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UNIVERSITY OF CALIFORNIA,
IRVINE

Fractured Imaginaries: an Ethnography of Game Design

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Anthropology

by

Morgan Lynn Romine

Dissertation Committee:
Professor Tom Boellstorff, Chair
Associate Professor Keith Murphy
Professor Bonnie Nardi

2016

DEDICATION

To Oscar and Joe

for being everything good.

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GLOSSARY

AAA games: a categorization intended to describe video games that meet the highest standard for graphics, production quality, and technological requirements. They are often identified by the amount of money spent in development, and during the period of this research, games that cost more than \$20 million to make were usually considered AAA games.

beta test: a software development phase immediately proceeding a product's commercial launch, during which testers, often public volunteers, use the software and provide feedback about their experience.

blue-sky (v): a design term used to describe an active process of imagining by developers discussing the future forms of a design in broad-scope, fantastical details, often times to an unrealistic, untenable extent.

BlueSky Games: a fictional name for the real, independent AAA game design studio based in Orange County, CA, where this ethnographic study was conducted.

DreamShooter: a fictional name for the real, open-world shooter game that was made by BlueSky Games from 2006 to 2014, and was the central product being designed by the developers at the core of this ethnography.

FPS: "first person shooter," a genre of game defined by a central gameplay dynamic involving guns, and the camera set at the player's perspective.

Free-to-Play: a monetization strategy within games in which they are free for anyone to download and play, but make money by selling individual items in the game.

gameplay: specifically refers to the systems in a game through which a player is presented with a challenge, puzzle, or goal, and given various abilities, options, or paths to accomplish that goal.

Gameplay is usually the primary focus of game designers.

game designer: a professional specialization within game development that involves conceptualizing and orchestrating gameplay and overall game experiences. Designers are typically the most concerned among developers about how players will experience the game as a whole, instead of as independent systemic parts.

game developer: anyone who works directly on the development of a game product; can include designers, artists, programmers, engineers, etc.

gamer: a cultural designation for someone who identifies with playing video games as a lifestyle, and imagines themselves as part of a community of other gamers.

MMO: “massively multiplayer online”; most often used as part of “MMORPG” to classify some of the most popular online games in history, like EverQuest and World of Warcraft, that changed the game industry landscape in the 2000s.

open-world game: a broad, inclusive term referring to an expansive, “massively multiplayer online” game world that allow free-roaming exploration by players. These come in many forms and would describe the virtual worlds similar to those found in MMO’s like World of Warcraft, non-linear/sandbox games like in the Grand Theft Auto series, RPGs like Skyrim, and virtual worlds like Second Life.

PVE: “player-vs-environment”; a type of gameplay in the player’s goals involve defeating objectives in the environment, or beating the world’s creatures.

PVP: ‘player-vs-player,’ used in contrast to PVE, refers to the competitive game modes in most online games in which players compete directly against other players, or other Player Characters, rather than competing with, or battling against, Non-Player Characters (NPCs), which are run by the game’s AI (Artificial Intelligence) systems.

player: describes the subject position of a person engaging with a game for playful purpose.

RPG: “role-playing game,” describes a genre of game in which the players can choose from a number of different kinds of characters at the beginning of the game, and then play those characters along certain narrative progression threads to accomplish gameplay goals.

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Despite the sense that writing a dissertation can sometimes feel like a solo project, it is in fact the product of a vast team of collaborators. I must start by thanking my committee, whose guidance, patience, and encouragement were crucial to the completion of this project. Tom Boellstorff, my committee chair, deserves credit for what appeared to be a supernatural capacity for patience and generosity. He regularly inspired me to think broadly about how my contemporary field might resonate with the historical themes of our discipline. He also worked patient magic in helping me to break through the challenges of finally putting words onto pages. Keith Murphy lent me some wonderful theoretical and methodological tools for recording and examining the details of every-day storytelling. He has significantly influenced my academic notions about design, transcription, and Keynote. Bonnie Nardi was not only an important guide in studying important junctures between anthropology and games, but provided sage advice about how to balance my life and research while on this long quest of graduate study. Paul Dourish was the first to truly welcome me into the rich worlds of STS and HCI scholarship, and did so through the valuable perspective of someone who had also come from industry. Mimi Ito provided me with an early, personal model for how an anthropologist might approach the topics of her own personal fandom, and was the one who suggested I look seriously at UC Irvine's Anthropology program. I also must thank John Sommerhauser and Norma Miranda for their crucial assistance at numerous points along the way.

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ABSTRACT OF THE DISSERTATION

Fractured Imaginaries: an Ethnography of Game Design

By

Morgan Lynn Romine

Doctor of Philosophy in Anthropology

University of California, Irvine, 2016

Professor Tom Boellstorff, Chair

This dissertation is an ethnographic exploration of how the everyday practices of video game development are shaped by the ways in which game developers socially imagine themselves, their game, and their prospective players. Drawing on two years of ethnographic fieldwork in a Southern Californian game development studio among the makers of a high-budget, online shooter game, I investigate how game design practices emerge from a particularly situated studio environment and the shared imagining of their future game. As cultural and industry terrains inevitably shift over time, design practices reflect the changing, sometimes conflicting, cultural narratives. The imaginings of future players, player agencies, game systems, and development colleagues are all shaped by, and help to reproduce, the narratives that describe how developer and player subjectivities are embedded within the confluences of the design studio, the translocal influences of game industry and gamer culture, and the technosocial assemblages of online games.

Starting with an outline of the historical context of this one studio, team, and game, I investigate the game studio as both a financial entity and culturally idealized creative space. An ethnographic portrait of the studio's physical and digital exposes the enactment of certain organizational values through spatial arrangements. The particularities of design practice are seen to emerge from a professional-social environment that requires the persistent interpretation of disparate professional visions and narratives across a large development team. Game designers are seen to co-construct shared imaginings of design

ideas, development tasks, and potential player experiences through an exchange of narratives that leverage the team's cultural touchstones. These recursive patterns of social imagining are highlighted by game designers' deep sense of personally affiliation with the same gamer cultural groups as their anticipated players. As a form of technology production, game design provides an enlightening example of how a group of developers must pull together a multitude of different imaginings into conjunction with complex, technological systems to create—or *attempt* to create—a new, coherent, technosocial product.

INTRODUCTION

Imagined Players and Design Empathy

“Empathy... it’s the most important thing. Game designers have to be able to see and feel their games through other people’s perspectives” (Ryan, game designer at BlueSky Games).

In a non-descript office building in California’s Orange County, hidden away behind several unmarked and locked doors, a tribe of technological craftsmen was working hard to create a world of dreams. It was not intended that this space be found by the uninitiated. Like most game design studios and many small technology companies, BlueSky Games ran a private development operation, partly to protect their intellectual property, and partly because this secrecy was a standard element of the game industry’s creative mystique¹. The creators of DreamShooter were developing unique technologies and innovating a new game of epic proportions with a team that represented some of the best in the industry. Creating wondrous, new, fantasylands seemed to warrant their institutionalized shroud of secrecy.

But then, inspired by an evolution in the relationship between makers and game, there was a shift in this philosophy at BlueSky Games. They were determined to change the industry, and with the growing trend of direct interactions between developers and players, and the increasing demand for creator transparency, BlueSky adopted the role of Player’s Champion among game companies. As beta tests, paid previews, social media, and direct engagement with players at gaming conventions started to become the norm, BlueSky Games recognized the value of the player-as-contributor, embraced the spirit of what they called “community-driven design,” and for the first time, started inviting players to see behind the scenes of their creative process.

¹ Both BlueSky Games and DreamShooter are fictional names substituted here to protect the privacy and property rights of those individual stakeholders from a real game design studio and real online game.

The early 2000s brought about an explosion in the popularity of online video games. The increasing speeds of home internet connections enabled the early popularity of multiplayer games like DOOM and CounterStrike, as well as the early massively multiplayer online games (MMOGs) like Ultima Online and EverQuest. These online games were much more than a sequence of linear game levels. They were whole, virtual worlds made up of many large zones that could be occupied by hundreds of player characters at a time. The game industry's talents pushed the capabilities of personal home computing technologies, priming the gaming landscape for the record-shattering success of Blizzard's World of Warcraft, which launched in 2004. By 2008, Blizzard reported having more than 11.5 million subscribing World of Warcraft players from around the globe (Cavalli 2008). To put this in perspective, World of Warcraft's 2008 population was larger than the national populations of countries like Greece, Cuba, Sweden, and Rwanda. The popularity and cultural reach of online games continued to grow and proliferate in the years that followed, bolstering an industry that made more money than Hollywood's film industry, and a pastime that, for some, became emblematic of a cultural affiliation. Where few people identified themselves by the books they read as readers, or the films they watched as watchers. But within these millions of daily game-players, there grew a vibrant community of gamers.

