affect gender and misogyny in games, fans, and the gaming industry.

# Gender

It is not fully accurate to separate out gender and race when discussing video games. The specific hate that Black women and femmes face, misogynoir, is ever present in gaming spaces and comes from other players as well as from the games themselves. This abuse can also be present through a lack of representation: Black women made up only 8.3% of protagonists in recent popular games (Lin 2022). Though white male characters have always been overrepresented in the gaming industry at large, attempts to increase the number of protagonists of color or of women has been met with disdain from a vocal minority of players that see these increases in representation as pandering (O'Donnell 2022). While this section will focus on gender as an axis of consideration in the discussion of games, consideration will also be paid to the intersections of gender and race. My research does not focus on sexuality, though this is also a useful lens of analysis of games (Sundén 2012, Malkowski 2017, Ruberg 2017).

Because gamers are typically assumed to be male, women and girls have become seen as outsiders to the gaming industry. This is evident in part in the way gender and gendered insults are used in online multiplayer games. As Bonnie Nardi notes of *World of Warcraft*: "It is

91

common for homophobic, transphobic, and misogynistic language to be used in game chats to both jokingly and seriously critique the actions of other players. While male players were more likely to engage in this behavior, female players did as well." (Nardi 2010). Reproducing misogynistic rhetoric is not unique to male players or to any particular subset of male players, researchers such as Nardi also see women using these kinds of insults. For some women, using insults like these can be done to set them apart from other women and to identify them as the exception to the rule.

During my time playing *Fortnite*, I only encountered one person who used gendered insults during gameplay. Despite no one else in our party communicating over voice chat, this young man continually narrated his gameplay, insulted players of the game, and used the terms "bitch" and "gay" in a derogatory manner. I chose not to engage with this player for fear of making the situation and insults worse, and my other squad members also ignored his remarks. It is likely that the other two people on our squad had voice chat turned off or were playing on a different platform and thus could not hear this player's complaining anyway. Homophobic and misogynistic language is woven into some player's vocabularies such that even when there is not a single target of their hate the language is deployed anyway. Encounters such as this are all it takes to remind queer and female players that they are not welcome in online games.

Historically, games have been marketed towards men and boys, particularly first person shooters. This division of the consumer base led to the creation of the games marketed as being "for girls" beginning in the 1980s and 1990s. This delineation was critiqued from a variety of angles, including Stephanie Bergman, a member of the Game Grrlz movement of the late 90s: "The concept of "girl games," on its face, is detrimental to the little girls who game. It's because companies are creating games "for girls" that the boys had such a hard time understanding how this girl could be playing something other than Barbie." (Jenkins 1998). For Bergman, all games were gender neutral and the sequestering of female players into games

targeted at women and girls was an insult. Others at the time argued that violence in games alienates girls (Greenfield 1996), and thus games need to be made with that difference in mind.

Of course, there are boys who prefer less violent games and girls who prefer more violent ones. Gender became the defining feature of a player's place in the consumer market of games regardless of their individual desires. The production of games aimed at girls seems to function in two distinct ways. The first being that some games are made with women and girls in mind in the hopes of curating a particular audience who will be affected by the game in a particular way. The second is that by dividing the consumer market the game industry might be able to make more money. In the end, I find it less useful to analyze a game as being "for girls" or "for boys" and instead to think about what possibilities of gender are available to players in a game (Lewis 2022). For now, let us turn from thinking about how the content of games may attract a particular audience to seeing how misogyny has shaped the gaming industry before returning to the discussion of avatars.

Misogyny has been a part of digital gaming spaces since their inception. Precursors to video games like tabletop role playing games were often male dominated. Gary Gygax, the man credited with creating *Dungeons & Dragons*, shared in a post online in 2002 that women simply do not get as much satisfaction out of playing *D&D* because of immutable biological differences (Wolf 2020). His larger argument was that because women could not enjoy these games as much as men, there was simply no point in trying to cater to the desires of female players. Women were, to Gygax, incompatible with gaming. Gygax's viewpoint is not unique, and the idea that there are innate biological differences between men and women that shape how they want to spend their free time is not new. Historically, women have been regularly critiqued for their pastimes and pleasures. Novels were thought to distract housewives from their duties and cause women to become lazy (Cunningham 2018). In both their production and consumption, games and leisure have often been kept from women.

Women, historically, were not allowed to relax and play in the same ways men were, and the place of women in video game culture came to a head in 2014 during GamerGate. While most of the young people I spoke with were probably too young to remember this scandal, its impact has resonated into current video game culture. GamerGate was a large and loosely organized anti-feminist misogynistic movement that pushed back against any efforts by video game companies, indie developers, and gaming journalism that worked to center women. In her book documenting the event, Jessica O'Donnell writes that "Far from being restricted to angry messages on anonymous forums, the Gamergate movement facilitated prolonged attacks on women, including rape threats, death threats, mass-shooting threats, and bomb threats." (O'Donnell 2022). Gamergate did not emerge from nowhere but was a continuation of the rhetoric used to dismiss women by Gygax and many before him. While O'Donnell argues that the broader backlash against Gamergate indicates that the cultural norm has shifted so that blatant misogyny is no longer appropriate in moderated public online spaces, women still typically expect to face harassment when playing games online (Dewinter 2017). For Black women, this expectation and experience of misogyny and racism greatly increases the chance that one will be harassed online. While toxically masculine digital spaces limit many players' ability to fully engage with a video game, they are not the only reason women and girls may not play a particular game.

Carolyn Cunningham's 2018 book *Games Girls Play* examines the social ecology of girls and video games (Cunningham 2018). Cunningham looks at the issues of marketing, leisure, play, and game design by interviewing girls, conducting focus groups, and examining the material and media productions of games. She details many of the gender divides in video games such as that girls tend to play more "casual" games and that the majority of game developers, about 75%, are men. Casual games, those that are less combat focused and typically on handheld gaming devices, are typically associated with women and girls despite research indicating that they are played equally by men and women (Soderman 2017). In his chapter on casual games and gender, Braxton Soderman also argues that women's leisure time in modern society is fractured and that women are taught to be prepared to abandon their leisure for other tasks readily. Casual games thus allow women and girls to fit into this prescribed role (Soderman 2017). Girls often played fewer games than their peers and male siblings, and they also felt more social

pressure to use their time productively (Cunningham 2018). This combination of critique and social pressure often lead women and girls to play fewer games and to less often identify themselves as a "gamer." While the identifier "gamer" was not regularly used by any of my informants, I found that gender did not affect how many different games



the young people I talked to played. While I spoke to more boys than girls who played first person shooters, almost everyone I spoke with played a variety of game genres, and almost all of the young people I spoke to currently or previously played *Minecraft*.

Avatars are an important part of the way video game spaces present gender. The most commonly mentioned game among the young people I talked to, *Minecraft* is a complex landscape of gender and avatars. Although *Minecraft* purports to be a gender neutral experience, the play style encouraged by survival mode as well as the supposed non-gendered main character present players with a game that encourages an aggressive style with little room for rest (Bull 2014). Though survival mode is popular, many of the people I talked with preferred creative mode where they can take their time and play in a wider variety of ways. But while the

playstyle of *Minecraft* has its own gendered connotations, the avatar and skins in the game have had a complicated relationship with gender

Steve, commonly referred to online as "*Minecraft* Steve" was the original avatar when the game was released in 2011. Players could change the skin of their avatar through downloading skins online or designing their own skins in a program like Photoshop or an online skin maker and then upload them to the game. A second standard avatar was added in 2015 -Alex. Prior to her inclusion, "female" character models have been added via mods, many of these are over the top depictions meant more for the enjoyment of straight male players than for the enhanced embodied experience for female players. Alex is a light skinned person with long red hair, a female avatar for players to embody. As Mojang employee Owen explained on the official *Minecraft* blog: "Now, everyone loves Steve – he's probably the most famous minecrafter in the world, and has excellent stubble. But jolly old Steve doesn't really represent the diversity of our playerbase. For that reason, we're giving all players opportunity to play with an Alex skin instead. She brings thinner arms, redder hair, and a ponytail; she actually looks a bit like Jens [a male *Minecraft* developer] from certain angles." (Owen 2015). How do we know Alex is a girl? According to Mojang Studios, it's her thinner arms that truly set her apart from Steve.

This attempt to diversify their avatars through the introduction of Alex was well intended but falls short. In 2022 the studio introduced 7 additional base skins that came with the game. These skins greatly expanded the skin tones available on the base avatars and introduced a character with a prosthetic arm. As discussed in the previous chapter, the simplicity of the graphics in *Minecraft* can be extremely useful in applications such as urban planning, but their simplicity also leads to a character design that is difficult to read. While the slim shoulders of Alex are part of what sets her apart from Steve, the real difference in their genders is that Mojang says Steve is a boy and Alex is a girl. These days, players have 9 base avatars to choose from and the ability to customize skins in the game. *Minecraft*'s limits on the ways a character can look in the base game are part of the gender neutral experience they try to have, but the need to introduce Alex is one of many instances where gender neutrality still defaults to male. Gender in avatars becomes even more complex in games where avatars have a greater variety of ways they can look.

Avatar choice in *World of Warcraft* is often seen as being connected to gender and sexuality. During her research into the game, Bonnie Nardi chose the avatar of a female Night Elf. Female Night Elves are regarded as a particularly attractive and sexy choice for avatar in the *WoW* community. But, as Nardi found, this icon of female sexuality was often associated with male players. She surprised a guild mate one day when voice chat revealed that she was a "Night Elf who's really a girl!" (Nardi 2010). *World of Warcraft* is a third person game where the player watches their avatar from behind as they explore the world, and many male players that Nardi spoke with asserted that they chose a female avatar because they would rather stare at a woman's butt while they played. For those players, their explanation for their avatar choice had less to do with being able to see themself as their avatar and more to do with their avatar being another part of the world to enjoy watching and engaging with.

Jenny Sundén and Malin Sveningsson's research into woman and queer focused guilds in *World of Warcraft* focused on player's experiences navigating guild politics and inter personal communication as women, but they also discussed the ways players used avatars to assert aspects of themselves (Sundén 2012). In talking to other queer women, Sundén found that many chose avatars that fit into queer female gender identities such as butch and femme<sup>7</sup>. For some, this was captured in the enjoyment of "playing beautiful, powerful, well-geared female bodies." Gender is an important way that players relate to games generally and to their avatars. As a nonbinary person myself, trying to find an avatar I can feel connected to often means not using gender as a means of connection. Few games offer nonbinary protagonists, and in games where you can create your character only a handful allow players to play with various aspects of

<sup>&</sup>lt;sup>7</sup> Here, butch and femme refer to specific queer identities and not general embodiments of masculinity and femininity among queer people.

gender identity and presentation such as voice and pronouns. Embodying a character can allow a player a deeper experience in a game, but this experience often comes at a literal cost. Let us turn now to look at the history of capitalism and video games before turning to the critiques of these systems discussed in the interviews I conducted.

## Capitalism

Leisure exists in contrast to work. That which people want to do as opposed to that which they must do. In the history of interactive game machines, slot machines and the like have been a means by which laborers can escape the pressure of work (Huhtamo 2005). But, as with many types of leisure, this escape must be bought. The penny arcades that followed in the late 1890s became social spaces where people, often young people, could gather and relax. They were seen as "breeding-grounds for vice and even for infectious diseases." (Huhtamo 2005). The games that people play today are tied to this lineage of slots, pinball, and arcade machines, and many of the fears that people have had about these different machines remain in modern anxieties about video games. Game studio Sega, maker of Sonic the Hedgehog, Tetris, and the Yakuza series, began by making coin operated games for military bases. Video games are deeply tied to capitalism and the military industrial complex. As Seth Giddings states in his article on economics and video game studies: "Within late capitalist leisure there is a clear moral preference for more productive, work-like play." (Giddings 2018). The supposed moral depravity of the arcade was tied to the ability of games to distract and ensnare people who were "supposed" to be working. We see this today in both the creation of games that feel like work, such as the variety of job simulator games, as well as the gamification of everyday tasks (Toppo 2015). The line between work and play becomes blurred so that play brings with it less guilt and work becomes more game-like.

This blurring of work and play can be seen not just in the playing of games but in the making of them too. Making video games is hard work, but because the job is so desirable and seen as fun, game developers working for major studios are often exploited and independent developers are often held to impossibly high standards. As Melissa Kagen says in her book *Wandering Games*, "For independent game developers, or anyone with the privilege of working in a creative industry in the 2010s, the "do what you love" philosophy functions as a velvet fist, offering the semblance of free choice but backed by the constant threat of insecurity." (Kagen 2022). The ability to "do what you love" is not a privilege available to everyone, and it is often tied to class, race, and gender. But, while the pressures of capitalism, racism, and sexism often keep marginalized creators out of the gaming industry, there are still many creative and innovative developers able to make a living out of making games.

Jonathan Concepcion-Rodriguez<sup>8</sup> is one of these developers who is able to earn a stable income through video games thanks to his mobile game *Onebit Adventure*. After hurting his back working a warehouse job, Concepcion-Rodriguez decided to focus his efforts and money on following his passion and creating video games. He had gone to college for game development, and making games full time had been his goal. Since *Onebit Adventure* is free to play, Concepcion-Rodriguez makes money not from game purchases but from microtransactions–small in-game purchases. Free to play games are often critiqued and derided for the number of advertisements that players encounter in the game, but Concepcion-Rodriguez didn't want a lot of ads, he wanted to be a "a nice dev with a free to play game." This strategy is particularly important for generating an engaged fan base as I will discuss in the next chapter.

In *Onebit Adventure*, the majority of microtransactions come from players buying diamonds, an in-game currency that allows players to revive their character. Due to the structure of purchases, the five dollar bundles are more popular than the one dollar ones. This strategy of

<sup>&</sup>lt;sup>8</sup> Jonathan gave permission to use his real name as he is a public figure connected to his game.

bundles and deals was one that Concepcion-Rodriguez first saw while playing the popular mobile game *Clash of Clans*. In *OnebitAdventure*, players can buy 100 Diamonds for \$1, 600 Diamonds for \$5, or 1,500 Diamonds for \$10. By making the more expensive options a better deal, more diamonds per dollar, players are more willing to spend more money. For Concepcion-Rodriguez, the ability to work from home and make *Onebit Adventure* has allowed him to provide for his family. Making money as an independent game developer has required that Concepcion-Rodriguez shape the ways that he makes his money to be more agreeable to his audience: little to no advertisements and low pressure to make in-game purchases. As we will see in the next section, larger video games often have the fiscal and social capital needed to make profitable brand partnerships even when those deals are controversial among players. For indie developers like Concepcion-Rodriquez, the good will of players in a key part of making enough money to live.

#### Skins, Brands, and Choice

I drop down from the Battle Bus into the world of Fortnite. Having chosen the desert as my landing spot, I make my way into a motel and scavenge around the bathroom. There I get into a shoot out with another player, we both jump around wildly trying to avoid the other's bullets but eventually I emerge victorious. Hearing more gunfire, I ran away and into the woods. There, two large black wolves chase after me and attack me. While I attempt to make my escape, Spider-man runs me over with his pick up truck before shooting me, taking me out of the match. I spectate the rest of the match, watching as Spider-man is killed by a humanoid avatar wearing all black that has an orb for a head. They swing around on web-slinging gloves, traveling through fields of fireflies and swampy woods. Finally, they are taken out by Kate

100

Bishop<sup>9</sup>. To celebrate her victory, Kate Bishop uses an emote, a player input that creates a predesigned action in their character, to dance to the song Butter by the K-pop group BTS.

Video games, especially those from larger gaming companies, may make money through in-game purchases and brand deals in addition to the cost of the game. Online multiplayer games often make money by cross-promoting with already existing media entities and corporations and selling in-game objects to players. These types of brand partnership agreements are harder for games that are not online and regularly updated to make because the collaboration must be agreed on before the release of the game. In contrast, MMOs are able to become well known and then later work with a variety of companies. Throughout my time playing the game, I regularly encountered players using skins that were depicting characters not owned by *Fortnite*. The example above came from my research notes and is a typical sequence of events.

*Fortnite* regularly engages in multiple cross-promotions at any given time, many of these being in the form of skins available to players. They have partnered with musicians, movies, television shows, and food companies to name a few. While some of these partnerships are paid, wherein the individual behind the skin or the company whose character is being represented takes a small cut of the sales of the skin, others are not. Professional Twitch streamer Tyler "Ninja" Blevins got a 5% cut of the sales of the skin that was his likeness, a portion of sales estimated to be about \$5 million (McIntyre 2021). But it appears that no money was exchanged for the inclusion of characters from the Marvel Cinematic Universe in the game or for the depiction of Thor playing *Fortnite* in Marvel's *Avengers: Endgame* (Goodman 2023). These partnerships between *Fortnite* and other companies and individuals can be referred to as partnerships, cross-promotions, advertisements, or collaborations, and I will use all of these when discussing *Fortnite*. These partnerships were a controversial subject among the young

<sup>&</sup>lt;sup>9</sup> Kate Bishop is an archer in the Marvel universe and is the understudy of the Avenger Clint Barton aka Hawkeye.

people I spoke with, and this sentiment has been shared by video game journalists (Hernandez 2019). While some loved these collaborations, others saw them as *Fortnite* selling out and becoming worse.

Taylor was the young person I spoke with who most enjoyed *Fortnite's* partnerships. They were generally positive about the partnerships, especially those made with musicians. Fortnite introduced the game mode "Party Royale" in 2020 that allowed players to attend virtual concerts within the game. They are not the only game to have done this, Roblox hosted a Lil Nas X concert in December 2020, but Fortnite's concert series is the most long-running and robust. When there are no concerts happening in Party Royale, players are still able to hang out, build, and play mini games. But the concerts were of most interest to Taylor. They love music, and Party Royale has introduced them to some of their favorite musicians including Marshmello whose skin is pictured on the left below. In addition to being able to watch the concerts, featuring the singers in *Fortnite* style 3D models, players can also earn or purchase skins related to the concert. Because of Marshmello's concert in *Fortnite*, Taylor has listened to his music, bought his skin in the game, and learned how to do the "Marsh Walk" dance from the game in real life. The Marshmello skin became Taylor's look of choice during their Fortnite matches, and now when they play they get to embody the musician. Taylor has literally and metaphorically bought into the Marshmello skin in *Fortnite* by paying real money for the skin and by putting their time and energy into learning the dance.

When asked what they would most like to see changed about *Fortnite*, one of Taylor's first requests was to have skins of the members of the K-pop group *BTS*, another favorite of theirs. While playing, I also saw skins available of singer Ariana Grande and skins designed for fans of the Wu-Tang Clan. This variety of options feels to fans like Taylor not like selling out but like trying to create a variety of experiences and options for fans of the game. For them, *Fortnite*'s collaborations are extra benefits to being a fan of the game and a fan of other media properties. Instead of being a sea of advertising, players like Taylor see a multitude of

opportunities to interact with their favorite media in new and exciting ways. Players can not just be fans of Ariana Grande, they can now embody and control her likeness in the game, allowing for a deeper and more personal connection. This can also be seen in Taylor's decision to learn the Marsh Walk dance. They are not just playing as Marshmello in the game, they are also learning to enact their avatar's movements in real life.



Other fans of *Fortnite* that I spoke with were significantly more critical of the game's collaborations. In my conversation with thirteen year old twin boys Daniel and Ruben, they discussed the pros and cons of *Fortnite*'s partnerships with major brands. The twins are Black and Hispanic, and they are avid gamers with a variety of hobbies including skating, watching anime, and reading. Ruben enjoyed the cross-promotions more, especially those with Naruto and Marvel, media properties that he is already a fan of. Daniel was more explicitly opposed to the partnerships and saw them as going too far. *Fortnite* exists in the universe of the Marvel comics, and Daniel saw the insertion of a video game into a fictional world as excessive cross-promotion. Even though media properties are rarely fully cut off from other popular media at the time, the inclusion of *Fortnite* in Marvel comics and movies comes across as crass to players like Daniel. For Ruben, the collaborations were a bit much, but like Taylor he enjoyed

seeing content from media he already enjoyed in the game. *Fortnite* has incorporated not just skins from other media but also weapons, special items like web slingers, and locations. Unlike Taylor, the twins had not fully bought into *Fortnite*'s cross promotions. Even when characters from other media they enjoyed were brought into *Fortnite* through brand deals, the pair did not spend their money on the skins. Instead, they both enjoyed playing games that were more direct continuations of the media they enjoyed, such as *Dragon Ball Xenoverse 2*, a fighting game where players can play as characters from the *Dragon Ball* manga and anime.

While the incorporation of these crossovers into the Battle Royale mode was controversial between the twins, they both agreed that there was some benefit to the Party Royale mode. This is the same mode where Taylor got to watch Marshmello for the first time. The pair only ever attended one concert, that of Kenshi Yonezu who they knew because he wrote that opening theme to the anime *My Hero Academia*: "Peace Sign." Even though he didn't perform that song at the concert, they both really enjoyed the performance. "It was actually really good," they assured me. Though they classified *Fortnite* as just an okay game overall, they did see the Party Royale mode as a particularly fun and unique aspect of gameplay. While media cross-promotion may have been controversial, once the game brought the boys closer to an artist they liked, Kenshi Yonezu, they felt more favorably towards the game. Unlike the skins, playing Party Royale is free, the players only have to spend their time to attend. *Fortnite* has brought in record profits in part because of their collaborations with other media empires like Marvel, but it has also found other ways to make money and connect with players.

#### International Women's Day and Fortnite

During my research, I was not surprised by the wide variety of skins from other media that I had encountered during my play. What did surprise me was when on March 10, 2022 I opened up *Fortnite* to learn that the game was celebrating International Women's Day (IWD). *Fortnite*'s loading screen often made announcements about new updates to the game or items in the shop that the developers wanted to highlight. This time, the opening screen informed me that in celebration of IWD *Fortnite* was releasing four new items for free in the item shop and player created game modes. The items were: a "Heart Sign" emote, a song called "I am



Fearless," "Hop and Wink" a spray featuring a cartoon bunny and cat head, and a weapon wrap<sup>10</sup> with pink and blue galaxies and a pink heart shaped moon. In addition to these free items, the night sky in the game was altered to fit the theme by turning the in-game

moon heart shaped. While not included in the in-game announcement, the *Fortnite* official website also shared that the game would be part of an all-women competition with a \$75,000 prize. Some limited time skins were also introduced in the item shop and sold during this time, and tennis player Naomi Osaka's skin was also released during March 2022. Through an analysis of *Fortnite*'s celebration of IWD, we can gain a deeper understanding of the intersections of gender, history, capitalism, and representation in online multiplayer games.