In 2011, I was offered both a job and an opportunity to do research on the development of DreamShooter. They invited me to join the BlueSky "Tribe", and allowed me to study them and their development practices in my full capacity as ethnographer engaging in true participant observation. They gave me this unprecedented opportunity to explore and write about their inner workings because they were willing to share for the sake of their anticipated legacy as a new wave of social innovation. This research consists of a rare look at how the production of video game technology—a genre of software that is engaged by millions of people around the world every day—is locally situated within an technocultural assemblage of historical, technological, and social factors that are all linked to larger-scale trends. Through this study, we get a sense of how the design processes that create our favorite technologies are intimately shaped by the ways in which people (both designers and users) *socially imagine* their technologies, and themselves, during each stage of development and play. In the particular case of

DreamShooter, we will trace how the ways in which the game is first imagined changes as the cultural landscape around it changes, greatly influencing the features and form of the final game as a designed product.

Design Perspectives

Among the designers behind the game DreamShooter, there were many well-argued points about what particular skills and game design values defined the best game designers. But as noted by the opening quote, player empathy—the skill of being able to understand and anticipate the actions of players within the game being created—was one of the most consistently mentioned beneficial qualities. Take the example of the DreamShooter designer faced with the seemingly simple task of designing the “scan hammer,” an item that every player character would use to scan their immediate virtual area for mineral resources. Resource mining and crafting were intended to be fundamental systems in DreamShooter’s open-world environment. It was imagined that players would explore DreamShooter’s open-world zones, locate rich veins of mineral resources using their scan hammers, mine those resources (which was itself a gameplay system called “thumping” that formed a large percentage of DreamShooter’s open-world gameplay), then take those resources back to the nearest town to refine them into usable components. They could then use these components to assemble special items, like weapons, gadgets, “battleframe” components (“battleframes” were DreamShooter’s trademarked version of mechanical suits that gave each character flight power and combat abilities). Players could then take their newly crafted or enhanced equipment back out into the open-world for more exploration, or head into “PvP” (player-vs-player) competitive matches and enjoy the advantages offered by their new gear.

“Resource Gathering” (in which players search the virtual world for certain kinds of resources) and “Crafting” (in which players make things out of their gathered resources) were central to the original “DreamShooter Vision,” and the mechanics within these world-spanning, interconnected, abstracted systems were complex and required extensive design work. Several game designers who have written about the philosophies and values of “good” game design are discussed as emerging from a process of

asking particular kinds of “the right” questions (Koster 2004; Salen and Zimmerman 2003; Schell 2014). The idea of the scan hammer came from just one of thousands of such design questions asked during the course of DreamShooter’s development: “How, precisely, will a player find resources in the open world?” This was a processual question, shaping one of the main steps a player would go through when playing with the resource gathering system. A plethora of other questions, across several artistic and technical disciplines, emerged to address this one. How would the player acquire this tool? What would it look like? How would players initiate using the hammer? How long might it take for this command to ping the database? How would players know when they had found resources? What algorithms could be used to redistribute mineral veins around the world map? Would the tool take up an inventory slot? How should it be animated? What would it “feel” like to use this instrument? How might we make the wielding it a fun and enjoyable experience? Could we charge players money for a cooler scan hammer?

Addressing design questions like these requires a designer to imagine many different player perspectives. Jesse Schell used this premise as the foundation for his book *The Art of Game Design*: “Good game design happens when you view your game from as many perspectives as possible. I refer to these perspectives as lenses, because each one is a way of viewing your design. The lenses are a small set of questions you should ask yourself about a design “ (2014:xI). I saw game designers engaging in this practice every day during my fieldwork with BlueSky Games. A designer’s empathy with imagined players flowed recursively between questions about potential uses and imagined perspectives (Kouprie and Visser 2009; Mattelmäki and Battarbee 2002; Wright and McCarthy 2008). Design questions were answered and addressed through an analysis of the game through the “eyes” of differently imagined players, and designers would often occupy those perspectives just to find the right questions to ask. They had to empathize with the imagined player using the tool for the first time, imagine what they would expect from the scan hammer if they had no prior experience with it. They had to empathize with the imagined player looking for a specific, rare mineral, all over the map, for hours. They had to empathize with the imaged player who might spend real money on a boost that would temporarily improve the effectiveness of their scans. They had to empathize with the imagined player as a fan of science fiction

who might be delighted by certain sci-fi effects. The designers had to empathize with the player as software user who would be frustrated by extended lag or who would exploit obvious glitches. They had to empathize with the players who had played with similar resource gathering game systems and had expectations about how it should work. Just as crucially, they had to empathize with those who had never played any resource gathering games before and had no basis for reference. The scan hammer and all the details of its existence—how it was crafted and called down, how it looked in an avatar’s hands, the sound it made when it struck the ground, the rippling topographical report it generated—were some answers to the many questions informed by these many-layered and importantly imagined player subjectivities.

Throughout the development process, game designers dream up features and environments that they imagine the players will enjoy, and then chase this imagined sense of enjoyment through a complex mangle of narratives shared between colleagues, the cobbling together of technical parts, and iterative reassessments of the design (Csikszentmihalyi 1992; Pickering 1995; Steinkuehler 2006). They attempt to craft gameplay conditions that will provide the users of this technology—the players—with meaningful play experiences. But play, in its essence, is a beautifully messy, emergent thing (Boellstorff 2008; Nardi 2010; Pearce 2009; Taylor 2006b). A game can provide the structure of rules and technological boundaries, and provide the infrastructure for interactions and guidance for enjoyment. As practice, play is constituted by an experimental exploration of possible actions and outcomes (Koster 2004; Salen and Zimmerman 2003). Game designers are tasked with creating systems that enable players to find the fun, which means that the designed systems must account for what the players *might* do, and how those contingencies will shape their experiences. Game designers must be able to embody this spirit of play not just from their own, personal player subjectivities, but from the *anticipated* subjectivity of an imagined player engaging with a particularly located system in particularly motivated ways.

The process of communicating the ideas and imaginings stemming from that operationalized form of designer empathy was just as important to the development process as the ideas themselves. Some might argue that the ability to effectively communicate ideas and persuade others to embrace them was an

even more important skill set than the ideas themselves. Outside of the direct manipulation of physical or digital materials by an individual designer, observable design processes frequently involved persistent and ongoing negotiations between designers about their ideas. These negotiations were multimodal, and transmodal, moving between moments and different media, and often taking the form of narratives that based upon or contribute to the imagining of some future user (Murphy 2011, 2012, 2015). There were several cultural forms and social practices within the design studio that served to communicate ideas between collaborating developers, but narratives about the imagined subjectivities of potential players engaging with a theoretical technology was one of the primary ways they would approach design questions (Balsamo 2011; Murphy 2004, 2011). Stories of past player experiences, stories of past professional development experiences, empathetic stories of anticipated player experiences, fraught stories of anticipated development challenges, were all active manifestations of the imaginaries that contributed to the shared, collaborative imaginary from which DreamShooter emerged.

Playing games involves exploring opportunities for playful agency within the structure of the rules and game space. Subjectivities are a matter of exploring personal agencies within the world's cultural groups and spaces (Bruner 1997; Giddens 1979; Kockleman 2007). Designing video games is about creating the systems and parameters through which players can explore certain options, certain agencies, for the purpose of enjoyment which can come in many forms, depending on the player. To do this, designers must be able to imagine the perspective of the player. They must be able to imagine seeing, hearing, and interacting with a game the way that a player would. Designers are constantly called upon to put themselves in the subject position of the player, to anticipate what might be fun, to anticipate what might be worth buying, to anticipate the optimal technical experience, to anticipate the potential fulfillment of dreams. As most game designers are avid gamers themselves, they will often use their own lens of player preference, shifting simply into a mode of interpretation based on their own perspectives as players to assess their design work. But designers do not have the luxury of assuming that all players will play the way that they do. In fact, it is commonly agreed upon by game designers that players will definitely not play the same way a designer would, that they will inevitably find new, unintended agencies

to explore with the structure of a game.

The subjectivities of players, as imagined by game designers, are influenced by a complex assemblage of factors: the designer's own values as a player and often as a gamer; the company's own cultivated culture and practices; the requirement that the game be profitable; the flood of player feedback; and the complex technological materiality of video game software and development tools. The Player, so differently imagined by game designers throughout the game design process, can significantly influence the final shape of a game through the narratives used to describe them. The more complex the game being designed, the more ways there are for the multitude of imagined player modes to gain traction within the daily practices behind the making of the game. Within the framework of this project, I explore the many modes of the player as imagined by game developers. The player as fun seeker. Player as competitor. Player as consumer. Player as psychological subject. Player as co-designer. Player as social agent. Player as cultural Gamer. Player as datapoint. Player as technology user.

This dissertation explores the social imaginaries of design, particularly in relation to the locally and translocally situated design practices of video game developers. Drawing on two years of ethnographic fieldwork among the makers of DreamShooter at BlueSky Games, I investigate their daily game design practices as manifestations of the ways designers imagine and empathize with the many variants of the hypothetical player throughout the design process. Game development requires designers to imagine not just one kind of player, but hundreds of different kinds of players. The particular forms of these imaginings emerge from the local technosocial assemblage of the design studio – including the physical, spatial, and digital “materials” of their office and technologies, as well as the interpersonal relationships between colleagues – which are influenced by the translocal cultural flows of the game industry and gaming communities. This operationalized form of empathy is situated and culturally informed. I approach an analysis of situated game design practice through the theoretical lenses of social imaginaries, subjectivity, agency, situated action, sociomaterial assemblage, design, and technology production. Starting with an outline of the overlapping historical contexts of BlueSky Games, I investigate the precarious simultaneity of a game studio as both a financial entity embedded within a

global industry, and as a culturally idealized creative space. An ethnographic portrait of the studio's local spaces, including its virtual work spaces, not only locates the designers in a dynamic sociomaterial assemblage, but begins to expose the enactment of certain organizational values. The messy particularities of design practice emerge from an organizational environment that requires the persistent interpretation of disparate professional priorities across a large development team.

Game designers cobble together a shared understanding of their design ideas, tasks, and potential player experiences based on an evolving body of analogical references to, and narratives about, other games (Cross 2006; Murphy, Ivarsson, and Lymer 2012). These help game designers to engage practically with the slippery, subjective quality of fun in gameplay. All of these social, historical, and technological factors influence the contextual motivators and priorities of game designers, and deeply shape the essential practice of addressing design questions through empathy with imagined players. By unpacking the particular ways in which these design practices are locally situated, this project contributes to an ongoing conversation about how local socio-material contexts shape the way designers imagine users, and meaningfully influence the production of technology.

But the heart of this work beats in the questions about social imaginaries, and how the technologies we design are shaped by, and recursively shape, the ways in which we imagine our world, our experiences, and the people we share these with. Game design has proven to be a particularly vibrant site of study for this kind of exploration of social imaginary and technology production because of how games are, at their essence, a technological medium for the players' enjoyable, fantastical imaginings. They inspire a level of engagement that some players claim as a definition of lifestyle, making their imaginings of game technologies especially personal. Game developers typically come from that lineage of lifestyle engagement, having identified as gamers for many years before embarking on their game industry careers. Players and developers both love their games, and often become emotionally invested in the ways they imagine their games should be. In the specific case of DreamShooter's development, we will follow the thread of how the early narratives about the game, which communicated how the game was imagined, initialized the formation of a studio and the assembly of an all-star development team.

Then, over the prolonged, eight-year development saga, how those narratives and their related imaginings shifted, changed, and fractured when subjected to the extended pressures of changing industry demands and player expectations. We will come to see how a game that was first championed as an industry-changing, competitive game full of battles between armies ultimately, instead, saw its competitive modes shuttered and the gameplay goals refocused on exploratory and character progression quests, much like the most popular open world games that had come before.

The theoretical framework for this analysis exists at the intersection of three main bodies of literature: 1) social imaginaries; 2) design as situated within technosocial assemblages; and 3) subjectivity and agency. The following is a brief summary of these contributing theories.

Social Imaginaries

Subjectivity and agency, as significant concepts for the interpretation of situated action, are both dependent upon formulations of imagining on multiple scales. Any individual occupying a particular subjectivity or subject position engages their agency not only by taking specific action, but by choosing that specific action and not choosing others. To exercise agency an individual must be able to imagine a spectrum of possible actions, including many of those that they might deem undesirable, taboo, immoral, wrong, or fanciful. Much like in any game, play is only possible when there are multiple possible actions that can be imagined or anticipated by the player. There can be no play without the imaginable alternatives in a field of contingencies. This field of contingencies and possible actions, however, is shaped by social imaginaries, which “is not a set of ‘ideas’; rather it is what enables, through making sense of, the practices of a society” (Taylor 2004:2). Groups come to imagine things together, in particularly situated ways, through discourse, practice, and interaction with the world. As Appadurai notes in relation to the emergence of global technologies, “more people throughout the world see their lives through the prisms of the possible lives offered by mass media in all their forms. That is, fantasy is now a social practice; it enters, in a host of ways, into the fabrication of social lives for many people in many societies” (Appadurai 1996:54). Social imaginaries, on a group scale, shape how individuals

imagine their potential agencies within any given situation. These emergent, shared systems for making meaning shape how individuals imagine themselves in their world, informing which actions are imagined to be moral or immoral, possible or impossible, legitimate or illegitimate, and everything else in between.

As a conceptual tool for analyzing cultural patterns, the social imaginary has been used in the study of certain large-scale shifts in terms of new imaginative capacity. Large-scale cultural shifts happen when cultural groups become capable of imagining themselves, their relationships, and their spaces in new or different ways. Benedict Anderson's study of *Imagined Communities*, for example, traces the historical and political emergence of the social capacity for imagining a nation and nationality as enabled by new mass media technologies (Anderson 1983). Building from Anderson's work around imagined communities, Charles Taylor framed the emergence of Western modernity through a shift in historical contexts that facilitated new imaginative capacities for self-understanding in the West (Taylor 2004:2). More generally, he outlined the conceptual framework of a social imaginary as

that common understanding that makes possible common practices and a widely shared sense of legitimacy... I speak of imaginary because I'm talking about the way ordinary people 'imagine' their social surroundings, and this is often not expressed in theoretical terms; it is carried in images, stories, and legends (Taylor 2004:330).

Taylor's formulation begins the work of connecting imaginative capacities across social scales, linking large-scale social imaginaries to the imaginings or fantasies of individual actors. The specific processes that perpetuate and reform social imaginaries happen on individual and group scales. In tracing the shape of the particular social imaginaries that are in play within game development, it was equally important to study how they were socially constructed by the imaginative work, enactments, and interactions of individuals. The participant observation of ethnographic method within the local field site helped me to keep sight of the individuals doing the daily work of culture building when considering broader cultural processes (Strauss 2006).

Imagining takes place actively on an individual level, but is necessarily informed, shaped, and reproduced by social interaction and discourse. Individuals pull knowledge, ideas, and codes of meaning from the social imaginary to craft their own interpretive fantasies. Imagining, as individual process, can

be partly understood through psychological notions of fantasy. Lacan's definition of the imaginary was predicated upon a fantasy of self, 'the imaginary relation' as 'that between the ego and its images' based on his conceptualization of a child looking into a mirror and seeing himself (Lacan and Fink 2006:95). Where I do not subscribe to the particulars of Lacan's theory that suggests all people from all parts of the world come to imagine themselves through the exact same cognitive process, I do borrow his notion of the imaginary as centering on the perspective of each individual. I would argue that their capacity for imagining themselves in the world and in certain kinds of situations is socially shaped and constituted, rather than being entirely generated within the individual. We imagine ourselves in the world, as informed by the world, and imagine others in relation to ourselves, described using the terms of the world that we understand ourselves within.

Narrative is one of the key manifestations of an individual's imaginings that connect them to the socially shared imaginaries. Narrative is a form of social persuasion, by which someone provides others with an opportunity to understand the world in new ways, or to instruct and affirm an already-familiar world-view (Bruner 1991; Mattingly and Garro 2000; Mattingly 1998; Ochs and Taylor 1995). Narrative is also a crucial tool that we use to understand and constitute our selves as agents in the world, and learn how to embody our the many subject positions of our lifetimes (Bruner 1997, 2015; Ochs and Capps 1996). Beyond the storybook narratives that enliven player experience within many game worlds, an important topic of games scholarship (Aarseth 2001; Frasca 2003, 2007; Galloway 2006; Ip 2010), the narratives about the game as experienced by developers and players shape a great deal of the game design process. Many of the practices of design, particularly those involving collaboration between designers, involve narratives about hypothetical worlds and anticipated experience, through which designers "afford resolution to problems, clarify confusing design elements, and help further the progress of the design" (Murphy 2011:243). Design narratives provide necessary space where the shared imagining about a product, even a product as vast and difficult to comprehend in full detail as an online game, can be negotiated, unpacked, reconstituted, and reified.