YouTuber iFireMonkey creates videos largely focused on *Fortnite* updates, sharing with his audience the latest releases from the game (iFireMonkey 2022). His video on the game's celebration of International Women's Day highlights the tensions that this event caused among fans of the game. iFireMonkey's video " was itself largely celebratory and excited about *Fortnite*'s decision to celebrate the holiday. In the comments, some fans shared his excitement. One stated that "Im so happy Fortnite is doing this! As a girl i feel really happy!! And i just love the skins they are really cute!!" [sic] and the top rated comment reads "It's nice to see Fortnite celebrate Int. Women's day. It makes me wonder if they'll do Autism Awareness month, it would

<sup>&</sup>lt;sup>10</sup> A weapon wrap is like a skin, it changes the colors of a weapon but does not change its abilities.
make me happy, since I have autism." For these two commenters, the celebration of IWD by *Fortnite* indicated a larger valuing of inclusion by the company. In a post GamerGate world where women are still routinely faced with violence in online gaming communities, for some players the decision to celebrate IWD demonstrated their care for the place of women in the gaming industry. But this positive response was not universal. Many comments shared the view of one commenter who wrote: "wonder if they're gonna do something like this for men's day." As of yet, *Fortnite* has never celebrated International Men's Day. In order to understand the relationship between these holidays let us look at their history.

International Women's Day was first observed in 1911 and was brought about by women protesting for equal rights. As discussed on the official website for the day, the holiday was connected not just to the women's movement but also to the socialist party. Safe working conditions and labor reform became an important aspect of the holiday following the Triangle Shirtwaist Fire which killed over 140 working women ("History of" n.d.). Today, IWD is recognized by the United Nations and is a national holiday in 22 countries, most of which have a history of communist of socialist politics. The United States government does not officially celebrate IWD, and the last effort to codify the holiday was in 1994. While *Fortnite*'s parent company Epic Games has offices around the world but is based out of Cary, North Carolina. As the YouTube commenters quoted above wrote, the celebration of IWD by *Fortnite* also conjured up questions of International Men's Day.

Eighty eight years after the observation of the first International Women's Day, the first International Men's Day was celebrated. International Men's Day, as noted on the official website, is meant to "focus on men's and boy's health, improving gender relations, promoting gender equality, and highlighting positive male role models" ("History & Background" n.d.). The IMD's website claims that the holiday is not a reaction to IWD but is instead inspired by the celebration of women, their contributions, and their struggles. While IMD does look at some legal aspects, it does not explicitly connect to economic issues in the same way IWD does. Men's Day has also not received the same public support and recognition as Women's Day, in part due to the longevity of IWD. While the founders of International Men's Day may see it as a neutral event, the invoking of the holiday in the conversation around IWD suggests that in its current iteration IMD is being used to push against or critique IWD. It is outside the scope of my work to discuss the pros and cons of an International Men's Day, or an International Women's Day, instead I want to focus on *Fortnite*'s use of IWD and their history of making money off of marginalized peoples.

It is impossible to say if a corporation's support for a holiday, even one such as International Women's Day, is ever without ulterior motives. I am sure that people working at Epic Games who make *Fortnite* did see the holiday as an opportunity to bring a conversation about the rights of women to a space that is often opposed to such conversations. It is outside of my scope to speculate on who at Epic Games made the decision to celebrate the holiday inside the game, but I expect approval for a major event that is linked to an international holiday would need to come from the CEO. What is clear is that IWD became another way for Fortnite to make money regardless of whether this was the original intent of the employees who recommended the celebration. Through the sale of skins connected to the holiday, Fortnite was not just celebrating, they were also attempting to expand their player base and make money. Though the socialist roots of International Women's Day are not a well advertised aspect of the holiday, the decision to use a day with socialist origins to try and signal that a game cares about social issues returns us to Jodi Byrd's critique of representation as the "utopic dream and dystopic trap." In our capitalist system where corporations must turn increasingly large profits, no representation or celebration generated by a company can ever be fully altruistic. The male players of *Fortnite* calling for a celebration of International Men's Day have fallen right into the dystopic trap of seeking validation from a corporation. Online multiplayer games work hard to keep players engaged and invested, while celebrating holidays in game is one aspect of that strategy, immersion is another key piece.

107

#### Addiction and Loot Boxes

The extended flow state produced by games is not by accident, and games have often been critiqued for their addictive quality. This desire to keep players hooked can be seen explicitly in the use of loot boxes in games, though as we will see these objects, just like brand cross-promotions, are often critiqued by players. Addiction and video games are a complicated and complex pair. Video games are designed to be engrossing and engaging, and games that fail to bring their players into an extended flow state are criticized. The idea of a "flow state" was first named by Mihaly Csikszentmihalyi and gained increased popularity after the publication of his book *Flow: The Psychology of Optimized Experience* (1990). For Csikszentmihalyi, flow is the optimal experience wherein a person is fully consumed by their activity and loses their sense of time. While flow is sometimes contrasted with immersion by game studies scholars, Michailidis et al.'s review of the literature shows substantial overlap between the concepts (Michailidis 2018). Flow states must meet some, but not necessarily all, of the following criteria: "balance between the skills of an individual and the activity's demands; merging of action and awareness; clear goals; immediate and unambiguous feedback; concentration on the task; perceived control over the activity; loss of self-reflection; distorted perception of time; and



intrinsic motivation toward an activity" (Michailidis 2018). While some of these criteria look at player experience, many are dependent on the design of the game itself. Game developer and software engineer Dan Scalise

discusses the importance of keeping a player in the flow state and the game design needed to

keep a player engaged on his blog (Scalise 2017). By having clear controls, goals, feedback, and easy to access information, a game is able to keep a player engaged. If the user interface becomes overly complex it can take a player out of the game as they become frustrated. Similarly, a game that is too easy becomes boring and a game that is too hard becomes overwhelming. Scalise discusses how in role playing games, including online role playing games, systems that allow players to level up their character help keep players in the flow state (Scalise 2017). The ability to level up and access new areas, armor, weapons, and enemies are part of keeping a player engaged.

Games are designed to be consuming as much as they are designed to be consumed. But it is this very ability to manufacture the desire to play more that leads to games being criticized for being addicting (Parkin 2016). The addictive qualities of games are part of their construction. For now, it seems like people who already display compulsive and addictive behavior are the most likely to develop an unhealthy relationship to video games (Griffiths 2005). While I will not be diving into the nature of games and the tension between flow states and addiction, I will be looking at another aspect of video game addiction: loot boxes. Loot boxes, which I will describe in a moment, like the flow state are a means of holding player engagement and generating increased revenue. Like flow states, they are also not an accident but are part of the way a game is designed.

Concerns about the addictiveness of games and other forms of media are not new. Novels were thought to be so addicting that they would cause women to leave behind their wifely duties (Cunningham 2018). Pinball machines and the arcades they were housed in were seen as dens of iniquity where youths gambled away their lives (Malliet 2005). As a child, the television shows I watched were regularly interrupted by popular cartoon characters reminding viewers to go outside. Kids were warned that television would melt our brains. With every new engaging technology comes the fear that the shiny new toy will fully capture the lives and finances of users. While these fears are typically overblown, it is true that looking at screens has become an increasingly large part of people's day.

According to data compiled by Josh Howarth, the average person in the United States spends about 7 hours looking at screens (Howarth 2023). Howarth's data also shows that children in lower income households tend to spend more time looking at a screen each day with children in high income households averaging about 7 hours and children in low income households<sup>11</sup> averaging almost 9 hours. While screen time usage is also correlated with negative effects in children such as delayed learning and susceptibility to Type 2 diabetes, it is unclear if these correlations are more closely tied to screen time or family wealth (Howarth 2023). Average screen time has gone up in the United States over the past decades, and in the past ten years the average screen time has increased by almost an hour. In Chapter 4 I will discuss the ways the players I interviewed have their gaming limited by parents, though not every kid I spoke with had limits placed on their screen time. Screens have become a part of people's leisure and work, and the increase in youth screen time has prompted a great deal of worry from adults.

The concerns around video games in particular increased sharply alongside their popularity. In the late 1990s and early 2000s, researchers were beginning to worry about video games as a site of youth gambling. In Mark Griffiths' and Richard Woods' book chapter from 2004, video game gambling is still limited to video game addiction generally and game-like CD-ROM games that require no skill (Griffiths 2004). While currently researchers are more concerned about gambling through loot boxes in games such as *Overwatch*, Griffiths and Woods do point to the factors and qualities that make online activities more addictive. This list includes but is not limited to: accessibility, anonymity, escape, and immersion. I pull out these particular traits because they are also traits that game developers seek to include in their games

<sup>&</sup>lt;sup>11</sup> High income refers to households that make over \$100,000 a year and low income refers to households that make less than \$35,000 a year.

and that players want to see in their games. Like many activities, the qualities that make them enjoyable are also the ones that can make them risky. This cultivation of interest and obsession has led some to fear about the potential harm of games, or even the possibility that they will lead players to their demise (Parkin 2016). While the fear that a video game will make someone so addicted that they will not leave it even to care for their bodily needs may seem excessive, some parents are concerned that it is happening to their own kids.

One form of gambling that shows up in some online multiplayer games is loot boxes. In addition to being a tool for player engagement, loot boxes are a common way that MMOs now make money. These are a type of blind box filled with random in-game content of varying rarity unknown to the purchaser. They may include skins, decals, sound effects, or a variety of other cosmetics players can use to customize their character. While they are not as good an indicator as having negative experiences in childhood, risky loot box purchasing by college aged youths was correlated with costlier gambling habits (Coelho 2022). Sophie Coelho et al. found through

statistical analysis of data from gamers that players who purchased loot boxes were also more likely to have gambled and that "greater risky loot box engagement was significantly associated with increased problem



gambling severity" (Coelho 2022). While many countries have laws limiting the availability of loot boxes in video games, the United States does not currently have regulations on their use. Though some games still have loot boxes, *Fortnite* stopped selling their llama shaped loot boxes in their Save the World mode in 2019 after being sued by the parents of a child who played the game. The parents argued by not providing transparency over the odds of receiving rare loot they were misleading players (Kelly 2019). Due to these critiques, loot boxes have become less popular in video games, though blind box toys, like LOL Surprise Dolls, are increasingly available in real life stores.

While there are some players who enjoy loot boxes, there are also gamers critiquing their use. One girl I talked to included a parody of loot boxes in her games with her friends. Riley and her friends made a *Minecraft* world where they had crafted houses, a farmers market, and a variety of other cute buildings. But it is worth noting an additional feature to the community–the Shulker Enthusiasts Club. Behind the four main shops in the village is a small space covered in greenery and purple crystals, floating candles add a sense of mysticism to the space. "Here's a shop that I made," Riley said as she walked into the space, "shop, cult, same thing. Same difference." There in the alcove is a book on a lectern, positioned as if it were a sacred text.

This book, devised and written by Riley, is what allows one access to the Shulker Enthusiasts Club. Shulker boxes are a type of portable chest within the game and the club is a sort of gachapon pyramid scheme wherein for a fee other players can receive a random gift by completing weekly tasks. This gift is a loot box. According to the book, "With your membership you get a weekly shulker challenge to earn up to 10 shulker boxes!\*" Riley laughed as she



pointed out the star/asterisk to me while she read through the book. When asked about the asterisks, she explained: "'Up to 10 shulker boxes' meaning it's very rare to get 10 shulker boxes, it's more likely for you to get two. That [asterisk] is there just 'cause I'm not liable for this. The paper does not turn into shulker

boxes. That's not how it works. It's just for reasons of not wanting to be sued." Riley's shop/cult is a critique of the ways games use loot boxes and the legal jargon that is used to trick players.

Through the production of a particular occult aesthetic, Riley is playing with the strangeness of capitalism and loot boxes.

Riley's occult rendering of loot boxes is reminiscent of the devil pacts made by miners as described in Michael Taussig's *The Devil and Commodity Fetishism in South America* (Taussig 1980). Taussig's ethnography sought to understand how Colombian peasants mediated their relationship to newly arrived capitalism through the use of contracts with the devil. These farmers turned miners felt newly alienated from their work and were forced to participate in an unpredictable sector of the economy. In hopes of finding riches, and staying alive, peasants turned to sorcery. While Riley is not offering her co-players a contract with the devil, she is using a similar means to navigate her relationship with a larger power - video game companies. The magic implied by the place settings of the Shulker Club - the book on a podium, the purple crystals, and the floating candles - reshape the signing of a contract for the purchase of loot boxes into a deal with a supernatural power. Riley's parody of loot boxes works to critique them in part through a redefining of their power as supernatural while also placing herself as the new arbiter of loot boxes.

### **Playing Anyway**

The internet, and online communities of other young people, have provided children a new means of communication and understanding of their own experiences. Jane Juffer explores these means of sharing thoughts and feelings in her book *Don't Use Your Words!*" (2019). Adults often have trouble understanding children's affect, understood by academics as the feeling of feelings and not just the emotions/words people have been taught to use to describe their feelings, and Juffers found children's online interactions to be a helpful way to understand how they're feeling. The way the young people interact with each other in spaces not monitored and oriented towards adults is often characterized by a unique and shifting lexicon of memes,

videos, images, body movements and dances, and other methods of communication often lacking in adult conversation. Children's expressions and communications are not underdeveloped forms of adult communication but are full, expressive, and meaningful in their own right. In addition, Juffer critiques the capitalist nature of games like *Roblox*, a platform where many games are oriented around growth, accumulation, and advertisements.

As games like *Fortnite* continue to work with other brands, advertisements become built into the fabric of the game. The lexicon that players have to communicate with each other and express themselves in game becomes mediated not just by the game developers but by collaborators like Disney who can exert great sway over the content of the game. While MMOs are always seeking extended engagement from players, turning those game experiences into multimedia advertisements leads not to the goal of engaging games but of games that one cannot escape. In addition, creating character models that represent the diversity of humanity may also be done only to increase profits. As O'Donnell discusses in her analysis of the video game industry post-Gamergate, "This [the consultation of Gamergate target Sarkeesian on game development] suggests that the games industry has undergone a shift, and has become more aware of its diverse audience. This has in turn informed their decision to outwardly support diversity within the industry." (O'Donnell 2022). Supporting diversity, through the hiring of consultants or the celebration of International Women's Day, can be more like a brand deal than a genuine interest in uplifting marginalized voices.

The gaming industry is still working to shake the white supremacy and sexism that was built into it since the beginning. Our capitalist economic system is dependent on these racial and gender hierarchies, and the pressures of work and who has access to the leisure of games are apparent both within games and in the language and harassment of players. But, all is not lost. Players continue to find creative and innovative ways to critique these systems and to work around them. Young players are not simply receptacles who take in the information games provide them without question. Instead, they are already in conversation with their peers about the ways games present themselves, the money making modes they utilize, and the way players can express themselves in games. They are active agents in their relationship with games and economics, not just passive consumers.

In the next chapter we will look at how young players create and foster social networks through online multiplayer games. These connections, both positive and negative, are shaped by the limits of race and gender within games. Ideas of who is a gamer and how games should be played are tied to identities and social spheres.

## **Chapter 4:**

# **Playing With Others**

On a gray rainy day in April of 2022, I made my way through Milwaukee towards a downtown convention center. The weather was abysmal, and I was nervous not just about the drive but also to attend my first convention in many years. Every spring in Milwaukee thousands gather for the Midwest Gaming Classic (MGC), a convention for gamers, collectors, and professionals who are interested in gaming history and retro games. Thankfully the dreary weather was quickly replaced by the warm and lively atmosphere of the convention. While the first and second floor held the vendor hall, board game library, food carts, and other interesting side rooms, it was the third floor that stole the show. The majority of the hall was filled with rows and rows of consoles, controllers, and monitors: the Computing and Gaming Museum.

According to the MGC's website, "The Computing and Gaming Museum is one of the centerpieces of the Midwest Gaming Classic! Check out hundreds of different consoles from Pong to the PS5 and everything in between! Discover the joys of early computers, share the fun of hit games from the past, and check out the present of video games in the home! Best of all?

Unlike a museum where you can just look, in the Computing and Gaming Museum, it's almost all playable too!" To the left of the computers were the pinball machines. Dozens of pinball machines were available for people attending the convention, typically referred to as con goers by people in the gaming community, to play for free. While adults made up the majority of players,



many children were in attendance as well. On the third floor, young people and their parents played games together and with strangers. Tucked underneath many of the pinball machines were small white stools, a step up for younger players who wanted to get in on the action.

Games have always been about connection. Even single player games, especially those played by young people, are regularly played in the company of others (Stevens 2008). The Midwest Gaming Classic may not have focused on online multiplayer games, but it did bring to physical space the feeling of an online multiplayer game. In particular, the MGC became a way for older gamers to introduce their children to a different and older version of video games. Though young people are surrounded by digital technologies in a different way than previous generations, they are equally in need of others to show them how to interact with these games and technologies, like step stools, which allow them to access hardware designed for grown ups. Young children are reliant on adults to access the games that they play as it is adults who purchase games and consoles. Only once a young person is able to accumulate enough money, almost always gifted by or earned from adults, can they access games on their own. Through collaboration, children and adults access and play games.

Digital spaces allow for new ways for people to connect with each other. While many of these connections are positive, there is also plenty of asocial behavior encouraged and enabled by the internet. New players learn how to engage with games from their parents, friends, and strangers. In this chapter, we will spend some time looking at different social connections that young people made through video games. Looking at social networks will allow us to step beyond the stereotype of the gamer in isolation and towards a recognition that play, even the playing of a single player game, is almost always collaborative. These connections are mediated not just by players but by cultural forces such as misogyny and anti-Black racism. Throughout, we will be reminded of the way young players act on the world around them and shape the wide variety of relationships made possible in MMOs. Video games allow young players to act as experts and peer collaborators in ways that are not always available to them in

their real lives. First we will look at the literature around child development and social networks, next to parents and children playing games together, then we will discuss the ways people solve and create problems in online games, and finally we will turn to various ways that strangers come together to create positive communities and experiences online.

#### Learning to Play Together

#### Child Psychology and Learning Together

Research on children often looks at their perceived progress towards adulthood through analyzing learning and developmental stages and dismissing the fullness of their existence. Two key early figures in the field of childhood psychology who took the lives of children seriously were Jean Piaget and Lev Vygotsky. Piaget's work sought to understand how children make sense of the world and how that means of understanding changed over time (Piaget 1929). He believed a child's changing in reasoning came about through the combination of innate biological life stages as well as social influences. These life stages were focused on sensori-motor development from 0 to 2, the development of perception between 2 and 7, the understanding of symbolic representation between 7 and 11, and finally the arrival at logical reasoning for children over the age of 11 (Piaget 1969). While his earlier work was more explicitly euro-centric and racist, Piaget moved away from comparisons of children to "savages" throughout his career (Piaget 1929). Despite these efforts, Piaget is rightfully critiqued for his universalizing of childhood development. While his work did move child psychology into more child centered methods, he continued to use his own cultural context as the measuring tool by which to understand a child's development. Piaget recognized children as active agents in their own education, stating that: "For, in point of fact, the child does not copy everything. Its imitation is selective; certain features are copied outright, others eliminated after a period of years." (Piaget 1929). Additionally, while Piaget acknowledged the importance of socialization in

development, as the previous quote shows he also saw thought and development as an internal project undertaken by the child.

Lev Vygotsky was a Russian psychologist who worked at the same time as Piaget and also studied children's development. He understood learning to be facilitated not through intrinsic biological stages, as suggested by Piaget, but as a social process encouraged by appropriate scaffolding and collaboration (Vygotsky 1978). He states that children learn when they are in the "zone of proximal development," the space where they are given just the right amount of direction for a task that is an appropriate skill level. For Vygotsky, internal development comes through language acquisition and conversation with others, particularly with adults. Children learn through conversation and then those conversations allow them to process information internally. For example, a young child may only be able to complete a task when self narrating their activity because they do not yet have the information internalized. Play was also a key feature of development and language learning for Vygotsky. Through play young people are able to understand larger and more abstract ideas. In this model, play and language in conversation with others is the way a child develops higher mental processing skills. Through communication and play with others, children are able to learn and internalize information.

Through the work of Vygotsky and Piaget, the theory of situated learning was put forth by Jean Lave and Etinne Wenger (Lave 1991). Their research looked to create a standard theory of apprenticeship and understanding of learning in what they termed "communities of practice." These communities are groups of people organized around a similar interest with access to a similar body of knowledge on the topic. Like Vygotsky, they identified social contexts as key to learning. Lave and Wenger moved away from previous theories of cognition that focused on the internal processing of information in the brain to situated learning where information is processed socially and in a particular historical and political context. With situated learning, it is not just the information being shared that matters but the larger context and social environment of that learning. Learning, for Lave and Wegner, is a process of social participation wherein the acquisition of knowledge is a byproduct of being a part of a group. Importantly, communities of practice provide casual transmissions of knowledge and the sharing of unwritten or unspoken information.

While Lave and Wegner's work has been critiqued for its limited use in a digital age and its imprecise definition of community of practice, I believe that their analysis holds merit in the analysis of players of online multiplayer games. Building on these previous theorist's works, Franca Garzotto conducted a study to see if collaboration and competition affect elementary student's ability to retain information from an educational video game (Garzotto 2007). Garzotto found that students who worked collaboratively in competition against another team had more fun and learned more than students who played alone. While those students were playing an educational game, every game has goals that players must work towards. In online multiplayer games, players are learning more about the game and how to play it than a player gaming in isolation. My research does not focus on the educational value of video games, but it is important to note the ways collaboration and gaming together creates a different learning and play experience.

Learning how to play a game happens through a variety of means. People learn from playing other games, playing with others, watching other people, reading about the game they are playing, and from the game itself. The communities that form around MMOs often look like the communities of practice described by Lave and Wenger. A great deal of information about each game is stored online which means players have access to a similar body of knowledge to draw from (Lave 1991). While some information may be stored in private message boards or in print publications, the majority of knowledge is readily available. While a person may play a game and not be a member of the community of practice around that game the same holds true for the examples given in Lave and Wenger's book. A person can sew clothing without being a part of a community of tailors, but not being a part of the community limits a person's ability to access specialized knowledge. For players of MMOs, a person who plays but who does not

have access to the community may miss out on an unspoken code of conduct that many players use. Conversely, players who do not engage with the community around a game may be doing so to protect themself from harmful rhetoric shared within that community.

Taliah, a middle school *Minecraft* player, explained to me that she likes the way the game introduces players to the world. *Minecraft* has no rules, no tutorial and is "not like a typical game." While this style of game where the player is dropped into the world with no additional information can be hard for beginners, it also allows for a variety of ways of learning. When Taliah first started playing, she "didn't even know what updates were" and was largely an outsider to the game. Through watching YouTube videos, reading books, and collaborating with friends, Taliah was able to become an expert player. By engaging with the community around *Minecraft*, she was able to play the game with more skill and learn the norms of the fan community.

#### 21st Century Anthropology and Virtual Social Networks

Communities provide support and stability for their members, but living, working, and making decisions as a part of a community inevitably leads to differing opinions and conflict. Whether communities are nation states or friend groups, social networks bring people. Mary Douglas' group-grid theory was developed during the last decades of the 20th century to create a simple but useful means of categorizing the relationship of individuals and groups to risk and change (Douglas 1999). These four types of cultural biases are laid out on a chart where one axis, group, ranged from a focus on the individual to the collective, and the other axis, grid, ranged from high external pressure to low external pressure on individual choices. Group-grid theory allowed for a simple organizing method that could be used to understand people and group's priorities. As Douglas wrote "Four kinds of cultural bias, four kinds of persons, they made a substantial breach in the assumed homogeneity of rational beings." (Douglas 1999).