In an analysis of technology production, Anne Balsamo developed a particularly appropriate concept of the “technocultural imagination,” which she used to discuss how the imaginative processes behind the development of technology help to reproduce cultural understandings (Balsamo 2011). She explained that the technocultural imagination:

is a mindset that enables people to think with technology, to transform what is known into what is possible. This imagination is performative: it improvises within constraints to create something new. It is through the exercise of their technological imagination that people engage the materiality of the world, creating the conditions for future world-making (Balsamo 2011:6).

I hope to build on this idea by applying a similar framework of technologically-mediated social imaginaries to the study of video game development practice, and to take seriously her assertion that the cultivation of the technological imagination could be a cultural imperative.

The recursive enactment of social imaginaries through local-scale practice has been outlined by several social science researchers over the last few decades, many of whom were also investigating situated action in relation to technologies and productive organizations (Kelty 2005, 2008; Murphy 2004; Traweek 1988). On the level of local practice and interactions between individuals in small, working groups, it becomes possible to observe “imagination as a product of, and resource for, social action” (Murphy 2004:1). The technology and non-human actors of an online game contribute to a recursive system of cultural reproduction in which a “group imagines in common the means of their own association, the material forms this imagination takes, and what place it has in the contemporary development of” that game (Kelty 2005:186). Within this project, I have attempted to describe how a socially constructed capacity for imagining the scope and potential of online communities and gaming worlds has contributed to a unique kind of social imaginary, which itself has enabled many of the particular practices, meaning-making, and subjectivities observed in both gaming and design spaces.

Subjectivity and Agency

One of the original goals of this research was to outline the interrelations between player and

designer subjectivities, and how they emerge from the gameplay-affording virtual spaces of online games. My analysis has been oriented towards a theory of subjectivity as it pertains to the thoughts, feelings, and motivations of individual players and designers, but always as situated within and emerging from a larger cultural context. During my fieldwork, I paid special attention to the ways in which designer subjectivities might have been re-encoded through game design, and how player subjectivities might have been shaped by gameplay. A great many social scientists have contributed to the theoretical backbone of subjectivity theory, and I have made an attempt here to focus on the most directly relevant scholarship.

The notion of subjectivity that most informed my research was developed through anthropological questions about the embeddedness of individuals within cultural groups and systems (Geertz 1972; Webb Keane 2003; Latour and Lepinay 2009; Latour 2007; Ortner 2006). Theory about subjectivity in this context was shaped by psychology-based inquiries about the unobservable internal thoughts and feelings of the individual, and the anthropological questions about observable social patterns of the community. Anthropologist Sherry Ortner undertook a fleshing out of subjectivity that I found particularly useful, and she notes that her own approach was informed by two disciplinary frames: “At times I will address subjectivity in the more psychological sense, in terms of the inner feelings, desires, anxieties, and intentions of individuals; at other times I will focus on large-scale cultural formations” (Ortner 2006:37). Ortner’s analytical oscillation between these two conceptual scales—that of the individual and that of the local social group—reflects a theme that became important to my analysis as well. This toggling of inquiry between what is happening in the mind of the individual and what is happening in the social space of the group comes up while thinking about where and how imaginings emerge, and when analyzing how cultural expressions like narrative become the tools for expressing and building collaborative design imaginaries (Murphy 2004, 2011). Ortner explains in more detail how both psychological and sociological concepts are helpful in thinking about subjectivity:

By subjectivity I mean the ensemble of modes of perception, affect, thought, desire, and fear that animate acting subjects. But I always mean as well the cultural and social formations that shape, organize, and provoke those modes of affect, thought, and so on. [...] Subjectivity [is] the view of the subject as

existentially complex, a being who feels and thinks and reflects, who makes and seeks meaning. [...] By subjectivity I will always mean a specifically cultural and historical consciousness (Ortner 2006:37). One of the aims of this research was to identify how subjectivities are shaped by the ways in which an individual imagines themselves and the world around them. These imaginings are constructed both through the conceptions of individuals as well as through influences of a culturally, historically, and materially specific situation.

Another set of theories about subjectivity as inherent to particularly located assemblages can be found in Bruno Latour's work in which he asserts that subjectivity does not exist as an individual's separate and unique sensibility:

So every assemblage that pays the price of its existence in the hard currency of recruiting and extending is, or rather, has subjectivity. This is true of a body, of an institution, even of some historical event which he also refers to as an organism. Subjectivity is not a property of human souls but of the gathering itself (Latour 2005:218).

Latour is among a wide breadth of social scientists who have thought about subjectivity as not possible in a social vacuum. Subjectivities are enabled by relationships, emerging from and being located within an assemblage of actors, relations, institutions, and imaginaries (Latour 2007; Suchman 2007b). Latour further explores subjectivity through Gabriel Tarde's theory of economic anthropology as something constantly fluctuating and moving along a path through individuals, outlining a practical mode by which subjectivities are fluidly shared through social interrelations (Latour and Lepinay 2009). According to Tarde, subjectivities do not pass through an abstract network of relations before being adopted by each individual. The individuals themselves are the nodes through which desires, beliefs, and meanings are passed (2009:6). As these are passed through, I would add that the individual's capacity for imagining, and the content of what they imagine, necessarily shapes how these desires, beliefs, and meanings are absorbed, adopted, and translated as they are carried through.

Clifford Geertz was one of the early contributors to anthropological theories of subjectivity, and his article *Deep Play: Notes on the Balinese Cockfight* is a particularly rich resource for thinking not only about situated subjectivities, but also of the role of games and play as parts of a local group's meaning

making (Geertz 1972). He explores the gambling play practice of cockfighting in Bali as an example of culture as a public system of symbols and meanings, texts and practices, that both represent a world and shape subjects. He argues that cockfighting does not simply represent how the Balinese think and feel about the issues like pride, manhood, community, loyalty, and prestige, the sport helps to shape those thoughts and feelings. “Art forms generate and regenerate the very subjectivity they pretend only to display. Quartets, still-lives, and cockfights are not merely reflections of a preexisting sensibility analogically represented; they are positive agents in the creation and maintenance of such a sensibility” (Geertz 1972:28). This lends some especially useful conceptual tools for the analysis of Gamers and the cultural values that pervade both online gaming spaces and the studios where those games are made. By applying these concepts to game development itself, we can start to trace how certain cultural values are shared and reproduced by people making games, by people playing those games, and by those players providing feedback that is then incorporated back into the game design process.

Agency provides another valuable conceptual angle for thinking about issues of subjectivity because of how agency and subjectivity are interrelated. Sherry Ortner provides a good framing for the relationship between subjectivity and agency: “... I see subjectivity as the basis of “agency,” a necessary part of understanding how people (try to) act on the world even as they are acted upon. Agency is not some natural or originary will; it takes shape as specific desires and intentions within a matrix of subjectivity—of (culturally constituted) feelings, thoughts, and meanings” (Ortner 2006:loc:1514). Subjectivity shapes the field of possible agencies that an individual perceives as ways to interpret or act within their sociomaterial worlds. Agency, as a concept, helps us to address questions about a range of possible, potentially observable actions and behaviors. Like Ortner, I see subjectivity as a situationally shaped spectrum of perspectives and beliefs that provides the groundwork for how an actor might act. Potential agencies change as subjectivities do.

Agency becomes an especially interesting concept in the context of game studies, where formal game systems are, at their core, structures that players exercise agency within. The structure of the game systems enforce certain rules and provide certain opportunities, guiding the players towards a particular

set of actions, but for the sake of gameplay, usually not requiring a particular action. Without the agentic contingencies allowed or enabled by a game structure, there is no opportunity for play (Csikszentmihalyi 1992; Koster 2004; Malaby 2006; Pearce 2006; Salen and Zimmerman 2003; Schell 2014).. Social science theories about agency and structure, noted particularly in the work of Anthony Giddens, offer a conceptual approach to agency and situated action within the technology and rule structures of an online game world (Giddens 1979). Giddens summarizes “regularised acts as situated practices, and shall regard this concept as expressing a major mode of connection between action theory and structural analysis” (65). He speaks to a recursively reproductive interdependence between the structure of a social system as constituted by rules, and social interactions as constituted by agentic actions:

According to the notion of the duality of structure, rules and resources are drawn upon by actors in the production of interaction, but are thereby also reconstituted through such interaction. Structure is thus the mode in which the relation between moment and totality expresses itself in social reproduction (Giddens 1979:71).

Emergent practices are made possible within the spaces for agency created by social structure and infrastructures. “Something finite allows for something infinite; something fixed allows for something emergent: something normative allows for something transformative of norms” (Kockleman 2007:398). Thomas Malaby touches on this same conceptual matrix through the angle of contingency, identifying that games are “about contriving and calibrating multiple contingencies to produce a mix of predictable and unpredictable outcomes (which are then interpreted). Here is the definition again: A game is a semibounded and socially legitimate domain of contrived contingency that generates interpretable outcomes” (Malaby 2006:105-106).

Throughout this study of technology production, there was a persistent recalling of the agency of the material technology itself. Even where much of the “material” of the game world itself was digital, and the material hardware infrastructures making those virtual world possible were submerged beneath the level of conscious engagement for most inhabitants of the BlueSky development workspace, all parts of the technology had the potential for material agency (Latour 2007; Murphy 2012; Suchman 2007b). The subjectivities of developers were significantly shaped by their relationships with these material

technological elements, all expressing their own agencies. All technological components, including those being used as tools, those being used as infrastructure, and those being actively designed, shaped the experiences of the developers in ways that influenced how they imagined the anticipated game product.

Giddens specifically cautions against using the analogy of formalized rules from games like chess to understand the rules that provide structure for social interaction, because formalized game rules are usually inflexible, where social rules are contested, malleable, and reinterpreted (65). But in the context of online game worlds, formalized game rules are enacted through software code that is, in most case, inflexible to direct player input, except in the cases of cheating and exploits (Consalvo 2007; Crogan and Kennedy 2008; J. Kucklich 2009; Squire 2006). These rules are situated along with the negotiable rules of sociality that Giddens encourages scholars to pay attention to, and all of them provide a continually regenerating structure that; the agencies of involved actors act within and around. These actions reproduce the structure through reinforcement and renegotiation. The relationship between game structure and player potentials for agency is central to the emergence of player sociality in online games, and provides a helpful instrument for thinking about subjectivities.

Situated Design and Technosocial Assemblages

The second main body of theory informing this analysis is found in the conceptual formations of situatedness, situated action, and technosocial assemblages, which I employ to frame an understanding of situated design practice (Haraway 1988; Lave 1996; Suchman 2007b). The ethnographic method facilitates the observation of mundane, everyday details of game development practice as specifically located within a complex cultural context. These concepts help to account for those details as emerging in situ. Situatedness speaks to the social, cultural, historical, and environmental contexts of practice. Lucy Suchman's outline for situated action within technology production have been particularly useful for unpacking observations around video game development because her theories were shaped by her experience as an anthropologist located in field sites where technologies were perceived as central and social engagements are tucked into the margins:

That term [situated action] underscores the view that every course of action depends in essential ways on its material and social circumstances. Rather than attempt to abstract action away from its circumstances and represent it as a rational plan, the approach is to study how people use their circumstances to achieve intelligent action (Suchman 2007:70).

Suchman's work brings social relations and human agency back into focus, contributing a valuable perspective on the technosocial assemblage through her evaluation of the fluid, reiterative processes that produce humans and artifacts.

Additionally, the ethnographic methodology and analytical modes used to examine practice throughout this study were heavily informed by the related notions of “situated practice” (Giddens 1979), “situated action” (Goodwin 2000; Suchman and Trigg 1993; Suchman 2007b), “situated activity” (Goffman 1961; Goodwin 1994; Lave 1988, 1996), “actor-network theory” (Callon and Latour 1981; Callon and Law 2005; Callon 1980; Latour 2007), “activity theory” (Nardi and Harris 2006; Nardi 1996; Star 1999), “situated knowledges” (Haraway 1988; Suchman 2000), and “situated design” (Greenbaum and Kyng 1991). Throughout this analysis, action and agency do not refer to a series of discrete acts combined together, but to a continuous flow of conduct. Using a definition of action as “involving a ‘stream of actual or contemplated causal interventions of corporeal beings in the ongoing process of events-in-the-world’” (Giddens 1979:55), the piece about “contemplated” interventions helps frame action in relation to the social imaginaries of gamers and game developers.

There is a connection between the theoretical frameworks of situatedness and embeddedness, but they are distinct in ways that have caused me to apply them differently to the analyses of certain studio dynamics. Situatedness is helpful in accounting for the nuances of an immediate, local context, and all the factors, structures, and flows that constitute the conditions of that context. It refers to the particular momentary assemblage from which a field of agency might emerge. Embeddedness becomes helpful in thinking about the relationships between interconnected social systems, such as when tracing how global markets are related to local business practice. But for the purposes of thinking subjectivity, and the

conditions of agency that shape both designer and player subjectivities, I lean most heavily on the situated action and activity theory literature.

Online game worlds are technosocial assemblages constituted of numerous elements including software and network technology, design processes, player in-game practices, computer hardware, shared player imaginaries, industry economics, media portrayals, and the non-gaming conditions of players' lives. Throughout this analysis, game design practice is framed as situated within the technosocial assemblage that is game development. Multiple generations of social scientists have engaged variations on the concept of "assemblage," often in the form of social or cultural situations that appear to be more than the sum of their constitutive elements. Notions of assemblage have emerged from a deep lineage of scholarly works approaching questions about the production of knowledge, selfhood and subjectivity at the convergences of material, space, history, practice, art, systems, language, and technology. "Assemblage" itself has roots in philosophy and social science theory from the 1980s, and my usage of the term is also foregrounded by related notions of "network," "embeddedness," "apparatus," and "emergence" (DeLanda 2006; Deleuze and Guattari 1987; Harman 2009; Kallinikos 2004; Latour 1992; Pinch and Bijker 1987). Assemblages seen as specifically "technosocial" have been identified more by scholars in recent decades as technology studies have grown apart from social constructivist theory (Dourish 2010; Ito, Okabe, and Matsuda 2006; Kelty 2008; Mynatt et al. 1997). But conceptual predecessors of cultural assemblages as representing a confluence of social, historical, and material things can be seen in references to "sociomaterial," "sociotechnical," "material-discursive," and "material-semiotic" (Barad 2003; Grint and Woolgar 1997; Haraway 1988; Latour 1992; Suchman 2007b). Donna Haraway's notion of "assemblage" accounts for situations arising at the intersections of technology, history, and the imaginings of fiction (Haraway 1988). Haraway unpacks scientific knowledge as situated productions of complex social assemblages, and I make a related theoretical move while investigating technology and digital media as enacted forms of situated knowledge.

Bringing assemblage-related social science theory back into direct juxtaposition with games, Constance Steinkuehler provides a helpful framing of online game world assemblages in her article *The*

Mangle of Play, inspired by Andrew Pickering's 1995 theory about the "mangle of practice" (Pickering 1995; Steinkuehler 2006). Steinkuehler describes the ever-fluctuating composition of online games and brings into focus how game technology mediates the agency of multiple sets of actors:

They shift and evolve, often in unpredictable directions, seemingly holding still only when the "mangle" of designers' intentions (instantiated in the game's rules), players' goals and agency (instantiated in shared, emergent practices), and broader economic, legal, and cultural issues reach a (temporary) point of stabilization (Steinkuehler 2006:211).

My intention throughout my research is to explore that conversation between player and designer agency through a deeper investigation of how these agencies emerge from imaginaries that are being constantly subjected to the shifting but historically dominant industry system, a permeating atmosphere of gamer cultural values, the sociomaterial space of the game development studio, and the material agencies of the game software.

Methods

This study is based on two years of ethnographic fieldwork conducted within BlueSky Games from September of 2011 through September of 2013. I was a member of that space and social group both as a researcher and employee. My extensive field notes from this lengthy period of participant observation were further supplemented by over thirty interviews with members of the BlueSky development team, audio-recorded meetings, photo documentation of the space and certain practices, and a few video recordings of social working exchanges or meetings. A majority of the interviews were with members of the design team. While BlueSky embraced the philosophy that everyone engaged in game development was also a designer in some form, there was a team of specialists with "Designer" somewhere in their job titles whose professional focus was on game design. In Chapter 3, I discuss the differences between the various professional development specialties and their respective professional visions as represented in the office, but it is important to make the distinction between designers and developers. Designers are specialists within the overarching professional category of game development. All designers are

developers, but many developers are not designers. Designers are the developers who are primarily responsible for conceptualizing gameplay and technical features through a plethora of imagined player perspectives. In fact, I argue that one of the core skills and field of mastery within their discipline is in this elastic capacity for empathy with all kinds of imagined player perspectives. I focused on designers when doing developer interviews to hone in on the particularities of this kind of professionalized empathy, and to trace the framework for empathy as situated.