121

different priorities will be expressed in regards to individual behavior, tradition, and what counts as acceptable risk. For online communities trying to create social networks and for friends that play games together, finding their own balance of group and grid can be a struggle.

Ilana Gershon's book *The Breakup 2.0* delves into the ways people make, and break, communities online (Gershon 2010). Her book focuses on the ways college students were changing their relationship to technology and to each other because of the new social media platform Facebook. She also touches on the ways people learn and create the rules of virtual worlds. Gershon uses the term media ideologies to describe the beliefs users and developers have around the structure and meaning of virtual communication platforms. These beliefs are built upon people's experiences with previous technologies, and they are made within an *idiom of practice*. "By idioms of practice, I mean that people figure out together how to use different media and often agree on the appropriate social uses of technology by asking advice and sharing stories with each other." (Gershon 2010).

The rules and norms of a virtual space are collaboratively constructed with other users, developers, and people's experience with other forms of communication. Additionally, rules from the platform function like the grid described by Mary Douglas. Some online communities have a great deal of rules while others choose to have only a few or none. The intensity of the structure provided by a platform is also a part of its media ideology and the expectations of users. While Gershon's subjects were mostly asking advice and sharing stories with other people they knew in real life, many of the players in my own research are casting a wider net in order to understand the rules of engagement in online communities. Most of the young people I spoke with watch YouTube videos about the games that they play, and some are involved in other online communities that discuss these games. This larger digital community was also identified by Tom Boellstorff in his analysis of *SecondLife*.

Boellstorff's ethnography of *Coming of Age in SecondLife* laid the groundwork for future digital ethnographies of online multiplayer games and delved into the lives of players (Boellstorff

2008). He argues that virtual worlds are true communities, not simply shadows of more real real-life communities. People in *SecondLife* formed meaningful connections, joined affinity groups, played together, and interacted outside of the game. These out of game interactions often happened in discussion boards, blogs, and the comment sections of these blogs (Boellstorff 2008). Players had to learn to live with each other in the game, as we will discuss later in this chapter this led to both incredible generosity and occasional conflict. The social networks formed by players became important to their lives, and these relationships often transcended binaries of in and out of game. Engaging with a virtual community to the point where one can be a part of the group involves learning the rules of engagement and navigating the social expectations of that group. My research adds to this body of work around virtual social networks by understanding how youths are navigating these worlds, maintaining social bonds through creative digital mediations, and disrupting digital spaces. This work also looks beyond in-game interactions to see how young people's digital play is also a part of their relationships outside of the games.

## **Family Ties**

#### **Playing with Parents**

Parents play an important role in shaping how children think about and relate to video games. Many parents impose limits on time spent gaming during a day, or require that other tasks, such as chores or homework, be completed before a child can play. But parents don't just limit access to games, they also encourage and introduce their children to them. At the Midwest Gaming Classic, I saw this first hand. While eating lunch one day, an attendee's baby was crying behind me, and another family walked by. The mom mentioned to the oldest of the kids, who was maybe 7 or 8, that that's how they used to be when they first started coming to conventions. For this family, gaming and other conventions were a routine part of their life and a shared bonding activity for many years.

123

While most of the interviews I conducted were one on one with young video game players, I also had the chance to talk with a pair of thirteen year old twins and their mom. I knew the family through personal connections and they were gracious enough to let me ask them guestions about their experience with games. While the boys, Daniel and Ruben, taught me a lot, as discussed in Chapter 3, I was most taken by the interactions they had with each other and their mom, Soraya. Daniel and Ruben often play games with each other, their older brother, or one of their parents. The trio had a fun and casual rapport, at one point Daniel, in their discussion of building in Fortnite, said: "Some nerd comes in and kills me cause they built to the sky" to which Ruben responded "I don't know if you know this, but we are nerds." Gaming is a household activity that allows everyone to come together on equal footing. During the interview a conversation about which Grand Theft Auto game is the best arose, and each person had a different favorite in the series. Having an opinion on the game franchise was encouraged both by parents and children. Games were not seen as too frivolous for Soraya to care about. More importantly, each person's contribution to the conversation was seen as equally important and accurate. Soraya's position as the boys' mom was not leveraged and neither was Daniel or Ruben's youth and access to game time. The conversation revolved around not finding the true "best" game but around sharing the qualities of the different games on a level playing field. This flattening of parent-child power dynamics was facilitated by video games, a pastime that Soraya had fostered a love for with her sons.

Soraya speculated that these sorts of conversations and dynamics were much more common now because kids today are more likely to have parents that grew up playing video games. For these parents who are already familiar with video games, playing games with their kids is not a chore but an enjoyable pastime. Video games are a popular hobby, and they also span a wide variety of genres and styles. Even though a parent might have experience with games, that does not guarantee that they will like the same type of games as their kid. But, even without playing the same types of games, having played some games provides those parents with the lexicon to discuss games with their children in a more nuanced way. By being able to speak the language of games with their children, parents are able to position themselves as co-players or students in a more authentic way. Having a depth of knowledge about video games allows me to have more nuanced discussions about games with my own step children. Even though we play different games, having a shared language around games and gaming provides an avenue for communication that they do not have with other adults in their life.

In a viral Facebook post, comedian ChaCha Watson talked about using *Roblox* to let her eleven year old daughter know to take dinner out of the freezer so that it could defrost (Pasquini 2023). Watson regularly plays *Roblox* with her daughter and was able to use the platform after calling her child had not worked. To communicate with her daughter, Watson used the game's chat system after finding which game her daughter was playing. Because the pair are friends in the game, *Roblox* gives them access to information about what the other is playing. Soraya may have never had to use video games to let her sons know to get dinner started, but both Watson and Soraya have used games to connect with their children and to meet them where they are. Playing video games with parents was spoken about by the children and adults I talked to as an overall positive activity where all parties learned more about each other through play.

#### WolfQuest

Parent involvement in games doesn't always look like playing with a parent. Often, parental participation happens from the sidelines. *WolfQuest* is one of Zoe's favorite games. In it, players get to be a wolf in Yellowstone National Park. The game is a lovingly made careful replica of the park. Crafted by a team of game developers and science advisors, *WolfQuest* is, according to those who make it, designed to give players as real an experience of life as a wolf as possible. I will discuss this game and Zoe's experience playing it in more depth in the next chapter, but for now I will focus on the way her father shaped her gameplay experience. Games, even when they do not have the goal of science education, teach players about nature through player interactions with the flora and fauna of the game (Kozik 2019, Crowley 2021). An important part of this education in games like *Red Dead Redemption 2* is that the game tells you what different plants are and their uses as food or medicine. In *WolfQuest*, plant identification is not an important part of gameplay so while the plants are rendered accurately



they are not identified for players in the game. Luckily for Zoe, her father is a biologist and loves plants and identifying them. Zoe told me that she occasionally asks for help identifying plants, "but most

of the time he's just up in the second seat on the bed watching me and he'll point out you know what that is. What is that? I can't quite see it. Can you move forward a bit?" She lamented that these requests happen not just when she's exploring but also when she would be in the middle of a territory dispute with other wolves. But while her dad's involvement was sometimes an interruption, his enthusiasm for plants could also be used to her advantage. "But one thing that does come in handy is if I sense that he's about to say stop on something, and I'm like 'so what is this thing called?' What would you do with the plant? And then there's like an hour long talk about plants, and so it's very easy for me to keep playing longer and longer."

Zoe is not a passive receiver of knowledge either from the game or from her father. Instead, she is in conversation with both in order to shape her gameplay experience. Her and her father's conversations about plants inform how she plays the game and her meta experience of access to games. This tactic of asking more questions about the subject of her father's interest in order to extend play time is not dissimilar to that of a class getting their teacher off on another tangent in order to avoid addressing the content of the course. Zoe is both getting more play time and is learning more about plants, all while getting the satisfaction of "tricking" her father. This is a trick that I, as a teacher and parent, suspect he is at least partially in on.

#### Minecraft and Fortnite

In addition to having her *WolfQuest* game observed by her father, Zoe also plays *Minecraft* with him. While most of the young people I talked to only played games alone or with friends, a few also played with their parents. For Zoe, this play took the form of having a survival world that was just for her and her dad. Together, they built one of her favorite in-game houses that she's had. Their *Minecraft* home features a large river that acts as a moat and protects the pair from the various mobs that roam the land. They also made a farm area and a small fallen tree enclosure for a family of foxes. This was their first world together, and they spent a lot of time "trying to figure stuff out." While making their home beautiful was one of their goals, the world they played in was mostly a site of collaboration and learning.

Gaming together can be an important means of familial bonding. While it is sometimes initiated by children, parents are also introducing their kids to games. Taylor, the *Fortnite* player from Ch 2, plays group matches of *Fortnite* with their father and their family friends. Together, they chat and play from a distance, each parent and child off in their own home but still playing together. Cooperating in more violent games like *Fortnite* has been demonstrated to encourage prosocial behavior even more than cooperating in games with lower stakes (Shoshani 2021). Taylor is an avid player and uses *Fortnite* to connect to their friends even when apart. In addition to playing *Fortnite* together, Taylor also has plans to learn and play the tabletop role playing game *Dungeons & Dragons* with their parents. It's clear that for Taylor's family, games are not just an individual pastime but a means of connection.

Playing games with parents is about more than just learning the rules of the game, for many it is also about understanding what it means to be a gamer. As with Jean Lave and Etinne Wenger's work on learning and apprenticeship, learning the language and jargon of gaming through play and conversation brings players closer to the center of the community (Lave 1991). At the Midwest Gaming Classic, young people are taught to self identify as a gamer through positive social pressure. How one internalizes games as a part of one's self is learned in many ways, including from parents and Discord, a social media platform where people can create and manage private discussion boards. On page 132 we will look at the ways playing online with strangers shapes intergenerational connections and learning. While these communities can be used to create a sense of belonging and to bring people together, this is not always the case. Sometimes, games strain relationships.

#### Solving Problems, and Making them

#### **Building Houses in Minecraft**

Kayla is an eleven year old girl who plays *Minecraft* and the *Roblox* game "Adopt Me!" with her friends. Having played video games since she was about six, she typically plays with her friends while they video chat. Typically, Kayla and her friends used FaceTime to talk, a feature on Apple iPhones and iPads that allows for a video or audio call. FaceTime software supports calls while playing most games, so players like Kayla and her friends do not need multiple devices to play if they are playing on an iPad. She and her friends often play *Minecraft*'s creative mode together, though she is also a formidable force in *Minecraft*'s online multiplayer game *Egg Wars*. All of this time playing with friends and strangers has made her not only a skilled player, but also an emotionally aware problem solver.

As with many young *Minecraft* players, Kayla and her friends spend a lot of their time in creative mode building houses (a more in depth discussion of the home building process can be found in Chapter 2). Of course, she and her friends do not always agree on what to build. When

128

I asked her about potential disagreements, she shared with me the story of when she and a friend had an argument about how to build a structure and how they were able to work together to move past the issue.

That [a disagreement] actually happened before. We were pretty dramatic, and then we hung up on each other. But it only lasted like five minutes. And then she called me back and she was like, 'Okay, so do you want to make a build battle?' And then we battled with our two houses. And we saw which one's better.

After an initial strong emotional response, hanging up the call, Kayla and her friend took a moment and then called each other and decided to have a build battle in order to identify how the house should be built. A build battle is a competition wherein two or more *Minecraft* players agree on a set of rules and a theme and then work simultaneously to try and construct a building, typically a home, that best fits that theme. Kayla and her friends did not invent the idea of a build battle, most likely they got the idea from *Minecraft* YouTube videos as it is not an official game mode.

Hosting a build battle is not a simple activity, thankfully Kayla broke down the process that she used that day:

Okay, so what we did was we made a divider, so we couldn't see each other's builds. And then each of us went on the other side of the divider, and we built our houses like normal, but separately, and then when the time was out - we usually set a timer for 20 minutes, it could either be a pretty long time or pretty short time depending on the house - and then we would destroy the barrier and then we would rate each other's house, and whoever's was better we would keep their house and set fire to the other one.

Rating the houses consists of judging each house on a ten point scale in five categories: exterior, interior, landscaping, style, and adherence to the pre chosen category. These ranking categories appear to be generated by Kayla and her friends.

By turning their disagreement over house design into a game, Kayla and her friends were able to reconcile with each other in a way that felt rewarding and fair. The time spent building their homes for the competition also allowed emotions to cool and for a new subject, the competition, to spark conversation. The internet, and online communities of other young people, provide children a new means of communication and understanding of their own experiences. Jane Juffer explores these means of sharing thoughts and feelings in her book Don't Use Your Words!" (2019). Adults often have trouble understanding children's affect, and Juffers found children's online interactions to be a helpful way to understand how they're feeling. Building competitions create a shift in the framing of the conversation from one of conflict to one of friendly competition and collaboration. Juffer's work highlights the value and creativeness of shifting communication in this way. By transporting the argument from the real world, the ended phone call, to the digital world, the build battle, the players are able to modulate communication and shift their interaction. While the goal of their conversation remains the same, identifying what to build, using a build battle and arbitrary criteria moves the conversation to a discussion of merits removed from the value of the person. The burning down of the losing home also creates a fun emotional release for all parties. Finding ways to solve and prevent conflict is an important part of maintaining an online space whether that space is a *Minecraft* world or a Discord server.

#### **Discord Servers**

Discord is a social media platform that allows users to create servers and groups with focused interests or to facilitate conversation among far flung friends. It functions a bit like old school message boards and a bit like the work platform Slack. People may have Discords set up for their family, their friends, people who are fans of the same thing, or for anything else that one might want to gather people together. Discord has also been used as a digital organizing platform for hate groups such as the group who organized the Unite the Right rally in Charlottesville, Virginia in 2017 (Allyn 2021). Though Discord has cracked down on hate groups

and has banned a large number of them, this has not kept the platform out of the news. Discord made it into the headlines last year when an airman leaked classified Pentagon documents on a server he was a part of (Mezzofiore 2023). In addition to the platform regulating what types of content are allowed, users are also able to customize their own experience. Most servers have rules and moderators that enforce those rules, but individuals are also able to block users they do not want to interact with.

While I am a part of a few Discord servers, I mostly use them to keep up with friends. Thankfully, I was able to speak with Jonathan Concepcion-Rodriguez about what it is like to run a Discord for fans of his game *OneBit Adventure*. *OneBit Adventure* is a turn based roguelike where players play as a fantasy class such as warrior or wizard, and then fight their way through a never ending expanse of wilderness. It's a free to play mobile game with a few thousand reviews on the Apple App store, and its popularity has allowed Concepcion-Rodriguez to become a full time game developer, as discussed in the previous chapter. But his job is about more than making and updating the game, he also spends time cultivating and maintaining a fan community through Discord.



The *OneBit Adventure* Discord has about four thousand members and is run not just by Concepcion-Rodriguez but also by some moderators. Discord moderators, often referred to as mods, take on the role of moderating content and making sure everyone follows the rules of the server. The rules for the *OneBit* server were modeled on those used in a different server run by a friend of his. According to Concepcion-Rodriguez, the rules are: be friendly and treat each other as family, don't post spam or links that aren't to YouTube, no harassment, no discussion of politics, and no discussion of suicidal thoughts. "At first it looks strict, but it made sense." Rules on the server are strictly enforced, doing so keeps the conversations focused on the main subject–*OneBit Adventure*. The server is not a difficult one to moderate, though Concepcion -Rodriguez felt that the meme thread requires the most work to keep on track. While the moderators can help keep the public conversations going as desired, Concepcion-Rodrigues also has a lot of private interactions with fans through the server.

Jonathan Concepcion-Rodriguez gets about ten direct messages a day from members of the server. While most of these are customer support queries, others are from fans of the game asking to be friends. Most of these messages come from fans who are younger and impatient. In order to dissuade these messages and keep a healthy work life balance, Concepcion-Rodriguez responds "slowly" which is, by his metric, about an hour after the previous message was received. For younger fans trying to be friends who are more accustomed to rapid responses, this hour of waiting greatly reduces their interest while still being a quick enough response that players do not feel totally ignored. JCR has a reputation for being a friendly game developer, and it is a reputation that he seeks to maintain.

The management of Discord servers functions not just to cultivate a fan base around a game but also to teach players how to be fans, interact with each other, and interact with game developers. The explicit rules of a server are beneficial for young players who might be coming to this sort of digital interaction for the first time or who have only participated in online discussions in less moderated contexts. While these rules function to shape the conversations had online, they are also limiting the ideas of what the game is about. By not allowing discussions of politics, a common rule in such focused servers and other online communities, the contested subject of what counts as political is also then at play in the server. This rule also

suggests that the game itself is not political. Such rules are often focused on partisan politics and elections, but the enforcement of the rule can become more complicated and subjective. This is in part why meme threads are so difficult to moderate. Memes have become an increasingly popular tool for sharing ideological beliefs online. For JCR, having a discord server allows him to have more communication with fans of his game and thus build a community. Part of this community building are the rules put in place to corral the conversations on the server. We will see next how Discord servers can create communities focused not around the love of a game but on the critique and harassment of others.

#### **Dividing Lines, Shaming Cringe**

While this chapter is largely composed of the positive experiences young people shared with me in regards to their social interactions in online games, not every experience online is positive. Sometimes, young people's enjoyment of online spaces comes at the expense of others. Joe is a young white boy who loves to read, play with his dog, and play video games. While I am sure other young people I talked with participate in similar behavior to what Joe told me about, he was the only young person I interviewed who discussed their own participation in a form of online harassment, "trolling," done in MMOs.

While trolling is the more commonly used term today, the term only came into use in 2009 after the creation of the trollface meme in 2008. Back before trolling, griefing was the word for describing other players purposefully disrupting the gameplay experience of others in an online multiplayer game. Tom Boellstorff's ethnography *Coming of Age in SecondLife* examined griefing and the players who participated in it, griefers (Boellstorff 2008). Boellstorff talked with griefers as part of his research, and these players largely referred to their actions as "messing around" (Boellstorff 2008). For them, griefing was a part of the game, a way to push other players in ways that were fun for them but purposefully upsetting for the other players. Griefing could look like verbal harassment using the voice chat, following another player character,

creating objects in the game that were unsightly, or even overwhelming and crashing the server. While this behavior could have monetary ramifications for players and the company, the actions were by and large a nuisance but not a threat. If the griefer did not receive their intended reaction, such as the other player playing along instead of becoming upset, the instigator would typically stop their activity. Griefers were not just lone wolves or people who fell into Douglas' categorization of individualists (Douglas 1999), Boellstorff found the griefers were often a part of communities with other like minded agents of chaos. Even though their behavior was in many ways anti-social in that it pushed against the norms of the digital world, griefers were simultaneously engaging in prosocial behavior through their exploits by bonding with other griefers.

There are not clear lines between what counts as trolling, griefing, bullying, and harassment. Harassment is a broad category that indicates actions directed at someone to annoy or upset them. In Janis Wolak et al.'s article on online harassment, they define bullying as needing three elements: "(1) aggressive acts, verbal included, made with harmful intent, (2) repetition, and (3) an imbalance of power between the perpetrator and target" (Wolak 2007). These requirements are easier to identify in a school setting, but some of these elements are harder to identify in an online setting. A balance of power may come from an in-game imbalance, such as player characters being different levels, from knowledge of the game and game world, or from the player's ability to manipulate the game world through hacking. An imbalance can also be produced through a simple numbers game, if one group is larger then another than the larger group will have an easier time bullying the smaller group.

While trolling/griefing typically fall under the umbrella of harassment, they do not always constitute bullying. Trolling and griefing, words that can be used interchangeably, imply that the aggressor is taking pleasure from the act but do not define what the limits of those actions are. An individual's relationship to an incident may shape whether they believe something was simply trolling or reached the level of bullying. Bullying also does not capture the full harm that

online harassment can entail, as discussed in the previous chapter in regards to the organized harassment campaign GamerGate. Here, I will largely be using the terms trolling, as that is the phrase used by my interlocutors, and harassment, as it is a general category covering a variety of behaviors.

Like Boellstorff, I had the pleasure of speaking with a member of a griefing/trolling community–Joe. Joe's approach to other players in virtual spaces is connected to a strong sense of morality. For him, there is a right way to be online and a wrong way. Because of this, he sees "bad" people everywhere and is quick to either try to correct their behavior through trolling or deem a game or group as irreparably terrible. Though he expressed disdain for a variety of groups, including TikTokers, anime nerds, and furries<sup>12</sup>; this detestation was typically connected back to ideas of how people should engage with media that they enjoy. I will return to these hated groups later this chapter to better understand Joe's dislike of them. Joe saw his role online in part as a person who should police the boundaries of appropriate online behavior. Unlike Conception-Rodriguez who works to shape the limits of conversation in his own server, Joe acts to bring his moral imperatives to the other players in different games. He does this largely in *Roblox* and connects with other crusaders through Discord. Unlike the griefers discussed by Boellstorff, Joe did not see his actions as simply messing around, he saw himself as creating and reinforcing rules of conduct. In order to understand Joe's actions first I will describe *Roblox* and "Adopt Me!"

*Roblox* is not a single game, but a platform where players can enjoy a great variety of games or create a game themself. Released in 2006, *Roblox* is popular among young people and largely unplayed by adults. According to the company, in 2020 over half of American kids under the age of 16 played *Roblox* (Lyles 2020). Unlike other MMOs like *World of Warcraft* or *Call of Duty* where there is a substantial portion of the player base that are adults, *Roblox* is

<sup>&</sup>lt;sup>12</sup> Furries are members of a subculture that like anthropomorphic animal characters and enjoy designing anthropomorphic animal versions of themself. They sometimes create fursuits, complex full body costumes, that allow them to look like this version of themself.

largely played by kids. The majority of games on the site are played by a smaller audience, and many games have dedicated Discord servers, often run by the game developers, where players discuss the game. Some games, especially larger ones, also have servers run and used by YouTube and TikTok creators and their fans. These servers are where these creators make some of their content and also allow them to stay connected with fans of their work.

The games within *Roblox* vary in popularity, with some like "Adopt Me!" topping the charts by averaging 500,000 concurrent players (Sant 2021). "Adopt Me!" has a great impact on all of *Roblox*, and, according to the complaints of my own children, updates to the game occasionally crash the whole site. "Adopt Me" is a cute game where you can adopt animals and children, though most of what I saw when playing was people playing with and caring for pets. You begin with an egg that you have to care for, and after it hatches you have to care for whatever comes out of it. Your critter is constantly asking for things, and beginner animals are those that a child might already have in their home. I began with a cat. While playing "Adopt Me!" I was largely struck by how much guidance the game gave new players. Often, *Roblox* games will forgo a tutorial in favor of letting players figure it out as they go along. It is clear through the gameplay that the developers are targeting an audience who may be unfamiliar with the lexicon of games. The point of the game is to care for the animal in your custody and then trade for other animals.

While running about caring for my new cat I saw a wide variety of real and mythical creatures: a cerberus, an axolotl, an octopus, a phoenix, and many more. The organizing of animals into real and fictional is not done by the game and is largely left up the players to figure out. Creating clear distinctions about what is real inside a game and what is real outside of it is typically left up to the player in video games in general. Most games do not claim to accurately represent the real world, and when games do, such as with *WolfQuest*, that is often part of the selling point. A player's interpretation of the game world is often dependent on their understanding of video game tropes and genres as well as real world ecologies.

"Adopt Me!" tugs at realism and focus on creating an internal logic. This is similar to the ways the players I described in Chapter 2 create "realistic" homes and ecologies within *Minecraft*. Instead of trying to create a one to one real world analog, players and games are often focused on creating a consistent in game experience. Unlike *Minecraft*, "Adopt Me!" is not interested in creating environments or biomes, instead the creatures within the game are more like trading cards. The animals in "Adopt Me!" have no personality or will of their own outside of consumption. As a virtual environment, the game is less a restored ecology and more a shopping outlet. Though animals are ostensibly the core of the game, it is the social interactions with other players that take precedence as they trade their companions for better, shinier toys. I will discuss "Adopt Me!" and the player's relationships with animals within the game more in the next chapter. Players are able to interact with each other, but it is possible to play the game solo.

Joe played *Roblox* more when he was younger, but now only plays more violent *Roblox* games like "Neighborhood War" and "Zeplin War." He warned me to stay away from the game "Adopt Me!" because there is a "1 in 5 chance it [a player] is a peodophile." While it seems highly unlikely that there are 100,000 peodophiles playing "Adopt Me!" at any given time, the perception that the game is full of adults looking to take advantage of young players is worrying. This fear is not entirely unfounded, but the perception as to the extent of the issue is disproportionate to the actual need for caution. For Joe, this idea that the game is full of creepy adults reinforces his initial dislike of the game. While it seems more likely that his disdain for "Adopt Me!" is because it is a game with different goals and mechanics then Joe typically plays, he blamed the players in part for his negative view. "Adopt Me!" is not the only *Roblox* game he dislikes, but it is emblematic of what Joe views as wrong with the platform.

Joe's dislike of "Adopt Me!" and its players is not unique, and he and others have worked together to disrupt and troll those they see as playing *Roblox* incorrectly and being "cringe."

Cringe has been gaining more traction in the popular lexicon since 2012<sup>13</sup> with its highest peaks in 2016 and 2022. It has more recently transitioned from being a verb to an adjective. The modern meaning of cringe can be best understood by its use in Youtube videos and comments. PinkAnt is a 19 year old white male YouTuber with about 590,000 followers who makes *Roblox* trolling videos. In the pinned comment on his video "exposing a roblox racist then making his girl leave him..." he says "Lesson learned: Don't be weird, don't be racist, just be a normal person, it ain't that hard." As Ant says in his video, the person being exposed was cringe for all of these behaviors. Part of the trouble with "cringe" is that it includes a wide variety of groups from racists to TikTokers to supposed peodophiles to anime fans. In the aforementioned PinkAnt video, he documents the story of his friend being called anti-Black racial slurs on *Roblox*, documenting the verbal assault, sharing the documentation with the racist player's girlfriend, and then the fallout of the racist player being broken up with. This vigilante approach to justice, as opposed to reporting and blocking the individual, seems to be a common tactic for the anti-cringe crusaders of *Roblox*.

Anti-cringe groups are not just isolated individuals, there are Discord servers dedicated to trolling "cringe" *Roblox* players. Joe told me about one of these servers that he is a part of. Through this Discord server, players organize and join together to raid and troll *Roblox* servers run by TikTok content creators. Once inside the game, raiders would surround players and repeatedly call them "cringe." This name calling happens primarily over the text chat, but also can occur on the voice chat. Boellstorff identified this exact same method of griefing occurring during his research in *SecondLife* (Boellstorff 2008). While this level of harassment may seem small, trolling someone can involve a wide variety of behavior, up to and including doxxing<sup>14</sup>, but it appears in this context to be limited to name calling and raiding. While PinkAnt's video

<sup>&</sup>lt;sup>13</sup> Based on Google Trends data.

<sup>&</sup>lt;sup>14</sup> Doxxing is when a person's personal information - name, address, phone number, email address - are released to the public with the intenet that they will receive hate messages and other negative attention.

focused on the racist behavior of the other player, it also brought up the racist individual's TikTok and called his videos cringe. These videos were not cringe because they included additional racist content, instead they were cringe because they were melodramatic and angst ridden.

TikTok was called out by Joe as a particularly cringe app, and he and his friends have made a vow to never download it. Why so much hatred for TikTok? Joe categorized TikTok as toxic and, just like he did with "Adopt Me!", asserted that a lot of people on the app might be peodophiles. Perhaps more importantly, he said that he "never clicked with that crew" and that they like music "dirty pop culture." He was also upset because TikTok users are annoying because they, mostly other kids at school, will reference a song and then make fun of you when you don't get their reference. As a person who sees himself on the outskirts of popular culture, hating TikTok becomes another way that Joe can justify his outsider position and revel in it. Joe also told me that most of the boys he knows have moved on from TikTok and now use Instagram. This frustration with exclusion was a common theme in Joe's relationship to games and popular culture. He also hates *Fortnite* in part because one summer all of his friends besides him began to play the game. They spent the whole summer stuck inside and he felt excluded.

For players like Joe, the frustration of feeling like an outsider is eased by joining with other outsiders to shame those who are seen as either part of the ingroup, TikTokers, or others who are too far outside of normal, furries. These anti-cringe crusaders seem to be mostly young men, though more research would need to be undertaken to get a better demographic analysis. This group does not exist in isolation, and the growing political climate that marks all trans and gender variant individuals as peodophiles makes this behavior all the more concerning (Keveny 2022). The choice to belittle people who are already seen as abnormal in order to make oneself feel more a part of the in-crowd is not unusual but it does touch on other structures of power. Joe's dislike of furries appears less focused on the popular understanding of furries as a niche sexual kink, though researchers have continued to demonstrate that for the majority of members of the furry community their relationship with their fursona is not primarily sexual (Gerbasi 2008, Soh 2015, Zaman 2023), but is instead focused on furries as abnormal and, in his view, engaging with media incorrectly. Furries represent a particular kind of otherness. As Joe told me "why would you want to be an inferior species."

Hazel Zaman's article "Furry Acts as Non/Human Drag: A case study exploring queer of colour liveability through the fursona" uses a framework of queer studies and the work of scholars of color to see the ways furry's use their fursonas to navigate oppressive structures of power (Zaman 2023). Through the case study of Poppy and her fursona Cholla, Zaman demonstrates that for many queers of color who are also furries, having a fursona can be a way to explore identity and performance outside of hegemonic pressures of whiteness and heteronormativity. For Joe, how one engages with a fursona is irrelevant to his dislike of them. Furries, for him, are taking their engagement with play and fantasy too far. Joe sees animals as innately inferior to humans, thus anyone who would choose to embody an animal is choosing to be lesser. In the next chapter, we will delve deeper into the relationship between humans and virtual animals, including the choice to play as an animal in games. While playing as a virtual animal is not the same as identifying as a furry, both choices represent a relationship to animals that sees their perspective as valuable. In Joe's eyes an animal can never be equal to a human, and the decision to stoop down to their level is what locks furries into the realm of "cringe."

Categorizations like "cringe" are highly malleable and can be used by different groups in different contexts. While PinkAnt used cringe as a label for a racist *Roblox* player, the term has also been used to dismiss "social justice warriors" - people that oppose racism, sexism, and homophobia (O'Donnell 2022). While this project does not focus on "cringe" categorizations and the complexity of that label, future work should consider it as a fruitful site of contested meaning.

Playing with other people and learning how to interact online is a complicated process. There are multiple competing norms in any single space, and these expectations can lead to intense conflict. Regulations, such as the rules of a Discord server, help keep participants on topic, but they also limit the potential conversations a community can have. Joe's experience in working with others to bully players online allowed him to channel some of his frustration from real life social interactions into digital ones where he could have the upper hand. For Joe, having a positive social collaboration came at the expense of others. But as Zoe's creative conflict resolution skills demonstrate, even conflict can lead to new forms of collaboration.

While Joe was the only player I spoke with who brought up their own experience engaging in trolling to this extent, other players mentioned less organized methods of "messing with" other players. Few players engage in the organized harassment efforts that Joe does, but many players troll other players in smaller ways for fun. Even pranks played on friends may be cataloged as trolling by their enactors. Daniel and Ruben, the twins mentioned earlier, joked in our interview about "bullying" each other when playing together by winning more frequently then the other. Many of my interlocutors made active efforts to avoid trolling by avoiding voice chats and only playing with people they already knew. Because of this, few of the young people I spoke with brought up instances of being trolled while playing an MMO. James, a white highschooler, explained to me the rules of engagement and trolling that can take place in the game *Chivalry 2*. *Chivalry 2* is a war game where two teams of online players fight in medieval Europe.

Like *Fortnite* and other modern MMOs, *Chivalry 2* only allows voice chat between players that are in a party together and does not have a voice or text chat. Instead, players who do not already know each other can only communicate through combat or through emotes. These emotes allow players to take actions such as laugh, apologize, taunt, dance, and greet other players. While some of the emotes are rude, they are not seen by James as trolling. Instead, he pointed to actions made in combat as evidence of disrespect. He recalled a time he was playing
against an opponent who kept attacking James' teammates only enough to make them use healing items but not enough to kill them. This behavior was seen as taunting and unsportsmanlike, and that player ended up being removed from the game. One common means of trolling other players that James mentioned was kicking their dead bodies. "Don't be a scumbag" was the general rule that guided James' play, but it was not a hard and fast rule. He admitted to occasionally choosing to play in an unsportsmanlike manner in order to win a match that did not seem to be going his way. For James, trolling other players was an annoying but inevitable part of playing *Chivalry 2*. While the behavior James faced is not the same as the trolling enacted by Joe, it is indicative of the small and everyday types of trolling that players encounter in online games. Now that we have spent some time examining the social and asocial behavior made possible through online multiplayer games, let us look at a few examples of how online multiplayer games allow players to have engaging, positive experiences with people they do not know.

# **Playing With Strangers**

Playing with random people on the internet can be scary for players and the parents of players. How can anybody trust that the person on the other end of the game is who they say they are? Being online opens people up to the possibility of facing harassment and seeing content that they do not want to see. Online multiplayer games often limit the ways players are able to interact with each other in order to reduce risk. *Fortnite* only allows voice chat between party members, *Roblox* does not allow players to type numbers in the chat, and *Fall Guys* doesn't allow any player communication outside of emotes unless players are in a party. While I did witness harassment during my research, such as a player who repeatedly sent the Lord's

Prayer and other religious messages to a *Roblox* chat, I also had surprising and fun interactions with strangers.

While playing with a squad of strangers in *Fortnite*, I ended up on a team with two talkative kids. They both appeared to be boys between the ages of 11 and 16, though it is hard to judge age by voice alone. One of the kids was incredibly altruistic and helpful. He regularly offered up high quality guns to me and our other teammates. He also would check in on how many kills we had all gotten and celebrate our victories. Even though I had my headphones on so I could listen to conversation, I had not set up my mic and was unable to chat back with the kids. Noticing this, the chattier of the kids encouraged me to answer his questions through having my character crouch. Once we had found a new way to communicate, he would ask me questions that I could answer more simply and we were able to have a good chat about the ongoing game. Our squad managed to reach second place, a near victory caused not just by skill but by altruism and teamwork.

Even though playing with strangers leaves people open to facing harm, it also opens us up to surprising and fun new experiences. While the tools provided by games can help stop harassment once it begins, such as by blocking the harasser, games also take the initiative to design games that make it more difficult for players to harm each other. MMOs are neither scary dungeons full of ne'er do wells nor are they utopias full of kind and generous souls. Instead, they are realms of opportunities and, thankfully, many people use them as a chance to share love and joy.

## Modifying the Game

Modifications, typically referred to as mods<sup>15</sup>, are bundles of code that change a game and are made by players. Typically, a mod is created by a player, uploaded to a server that is

<sup>&</sup>lt;sup>15</sup> Unfortunately, the shorthand for moderators and modifications is the same. Context should make it clear which is being discussed, but I will largely use "mod" only when referring to a modification.

accessible through the internet, and then downloaded by other players. CurseForge is one of many websites that hosts mods, and these mods can range from small quality of life changes, like adding search bars, to huge changes like adding additional NPCs and story lines. Mods are mostly used on computers, but some games allow mods to be used on other systems. The creation, sharing, and collective play of mods are an important part of game communities. Many games encourage the creation and use of mods by making relevant files easier to access and less likely to affect other aspects of the game (Dyer 2016).

*Minecraft* is a popular game to modify, and CurseForge hosts over 100,000 mods for the game. Though many of the young people I talked to play *Minecraft* in its vanilla, unmodded, version due to the console they were using, they often expressed the desire to use mods. Zoe was one of the few I talked with who already implemented mods into her play. She used mods to make the game cuter, brighter, and have a greater diversity of textures available to play with. While she did not yet have it installed, she also wanted to get a mod that would allow for more dog breeds with a variety of personalities. Mods are an expression of individuality made possible by community collaboration. Popular mods can even help predict new trends in games, as the increased popularity of battle royale mods for *Minecraft* preceded the publication of games like *Fortnite*, *Player Unknown's BattleGround*, and *Fall Guys* (Christiansen 2014). This is particularly true in games where the whole game is based around mods.

*Garry's Mod*, more commonly known as *G-Mod*, is a sandbox game where everything can be altered. It is a base experience made for the purpose of being modded. While the 100,000 mods available for *Minecraft* are impressive, Charlie, a young white boy from the Midwest, boasted that there are over 3 million mods available for *G-Mod*. While I could not confirm this number, it is evident that there are a vast number of mods available for the game. For Charlie, *G-Mod* allowed him and his friends to create new games for each other and to play together. Their gameplay largely consisted of creating monsters that fight each other or that they need to take down. Mods are a sort of love note to the community, a means of saying "Here is a fun or silly thing I wanted to see and I thought maybe you'd want to see it too." The content of mods is a complicated thing, as discussed in the previous chapter, the existence of mods is overall a positive community building project. They also represent a feature of online games similar to what we will soon see with *Johann Sebastian Joust*; as they are an intergenerational means of play, connection, and communication.

#### Real Life Multiplayers in Johann Sebastian Joust

Though this project is about young people's experience in online multiplayer games, I want to talk for a moment about a real life multiplayer game–*Johann Sebastian Joust* (*JSJ*). Like an MMO, the rounds of *JSJ* I watched and participated in at the Midwest Gaming Classic were played mostly by strangers in short rounds with little to no communication with other players and a great deal of anonymity. Also, like many MMOs, *JSJ* was played by people of a variety of ages, and it was not unusual to see adults and children playing together.

Johann Sebastian Joust is a multiplayer game where two to seven players each have a motion controller and are trying to remove other players from the game by making their motion controllers move too quickly. The speed at which a controller can move is determined by the speed of the music, J.S. Bach's Brandenburg Concertos. When the music is quick, players have great freedom to move and try and make other player's move their controllers too fast, and when it is slow any false move may lead to a player removing themself from the competition by attempting too quick a maneuver. It is a fun social game that requires little in the way of instruction. It is rarely played in people's homes because most people don't have the special motion controllers needed to play. This combo of accessibility of play and inaccessibility of equipment means *JSJ* is most frequently played by people in the context of a gaming convention.

I had first heard of *JSJ* shortly after its 2014 release, but this was my first time seeing the game played in person. The rounds I watched were mostly played by children, who seemed to be between nine and fourteen, but there were often games that featured a mix of young players and adults. This sort of cross generation play with strangers is often seen as unfair or even dangerous, like the fears Joe shared about most players of "Adopt Me!" being peodophiles. Here, in part facilitated by the audience of strangers watching the game, there was no fear of inappropriate behavior. The children in particular seemed unconcerned with the presence of



grown players, though adults playing tended to wait until a few adults were playing so as not to be the only adult playing with children.

While Johann Sebastian Joust is a physical game, being a grown up or a child seemed to have no effect on one's ability to win. Because players can just as easily remove themself from the competition as be removed, skill and patience were more important for players than height or reach. In one game I watched, a preteen girl won by spending most of the game pretending to be an onlooker, only revealing herself as another player once most of her opponents had already been removed from the competition.

Though *JSJ* is played in person, it functions in many ways like an MMO, and it is a good representation of what MMOs can be like. There are players like Joe who assume there are bad actors and who may then go on to be bad actors themself. But at their best, MMOs are sites of care, community, and gathering. They are a means of sharing joy with others through friendly competition. Creating community in a game happens in a variety of ways, some of which are on

the developer's end, such as limiting communication like voice chat, and others are encouraged by players in and outside of the game.

## Caring for Each Other

In the next chapter, I will be discussing virtual animals and the relationships young gamers form with them. Here, I want to preview that conversation by sharing a story from my fieldwork and discussing the importance of care and role playing in online multiplayer games. One of the many games in *Roblox* is "Warrior Cats: Ultimate Edition." The game is officially licensed and based on the *Warrior Cats* book series which has been running since 2003 published under the collective pseudonym Erin Hunter. In the game, players get to join one of the cat clans from the books and explore a landscape based on the New Forest in Southern England. Designing one's cat is an important feature of the game, and players are allowed a great deal of freedom when creating one's avatar. Role playing, shortened in my notes to rp, is a key part of "Warrior Cats" gameplay, as there are not many other gameplay mechanics. Below are my fieldnotes from December 2021 recounting a remarkable moment of play that I experienced while playing the game:

After that game fell apart I decided to join the Wind Clan because it had three players currently and that seemed more manageable. Once there, the four of us began to organize into roles pretty quickly. Crow became the medicine cat and I became their apprentice. This meant that I spent most of my time running around and gathering different herbs and spider webs. Unlike the other rp there was no organizing outside of the game, once we were in roles that was it. At one point while I was back in camp after getting some herbs the leader cat came into the medicine cave and "collapsed" (there are different moves you can make your cat do such as sit and lay down) saying that they had been attacked by a fox. I quickly grabbed a balm of some sort and began to heal

them. Players can turn on wounds in one of the game menus and then these wounds can be healed by holding "f" while holding a medicine kit. Two other clan members came to check on us after the incident.



While pretending to be a cat and then caring for another cat's fake injuries may seem unrealistic or unimportant, this moment of play was one of the more immersive and intense I experienced while participating in a role playing game during my research. Role play, like any good improvisation, depends on participants saying "yes, and" to each other and building a story together. When the clan leader took the initiative to come into the medicine den and collapse, they were starting a story that allowed each player to act out and reiterate their chosen role within the clan. Each player was assumed to have some knowledge of the books and thus an understanding of what roles needed to be filled and how they should be acted out. The canon of the books was taken seriously in the play sessions I saw. During a different session in the game, I saw a player reprimanded for trying to roleplay outside of the rules of the *Warrior Cats* series.

More importantly, this moment of gameplay stands out to me because the game allowed a player to seek care in an unusual way. Children's means of communication are complex and multilayered (Juffer 2019). Sometimes, an action, emote, or gif can better describe how one feels than words. For young players of "Warrior Cats," the gameplay mechanics and role play opportunities allow for expressions of pain, frustration, and care that are more complicated in real life. The game also allows players to care for each other, and there is a specific caretaker role within the canon of the books and game.

Jean Hunleth discusses the ways young children act out care in situations where they are powerless in her article "Zambian Children's Imaginal Caring: On Fantasy, Play, and Anticipation in an Epidemic" (Hunleth 2019). She used interviews and art to understand how children enact what she calls "imaginal care." Imaginal care seeks to categorize the ways children use both images and imagination to discuss and provide care for others in distress often in ways that are not literally true. For example, she discusses Gift who told the story and illustrated his balloon ride to the hospital where he healed his sister, who had tuberculosis, and killed the snake that was killing her. While these events did not literally happen, they are still an important form of care and comfort in a context where Gift is otherwise powerless. Similarly, young people playing games online may be able to care for each other in fantastical ways, such as using spider webs to bandage a wound received during inter-clan conflict, that also work to care for their real selves.

Attention seeking behavior is often criticized, such as the tale of the boy who cried wolf. In a role playing game attention seeking can be part of game play and creating a collective narrative. Care and attention are important emotional needs that can be experienced in games and in real life. Games allow players to care for each other in ways that are inaccessible to them in their everyday lives. Throughout this chapter we have seen children's agency in their relationships. Video games allow young people and parents to pause social hierarchies and interact on a more egalitarian level. Like Mikhail Bakhtin's analysis of the carnival in Europe during the Middle Ages, video games and role playing allow for a breakdown in hierarchies that challenges the existing status quo (Bakhtin 1984). Anthropologist of theater Richard Schechner has also argued that theater, and by extension role playing, creates an authentic experience for performers and their audience (Schechner 1985). For the players, engaging in role playing is a collaborative artistic practice that opens up possibilities for care and communication.

149

Video games also allow players to find new methods of resolving conflict with their peers. The build battle used by Kayla and her friends is reminiscent of the rituals and performance analyzed by Victor Turner (Turner 1988). Turner's analysis focused on the liminal space that ritual participants enter as they move from one cultural role to another. Kayla and her friends experienced an intense conflict over different plans for building in the game (breach), a larger argument ensued that ended their call in anger (crisis), contact was reestablished and a build battle was decided as a means of repairing harm and solving the conflict (redressive action), and then the pair analyzed their buildings and chose a course of action together (reintegration). While this childhood conflict may not move the friends from one social category to another, their build battle fits into Turner's framework for ritual and demonstrates the creative collaborations made possible in games. Of course, video games also facilitate negative interactions that harm players. But, as Michael Taussig discusses in Shamanism, Colonialism, and the Wild Man (1991), violence and healing are not opposites but are often tied together through systems of power and colonialism that shape access to enact violence and seek healing. We will return to violence and video games in the next chapter. Video games are not innately violent or nonviolent, it is only through the actions of young players that video games are used for conflict, collaboration, or both.

My analysis of young player's experience in the social worlds of online multiplayer games urges for a recognition of the many competing relationships at work in young people's digital play. An adult's expectation that the internet is full of dangerous strangers is not necessarily untrue, but the reality of the situation is significantly more complicated. Kids are often playing with friends and family, including adult family members or friends of the family. Some kids, such as Joe, take the lesson that there are dangerous people online and turn it into a rallying cry which is then used to harass people online. Often, strangers are people who make modifications for games, play with us, and take care of each other through virtual care. As soon as a child enters a virtual world, their social network becomes primed to expand and shift in ways that cannot be anticipated. The beauty and anxiety of playing with strangers comes from their unpredictability.

As anthropologists continue to understand how people live online, we should all take care to expand and value the wide variety of virtual relationships made possible by MMOs. Analyzing these social networks means pulling together multidisciplinary threads. Childhood studies, anthropology, science and technology studies, and an analysis of performance and role play all add to our understanding of how young people are making communities through video games. Through my analysis this chapter, we can see the ways in which online multiplayer games draw people into community. Playing games does not decrease social skills or isolate young people, but it can pull them towards potentially unsavory or dangerous social circles. Learning happens in collaboration, even virtual collaboration. In online multiplayer games players are able to work together, resolve conflict, and mediate relationships in new ways. These relationships and communities are still shaped by social and cultural norms and power structures such as white supremacy, but they also create space for potential new relationships that can push against those structures of power. Games allow us to imagine new worlds, and online multiplayer games let players make and live out those worlds with friends and strangers. Let us turn to a different dimension of care than we saw with "Warrior Cats" by looking at the world of virtual animals and diving into the complexities of children's relationship with the animals that populate the games they play.