My ethnographic fieldwork also consisted of participant observation within the virtual game world of DreamShooter, as well as in the player community spaces, such as the official forums, IRC chat room, social media accounts, and the official beta feedback system (Boellstorff et al. 2011; Clifford and Marcus 1986). I conducted informal interviews with more than a dozen players, and was involved in countless online discussions about DreamShooter during my two years of research. My direct involvement with this community was further supplemented by textual analysis of most public accessible press coverage written about DreamShooter and the BlueSky Games development team from when the company was founded in 2006, through to the official launch of the game in the summer of 2014.

Organizational ethnographers doing research within an organization are not always also employed by the organization during their time there. As this been a process of knowledge production, I feel responsible for the specifically located partiality of my vision (Haraway 1988; Star 1999; Suchman 2000). True to the notion of located accountability as important within any form of cultural production, it is crucial to consider my own personal and professional embeddedness within this technosocial environment. Like many of the employees within BlueSky, I wore multiple hats while working to support DreamShooter: community manager, PR manager, marketing manager, event organizer, producer, and designer. But the majority of my job involved specialized community management work, focusing on the competitive subsection of the overall DreamShooter community. This role provided me a good point of view for the purposes of my research. As a community manager of sorts, I was not officially a developer, and rather spent a good amount of my professional time interacting with and translating for the players. I had plentiful opportunities for participant observation through a great many of the parts of the game

development process.

During my time there, my daily research experience was one of participant observation, sometimes more as a participant and sometimes more as an observer. There were periods when I did very little research work, only barely keeping up with my note taking, because the stress and time consumption of various professional projects was overwhelming. Other times, work was slow—often during a lull after an event—giving me more time to sit in on meetings, observe play tests, or to conduct interviews. There were a few occasions when my direct work tasks involved designing specific features for the game, a handful of days when my rare role as designer overshadowed all my other professional subjectivities. I got to contribute to the development of certain features to enhance the competitive gameplay experience, and I was regularly in a position to offer feedback and play test. I experienced shifting through a multitude of imagined subject positions as was required by the design process, putting myself into the hypothetical agencies of imagined gamers who would interact with the features I had conceptualized. I was never in this role long enough for me to truly think of myself as a game designer; the gap between myself as an ethnographer of design and the designer as subject of my research was maintained. But the exposure was enough for me to glimpse the inner-workings of the process and reach a better understanding of the design process dynamics that I frequently observed from an ethnographic perspective.

My deep involvement with BlueSky carried both advantages and drawbacks. I was every bit a member of the BlueSky Tribe during my time there, and I was most certainly subject to the socio-political dynamics of the office as much as anyone else. I grew to like the great majority of my colleagues, and learned to personally dislike only a select few. Some became good, personal friends whom I have stayed in contact with through this write-up process. Within the scope of my decade-long professional career in the game industry, it was remarkable how much affinity I felt with my colleagues and fellow Tribe members; I connected to them individually and as a group more than I would have guessed. My affection for the inhabitants of my field site undoubtedly shows through in the tenor of my writing, and in the trajectories of my analysis.

Some might be tempted to argue that my personal entanglements may have blunted the theoretical edge of my social critique of the studio's culture and daily practice. I would agree that the personal nature of these studio relationships has influenced the tenor of my critical approach. I know many of these informants as complexly nuanced and fully detailed individuals, far down the spectrum of human understanding from the abstracted human subjects of laboratory science, for instance. But in keeping with the spirit of ethnography and the critical anthropology of the late twentieth century, that the study of people as situated within the ever-changing complexities of the world is a necessarily entangled, and admittedly partial, business (Boellstorff et al. 2011; Clifford and Marcus 1986; Marcus 1995). It is a strength of participant observation that the researchers perspective becomes inherently situated within a similar matrix of cultural flows, giving them access to inner workings that might not have been visible from a removed position. It is worth acknowledging that the cost of becoming so deeply involved in the local situation of study is that while certain details might come into focus, certain broader patterns are likely to fade into the distance. I offer this partial truth as a conscious production of situated knowledge, and argue that there is a broadly applicable form of understanding contained within this necessarily partial and subjective research perspective.

The names of the involved companies, players, and developers have been changed to protect identities. Some characteristics have been retained in relation to topics that are specifically relevant to their business roles within the company, but other potentially identifying traits and life facts were shuffled to describe other interlocutors. The intention was to preserve a record of the characteristics and practices that contributed to the BlueSky's unique culture and social design environment so that I might have the leeway for critical analysis without jeopardizing the trust placed in me by my former colleagues and co-conspirators.

Structural Notes

This dissertation is organized as follows: Chapter 1 contains an exposition of the founding of BlueSky Games and the conception of DreamShooter in the mid-2000s, as meaningful events within the

context of a technological industry that was in the early stages of major, fundamental change to game making systems, the global business formats for making money, and the modes of readily-available, online interaction between creators and consumers. Chapter 2 walks through the imagined spaces of the BlueSky Games offices in Laguna Hills, California, and includes an analysis of these spaces as social-material enactments of company values. Chapter 3 introduces the fundamentally complex but resourceful process of game development as assembled by a team of diverse technical skills sets and importantly different creative priorities. I layer descriptions of certain exemplary practices from BlueSky over the functioning social teams of employees who were tasked with making certain specific, relatively small parts of what would ultimately be an extremely large and complex world of game systems. Chapter 4 consists of an analytical look at the concept of fun and how it is discussed and designed for by the game designers behind DreamShooter. I include five design considerations that emerged from the daily discussions and practices of designers debating amongst themselves, with their non-designer colleagues, and with avid community members. Chapter 5 is an exploration of the Gamer Imaginary, a particular social imaginary that can be traced throughout the PC gamer community and into the game development studio environment. This shared imaginary is recursively reproduced, speaking to a flowing process in which designers imagine the game features they are designing, and interpret play tester feedback, in ways that shape how the technological systems are made. Player capacities for imagining are influenced through their interactions with the technology, which in turn influences the actions and feedback that are experienced, observed and studied by the games designers.

Lastly, a few notes about some terminology used frequently throughout this analysis. Some of the most commonly-used, emic studio words and acronyms are highlighted in the prefacing glossary, but it's worth differentiating a few of the most commonly conflated terms. When referencing a game "developer," I mean any game industry employee who has some direct professional involvement in the making of game technology. This group includes programmers, artists, designers, and many more. When referencing game "designers," on the other hand, I am writing about a specific sub-specialty of game development. Game designers design the mechanics of gameplay systems, including challenge and

rewards systems. It is also worth differentiating “player” from “gamer.” The former refers most commonly as a subject position: the player is any person playing the game, engaging with the game’s mechanics with the goals of play. The latter refers to a particular cultural identity. Not all players self-identify as gamers, but all gamers occupy the role of player while playing games. Significantly, all the game designers and almost all of the developers behind DreamShooter were also players who self-identified as gamers.

CHAPTER 1

The Historical Situation: Tracking Changes in the Business of Fun

Within the walls of BlueSky Games, the “Vision” behind DreamShooter carried the air of legend as a piece of treasured oral history. The origin story of the game formed a cultural narrative that the company had grown around, and it felt appropriately like old, venerated lore. Perhaps this was fitting in a studio where many of the developers had worked with the game concept for more than six years, twice the average development cycle for a game with DreamShooter’s budget. Perhaps this legendary aura was because the “Vision” framed DreamShooter as “the game that would change the industry.” Or perhaps this was because the team’s leaders—the Visionaries behind the Vision—were veritable legends in the game industry themselves. BlueSky Studio’s origin story and game Vision—which were tightly intertwined—were often told in parts, in different situations, by the Visionaries themselves, to players and development team members alike. But through the years of its telling, it did not change on any fundamental level. The core vision framed DreamShooter’s ultimate form as a competitive shooter game in a massive multiplayer world, where the longest-held gamer dreams could come true. It warranted the air of epic storytelling on the basis of its ambition and the fantasies of achievement they intended to fulfill: the winning of worlds through gaming prowess.