151

# Chapter 5: Thinking With Digital Animals

Animals are important companions in people's physical and digital lives. From hominids sharing scraps of food with canids to Mario and Yoshi jumping to victory, animals have been there with us. Research has shown that having an animal in the household can help young children learn to interact with others in positive ways (Griffin 2011). While research has focused on human interactions with real animals, my work here explores how young people interact with virtual critters. As a child, I played a great deal of *Zoo Tycoon*, a zoo simulator where players could balance the desires of park visitors and animal needs. And, should one find that a regular zoo is simply too boring, release packs of predators on to unsuspecting customers. Animals present players with a variety of relations: friends, pets, customers, enemies, personas, or a responsibility. While the majority of games feature animals in some capacity, even if only as set dressing, the young people I spoke with often had critiques of the depictions of animals in the games they played.

For Zoe, games have never accurately captured the experience of running a horse stable. As a preteen horsewoman herself, horses are more than just decorations or mounts, they are full creatures with complex needs. When I asked her what a perfect horse game would look like, she had a number of requirements that would make that game more realistic. Zoe also plays the in depth and complicated game *Farming Simulator 19* wherein the player must manage the crops on a farm and operate a variety of equipment with little to no instruction. In a perfect game, running a horse stable would look like running a farm in *Farm Simulator*. The game would be horse based where horses and creating a good stable were the priority. She

wants the game to have a multitude of customization options for both aesthetics and gameplay, and would like to be able to switch between first and third person perspectives. Most importantly, she wants the grooming, paddock, and vet care to be realistic. For Zoe, a perfect horse game includes the chance that your horses could get sick and even die.

As we will see in this chapter, animals in games are more than just fluffy cute companions that children like the look of. Many of the young people I interviewed talked about their complex and personal relationships with the animals in the games they played. First, let us look at the writing of Donna Haraway and the interactions players have with companion animals in games. Then, we will turn to wild animals in order to think about ethics and violence in video games. Finally, we will look at the experience of being an animal in a game with the book *Game* by Tom Tyler. In the end, we will see how very real these virtual animals are for young players. Like the virtual natures discussed in Chapter 1, these digital animals are conglomerations of people's ideas about animals as much as they are depictions of those animals. Virtual animals are a fertile ground for thinking about violence in video games as human animal relationships are intertwined with power, care, and harm. While the human relationships discussed in the previous chapter might feel more real, in this chapter we will look at the ways in which these human-virtual animal relationships also affect players and their world.

# **Companion Cyborgs**

It feels only right to begin my thinking about virtual animals by engaging with Donna Haraway's work. Her writing on animals, cyborgs, and feminism has greatly shaped the landscape of animal studies and science and technology studies. As she writes in the chapter "Cyborgs to Companion Species": "Cyborgs and companion species each bring together the human and non-human, the organic and technological, carbon and silicon, freedom and structure, history and myth, modernity and postmodernity, and nature and culture in unexpected ways" (Haraway 2004). Cyborgs for Haraway are those beings that are a combination of machine and organic, and since her original publication of *The Cyborg Manifesto* in 1985, it is becoming increasingly apparent that we are all cyborgs.

Digital technologies have permeated every aspect of our lives and the lives of our pets. My friend's cat wears an Apple AirTag on her collar and gets fed by an automatic feeder. The microchipping of animals began only four years after Haraway published *The Cyborg Manifesto*. Not only are humans cyborgs, but many of our animal companions are as well. The virtual animals of games, especially the dogs and cats that accompany players, are both cyborg and companion species. They are digital animals living in digitally restored environments. While both categories blur the many dichotomies listed by Haraway, virtual companion animals play with us in new ways that distort these boundaries. As we will see in a moment, the bonds formed between players and virtual animals challenge understandings of how people should relate to animals in video games and may shape how people relate to real animals too.

Haraway states later in the chapter that "Cyborgs are also places where the ambiguity between the literal and the figurative is always working." Digital spaces are much the same. Offline spaces are colloquially referred to as "irl" short for "in real life." The implication here is that game spaces are not real in the same way as non-game spaces. But this is the tension of cyborgs and companion species. The dogs I interact with in games are in many ways less real to me than my own dogs, but the emotional bonds I form with in-game animals can feel just as real at times. Some games encourage these connections through in-game mechanics, such as *Red Dead Redemption 2* where spending more time riding your horse increases your bond and allows you to perform more complex feats of horsemanship. But even games that do not gamify human-animal relationships can still create deep connections between players and virtual animals.

Thinking with these cyborg companion animals can allow us to see clearly the tensions between the real and virtual, the natural and unnatural, or as Haraway would say, the carbon

154

and silicone. As I argued in the first chapter, digital natures should be viewed as restored environments - complex amalgamations or human made and naturally occurring that are shaped by people's understandings of how a place should look and feel. In much the same way, virtual animals are not just another NPC that players encounter. As one young man told me, he doesn't mind hunting animals or killing humans in games, but he could never hurt a dog in a game.

Haraway moved away from thinking with cyborgs to thinking with dogs in *The Companion Species Manifesto* (Haraway 2003). Throughout that work, Haraway draws on her time training dogs, and cultivating the self discipline a trainer needs, to compete in agility competitions. These competitions require precision, trust, and discipline for both the dog and the human competing. Only through building a strong relationship can a human-dog team successfully participate. Haraway uses the language of companion species to capture the variety of relationships that humans and dogs have. In many cases calling a dog a pet is an inaccurate classification of their relationship to the people around them. Dogs may be coworkers, nuisances, competition, or take on a combination of roles depending on time and place. It is only through histories of coexistence that we can understand our current companionship with dogs. And, she argues, by understanding our human relationship with dogs we can better understand how to engage with what she terms "significant otherness" (Haraway 2003). For Haraway, understanding human animal companionship is a fruitful frame for thinking through how humans can relate to each other and to non-human compatriots.

When we look at virtual animals, it is useful to consider Haraway's analysis of cyborgs and real dogs. Just as virtual landscapes are not real in the same way that real natures are, virtual animals are not the same as real animals. In Haraways parlance, silicone landscapes and beings are not the same as carbon ones, but that does not mean they do not impact each other. Real animals shape the way developers design and depict their virtual counterparts, and player's relationships with real animals shape how they interact with virtual critters. While additional research on the ways video game developers think about the animals they make would add greater depth to our understanding, we will focus in this chapter on the player's experience with digital animals. As we will see in the next section, players feel differently about their virtual companions than they do about other aspects of gameplay.

## Minecraft

For the young people I spoke with, cats and dogs are an important part of their virtual and real lives. When asked what her favorite animal was, one of the girls I spoke with said that she did not have a general favorite, but that her specific favorite was her cat Shadow. My virtual interviews were often accompanied by animals. My own cat and dogs loathe when I spend too much time on Zoom and thus worked to be involved in the interviews when they had decided I had been chatting for too long. While their presence was at times frustrating, the young people I spoke with generally enjoyed the addition of a four legged interviewer. I also got to meet some of my interview subjects' own animals during interviews. These inclusions both functioned as a common ground from which our conversations could flow and as a reminder of the importance of pets in our lives.

In *Minecraft*, players can keep a variety of pets, though the most commonly kept are cats and dogs. But as I learned from playing and from my interviews, there is a great deal of frustration among players over the dogs of *Minecraft*. As you can see in the image below, there is a wide variety of appearances that the cats in the game can have. In contrast, dogs only ever look one way. This disparity in options is not just in regards to appearance. Cats in *Minecraft* 

also have more behavioral versatility such as sleeping in the bed with the player. As Zoe put it, "the Devs must have been cat people." She went so far as to claim that the cats were more vivacious and had personalities that were lacking in the dogs. Riley agreed, "It's sad that dogs are just tamed wolves...there's





lots of variety of cats!" For these two players, the differences between cats and dogs in the game were indicative of the developer's feelings on the animal. They both saw the dogs in the game as being significantly different from the companions that they had in their real lives. But despite this limitation, dogs in *Minecraft* are still able to make strong connections with players.

Players can get a pet dog in *Minecraft* by feeding a wild wolf meat until it is tamed. Once a wolf becomes a dog, as indicated by the appearance of a collar and a momentary heart above their head, the companion follows the player around and fights mobs with them. The only limit that exists on the number of animal companions a player can have is the mob spawn limit - the number of non player creatures the game will generate in a given area. Players can have as many cats and dogs as they would like, but it means that other creatures are not going to be created by the game. Most players have at least one dog, but many have more than that. The decision to have just a dog, just a cat, or both does not appear to differ among players because of gender. While cats and dogs have been gendered culturally as, respectively, feminine and masculine, this pressure did not seem to have a major impact on the companion choices of the young people I spoke with. Instead, the more important factor in choice was the difference in practical application of the animals. Cats in the game can scare off enemies, but they do not attack. Dogs on the other hand can be seen as a beneficial tool in game, an assistant that helps kill dangerous creatures. Despite these differences, players often chose to have companions of both species when playing. But because of their cultural significance in the United States and many player's connections to real dogs, they were never discussed by the young people I spoke with as tools or assets. Instead, players saw these dogs as pets that they were meant to care for, love, and be loved by.

Taliah, one of the young *Minecraft* architects discussed in Chapter 2, explained to me that generally, killing animals in *Minecraft* doesn't bother her. Sheep need<sup>16</sup> to be killed for wool and cows need to be killed for meat. But her relationships with dogs in the game are very different. When she first started playing and tamed her first dog, Taliah did her best to care for her "doggo" and keep them safe. Despite her best efforts, her dog was one day killed by a monster in the game. This death was heartbreaking. Taliah took her dog's collar, built them a gravestone, and chose to never have a dog in *Minecraft* again. A gravestone is not a standard item players can build in *Minecraft*, Taliah's crafting of one was a creative act of mourning. Even though her dog was identical to every other dog in the game, because that is how the coding of the game works, her love for her companion transformed that dog into something special and unique. Her grief drove her to creative memorializing.

The death of her in game dog radically changed her play style and relationship with animals in the game. Taliah chose to forgo the potential for a new bond or the benefits of a companion due to the pain caused by the loss of her *Minecraft* dog. "It's so much responsibility and I just want to play *Minecraft*!" For her, there was no way to have a dog without also having the need to care for it. The responsibility of a reciprocal relationship could not be avoided even though one side of the connection was a dog in a video game. Dogs, in real life and in Taliah's play, are creatures that thrive in relationships. They are, as Haraway said, companion species where both parties must trust each other. When Taliah lost her dog, she felt the weight of that responsibility and the pain of letting someone that trusts you become hurt. This pain lingered as anxiety and the fear that such harm would occur again. The love that Taliah's dog had for her,

<sup>&</sup>lt;sup>16</sup> Wool can also be gathered from sheep using shears, but until a player has the resources to make shears, killing is the only means of gathering wool.

the way the creature's programming told it to follow her around and protect her, was what led to its demise.

Mojang, the creators of *Minecraft*, programmed companionship into the dogs. You could not get a dog in *Minecraft* to run an agility course, they can not learn or receive the commands necessary for such a complicated feat. Instead, dogs in *Minecraft* are designed around companionship and love. Through Taliah's story of love and loss we can see that even when an animal is digital it still invokes in players the desire for, and emotional vulnerability of, a caring and companable relationship. While I believe the depth of Taliah's relationship with her *Minecraft* dog may be deeper than that of the average player, I do not think it is so unusual as to be unique. Many players expressed to me the care they felt for their virtual animals, and many games are designed around the player forming relationships with virtual animals. A child's affective response is, as Jane Juffer describes in *Don't Use Your Words* (2019), often dismissed by adults as a disproportionate reaction to the original event. I argue that it is not an adult's place to decide if an emotional response is disproportionate, instead we should see Taliah and other children's responses as indicative of their ability to form social bonds, value animals, and engage with their sadness.

### Adopt Me!

As discussed in the previous chapter, "Adopt Me!" is a game on *Roblox* where players can adopt animals and children, though adopting animals appears to be more common. Players begin with an egg that they have to care for, and after the egg hatches they have to care for whatever comes out of it. Their new critter is constantly asking for things, and beginner animals are those that a child might already be familiar with as pets or popular wild animals. It is an incredibly popular game. There are YouTube video makers who dedicate their channels to making content about "Adopt Me!," multiple subreddits, forums dedicated to specific topics on the social media website Reddit, about "Adopt Me!" and trading pets, and official "Adopt Me!"

159

toys available at WalMart and other major retail chains. The game and content around it is largely consumed by younger players. *Roblox* itself has a user base that skews young, with about two thirds of players being under the age of 16 (Dean 2022). I would anticipate that the players of "Adopt Me!" trend even younger than that. Though many of the young people I



interviewed were aware of the game, and many had played when they were younger, Kayla was one of the few that still regularly played.

Kayla is eleven years old and has been playing *Roblox* since she was about five or six. "Adopt Me" is one

of her favorite games, and she loves to play games with her friends while they chat over video calls. According to her, "Adopt Me!" is one of the best looking games around and one of the most fun to play. While she often plays as a kid looking to be adopted, she also has a large cadre of animals that she cares for. Kayla does not have a favorite animal as she loves all of them, but she does have a pet goat in "Adopt Me." In the game, players can combine four of the same pet in order to make a neon version of it. Her dream is to get a neon giraffe, pictured above<sup>17</sup>. Unfortunately, giraffes are a rare animal in the game and it will probably take a while to find, trade for, or raise enough giraffes to create a neon one. It takes time to create a rare animal, like a neon giraffe, so players must put in the effort or money needed to progress their pet to that rarity. Some players will buy robucks, the in game currency, with real money in order

<sup>&</sup>lt;sup>17</sup> Image from u/samkristaii on r/AdoptMeTrading

to access additional resources. Kayla chooses to earn money in the game by completing different in-game tasks, but she is aware that other players often spend money on the game.

Unlike *Minecraft* where pets are a smaller and less direct aspect of the game, "Adopt Me" is largely about pets. While the in-game roles are parent/baby and pet/adopter, pets are always non player characters (NPCs). This separation between PCs and NPCs cements a divide between humans and animals in the game. Players are able to be one of three types of humans but can never take on the role of animals. Instead, animals are a pet, an accessory, and a currency. A player would not be able to get a dog in *Minecraft* to run an agility course, but a player in "Adopt Me!" could hardly imagine having an animal companion that assists them in any way. These pets only exist as toys. Rarer animals are seen as more valuable and also indicative of more commitment to the game. Because animals function as a currency and not a companion, and also because they cannot be harmed, players appear to be less emotionally invested in them. Eggs in the game function similarly to loot boxes, described in Chapter 3. Players cannot be sure what is in their egg until it hatches, so trading with other players is the only way to know for sure what one is getting. While playing as a pet owner can be a good time, many players seek to go further and use games to experience being an animal.

### Wild Animals, Livestock, and Violence

Most of the digital animals children interact with in games come in the form of wild animals that are programmed to survive outside of the influence of humans. These are animals that are typically either hostile or indifferent to the player character. Some of these creatures are active on the landscape and can be interacted with while others are simply set dressing- like a cloud or a blade of grass. In this section, I will examine how young players think about and interact with wild animals and livestock in the game *Minecraft*. *Minecraft* offers players an increasing variety of animals to interact with. In particular, I will continue the conversation in game studies and animal studies literature around violence in video games by looking at the ethical considerations young players had around animal care and death. As of the time of my research the recent addition of axolotls was causing a newfound love of the amphibian among many players. Most of these passive mobs also have drops - items that are spawned by killing the animal. The meat dropped from some mobs, especially sheep, cows, and pigs, are often an important part of how players restore their health early in the game. Since survival mode *Minecraft* requires that players eat regularly, finding food is a key feature of the game. Meat in particular. But, not every player was equally comfortable with the idea of killing animals for meat, even virtual animals.

For James, a 14 year old white boy, the gore associated with death was an important part of realistic and interesting games. He had even stopped playing *Jedi: Fallen Order* because he found the lack of gore, which he attributed to Disney's ownership of Star Wars, made the game feel less grounded in reality. This is in part because the blood and guts of death are not a foreign sight for James. As of our conversation he had been out hunting for the past three deer hunting seasons. During the most recent hunting season he had processed a deer with his family and seen first hand the effects of death on a creature. James and I had talked at his dining room table where, off to the side, the cleaned skull of that deer accompanied us. For many of the young people I spoke with, personal experience played a significant role in how they related to animals in games, and for James this meant a comfort with death and blood that led to it being an expectation. Of course, this does not mean that James is comfortable with all animal death. He has a pet dog, a very sweet bulldog mix, whose love and affection means that James hates when dogs get hurt in games. James is not much of a *Minecraft* player, perhaps in part because of the lack of gore associated with violence in the game. But despite the lack of gore, many other players I spoke with felt mixed emotions about killing animals in the game.

Taliah is an avid *Minecraft* player who, for the most part, does not mind killing animals in the game. Her material needs as a player outweigh any moral disagreements. The game

162

encourages players to kill animals for resources by making it much easier to progress through the game when players use those resources. While players can wait to harvest wool until after they are able to make shears, a new player without shears can also harvest wool by killing sheep. This also allows them to get mutton which they can cook and eat.

But while Taliah recognizes the ease that killing animals allows her, she still has personal limitations on which animals she kills. For her, baby animals are off limits "not just because they don't drop anything" but because "they're kids." Killing children, even animal children, is a moral limit to her gameplay. While I did not hear this exact sentiment in my other interviews, I would anticipate that it is a relatively common position among *Minecraft* players. Taking the time to kill baby animals can be seen as both a waste of time and energy and as a moral taboo. Because there is the double pressure of cultural norms around killing baby animals and player concerns about optimization, I would expect that killing baby animals is not a standard practice for *Minecraft* players. Taliah also chooses not to kill horses in the game because they make distressing sounds when injured. While she does feel comfortable killing some animal mobs as a part of her play in *Minecraft*, she has personal limits around which animals she will and will not slaughter. These sorts of self imposed rules were a common feature of the ways young people I spoke with played *Minecraft*.

While most players set personal limits on which animals they would kill, some players chose not to kill animals or eat meat at all. Taylor, the *Fortnite* player mentioned in the previous chapters, tries their best to be a vegetarian when they play *Minecraft*. This style of gameplay is more difficult and requires players to find other means of gaining sustenance. Throughout the randomly generated worlds of *Minecraft*, small villages populated by NPC villagers sometimes appear. These villagers live in small houses, keep animals and gardens, and sometimes have food lying about. In order to survive as a vegetarian in *Minecraft*, Taylor will steal bread from the villagers. Though Taylor avoids killing animals in the game, they are also critical of some of the ways other players think about digital animals. Dolphins were added to the game in April of

2018 during the Java Edition 18w15a update. According to the official *Minecraft* feedback webpage, "Dolphin effects that are very far out of character for these creatures (example: fleeing

from drowned). **No taming and riding dolphins.**<sup>18</sup>" (emphasis original). Taylor explained to me that the makers of *Minecraft* felt that it would be cruel to allow players to saddle dolphins. But, they continued, why would they be worried about players riding



dolphins in a game where they are encouraged to kill other animals? Due to the existence of dolphin riding mods, pictured above, it appears other players agree with Taylor's assessment. For players, inconsistent game mechanics around animals can be seen as inconsistent ideologies. Why is there a limit when it comes to which animals you can ride but not which ones you can kill? For gamers, the ethics around death and violence are a dialogue between the developers and players.

# Violence and Online Communities

Violence in video games has been a concern for game studies and media studies scholars for about as long as the fields have existed. The penny arcades of the late 1800s and early 1900s were seen as "morally questionable" and "breeding-grounds for vice and even infectious disease" (Huhtamo 2005). Games and their intoxicating qualities have often been derided and seen as a potential social ill. As video games in their modern understanding became popular in the 1970s they began to face similar push back and concerns. In 1992, the game *Castle Wolfenstein 3D* was released. This was the first truly three dimensional game

<sup>&</sup>lt;sup>18</sup> <u>https://feedback.minecraft.net/hc/en-us/articles/360005029872-Previously-Considered-Suggestions</u>

where players could move through space (Malliet 2005). Players were able to use that newfound ability to escape Nazi occupied Castle Wolfenstein and murder Nazis. As graphics increased so did the clarity of depictions of violence and concerns about the effects of that violence on the minds of players.

Video games, particularly first person shooters, have often been blamed by news outlets for increasing violent behavior in young people. First person shooters, games where players are looking through the eyes of their character instead of in an over the shoulder third person point of view, are typically war games where players participate in combat and take on the persona of a soldier. *Castle Wolfenstein 3D* was an early addition to the category. These games are often those most critiqued for violence and gore because of this combination of player perspective and subject matter. But as Stephanie Spina shows in her chapter "Power Play: Video Games' Bad Rap," studies on the effects of videogames on violence are highly flawed and provide no evidence that a young person will actually commit a violent act (Spina 2004). Instead, she argues that games allow children the space to play out their problems and to let off steam.

Jeffery Goldstein makes a similar argument in his chapter "Violent Video Games" (Goldstein 2005). As he explains, most of the research on videogames and violence may be able to demonstrate correlation but they cannot prove causation. People with violent tendencies may be more attracted to violent games, but it is not proven that a person who is otherwise opposed to violence could become violent because they played a game. First person shooters are typically seen as masculine games, and concerns about violence and videogames are often implicitly linking violence and masculinity. This correlation often does not consider the ways a patriarchal society, like that of the United States, encourages men to identity masculinity and power with violence. Consider, if violent video games caused players to become more violent, we would see an increase in violence perpetrated by women that correlated with the increase in women playing first person shooters. Instead, according to the National Institute of Justice's article on public mass shootings, 97.7% of mass shooters are male (National 2022). While

playing an online multiplayer game is not, in my view, the cause of violence, that does not mean that they do not contribute to problems of violence in the United States.

As stated in the previously mentioned National Institute of Justice "many [mass shooters] are radicalized online" (National 2022). Like I discussed in the previous chapter, the social networks that are constructed around video games can urge people towards pro or anti social behavior. Online communities around video games have become a way that teenagers become familiar with alt-right and violent propaganda (Kamenetz 2018). Future research should focus on if video games themselves make children violent, but the ways in which communities around games encourage particular forms of violence. Online communities that seek to create ingroups and outgroups and that dehumanize communities can lead to violence. While this is a concern young people face, the average age of mass shooters identified by the National Institute of Justice was 34 years old (National 2022). A child mass shooter, or attempted shooter, may gain more media coverage than other shooters, but children are more likely to be the victim of a shooter than the perpetrator. Let us return to looking at violence in games and focus our attention on the violence, and gentleness, players exhibit towards virtual animals.

Generally, research and concerns about violence in video games have focused on violence towards other humans in games and ignore violence towards animals. Simon Coghlan and Lucy Sparrow are both scholars of digital ethics who discuss this lacuna in their article "The "digital animal intuition"" (Coghlan 2021). They argue that the design of games pushes players to commit violent acts against animals, and they question the potential for this digital harm to reinforce the objectification of animals and the normalization of violence towards them. Coghlan and Sparrow's work comes from a philosophy background and does not include any data or ethnographic research. As we shall see in a moment, this leads them to some initial generalizations that they never seek to prove outside of stating. While I am skeptical of some of their concerns due to their lack of evidence of a problem, I am drawn to their desire to question "whether and how depictions of animals in games can reinforce—or reduce— moral prejudices

against them." This concern around representation and action is one discussed in many aspects of game studies, particularly around race and gender.

While I have yet to be persuaded that a video game can make someone violent, towards animals or people, video games can affect people's perception of the world. As with virtual natures, the depictions of real life reproduced in games both influence and are influenced by real natures. A more thorough analysis of animals and games should look at a variety of factors to understand the cause and effect of these depictions. In the next section I will discuss a recent example of a book that begins this pursuit of understanding the relationship between people and animals in games. Before we go there, let us return to Taylor's play of *Minecraft* to better address Simon Coghlan and Lucy Sparrow's concerns about the ways players are currently treating animals in video games.

Coghlan and Sparrow fear that the vast majority of players simply do not care about or think about the violence done towards animals in games: "...it is also possible that many players do not seriously question the morality of how we treat animals as a result of performing digital animal violence. The ubiquity and normalization of digital human and animal violence makes such reflection unlikely as a general rule" (Coghlan 2021). But, as we saw with Taylor, there are players who make an effort to avoid violence towards animals in their play. Even James, a young man who hunts animals in real life, has limits on which violence is appropriate in a game space. Players seem aware that violent actions in games are both not real and a reflection of real values.

The place of violence in video games has been considered by players, scholars, and game makers, and I agree with Coghlan and Sparrow that more thought and intention should go into digital human animal relationships. In my view, this does not mean that players should never be able to harm animals in video games. Instead, developers should consider why a player is able or encouraged to enact a particular kind of violence on an animal. I do not want to prescribe what a developer's answer should be as they consider violence in their games,

instead I want to encourage intentionality that works to move outside of tropes. Video games can shape how people see the world, and while I do not believe they can make someone violent, games can shape people's norms and expectations. As we will see in the next section, the ability for games to allow players to embody and experience life as an animal can also have great moral implications.

# **Being an Animal**

The experience of embodying an animal in a game can be a very powerful one. Games offer players the opportunity to shift into a new vantage point that they would be otherwise unable to reach. For some game makers, the goal of their game is to allow players the chance to access the experience of being in the social position of the maker. In the case of games where players get to be animals, players must inhabit not a narrative created to share one's own story but the weight of human expectations on what it is like to be a particular animal. This is not always a bad thing, but it is an important distinction, especially for academics like Tom Tyler. *Game*, by Tom Tyler, is a collection of interesting and engaging essays on the nature of humanity, animality, and play (Tyler 2022). Drawing on the work of theorists and activists such as Donna Haraway, Carol J. Adams, and Friedrich Nietzsche, as well as playing with the writings of Shakespeare, Homer, and other classics, Tyler weaves together a combination of perspectives that are often in dialogue but rarely in conversations about video games.

Tyler's book grapples with how video games have thought about the animals that are a part of them. While a great variety of games are discussed, each chapter tends to focus on one or two games. Through these games and their analysis, Tyler leads readers through the argument that animals in games, and animals outside of games, should be seen as individuals with valuable perspectives. Video games allow players the opportunity to try on a variety of viewpoints, but all too often the main character is, as discussed in chapter 12, an "everyman"

who through their adherence to hegemonic norms is entirely atypical. When discussing the 2003 game *Dog's Life*, where players inhabit the dog Jake, Tyler highlights this issue of norms in regard to human senses and means of navigating the world. "Smellovision shows us, in short, that the default, seemingly impartial third-person perspective is, in fact, a *human* perspective" (p. 27, emphasis original). Tyler is not alone in his fears of digital animals reproducing a human-(other) animal hierarchy (Wallin 2022).

Even when games try to shift players into the perspective of animals, they often only reproduce human centered notions. I want to look at three games played by myself and my interlocutors: "Creatures of Sonaria," *Roblox: Warrior Cats*, and *WolfQuest*. Each of these games works in some way to allow players to inhabit the experience of being an animal. Here, issues of realism and the possibility of truly capturing the experience of being something else are at stake. In particular, thinking with Tyler's writing on the ways humanity is often taken as the norm in video games, I will look at the presence and absence of humans in these games, the way stories get made, and lengths that game makers will go to to immerse players in the experience of being an animal. These tensions are similar to those discussed in Chapters 1 and 2 around creating realistic reproductions of the natural world in virtual spaces.

*Roblox* has games for everything, including games about being animals. I discussed in my previous chapter my own experience of playing the *Roblox Warrior Cats* game and the



virtual care made possible by that game space. Here, let us look at the game "Creatures of Sonaria." In "Sonaria," players embody a mystical animal created by the game studio for the

game. The two starting animals, a momola and a lissiceous, give the player an introduction to the way ecosystems in the game function by forcing them to choose between an herbivore and a carnivore. These creatures have clear real world inspiration, like a butterfly for the momola and a jaguar for the lissiceous, but are also inspired by games such as the *Monster Hunter* series. These creatures are fantastical, and for twelve year old Taylor they are a fun way to connect with strangers and experience the struggles of life as a wild animal. "Sonaria" is a survival game, and in order to escape predators, avoid hunger, find shelter, and grow old, players must band together in packs.

Part of the draw of "Sonaria" is the collaboration and role playing involved. Natural disasters and other in game events force players to adapt to the game world instead of shaping it to their whims. While toxic waste creatures exist in the game, it is unclear how much humans interact with the ecosystem or if they exist at all in the game world. This is an island of monstrous and wonderful beasts where players can live out fantasies of animality. But, despite the differences in the look of the avatars in "Sonaria" and in a human-centered *Roblox* game, the gameplay experience is not a radical shift in perspective. The game itself is not so different from other survival games. Players are able to run around a magical world and gather mushrooms so that they can get loot boxes that allow them access to different creatures have different ecological needs. While this game allows players to change the visage of their player character, it does not radically change the player's experience of the virtual world from anything other than that of a human. Let us turn next to another *Roblox* game to see how they approach humanity and stories.

While role playing games like "Creatures of Sonoria" or the *Warrior Cats Roblox* game seem to offer limitless possibilities for narrative production, players still set boundaries for play.

This is particularly true for players in the *Warrior Cats* game where there is already a canon<sup>19</sup> of books, though the production and maintenance of the "Sonaria" fan-wiki is also the creation of canon. Fan-wikis are digital encyclopedias in the style of Wikipedia. Fan-wikis tend to focus on a single media franchise or series and are created by fans of the media property. In a game like "Sonaria" where the content is original to the game, the fan-wiki works as a collaboratively generated canon that gathers information from the game and any other relevant information from the game developers. Players of a game like "Sonaria" that is not in reference to an already existing work tends to place less effort on sticking to a singular canon of how the world works, but this is not the case for games based on already existing media properties.

I saw the enforcement of canon between players while playing *Warrior Cats*. I had joined the "loners" clan which spawns in a barn. There, a player began to announce in the group chat that they were starting a "dark and mean" role play for evil cats. I went to join, and in a few minutes there was a small group of cats waiting to begin this evil role play. While waiting, the conversation turned to pizza. But this conversation was interrupted by a newcomer who wanted to join the role play. They announced that they had special magical powers. The cat organizing the role play quickly chastised them and told them that cats don't have special powers and that they should read the books. The reprimanded player left and did not continue trying to play with that group. Playing as a cat in the *Warrior Cats* world meant for the organizer that participants should play by the rules of the books and not deviate from the source text. For the newcomer who claimed magic powers, the source text was instead a starting point from which players could create and imagine new possibilities.

When people play as animals the rules change, but sometimes they do not change that much. The potential for a brand new experience as offered through the ability to play as an animal is often still limited by outside forces. As discussed earlier with Tom Tyler's book *Game*,

<sup>&</sup>lt;sup>19</sup> Side note, canon and canonical are terms used regularly by young players when discussing the media they consume. How canon became a standard part of the vocabulary of teens and preteens I cannot say, but it should be treated as an emic term in this context.

the standard perspective of a player is that of a human, even when they are playing as an animal (Tyler 2022). Truly inhabiting the experience of an animal would involve seeing, moving, and sensing differently. But just because games are not able to fully transform the player's experience does not mean that players are unable to form emotional bonds with the creature they are inhabiting.

Games, even when they fail to fully shift from a human perspective to an animal one, offer the opportunity for players to connect with and better understand other animals. This was demonstrated by the experiments of Sun Joo Ahn et. al in their paper "Experiencing Nature: Embodying Animals in Immersive Virtual Environments Increases Inclusion of Nature in Self and Involvement With Nature" (Ahn 2016). Ahn and her team conducted three different experiments to see if embodying an animal in an immersive virtual environment would make participants feel more connected to that animal and their plight as compared to hearing about the issue or seeing the same video on a screen. In order to immerse participants, the researchers used virtual reality headsets, had participants position their bodies like the animal they were embodying, and replicated the actions happening to participants in the video in the real world. They found that their experiments "demonstrate the promise of using digital media technology to provide direct experiences that meaningfully engage individuals with environmental issues" and that study participants who used the VR headsets felt more connected to the concerns of animals they encountered then participants who only used a screen (Ahn 2016).

While the young people I spoke with were not using VR for their game play experience, Ahn et. al advises that it is not simply the technological immersion that matters as much as the "feelings of having genuinely shared an animal's experience" (Ahn 2016). This emotional connection does not require full virtual immersion, as we saw in our previous discussion of companion animals. While Ahn's study was small, I believe it is a correct assessment of the power of games and virtual experiences. Being an animal in a game, getting to spend time in another's skin, can be an eye opening experience. Taylor was able to spend time as a prey creature, finding a pack and experiencing life from a new perspective in "Creatures of Sonaria." For Zoe, who we will meet in a moment, video games helped her learn about the life cycles and pack dynamics of wolves. For both of these players, spending time as an animal in a virtual ecosystem helped them understand the interconnectedness of different beings.

I find Ahn et al.'s conclusion particularly compelling because they did not exclusively have participants inhabit charismatic mammals. Even those people who spent their VR experience as a piece of coral being affected by ocean salinization were moved, even in a small way, by their experience. While the video games I am focusing on in this chapter tend to focus on charismatic mammals, future researchers should continue to push towards understanding how video games can increase empathetic responses in players. Ahn et al's work also matches with the data I gathered in my interviews, players tended to generate a more intimate and empathetic relationship with the animals in the games they played. Let us turn to Zoe's experience of the game *WolfQuest* to better understand the ways being an animal can affect players.

We first met Zoe in Chapter 2 when she discussed the *Minecraft* world that she built with her dad, and we saw her as well in the previous chapter using her dad's plant identification skills in order to distract from her dwindling gaming time. Zoe is a smart and inquisitive player who loves wolves. *WolfQuest*, her favorite game, is a lovingly recreated vision of Yellowstone National Park where players get to be wolves: raising young, hunting elk, and defending territory. The realism of the game is part of what she loves about it. For example, finding a mate and courting them in the game is quite difficult and she finds the challenge fun. Zoe's interest in wolves happened when she was younger through the reading of books and watching documentaries, but she prefers to interact with the things she's learning about. Zoe's current love of wolves can be traced to when she met one at a wildlife rehabilitation center. "There was this wolf that came up to me whose mother had recently died. So it was a very sad time. But he came up to me and licked my hand, and he was the only wolf that came up to anyone. It was very special." Zoe's personal encounter with the wolf changed her relationship with the species, and was part of her desire to play *WolfQuest*.



While she was interested in the stats and skills of her wolves in the game, Zoe was most invested in their personal lives and intimate relationships of the wolves in her pack. In the game, your wolf finds a mate and rear pups as a part of the main questline of the game. Players may ignore in-game quests, but generally speaking quests are both directions and motivation for gameplay. A player gets pups through following the quests that lead them to finding a mate, establishing territory, and finding a den. These quests follow the seasons so that a den is found in the early winter in preparation for springtime pups. The female wolf of the pair becomes visibly pregnant in the lead up to birth, but the details of wolf reproduction such as the depiction of genitals, sex, birth, and nursing are not included in the game. This lack of detail is not unique to *WolfQuest*. Games like *the Sims*, a classic life simulator, refers to sex as "woohoo" and any nudity is covered by a cloud. While some games, such as *Baldur's Gate 3*, allow full nudity and sex, this depiction is also part of why the game is recommended for players 17 and older by the Entertainment Software Rating Board (ESRB). The ESRB creates ratings for customers in the United States, but in Japan the Computer Entertainment Rating Organization (CERO) makes

the rules around video game ratings and content. Historically, the CERO has been stricter than the ESRB. While *Balder's Gate 3* received a 17 and older rating in the US, in Japan some of the sexual and violent content had to be removed altogether before the game could be released (Brosofsky 2023). For the developers of *WolfQuest*, the desire to depict an accurate and informative game is balanced with making a game that can be played by younger players. In the United States, this can mean a glossing over of sex and gore in order to avoid an age restricted rating, but in Japan this often means games need to censor content deemed too sexual or violent. In our conversation, Zoe did not mention the lack of sex as either a positive or a negative, she was focused on the end result: pups.

Zoe's thoughts on the raising of pups were often quite pragmatic; such as focusing on which traits would help her cubs lead successful lives, she also cared about them on an emotional level. She wanted what was best for her pups in much the same way any parent wants the best for their children. One of the traits she would always choose to pass on was the "social" trait. Zoe did this not just because being social will help her pups lead successful lives but because she is herself an outgoing person and wants her wolves to be like her. Playing *WolfQuest* helped her think differently about the world she inhabits and the animals around her. Her interest in wolves which was fueled by the game had also made her want to pursue a career working with wild animals. *WolfQuest* has helped Zoe connect with these creatures that are far from her everyday life, but it has also fortified her relationships in her own home. Though *WolfQuest* does not radically alter the perspective of players, it does allow them to see and inhabit a world differently.

The opportunity to be an animal, both those chimeric beasts from "Creatures of Sonaria" and the realistic wolves of *WolfQuest*, presents for players new means of seeing their world and relating to each other. For players of "Sonaria," they must spend their time being prey and finding a pack. Being an animal is both a break from being a person and a chance to reimagine one's own life from a different perspective. While neither of these examples fully shift the player

to see differently as Tyler might hope, they do allow the player to empathize and feel connected to the struggles of another creature. Ahn et al.'s hope of using virtual environments to make people care more about the issues animals face is particularly evident in *WolfQuest*, a game made by scientists and environmentalists to help people better understand the wolves of Yellowstone National Park. Zoe's love of wolves is stoked by the game allowing her to see differently and feel more intimately the struggles of wolves.

# Conclusion

As we have seen, animals in video games are greater than the sum of their parts. They allow players to think through the muddy waters of the cyborg and consider the boundaries between flesh and silicone. Virtual animals can be more than just code and wire frames, they are creatures that players form deep and real attachments to. Of course, this is not the case for every digital animal. Different animals serve different roles in games. For example, in *Fortnite*, players may have to fight wild wolves while trying to hunt down other players all while having a cute little puppy in their backpack. These animal accessories include a wide variety of creatures from real pets to aliens to robotic and



wooden animals. These pets have no in game function, and players never see their PC interact with the creature they are carrying around the battlefield. But because *Fortnite* is a third person game, players get to watch their backpack pet throughout the match. Even when animals are just accessories, they are still playing a role in the gameplay experience for the player.

In many games, the function of a companion animal is to assist the player in their quest. In some games this means providing transportation, and in others this means the animal works as another weapon that the player can use. Even when a game designs an animal to be an assistant but not an emotional connection, players cannot help but become emotionally invested. Animals are culturally salient creatures, and it is hard for players to distance their feelings towards real animals from the depictions of animals they encounter when playing video games. The same holds true for the production of animals in games, as a developer's personal and cultural connection to animals impacts how they depict them.

Our relationships with animals are shaped by the narratives and norms around us. What an ethical relationship with animals, food, and the environment looks like both affects what games get made and how gameplay feels as well as changes people's relationships to those things. As we saw in the first chapter and again here, people feel more emotionally connected to aspects of nature that they have personally experienced. Video games allow people to access a variety of experiences they would not otherwise have, and, perhaps, can allow emotional connections across time and space with the natural world.

In particular, being able to embody an animal through video games is a key way that players can learn about and connect with real animals and ecosystems. This is most obvious in games like *WolfQuest* where a great deal of scientific research and care have gone into recreating a real environment. But we can also see the value of this in less realistic games like "Creatures of Sonaria" where players can live out life as predator and prey. One key benefit of video games is their ability to allow players to immerse themselves in a different perspective and context from their daily life. Even though player characters are often limited by the norms of the human perspective, even a glimpse into a different way of being can change a person's understanding of the world.

Digital animal studies presents an unusual area for future research. They may be able to function as a control group for understanding the effects of animal interaction in therapeutic settings (Griffin 2011), but this will depend on how deep a relationship people are able to form with their virtual companions. The analysis of digital animals will also be interesting for
education researchers and the potential development of educational games. Tom Tyler's book *Game* touches on animals as the players of video games, and the future of games made for animals to experience will also be strange new roads to walk. Game studies and animal studies research will need to continue to work together to better understand how animals in games function and how they affect the players who so often love them.

To end, I want to return to the story of Taliah and her *Minecraft* dog. Throughout my fieldwork and the writing of this dissertation, the story of her choosing to forgo having a companion animal in the game due to the emotional pain of losing her dog to an enemy has been the one that has stuck with me the most intensely. It is the story I tell to people to help them understand why we should care about how kids think about nature and video games. The violence that is a part of so many games is not the only story worth telling, and games do not universally make players become more violent. Games can also encourage players to love and care not just for the beings in the game but for each other. Nature and social networks are not distinct. It is through relationships that care and understanding come together. Taliah's love for her virtual dog was not misplaced emotion, it is a demonstration of the power of games to pull us into connection.

# **Conclusion:**

# Leveling Up Digital Natures Research

The digital worlds of video games cannot be fully separated from the real world around us. Video games can often feel like an escape from daily troubles, but even the most casual and relaxed engagement with games can also be an insight into cultural and historical values. Virtual

nature spaces are not just poor facsimiles of real natures, they are places of learning, reproductions of violent histories, and spaces for community building. It is undeniable that video games have seeped into almost everyone's life, but their power is all the stronger among young people who have never known life without easily accessed online games. For some teachers, video games are an opportunity to use a tool already familiar to students in order to expand their understanding of other topics. The screenshot to the right is of a student's TikTok showing their approval of their teacher's choice to use *Breath of the Wild* to teach her students about topography. But like any tool, games and



their communities can also be used for other means. While the sponsorships ultimately fell through, the US Army had planned to spend millions sponsoring Twitch streams in order to recruit a Gen-Z audience according to the original document, "Focus on the growth of females, Black & Hispanics" (Cox 2022). Using popular media to bolster support for the US military is not new, but it is important to note the ways United States colonialism continues to garner support in game spaces.

But even if adults are trying to use games in a variety of ways, what are the young people playing the games actually doing? This project was designed to answer the question: How are young players thinking about virtual nature spaces and life in online multiplayer games, and how are their experiences shaped by capitalism, gender, and race? As we have seen throughout this dissertation, the answer is many fold. Beginning with the second half, capitalism, race, and gender greatly shape the landscapes and game worlds in MMOs. The white supremacist and male centered logics of capitalism and colonialism not only shape the environments of games but the options that players have for creating and imagining themselves within games. Racism and sexism can greatly limit players' ability to engage with and immerse themself in a game world. But despite these limitations, players push back. They actively critique the structures of power that shape the games they play. Players are critical of hierarchies and structures of power within their games. Young people are constantly creating and thinking about the nature spaces in their games. They are reforming spaces, building communities, creating fond memories, and destroying the world around them.

## How we Got Here

Digital restoration ecology, my framework for examining digital nature spaces, is the bedrock of my analysis. I began here in order to shape the discussion around the reality of virtual spaces as important and situated in long historical contexts and structures of power. While nature spaces in games have been viewed as texts (Chang 2019), reflections of colonial narratives (Chien 2017), and as educational tools (Kozik 2019, Crowley et al. 2021), the view of virtual environments as restored ecologies works to combine these different ideas into one means of analysis. Restoration ecology brings with it its own history of contestation and troubles, especially around race, gender, capitalism, and colonialism. Viewing digital natures in this way means treating them as equally real as other non-digital nature spaces. Children's play,

both in real life and in virtual worlds, is often dismissed as fanciful, unproductive, and less real than the more serious leisure of adults.

This tension between real and less real experiences and places is not unique to academic analysis but was a contested aspect of video games discussed by the players I spoke with. Using player experiences in *Minecraft* as a case study, I examined how players thought about realism and the value of realistic environments in their play. For these players, realism was not a trait imbued in high quality graphics but was a feeling cultivated through playing the game. But while players sought realism in their experience of overcoming struggle, game developers regularly suffer the pains of crunch time in order to achieve photorealistic game graphics. What it means for a game to feel real is not a straightforward checklist but a contested and changeable relationship between the player and the game. The ways that video game landscapes are shaped by real natures continues with the production of realism in games and the use of video games to reimagine real places. Urban planners have used *Minecraft* as an accessible tool for gaining public input on urban redesigns. The accessibility of the game in combination with its blocky art style has made it a useful tool. While I began this dissertation by looking at player's experiences with the worlds of the games, we then turned to player's interactions with each other.

White supremacist and patriarchal systems of capitalism shape player's experiences in online multiplayer games. Anti-blackness has been built into much of our digital systems in ways that often go unnoticed (Noble 2018), but explicit anti-Black racism is also a common experience for Black players in games. Black characters and players have often been an afterthought for game developers resulting in either explicit racism or simply a lack of diversity. In MMOs, the racism experienced by players of color is often coming from other players. The story is much the same with gender in games. Women have often been reduced by games to set dressing, and female players are over policed by other gamers. GamerGate was a particularly heightened moment of harassment of female gamers and game journalists

181

(O'Donnell 2022). This combination of racism and misogyny is particularly harmful for Black women who play games. For the players I spoke with, fear of the harm other players could cause often shaped their gameplay and community. Through the avoidance of the voice chat and clear moderation of community discussions, players worked to avoid gendered and racialized attacks. While racism and misogyny shaped the player's experiences, the kids I spoke with were more aware and explicitly critical of the way capitalism shaped their gameplay.

Capitalism has been the fuel for these fires, as capitalist ideas of play and leisure are deeply connected to race and gender. Brand partnerships and loot boxes were common sights of critique for my interlocutors. For players like Daniel and Ruben, the multitude of brand deals in *Fortnite* could be either annoying or fun depending on the player's previous relationship to the media that was being incorporated. While these collaborations were enough to drive some players away from the game altogether, most were willing to put up with the collaborations they did not like in order to have access to the ones they did. Loot boxes were also a controversial aspect of video games critiqued by players. While many MMOs no longer include loot boxes, in part because of lawsuits filed by parents, blind boxes are still a common part of children's toy aisles in retail stores. Riley's parody of loot boxes in her mystical Shulker Club functions as a playful critique of loot boxes that recognizes the ways they are designed to make sure the game maker always wins. The structures of capitalism that shape the player experience in MMOs are not passively consumed and regurgitated. Players actively shape their experience and relationships online.