The first time I heard this narrative as an employee at BlueSky, the DreamShooter Vision was recounted during an all-hands meeting in October 2011. The entire BlueSky Games “Tribe”, which at the time consisted of almost 70 employees, was assembled in the largest common area, called the Tiki Room partly because of the full-replica tiki bar (complete with thatched roof detail) that claimed a prominent center position in front of the a long, all-windows wall². The atmosphere was light and jovial, and

² The BlueSky Games staff and their family members constituted the “BlueSky Tribe”, or just “the Tribe”. The management encouraged this practice as part of their fostering of a close-knit social environment.

developers were still shuffling in at 11am, when this meeting was scheduled to begin. Many developers already crowded the five couches distributed near the projector screen at the far end of the room. About forty chairs had been set up in rows behind the couches, facing the projector screen wall, and were mostly full of developers talking, joking, drinking water and sodas. There were a few who were already sipping from red cups, presumably beer from one of the four beer taps also set up along the kitchen wall.

The lights were on, which was noteworthy because the lights were usually off on this main floor of the studio offices because the digital artists preferred it this way. The developers usually relied only on the light from computer screens and the scant beams coming through cracks between window blinds. But today, the fluorescent ceiling lights were on, presumably so the audience could better see the person who would soon occupy a solitary chair that had been set up in front, facing the audience of BlueSky employees. After about ten minutes of settling, the room was quieted by the smiling man seated up front, looking every bit the storyteller.

BlueSky's CEO had a well-honed sense for dramatic timing, and a knack for conveying passion. His ability to persuade others to believe in his ideas could be given much of the credit for his successful founding of the studio. He put these talents to full use during this telling of DreamShooter Vision as part of the BlueSky Games origin story, starting with a reminder that DreamShooter was originally conceived as an unprecedented social gaming experience. Having the best, most talented team was the key to achieving this goal. He talked about how, when BlueSky was founded, the first thing they spent money on was the tiki bar that sat there now among them, a symbol of the investment in the unity of their company's "Tribe" culture.

Their shared dream was of creating an open-world player-vs-player (PvP) shooter with a rich science fiction story and environment. At its core, DreamShooter was to have mechanics similar to Tribes and Team Fortress 2, two competitive shooter games that were important to BlueSky's social and conceptual history. Kern had decreed that the game must be described as "open-world," not as an "MMO," in order to differentiate it from other MMOs, particularly from World of Warcraft, the game that had garnered him industry renown. The open-world elements in DreamShooter, like resource gathering

and gear crafting, would be support systems built around that core PvP shooter element to deepen the social experience and give context for virtual-world-wide battles over territory. In DreamShooter, every avatar would choose a type of mechanical suits would give the players certain strengths and abilities, similar to class selection in “role-playing games” (RPGs). The “jumpjets” would add a unique aspect verticality to combat and open-world exploration³.

The heart of DreamShooter would be its large-scale competitive PvP, allowing large groups of players to go head-to-head and participate in battles that would be written in the ever-unfolding world lore. This was in contrast to many other open-world games that had put Player-vs-Environment (PvE) gameplay at the center of designed player experience. Instead, one BlueSky’s of their founding goals was to create a virtual world environment that would reflect the heroic actions of its players in these large-scale PvP battles. The story told by the CEO echoed other public statements made by the company about their overarching mission: “At [BlueSky], we make you the hero. In the end, we do it so you can have fun. We provide the stage, the lights, the props and a supporting cast. The real stars, however, are our players. We want our games to allow you to craft your own stories, moments and journeys in the fullest and most immersive worlds we can make. A living experience, powered by millions of players, in a wonderful, shared mutual fantasy we call an online game”. Players would not only use their shooting skills in instanced combat for tournament competitions; they could lend their talents and expertise to their armies in fighting for resources, defending their territory, and gaining new ground.

The CEO used his practiced stage voice to emphasize that BlueSky was making the game that they, the Tribe, all dreamed of playing. DreamShooter was “a game made *by gamers for gamers*.” There was no game out there like it, though some other game companies had tried, but none went big enough, he claimed. “People can’t stop talking about how gorgeous DreamShooter is, how good it *feels*, and they haven’t even seen what we have planned for them!” He acknowledged that while they still had a long way

³ “Jumpjets” were a unique feature of DreamShooter’s character movement. Thrusters built into the feet or back of the avatar mech suits allowed them to fly for short periods of time.

to go and a lot of hard work to do, with a whole open world yet to build and populate, and a lot of polishing to do. But they were aiming for something outstanding, and would get there thanks to the team they had assembled.

Meetings like this one were noteworthy as sites of reckoning between “the Vision” as cultural narrative and the material and economic realities of the game making process. Over the many years of DreamShooter’s development, the core vision never truly changed, but the game artifact being created shifted farther and farther away from the championed vision. The product seemed to drift away from the central visionary narrative because of a changing economic model in the game industry, changing expectations of the players, increasingly expensive production process. The vision for DreamShooter was continually reframed by the pressures of a changing industry climate. Player feedback contributed heavily to this as well, but the ways that BlueSky’s management and development staff interpreted the players’ feedback was shaped by the evolving, embedded industry context. An exceptionally long development cycle resulted in the daily design practices being subjected to unusually prolonged exposure to these elements.

One of the most stark examples of this disconnect between the vision and the product happened in 2013, after two years of beta testing, when the CEO made the decision to pull the PvP parts of the game so it could be “reworked.” He explained this decision in a letter to the community: “PvP has suffered as our focus has had to [be] on the popular PvE part of our game. People want more content, fewer bugs, and more polish on these world systems. For these reasons, we have made the tough decision to suspend PvP and take the system offline so that we can rethink it and relaunch it. PvP is an important part of our game, and we want to get it right” (DreamShooter Forums, Sept 2013). The roots of the open world PvP Vision were still there, but distanced by other emerging, pressing priorities, such as the increasingly urgent need to start making money.

Studying the subjectivities of game designers as embedded within a local culture of game design requires an analysis of historical contexts on multiple scales. On a global scale, industry trends shaped certain economic, technological, and cultural elements within the local environment of BlueSky Games.

On a local scale, the individual histories and career experiences of everyone working in the studio were brought to bear on the local culture and daily design process. Many anthropologists, sociologists, and technology scholars have written about the value of acknowledging scale during the course of an ethnographic study (see: Dourish 2010; Granovetter 1973; Marcus 1995; Rabinow 2003; Star 1999). Social scientists studying economics have provided some particularly good examples for conceptualizing how local cultural practices are embedded within imbricated contexts that include both large-scale market dynamics and small-scale social transaction (Callon and Caliskan 2008; Callon 1998; Geertz 1963; Granovetter 1985; Latour and Lepinay 2009). In considering subjectivities, Ortner toggles between addressing subjectivity in a psychological sense, on the level of the individual, and addressing subjectivity in terms of “large-scale cultural formations” (Ortner 2006:1521). I remain attentive to Ortner’s understanding of subjectivity as involving “a specifically cultural and historical consciousness” in developing this record of BlueSky’s specific cultural and historical contexts” (110).

In this chapter, I focus on outlining two especially influential historical scales: 1) that of the broader game industry as an evolving confluence of economic, technological, and historical factors; and 2) those individual histories of the leaders of BlueSky Games who influenced the developers around them by virtue of their past experiences, as well as by their roles of authority within the organization. By examining this particular layering of historical contexts, we can start to address questions like: How did the emergence of the “Free-to-Play” monetization model in the game industry influence the daily practices of design within BlueSky Games during the development of DreamShooter? In what ways did the legacy of Blizzard corporate values, and games like World of Warcraft and Tribes, haunt the culture of BlueSky Games? How is it that a game originally framed and funded around the vision of an open-world PvP shooter could end up shuttering its PvP modes after five years of development and two years of beta testing?

The Vision: A Historically Embedded Narrative

Social scientists studying work have identified meetings as valuable sites for ethnographic study

because of how they bring together many of the social, political, and technological threads that typically constitute a local company culture (Mellstrom 1995; Schwartzman 1987, 1989; Star 1999). But meetings are a form of liminal space where these threads are brought together in a rare, differently-pressurized setting, allowing them to be teased apart, contested, destabilized, and sometimes resolved. By looking at the case study of an all-hands meeting in particular, we may see evidence of the “organizing processes and forms that ‘enact’ the organization” (Schwartzman 1989:5). In studios where technology is developed, meetings are places to observe the narratives and linguistic framings that are passed down from managers to make sense of a shared set of goals. They are also sites to observe the negotiations of these meaning-making systems and possible actions of resistance.