Through analyzing young player's social worlds in online multiplayer games, I push researchers towards a valuation of the many competing relationships at work in young people's digital play. Play is an important part of learning and growth, both on and offline. Video games can be used to encourage prosocial and antisocial behavior, and many of the children I spoke with used games as a tool to shape their interpersonal relationships. While not every child I spoke with plays games with their parents, even non-gaming parents often engaged with their

182

child's gaming. Parents would watch their children play, talk about games with them, and set rules around game play. Parental authority was rarely absolute, and the young people I spoke with often maneuvered around and pushed against their parent's power in ways that were creative and resourceful. Young people most often play games with their peers, and have found innovative ways to solve disputes in these more egalitarian relationships. Outside of games, players often congregate on platforms like Discord where they can talk about games, interact with game developers, and provide feedback. But gaming spaces are not always so positive, and trolling/griefing is also a large part of digital spaces. Trolling can be a tool of social control and a reinforcing of hierarchies outside of the game. Through the creation and weaponization of the term "cringe," players identify and reprimand other players that they see as dangerous, weird, or otherwise too far from normal. The social networks players form in games are facilitated by the games themselves. In some cases, such as when Zoe got more play time through asking her father about the plants in *WolfQuest*, the gameworld itself becomes a tool for building and playing with social bonds.

At the intersection of virtual natures, social networks, and structures of power sits digital animals. These cyborg companions are nature shaped by culture into a non-player character designed to engage with players. Digital animals are shaped by game developer's personal relationships to real animals as well as the historical and cultural baggage of what an animal should be like. Using the works of Donna Harraway, I considered how digital animals function as cyborg companions (Haraway 2004). Players can form very deep and real connections to their virtual animals that should not be dismissed as overly emotional or fanciful. The social bonds formed in video games matter and are real, even bonds formed with bits of code in wolf's clothing. My discussion of wild animals in games turned to Simon Coghlan and Lucy Sparrow (Coghlan 2021) and the ethics of violence in games. Violence towards animals is a common feature in games that is under-examined compared to violence against human non-player characters. As I learned in my interviews, some players actively avoid violence towards all or

some animals in games despite the benefits killing animals has in many games. Finally, I looked at how games can allow players to embody animals. Tom Tyler's work on digital animals in video games as well as the research done by Sun Joo Ahn et. al were used to help us think about the potential for games to expand our empathy towards animals (Ahn 2016, Tyler 2022). Player's deep connections towards digital animals are often under-appreciated, but there is great power in the ways that people are thinking with digital animals.

#### Main Findings and Next Steps

This work presents four major contributions to research on youth, nature, and video games. First, it is one of the few writings of this length to look at nature in video games as an object of serious analysis. And, my proposal of viewing and analyzing digital environments through the lens of restoration ecology is new to the field. Digital spaces are becoming an increasingly important part of peoples' everyday lives, and the lines between online spaces and real life are constantly blurred. By treating digital natures as "real" we as researchers can better critique games by connecting our analysis of digital nature spaces to critiques of "real" natures. This play with reality and the making of worlds builds on the analysis of digital environments by Karen Ho and the examination of performance by Dorrine Kondo. While the framework of restored virtual ecologies comes from my own analysis of the literature, the understanding and critique of realism became evident through my ethnographic analysis.

Realism touches on many aspects of games and gameplay from the building of deserts, seen in Chapter 1, to the limitations on *Warrior Cats* roleplay, in Chapter 5. As Sami Schalk discusses throughout her book *Bodymind Reimagined*, representations in media and changing narratives around (dis)ability, race, and gender shape "the way such people are talked about, treated, and understood in the "real" world" (Schalk 2018). Her work on speculative fiction sees the unreality of the worlds she examines as a tool for helping people reimagine the rules of our

current reality. Similarly, the worlds children create and manipulate in video games can be tools for critiquing and understanding their life outside of the game. Through the analysis of digital natures and the realities children create within them, we can better understand the ways people think about and relate to their world outside of the games they play.

Second, my research is a documentation and analysis of human-(digital) animal relationships that highlights the emotional bonds players form with their in game critters. Taliah's story of burying her dog in *Minecraft* and choosing not to have another animal companion in the game has stuck with me since we spoke almost two years ago. Forming empathetic bonds with in-game characters and creatures can allow players to form those connections with their real life counterparts. The virtual animal cyborg is an under-examined yet highly salient aspect of the gameplay experience and people's digital lives. In the 2021 *Digital Anthropology* edited volume, an analysis of what it means to be human and have connections with digital creations was marked as a key site for the field (Geismar 2021). My work continues this analysis and pushes beyond the human towards the digital animal. These virtual creatures bring to life cultural understandings of what animals are, how they should act, and how humans should relate to them. Through defining the other, we are often defining ourselves by what we are not.

My research also contributes to the growing literature on digital anthropology and digital ethnography by recentering children as experts in their own uses of new technologies. The current position of the field can be seen in the volume *Digital Anthropology* (Geismar 2021). Most relevant to my own work are Heather Horst's chapter on mobile phones and Iris Bull and Ilana Gershon's "Digital Economy and Labor." Horst looks in part at the way parents in Fiji try to protect their children from the potential harm that comes with access to a cell phone and social media (Horst 2021). Parents and families must decide on their own household rules around screen time as there is no set norm in Fiji. Horst looked as well at the way cell phone data companies marketed their products and created troublesome hoops for people to jump through. While my work only touches on mobile gaming, through *OneBit Adventure*, Horst's interlocutors

and mine have many of the same struggles when it comes to their relationship with digital technologies. Negotiating screen time is more than just access to technology, it is access to a variety of relationships that exist outside of the household. These negotiations, often between parents and children, are also mediated by corporations whose desire for profits often moves them to advertise as if they have a personal relationship to consumers. Mobile gaming is an important subfield of the anthropology of video games, and a closer look at how children and parents negotiate mobile games would be a fruitful next research project.

Iris Bull and Ilana Gershon's chapter "Digital Economy and Labor" digs into the many kinds of labor, paid and unpaid, that go into making digital products. Most relevant to my own work are their discussions of fan labor and the ways digital workers are exploited by their employer. The unpaid work that fans do to maintain discussion boards, create mods, sare works inspired by a media property, and otherwise advertise a work are unpaid but vital parts of digital markets. While I discussed the positive side of mods, fan made modifications that can be layered onto a video game, in Chapter 4, I did not touch on the ways these creations can function as unpaid labor. For example, when someone creates a "quality of life" mod that improves the ease with which a game can be played they are both critiquing the game, by pointing out its flaws, and providing the company with free labor. While fans are producing free content for corporations, they are not exploited in the same way employees and contract workers are. Bull and Gershon discuss the ways digital workers, all of the people involved in the production of digital technologies, are often exploited for their labor. They focus on the precarity of workers on work distribution platforms such as Uber, TaskRabbit, and Upwork. These laborers lack the safety net of a single employer and are often highly dependent on the platform they get work from. While Bull and Gershon do not look at the ways these workers function in the video game industry, such an analysis would increase our understanding of the production of games. My work adds to these conversations by looking in part at the ways children engage with fan created content such as YouTube videos. Many young people are deeply engaged with

186

fan works that are set in the world of a video game, such as "actual play" YouTubers and Twitch streamers. A closer look at the life of YouTube creators who make video game based content and the fans who engage with that work will provide a deeper insight into the many ways labor gets distributed and shifted in fan communities.

Finally, my work captures a moment in time and an understanding of childhood in the early 2020s. This research project was created due to the ethnographic constraints imposed by the Covid-19 pandemic. The pandemic radically changed people's lives. Schools had to shift to distance learning in order to keep people safe which meant children were no longer going to school and were instead learning remotely from their homes. In-person socializing became reduced to the household, and in the United States that meant many children were only interacting in person with their parents and siblings. Online multiplayer games became a lifeline for many during the pandemic as they were a way to be with friends and strangers who could no longer be reached. My research shows the way children used digital spaces during the pandemic and created social networks that could survive online. Throughout my research I saw the many ways children built and maintained communities and systems of knowledge around the games they played. Through Discord communities, YouTube comments and videos, fan wikis, and in game texts, children are cataloging the games they play and the worlds they are creating. As we continue to move away from the early days of the Covid-19 pandemic, and undoubtedly into new and surprising changes to our lives, it is important to remember and document what life looked like during that time.

Emerging from this work are a variety of new possible directions for research. My research focused on the experience of players in digital nature spaces, but more should be done to look at the perspective of the studios. Building on research like Thomas Malaby's ethnography of Linden Labs, the makers of *Second Life*, researchers should dig into the production of digital natures (Malaby 2009). Many games use premade assets when creating in-game nature space while others sculpt each tree. What influences are the designers drawing

on when they craft an environment? What personal experiences and lingering memories shape the way artists imagine the spaces players inhabit? By looking at art departments, level designers, coders, and other aspects of the game design process a new perspective can be added to the anthropological understanding of digital natures.

While my work touched on the ways players seek to build homes in *Minecraft* that are in touch with the environment around them, more work should be done to look at digital vernacular architecture. There is a large community of YouTube content



creators who make videos about how to build particular buildings in the game, such as this video<sup>20</sup> by creator Goldrobin on how to build a Tolkien-inspired hobbit hole home in the game. That video has over 900,000 views and hundreds of positive comments. Many of the young people I spoke with watched tutorials like this as either guides or inspiration for their own in game creations. Similarly, more research should be done into children's fan culture and the way it affects their in-game experience. YouTube is an important way that people learn about new games and learn how to interact with games. While I did not have enough data to make any definitive statements earlier, based on my observations of kids playing games it appears that they are often imitating YouTube content creators when playing games. Young players often narrate and comment on their play like they were creating a video. More research focused on YouTube and observation of gameplay in a home environment would need to be done for anything more definitive to be said.

I discussed in chapter 4 the use and meaning of the term "cringe." Because slang terms change quickly they can be hard to keep up with, but I think it is worth looking more closely at

<sup>&</sup>lt;sup>20</sup> <u>https://www.youtube.com/watch?v=63Op8opEe7k&ab\_channel=Goldrobin</u>

the use of "cringe" as a rallying cry to action. The word itself is used to cover such a broad swath of people and actions, and anti-anti-cringe movements also exist. Understanding cringe better would allow for greater insight into how politics, and "identity politics," are discussed online. Cringe also functions as a means of policing people's identity and behavior, and it would be interesting to have more ethnographic examples of this in action. Bullying on the internet is not new, but I think what is interesting about "cringe" and the conversation I had with Joe is that he did not see himself as a bully but as a protector of a digital space that had been invaded by bad actors. While online bullying is a well researched topic, I would recommend further research into how the term "cringe," and the other terms that will surely take its place, function in those spaces.

At the end of chapter 5, I mentioned that digital animals may be able to function as a control group for human-animal research. James Griffin in his introduction to the book *How Animals Affect Us*, he mentioned that one of the difficulties of human-animal research is that it is impossible to have a control group (Griffin 2011). There is no equivalent to a sugar pill for interacting with an animal, but perhaps digital animals can take up that mantle. While it would be helpful to have a control group for this type of research, I think that it would be equally interesting to discover that digital animals cannot function as a control for interacting with real animals. Are player connections to digital animals so real that they cannot be distinguished from interactions with real animals? I think there are many important differences between interacting with real animals for personal fulfillment, education, empathy, and play. More work should be one human-digital animal interaction in order to better understand this emerging field as well as to see if digital animals can function as a control group field as a control group in human-animal research.

Finally, I would encourage game studies researchers to not forget about children. Often, research on games either looks at adult engagement or looks at childrens' engagement in the context of education. There are larger structural reasons that have shaped research projects in

189

this way. Children are a vulnerable protected group when it comes to human subjects research. This is how it should be, but researchers should not shy away from the extra work required to conduct research with children. The lives of children should also not be reduced to education. We have also seen an increased number of children in the last few years identifying as LGBTQ+, and I would encourage researchers to look at how these kids are using games to express themselves. There are many exciting directions that research on kids, video games, and the environment can undertake, and as technology changes so will our opportunities for better understanding peoples' lives.

For my own research, I think the potential projects that could be generated from this project are nearly endless. While I mentioned above some of my key contributions and future directions for research, here I want to think on a final question that has lingered with me: How are the understandings of nature that children in the United States learn from video games affecting their offline imaginative play and learning? None of the young people I spoke with stated that they incorporate video games into their imaginative play. My speculation is that many of them had aged out of such play and no longer chased their peers around school yards or made toys go on epic adventures at home. Answering this research question would probably require a slightly younger research audience, maybe children between the ages of six and eleven, and a prioritization over participant observation over interviews. Trying to pick apart where children learn what kinds of information can be difficult, but it is not impossible. Through answering this question we can gain a deeper understanding of how virtual ecologies shape real ecologies.

## **Go Touch Some Grass**

When a person is seen to be too online and out of touch with real life and real people, friends and strangers on the internet will instruct them to "go touch some grass." This call to

interact with nature as a means of grounding oneself and gain some distance from the problems of the internet has become a critique, joke, meme, and even a grass touching video game. As I discussed in the introduction of this dissertation, grass also functions as a colonial and normative icon in the form of the US American front lawn. Access to grass is not evenly distributed, but it is more easily accessed then a forest or algae. Compare "go touch some grass" to "take a hike." While telling someone to take a hike shares the call to remove oneself from a situation, it does not share the same directive to recenter oneself and connect to reality that "go touch some grass" does. Grass here is meant to represent that which is really real.

My hope is that now you better understand the value of digital natures, the impact they have on players, and the way young people are shaping the digital worlds they inhabit. Touching digital grass is not the same as touching real grass, but there is as much history and tension in digital grasses as there is in lawns. Virtual grasses may not be real in the same way, but as we already saw, realism is a contested space where value is reassessed. More than the potential for future research that my dissertation highlights, my hope is that this writing will help people better understand the children they interact with and the games they play. My writing will not stop global climate change, but it might help someone ask a young person in their life a good question about the game they are playing.

So, go touch some grass! Pick up a controller and run through the tall grass of Hyrule, work a farm in Pelican Town, or hide in a bush while taking down enemies in *Fortnite*. Find time to engage seriously with video games and take the time to listen to how children are thinking about the games and digital worlds they spend their time in. And then, after taking a break to relax and play, go outside, and touch some grass.

191

# Glossary

Avatar: the extension of the player into the video game, the character a player controls

**Battle Royale:** a genre of MMO where a large number (50 or more) players must fight against each other in a well defined area

**Build Battle:** a conflict resolution strategy in *Minecraft* where players compete to produce the best home in a short amount of time

**Cringe:** a term used to critique other by saying that they should be ashamed of their actions, can be used to refer to any number of behaviors and is contingent on context

Discord: a messaging app designed for groups to use as custom message boards

**Fan wiki:** modeled after Wikipedia, fan wikis are collections of knowledge around a game that are created and maintained by the fans

**First-person shooter:** a genre of video game in which the player looks out through the perspective of their character in order to try and take down opponents using a gun

IRL: used online to refer to things that are happening offline

**MMO/MMORPG:** digital spaces where people can gather and play pre-designed games together

**Mod/Moderator:** a person who enforces content rules in an online forum such as a Discord server

**Mod/Modification:** data made by players and shared with other players that changes the base game

**Skin:** aesthetic modifiers that change the appearance of the player's avatar but do not affect the player's abilities

Troll/Trolling: a person who actively disrupts other player's experience in an online game

**Virtual natures:** locations in games that are designed to be set apart or other than spaces designed by humans

## Works Consulted

- Ahn, Sun Joo, Joshua Bostick, Elise Ogle, Kristine L. Nowak, Kara T. McGillicuddy, and Jeremy N. Bailenson. (2016). "Experiencing Nature: Embodying Animals in Immersive Virtual Environments Increases Inclusion of Nature in Self and Involvement With Nature." in *Journal of Computer-Mediated Communication*. 21:399-419.
- Aiba, Shin and Shoaro Nishi. (2022). "Town Planning Workshop Using Minecraft" in *AIJ J Technol.* Des., 28(68).
- Alderson, Priscilla. (1992). "In the Genes or in the Stars? Children's Competence to Consent." *Journal of Medical Ethics*, Vol. 18, No. 3. September 1992.
- Alexander, Michelle. (2010.) *The new Jim Crow: mass incarceration in the age of colorblindness.* New York: New Press.
- Allyn, Bobby. (2021). "Group-Chat App Discord Says It Banned More Than 2,000 Extremist Communities." 5 April 2021. *NPR*, NPR.
- Amit-Talai, Vered and Helena Wulff, editors. (1995) Youth Cultures: a Cross-Cultural Perspective. New York: Routledge.
- Anderson, Julia. (2022). "Horizon Forbidden West Virtual Photographs Look Mind-Bogglingly Realistic." 1 May 2022. *CBR*, CBR.com.
- Anderson, M. Kat, (2013) *Tending the Wild: Native American Knowledge and the Management* of California's Natural Resources. Berkeley: University of California Press.
- Babin, J. Jobu, (2020). "Linguistic signaling, emojis, and skin tone in trust games." *PLOS ONE*. 15(6).
- Bakhtin Mikhail. (1984). Rabelais and His World. Bloomington: University of Indiana Press.
- Balmford, Andrew, Lizzie Clegg, Tim Coulson, and Jenny Taylor. (2002). "Why Conservationists Should Heed Pokemon." 29 March 2002. *Science*. 295(5564).
- Basso, Keith H., (1996). *Wisdom sits in places: landscape and language among the Western Apache*. Albuquerque:University of New Mexico Press
- Bean, Lowell and Katherine Siva Saubel. (1972) *Temalpakh: Cahuilla Indian Knowledge and Usage of Plants*. Banning, CA: Malki Museum Press.
- Bernevega, Alexander and Alex Gekker (2022). "The Industry of Landlords: Exploring the Assetization of the Triple-A Game." *Games and Culture.* 17(1).
- Blackhawk, Ned. (2006). *Violence over the land: Indians and empires in the early American West*. Cambridge, MA: Harvard University Press.
- (2023). The rediscovery of America: native peoples and the unmaking of U.S. history. New Haven: Yale University Press.

Boellstorff, Tom. (2008). *Coming of Age in Second Life*. Princeton: Princeton University Press. Bogost, Ian. (2008). "The Rhetoric of Video Games." In *The Ecology of Games: Connecting* 

Youth, Games, and Learning. Ed. Katie Salen. MIT Press: Cambridge.

Bolten, Catherine. (2020). Serious Youth in Sierra Leone. Oxford: Oxford University Press.

- Bourdieu, Pierre. (1984). *Distinction: A Social Critique of the Judgement of Taste*. Cambridge: Harvard University Press.
- Brockmyer, Jeanne. (2022). "Desensitization and Violent Video Games." *Child and Adolescent Psychiatric Clinics of North America*. 31(1).

Brophy-Warren, Jamin. (2009). "Resident Evil 5' Reignites Debate About Race in Video Games." 12 March 2009. *The Wall Street Journal*, Dow Jones & Company, Inc.

- Brosofsky, Ben. (2023). "Baldur's Gate 3 Scenes Deemed Too Risque For Japan." 15 November 2023. *Screen Rant*, Valnet Publishing Group.
- Brown, Gardiner. (2022). "When Wetland Restoration and Big Oil Collide." 30 June 2022. *Edge Effects*. Center for Culture, History, and Environment.

Bucholtz, Mary. (2002). "Youth and Cultural Practice." *Annual Review of Anthropology*, 31:525-52.

- Bull, Iris Rochelle. (2014). "Just Steve: Conventions of Gender on the Virtual Frontier." in *Understanding Minecraft*. Ed. Nate Garrelts. Jefferson, NC: McFarland & Company Inc.
- Bull, Iris Rochelle and Ilana Gershon. (2021). "Digital Economy and Labor." Geismar, H., & Knox, H. (Eds.). Digital anthropology. Taylor & Francis Group.
- Burgess, Matt. (2024). "How to Be More Anonymous Online." 5 January 2024. WIRED, Condé Nast.

Chang, Alenda. (2019). *Playing Nature*. Minneapolis: University of Minnesota Press.

Christiansen, Peter. (2014) "Players, Modders and Hackers." in *Understanding Minecraft*. Ed. Nate Garrelts. Jefferson, NC: McFarland & Company Inc.

- Clark, Cindy Dell. (2011). *In a Younger Voice: Doing Child Centered Qualitative Research*. New York: Oxford University Press.
- Clark, Naomi. (2017). "What Is Queerness in Games, Anyway?" in *Queer Game Studies* edited by Bo Ruberg and Adrienne Shaw. Minneapolis: University of Minneapolis Press.
- Coelho, Sophie G., and Matthew T. Keough, David C. Hodgins, N. Will Shead, Puneet K. Parmar, Hyoun S. Kim. "Loot box purchasing is associated with gambling and problem gambling when controlling for known psychological risk factors of gambling." *Addiction Research & Theory*, 2022

Coghlan, Simon and Lucy Sparrow. (2021). "The "digital animal intuition:" the ethics of violence

against animals in video games." in Ethics and Information Technology. 23:215–224

- Cote, Amanda C and Brandon C Harris. "Weekends became something other people did': Understanding and intervening in the habitus of video game crunch." *Convergence*. 1:161-176.
- Cox, Joseph. (2022). "U.S. Army Planned to Pay Streamers Millions to Reach Gen-Z Through Call of Duty." in *Vice*, Vice Media Group. 1 December 2022.
- Cronon, W. J. (1995). "The Trouble with Wilderness; or, Getting Back to the Wrong Nature." In Uncommon Ground: Rethinking the Human Place in Nature (pp. 69–90). New York, NY: W. W. Norton & Co.
- Crowley, Edward J, Matthew J Silk, and Sarah L Crowley. (2021). "The Educational Value of Virtual Ecologies in Read Dead Redemption 2." 8 July 2021. *People and Nature*. 3(6).
- Crowley, Sydney. (2023). "Playing farmer: At the intersections of neo-liberal capitalism and ecocriticism in Stardew Valley." in *Journal of Gaming & Virtual Worlds*, 15(1).
- Csikszentmihalyi, M. (1990). *Flow: The Psychology of Optimal Experience*. New York, NY: Harper & Row.
- Cunningham, Carolyn M. (2018). *Games Girls Play: Contexts of Girls and Video Games*. Lanham: Lexington Books.
- de Andrade, Burno, Alenka Poplin, and Ítalo Sousa de Sena. (2020). "Minecraft as a Tool for Engaging Children in Urban Planning: A Case Study in Tirol Town, Brazil." in International Journal of Geo-Information. 9:170.
- Dean, Brian. (2022). "Roblox User and Growth Stats 2022." *Backlinko*, Semrush Inc. 10 October 2022.
- Delaney, James. (2022). "Minecraft and Playful Public Participation in Urban Design." in *Urban Planning*. 7(2).
- Deloria, V. (1973). *God is Red: A Native View of Religion*. Golden, Colorado: Fulcrum Publishers.
- Dewinter, Jennifer and Carly A. Kocurek. (2017) ""Aw Fuck, I Got a Bitch on My Team!": Women and the Exclusionary Cultures of the Computer Game Complex" in *Gaming Representation: Race, Gender, and Sexuality in Video Games.* ed. Jennifer Malkowski and Treaandrea M Russworm. Bloomington: Indiana University Press.
- Douglas, Mary. (1999). "Four cultures: the evolution of a parsimonious model." *GeoJournal*, 47:3, pp. 411-415

Dyer, Andy. (2016). "PC Game Mods." GE Force, Nvidia. 18 March 2016.

Erlandson, Jon M., Graham, Michael H., Bourque, Bruce J., Corbett, Debra, Estes, James A.

and Steneck, Robert S.(2007) "The Kelp Highway Hypothesis: Marine Ecology, the Coastal Migration Theory, and the Peopling of the Americas", *The Journal of Island and Coastal Archaeology*, 2: 2, 161-174.

- Everett, Anna. (2005). "Serious Play: Playing with Race in Contemporary Gaming Culture" in *Handbook of Computer Game Studies* edited by Joost Raessens and Jeffery Goldstein. The MIT Press: Cambridge, MA
- Fanning, Colin and Rebecca Mir. (2014) "Teaching Tools: Progressive Pedagogy and the History of Construction Play." in *Understanding Minecraft*. Ed. Nate Garrelts. Jefferson, NC: McFarland & Company Inc.
- Finney, Carolyn. (2014). *Black Faces, White Spaces*. Durham: University of North Carolina Press.
- Freud, Sigmund. (1919)[1926]. "The "Uncanny."" in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*. London: Hogarth Press, Institute of Psycho-Analysis.
- Gaimen, Neil. (2001). American Gods. Harper Collins: New York.
- Garrelts, Nate. Editor. (2014). *Understanding Minecraft*. Jefferson, NC: McFarland & Company Inc.
- Garzotto, Franca. (2007). "Was Vygotsky Right? Evaluating Learning Effects of Social Interaction in Children Internet Games." in *INTERACT*, Vol.4663, p.376-389.
- Gee, James Paul. (2008). "Learning and Games." In *The Ecology of Games: Connecting Youth, Games, and Learning*. Ed. Katie Salen. MIT Press: Cambridge.
- Gerbasia, Kathleen C. and Nicholas Paolone, Justin Higner, Laura L. Scaletta, Penny L. Bernstein, Samuel Conway, and Adam Privitera. (2008). "Furries from A to Z (Anthropomorphism to Zoomorphism)" *Society and Animals*,16, 197-222.
- Gershon, Ilana. (2010). The Breakup 2.0. Cornell University Press: Ithica.
- Giddings, Seth. (2018). "Accursed Play: The Economic Imaginary of Early Game Studies." *Games and Culture* 13:7.
- Gies, Arthur. (2018). "The painted world of Red Dead Redemption 2" 14 December 2018. *Polygon*, Vox Media.
- Glacken, Clarence J. (1976). Traces on the Rhodian shore: nature and culture in Western thought from ancient times to the end of the eighteenth century. Berkeley: University of California Press.
- Goldstein, Jeffery. (2005). "Violent Video Games." in *Handbook of Computer Game Studies*. Ed. Joost Raessens and Jeffery Goldstein.

- Goodman, Kenny. (2023). "How Fortnite Weaves Brands Into The Game & Makes Billions" *Weird Marketing Tales*, Pangea Marketing Agency. 9 March 2023.
- Greenfield, P.M. (1996). "Video Games as Cultural Artifacts." in P.M. Greenfield and R.R. Cocking eds., *Interacting with Video*. Norwood, NJ: Ablex Publishing.
- Griffin, James A, et al. (2011). edited by Peggy McCardle, Sandra McCune, James A. Griffin, and Valerie Maholmes. *How Animals Affect Us: examining the influence of human-animal interaction on child development and human health*. Washington, D.C.: American Psychological Association.
- Griffiths, Mark and Mark N.O. Davies. (2005). "Does Video Game Addiction Exist?" in *Handbook* of Computer Game Studies. ed. Joost Raessens and Jeffery Goldstein. MIT Press: Cambridge, MA.
- Griffiths, Mark and Richard T.A. Woods. (2004) "Youth and Technology: The Case of Gambling,Video-Game Playing, and the Internet." in *Gambling Problems in Youth* ed. By Jeffrey LDerevensky and Rina Gupta. New York: Plenum Publishers.
- Gu, Jandy. (2014) "A Craft to Call Mine: Creative Appropriation of Minecraft in YouTube
   Animations." in *Understanding Minecraft*. Ed. Nate Garrelts. Jefferson, NC: McFarland & Company Inc.
- Haraway, Donna Jeanne. (2003). *The companion species manifesto : dogs, people, and significant otherness*. Chicago:University Presses Marketing.
- Haraway, Donna Jeanne. (2004). The Haraway Reader. New York: Routledge.
- Hart, Jordan. (2022). "Parents who say their kids are addicted to 'Fortnite' slam Epic Games with lawsuit — and research shows it's not the only game people are worried about." *Insider*, Insider Inc. 31 December 2022.
- Hastings, Dan. (2022). "Horizon Forbidden West has Made Other Games Look Ugly." 22 March 2022. *Nerd Burglars*, Nerd Burglars.
- Hebdige, Dick. (1979). Subcultures: The Meaning of Style. London: Routledge.
- Hernandez, Patricia. (2019). "Fortnite is basically a giant, endless advertisement now." *Polygon*, Vox Media. 23 May 2019.
- Hirsch, Eric. (1995). "Landscape: Between Place and Space." in *The anthropology of landscape: perspectives on place and space*. edited by Eric Hirsch and Michael O'Hanlon. Oxford: Oxford University Press.

"History & Background." (n.d.) International Men's Day, web.

"History of International Women's Day." (n.d.) International Women's Day, web.

Hobin, Nicholas. (2019). "Animal Eyes: Meeting the Look of the Video Game Animal." in *Public*.

30:59, pages 72-77

- Hoffecker, John F. et al. (1993). "The Colonization of Beringia and the Peopling of the New World." *Science* 259,46-53.
- Horst, Heather. (2021). "The Anthropology of Mobile Phones." Geismar, H., & Knox, H. (Eds.). *Digital anthropology*. Taylor & Francis Group.
- Howarth, Josh. (2023). "Alarming Average Screen Time Statistics (2024)" *Exploding Trends*, Exploding Trends. 4 December 2023.
- Huhtamo, Erkki. (2005). "Slots of Fun, Slots of Trouble: An Archaeology of Arcade Gaming." in *Handbook of Computer Game Studies.* Ed. Joost Raessens and Jeffery Goldstein.
- Hunleth, Jean. (2019). "Zambian Children's Imaginal Caring: On Fantasy, Play, and Anticipation in an Epidemic." in *Cultural Anthropology*, 34:2, 155-186.
- Hunter, Charlotte. (2021). "Traditionally Associated Native American Communities." 10 May 2021. *National Park Service*, Joshua Tree National Park.
- iFireMonkey. (2022, March 2). Fortnite International Women's Day 2022 (Skins, Radio Stations, Moon & More!) [Video]. YouTube.

https://www.youtube.com/watch?v=7upMQITRIzs&ab\_channel=iFireMonkey

- Jenkins, Henry. (1998). "Voices from the Combat Zone: Game Grrlz Talk Back." in *From Barbie to Mortal Kombat*, ed Justine Cassell and Henry Jenkins.
- Juffer, Jane. (2019). *Don't Use Your Words! Children's Emotions in a Networked World*. New York: New York University Press.
- Kagan, Melissa. (2022). Wandering Games. MIT Press: Cambridge, Massachusetts.
- Kahrl, Andrew. (2023). "Why the Bruce's Beach \$20 million sale isn't a model for reparations." 10 January 2023. *NBC Universal*, Think.
- Kamenetz, Anya. (2018). "Right-Wing Hate Groups Are Recruiting Video Gamers" 5 November 2018. *NPR*, npr.
- Kearney, Michael. (1973). "Review: Temalpakh" American Anthropologist, 75(4).
- Kelly, Makena. (2019). "Epic Games sued over 'predatory' Llama loot boxes." 28 February 2019. *The Verge*, Vox Media.
- Keveny, Bill. (2022). "Weaponized grooming rhetoric is taking a toll on LGBTQ community and child sex abuse survivors." USA Today. Gannett Satellite Information Network, Inc. May 3, 2022.
- Kim, E. J. A., Asghar, A., & Jordan, S. (2017). "A Critical Review of Traditional Ecological Knowledge (TEK) in Science Education." *Canadian Journal of Science, Mathematics and Technology Education*, 17(4), 258–270.

Kimmerer, Robin Wall. (2013). *Braiding Sweetgrass*. Minneapolis, Minnesota: Milkweed Editions.

Koch, Alexander, Chris Brierley, Mark M. Maslin, Simon L. Lewis. (2019). "Earth system impacts of the European arrival and Great Dying in the Americas after 1492." *Quaternary Science Reviews*, Volume 207, 1 March 2019.

Kondo, Dorinne. (2018). *Worldmaking: Race, Performance, and the Work of Creativity.* Durham, NC: Duke University Press.

Kozik, Liz Anna. (2019). "Seeing Plant Literacy Through Skyrim." Liz.kozik.net.

Kukshinov, Eugene and Adrienne Shaw. (2022). "Playing With Privilege: Examining Demographics in Choosing Player-Characters in Video Games." *Psychology of Popular Media*, 11(1), 90–101.

Kyratzis, A. (2004). "Talk and Interaction among Children and the Co-Construction of Peer Groups and Peer Culture." *Annual Review of Anthropology*, 33(1), 625–649.

Lave, Jean and Etinne Wenger. (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge University Press.

Lévi-Strauss, Claude. (1964, 1990). *The Raw and the Cooked*. Chicago: University of Chicago Press.

- Lewis, Juniper. (2022). "Digital Cowboys." 15 September 2022. *Environmental History Now*, Environmental History Now.
- Lin, Brittney. (2022). "Diversity in Gaming Report: An Analysis of Diversity in Video Game Characters" 14 May 2022. *DiamondLobby*.

Louv, Richard. (2005). Last Child in the Woods. Chapel Hill, NC: Algonquin Books of Chapel Hill

- Lyles, Taylor. (2020). "Over half of US kids are playing Roblox, and it's about to host Fortnite-esque virtual parties too." *The Verge*, Vox Media. 21 July 2020.
- MacCormak, Carol P. (1980). "Nature, culture and gender: a critique" in *Nature, Culture, and Gender*. Ed. Carol P. MacCormack and Marilyn Strathern. Cambridge: Cambridge University Press.
- Macklin, Colleen. (2016). "Finding the Queerness in Games." in *Queer Game Studies* edited by Bo Ruberg and Adrienne Shaw. University of Minnesota Press: Minneapolis.
- Malaby, Thomas. (2009). *Making Virtual Worlds: Linden Lab and Second Life*. Ithaca: Cornell University Press.

Malkowski, Jennifer and Treaandrea M. Russworm, editors. (2017). *Gaming representation : race, gender, and sexuality in video games*. Bloomington: Indiana University Press.

Malliet, Stecen and Gust de Mayer. (2005). "The History of the Video Game." in Handbook of

Computer Game Studies. Ed. Joost Raessens and Jeffery Goldstein.

- McIntyer, Isaac. (2021). "Revealed: Mouthwatering millions Ninja made at height of Fortnite fame" *Dexerto*, Dexerto. 13 May 2021.
- Mead, Margaret. (1928). Coming of age in Samoa: a psychological study of primitive youth for western civilization. New York :W. Morrow
- Mendes, Joana and Cristina Queirós. (2022). "It's Crunch Time: Burnout, Job Demands and Job Resources in Game Developers." *Video Game Sciences and Arts*. 46-58.
- Mezzofiore, Gianluca and Sean Lyngaas. (2023). "Images of leaked classified documents were posted to at least two Discord chatrooms." 12 April 2023. *CNN*, Warner Bros.
- Michailidis, Lazaros, Emili Balaguer-Ballester, Xun He. (2018) "Flow and Immersion in Video Games: The Aftermath of a Conceptual Challenge. *Frontiers in Psychology*, 9.
- Michel, Jamal. (2022). "Black game developers: Diversity push is lots of talk, little progress." 31 January 2022. *Washington Post*.
- Mintz, S. (1985.) Sweetness and Power. Penguin Books: London, UK.
- Mitchell, Kerry. (2016). Spirituality & the State: Managing Nature Experience in America's National Parks. New York University Press: New York.
- Moore, Kaitlin. (2022). "Queer Melancholia in the Post-Post-Apocalypse of NieR:Automata" June 7, 2022. *NiCHE*: Network in Canadian History & Environment.
- Nardi, Bonnie. (2010). *My Life as a Night Elf Priest: An Anthropological Account of World of Warcraft*. University of Michigan Press: Ann Arbor.
- National Institute of Justice. (2023) "Public Mass Shootings: Database Amasses Details of a Half Century of U.S. Mass Shootings with Firearms, Generating Psychosocial Histories," February 3, 2022, nij.ojp.gov.
- Nesper, Larry. (2002.) *The Walleye War: the struggle for Ojibwe spearfishing and treaty rights.* Lincoln: University of Nebraska Press
- Nitsche, Michael. (2008). *Video Game Spaces: Image, Play, and Structures in 3D Game Worlds*. MIT Press: Cambridge, Mass.
- Noble, Safiya Umoja. (2018). *Algorithms of Oppression: how search engines reinforce racism*. New York: New York University Press.
- Nodjimbadem, Katie. (2017). "The Lesser-Known History of African-American Cowboys" 13 February 2017. *Smithsonian Magazine*, Smithsonian Magazine.
- Norwood, Rico. (2020). "There's no logging off from race in video games." 12 December 2012. *Techradar*, Future US Inc.
- (2021). "Coding Blackness: A History of Black Video Game Characters." 26 February 2021.

Wired, Condé Nast.

Notis, Ari. (2021). "Horizon Forbidden West's Aloy Will Look Realistic AF On PS5, Peach Fuzz And All." 28 September 2021. *Kotaku*, The A.V. Club.

O'Donnell, Jessica. (2022). *Gamergate and Anti-Feminism in the Digital Age*. Palgrave Macmillan.

- O'Mara, Joanne and Kynan Robinson. (2017). "Mining the Cli-Fi World: Renegotiating the Curriculum Using Minecraft." in *Serious Play: Literacy, Learning and Digital Games*. Ed. Catherine Beavis, Michael Dezuanni, and Joanne O'Mara. New York: Routledge.
- Ortiz, Beverly. (2011). "Katherine Siva Saubel: a Ninetieth Birthday Celebration." *News from Native California*. 24(3).
- Ortner, Sherry B. 1974. "Is female to male as nature is to culture?" *Woman, Culture and Society*. Eds. M. Z. Rosaldo and L. Lamphere (eds), Stanford, CA: Stanford University Press, pp. 68-87.
- Owen. (2015). "New skins! Achievements! Music!" Mojang, Mojang Studios. 27 April 2015.
- Parkin, Simon. (2016). *Death By Video Game: Danger, Pleasure, and Obsession on the Virtual Frontline*. Brooklyn: Melville House.
- Pasquini, Maria. (2023). "Mom Finds Daughter, 11, on Roblox After She Didn't Answer the
  Phone to Tell Her to Defrost Lasagna." *People*, Dotdash Meredith Publishing
  Company. 9 January 2023.
- Patti, Lisa. (2017). "Entering the Picture." in *Gaming Representation: Race, Gender, and* Sexuality in Video Games ed. Jennifer Malkowski and Treaandrea M Russworm.
   Bloomington: Indiana University Press.
- Pearce, Katy E, and Jason Yip, Jin Ha Lee, Jesse Martinez, Travis Windleharth, Arpita Battacharya, and Qisheng Li. (2022). "Families Playing Animal Crossing Together: Coping With Video Games During the COVID-19 Pandemic." in *Games and Culture*. 17:5, 773-794.
- Pellow, David N. (2014.) "Teaching Anti-Racism Through Environmental Justice Studies." in *Teaching Race and Anti-Racism in Contemporary America*. Ed. Kristin Haltinner. New York: Springer.
- Phillips, Amanda. (2014) "(Queer) Algorithmic Ecology: The Great Opening Up of Nature to All Mobs." in Understanding Minecraft. Ed. Nate Garrelts. Jefferson, NC: McFarland & Company Inc.
- Piaget, Jean. (1929). *The Child's Conception of the World*. Redwood Press Limited, Trowbridge & London.

Piaget, Jean and Bärbel Inhelder. (1969). The Psychology of the Child. Basic Books: New York.

- Ritner, Jesse. (2020). "This Land Is "Our Land": Nationalism & Exclusion in Outdoor Recreation." 8 December 2020. *EdgeEffects*, Center for Culture, History, and Environment.
- Rodgers, Jane. (2023). "Joshua Trees." 6 March 2023. *National Park Service*, Joshua Tree National Park.
- Ruberg, Bo and Adrienne Shaw, editors. (2017). *Queer game studies*. Minneapolis, MN: University of Minnesota Press.
- Russworm, TreaAndrea M. (2017) "Towards a Theory of Critical Racial Dystopias" in *Gaming Representation: Race, Gender, and Sexuality in Video Games* ed. Jennifer Malkowski and Treaandrea M Russworm. Bloomington: Indiana University Press.
- Sant, Sam. (2021). "What is the Most Popular Game in Roblox?" *GameRevolution*, Evolve Media. 25 January 2021.
- Scalise, Dan. (2017). "How to Keep Players in Their Flow Channel." *What's in a Game?*, 13 October 2017.
- Schalk, Samantha Dawn. (2018). *Bodyminds reimagined: (dis)ability, race, and gender in Black women's speculative fiction*. Durham: Duke University Press.
- Schechner, Richard. (1985). *Between Theater and Anthropology*. Philadelphia: University of Pennsylvania Press.
- Schwartzman, H. B. (1976). "The Anthropological Study of Children's Play." *Annual Review of Anthropology*, 5, 289–328.
- Shillitoe, Rachael and Anna Strhan (2020) "'Just leave it blank' non religious children and their negotiation of prayer in school." *Religion*, 50:4, 615-635
- Shoshani, Anat and Maya Krauskopf. (2021). "The Fortnite social paradox: The effects of violent-cooperative multi-player video games on children's basic psychological needs and prosocial behavior." in *Computers in Human Behavior*, volume 116.
- Similane, Smangaliso. (2022) "Horizon Forbidden West May Be Gearing To Tell Another Cautionary Tale." 13 January 2022. *GameRant.* GameRant.
- Skibins, Jeffery, Robert Powell, and Jeffery Hallo. (2013). "Charisma and conservation: charismatic megafauna's influence on safari and zoo tourists' pro-conservation behaviors." *Biodivers Conserv* 22:959–982.
- Smith, Graham. (2013). "Interview: No Man's Sky And Procedural Generation." *Rock Paper Shotgun*, Gamer Network Limited.
- Snodgrass, J. (2023). The Avatar Faculty: Ecstatic Transformations in Religion and Video

Games. Berkeley: University of California Press.

- Soderman, Braxton. (2017). "No Time to Dream." in *Gaming Representation: Race, Gender, and Sexuality in Video Games.* ed. Jennifer Malkowski and Treaandrea M Russworm. Bloomington: Indiana University Press.
- Soh, Debra W. and James M. Cantor. (2015). "A Peek Inside a Furry Convention", *Archives of Sexual Behavior*, 44:1–2.
- Spina, Stephanie Urso. (2004). "Power Plays: Video Games' Bad Rap." in *Kinderculture: The Corporate Construction of Childhood*. Ed. Shirly R. Steinberg and Joe L. Kincheloe. Cambridge: Westview Press.
- Squire, Kurt. (2008). "Open-Ended Video Games: A Model for Developing Learning for the Interactive Age." In *The Ecology of Games: Connecting Youth, Games, and Learning*.
   Ed. Katie Salen. MIT Press: Cambridge.
- Steinberg, Ted. (2005). "Lawn and Landscape in World Context, 1945-2000." *OAH Magazine of History*. November 2005.
- Stevens, Reed, Tom Satwicz, and Laurie McCarthy. (2008). "In-Game, In-Room, In-World: Reconnecting Video Game Play to the Rest of Kids' Lives." in *The Ecology of Games: Connecting Youth, Games, and Learning*. Ed. Katie Salen. MIT Press: Cambridge.
- Sundén, Jenny and Malin Sveningsson (2012). *Gender and sexuality in online game cultures: passionate play.* New York: Routledge.
- Tassi, Paul. (2021). "Video Games Are Not A Pandemic Scourge, They're Keeping Both Children And Adults Sane." *Forbes*, Forbes Media, LLC.
- Taussig, Michael. (1980). *The Devil and Commodity Fetishism in South America*. Chapel Hill: University of North Carolina Press.
- (1991). Shamanism, colonialism, and the wild man: a study in terror and healing. Chicago: University of Chicago Press.
- Thomsen, Michael. (2018). "The Universe has been Outsourced." 6 February 2018. *The Outline*, The Outline.
- Toppo, Greg. (2015). *The Game Believes in You: How Digital Play can Make our Kids Smarter*. St. Martin's Press: New York.
- Trayanov, Stoyan. "10 Best-Selling Video Games of All Time." November 24, 2021. USA Today. Gannett Satellite Information Network
- Turner, Victor. (1988). The anthropology of performance. New York: PAJ Publications.
- Tyler, Tom. (2022). *Game: Animals, Video Games, and Humanity*. University of Minnesota Press: Minneapolis.

- Vygotsky, Lev. (1978). *Mind in Society: Development of Higher Psychological Processes*. Compiled and Edited by Vera Jolm-Steiner, Michael Cole, Ellen Souberman and Sylvia Scribner. Cambridge: Harvard University Press.
- Wallin, Jason. (2022). "Game Preserves: Digital Animals at the Brink of the Post-Anthropocene." in *Green Letters*. 26:1, 102-115.
- Watt, Laura. (2011). "Reimagining Joshua Tree: Applying Environmental History to National Park Interpretation" in *Journal of the West*. 50(3):15.
- Webster, Andrew. (2017). "The Legend of Zelda: Breath of the Wild's map is based on Kyoto." in *The Verge*, Vox Media, LLC. 6 March 2017.
- Weststar, Johanna. (2021). "Developer Satisfaction Survey Summary Report 2021." International Game Developers Association, IGDA.
- Winter, Jason. (2018). "The First Use Of "Battle Royale" Was Nearly 350 Years Ago, And It Didn't Involve Who You'd Expect" *MMOBOMB*, Digiwalls Media.
- Wolak, Janis, Mitchell, Kimberly and Finkelhor, David (2007) "Does Online Harassment Constitute Bullying? An Exploration of Online Harassment by Known Peers and Online-Only Contacts", *Journal of Adolescent Health*, 41, pp. S51–S58
- Wolf, Michael. (2020). "The Misogyny at the Core of our Hobby." *Stargazer's World*. Stargazer's World.
- Zacareli, Murilo Alves. (2021) "On Ojibwe Lands, Protecting Water and Life from the Line 3 Pipeline." 6 April 2021. *Edge Effects*. Center for Culture, History, and Environment.
- Zaman, Hazel (Bobbi) Ali (2023), "Furry acts as non/human drag: A case study exploring queer of colour liveability through the fursona," *Queer Studies in Media & Popular Culture*, Special Issue: 'Posthuman Drag', 8:1, pp. 99–114.