Milestone Meetings were the most consistent form of all-hands, development planning meetings that I observed at BlueSky. They were part of the AGILE system, a project management strategy frequently used in software development that relied on small groups of developers, called “feature teams” collaborating on all parts of one particular feature, thereby making fast and agile design iteration more easily accessible. Milestone Meetings were used to update all employees on the strategies of the upcoming development cycle (usually a period of eight to twelve weeks). Strategies, goals, and team assignments were put together by the CEO and the “Wolf Pack” beforehand, then presented to the whole company over the course of a two hour meeting. The Wolf Pack consisted of the leads for each department, as they were, which included Design, Art, Programming, Localization, QA Testing and Customer Service, Business Operations, and Tech Operations, plus the VP of Development.

The earliest stages of the Closed Beta⁴ had started in early September 2011, only a little more than a month before this meeting. Several thousand closed beta invitations were sent out, informing select participants when the servers would be accessible for specific testing periods only a couple times were

⁴ Closed Betas typically have a very limited play tester group, often involving carefully organized invitations to small sets of players. Closed Beta tests are also usually private and confidential, requiring participants to sign a legal NDA (standard Non-Disclosure Agreement).

week. When these servers were “live,” players could log in, create a new character by selecting a name, gender, one of five mechanical battle suits, and basic physical characteristics, all from a limited set of options. This was a lighted version of the character creators found in many MMORPGs. Outfitted with their new avatars, beta testers were then dropped into a small, open courtyard that contained a few non-player characters (NPCs) to talk to and interact with, and PvP terminals where players could queue for one of three different game types. The most popular type was 5v5 “Death Match,” in which teams of five players vied to score the most kills. These were technically “Arena Player-vs-Player” (APVP) modes, taking place in instanced “arenas” apart from the regular open-world environment, like a discreet game of basketball on a dedicated court space. “APVP” was used to differentiate from the open-world PvP (“OWPVP”), which remained the ultimate goal within the DreamShooter Vision.

In the early Closed Beta test for DreamShooter, there were no gameplay objectives outside of these APvP modes, so they were generally referred to as DreamShooter’s PvP. All that was required for a match to begin was for enough players to queue through the PvP terminals (the minimum required for most match type was for each team to have at least three players). Players waiting for matches to begin could meander in and around the courtyard area and /chat locally, /yell to everyone in the zone, or send direct private /whispers to other players⁵. But the beta test focus was on PvP, true to the vision of DreamShooter as a PvP-centric game. It was still lacking the open-world environment for the large-scale, army-based PvP battles that were envisioned, but the core mechanics—such as the world physics, the foundational world art, the day-to-night lighting, the character movement speed and basic animations, the basic character equipment including the five battleframes with all their components and primary weapons, basic AI⁶ for the friendly NPCs, the PvP maps and their integrated systems—all were there to test.

In the wake of the Closed Beta’s launch, the development team had been faced with their first few

⁵ The “/” is used in many PC games as the keystroke proceeding a command string.

⁶ “AI” refers to Artificial Intelligence, the programming that runs creatures and non-player characters in a game.

weeks of concentrated player feedback following prolonged hands-on access to the game. The only direct feedback they had gotten before this point was from live event demos, like the Penny Arcade Expo where DreamShooter debuted, and during “internal” (involving studio employees only) playtesting session. Initial feedback from the Closed Beta was mixed, and the community management team was working hard to decipher and manage the comments that community members were posting on the private beta forums, in the beta-dedicated IRC (Internet Relay Chat) chat channel, and in UserVoice, which was a dedicated, online feedback platform that enabled to beta users to submit ideas about new features or improvements, or “vote up” other users’ submitted ideas. All of these were private spaces where only approved beta testers and BlueSky developers could view or participate in discussions.

Several days prior to the Milestone Meeting, the head Community Manager sent out an email to the entire company that contained a report summarizing the main points of feedback about the most recent game “build”⁷. This was the third such report since the start of the Closed Beta, and company-wide email discussions—in which all BlueSky employees were copied—were common at BlueSky Games, especially in relation to large-scale design decisions or critical feedback. This practice must have started early in BlueSky’s history, when the company had only thirty-or-so developers on staff. But it had continued as an encouraged discursive practice even after the company had more than 100 people on staff. Employees were encouraged to feel ownership over the game, and the sharing of ideas via open emails was one of the most visible expressions of this ownership.

Much of the player feedback outlined in the email was positive, praising the PvP mode, the jumpjets, the “feel” of the game. But the countervailing theme of critique was around a perceived lack of content in the game. Player feedback, especially on the private beta forums, included comments like “Where are all the quests?” “I thought there would be a lot more to the world at this point. There’s not a lot to do yet,” and “when will we see another map?” This company-wide email discussion quickly

⁷ In software development, a “build” refers to the most recently rendered and available version. In open betas and commercially launched software, these new versions are commonly referred to as “patches”.

became dominated by concern about how to address the seemingly negative points of feedback. Some argued that the critique about lack of content was fine at this point, that they had enough PvP content to test for now. A senior game designer, Allen, made a case for working on another PvP map: “we can encourage them to be patient if they know another map is in the works.” Others, like QA (Quality Assurance) tester Ron, worried that players would get bored and stop playing: “With both Planetside and Tribes betas coming out soon⁸, we will need to give them more to keep them entertained.” After two days of ongoing email discussion within this thread, the VP of Development chimed in to say that these questions would be discussed during the next Milestone Meeting set for later that week.

So it was, the Tribe came together, expectant to hear how their next eight weeks would be guided by the feedback of the players. After the CEO’s retelling of the DreamShooter Vision, the atmosphere was brightly charged and focused. He transitioned into an address of the beta tester feedback that had been the topic of the company’s email discussion. “Players want more content. This is a good thing! It means they like our game and want more.” He said that they would be shifting focus to address some of the concerns about the depth of the open-world content. He and the story team would work on fleshing out the storyline, while the majority of the world-builders, artists, and designers would form a feature team dedicated to building out the first fully playable city and the surrounding zone, which would be the first large open-world chunk of the game. Another feature team would work on the Alien Cloud boundary, which was a mysterious, sky-high cloud phenomenon that kept players inside the existing open-world zone borders, and provided an ominous presence for the main enemy NPC faction. Yet another feature team would be tasked with turning a 20-minute event demo into a new player experience, which was a chunk of gameplay designed to introduce new players to DreamShooter’s basic game mechanics. In sum, the focus for the next eight weeks would be on giving the players more of the open-world content they wanted, not on polishing and developing more of the PvP aspects of the game.

⁸ Planetside 2 and Tribes: Ascend were both considered direct competitors with DreamShooter in the shooter game genre. Beta tests for both of those games launched in early 2012.

The narrative vision of DreamShooter is significant for both the corporate and creative values that motivate its main points. The unifying story implied messages like “DreamShooter will make heroes of us all;” “as a Tribe of Gamers, we are making this game for ourselves;” “we will create a legendary competitive PvP world;” and “we can be ambitious because BlueSky’s team is the best in the industry.” But the shift in strategy communicated by the new marching orders for the next development cycle implied something else: “The beta tester disappointment makes us nervous,” “we are worried about competition from other games,” and “even though our focus is PvP, the players want an MMO, so that’s what we should make.” This slowly growing dissonance between the core Vision and planned development goals emerged from a context that was partly formed by a shifting set of large-scale, game industry pressures and expectations.

The Visionaries: Local Legacies of Leadership

On the local scale of BlueSky Games, the career histories and game development experiences of the developers not only influenced daily practices, they impacted the studio’s overarching cultural values and shared imaginary. The experiential frameworks and reputations of the studio leaders, particularly the visionaries, were especially noteworthy because of how they shaped the very understanding of BlueSky’s ultimate goals. Leaders in professional organizations have been described as embodying organizational inflection points during times of destabilizing change, whether for good or ill (Vroom and Jago 1974; Zander 1979). The visionaries of BlueSky followed that trend, in that the most momentous events around the studio were always significantly shaped by the views of the leadership.

After his brief introduction of the goals for the next milestone during the Milestone Meeting, the CEO yielded the floor to two members of the Wolf Pack: the VP of Development, who took control of the organization and flow of the rest of the meeting; and the Lead Designer, who stepped in frequently to explain the rationale behind certain design strategies and feature team assignments. Aside from the CEO, these two figures were the most likely to evangelize the DreamShooter Vision, though often quite differently and in different contexts. The most hotly debated design topics were usually settled through a

closed-door meeting of these three executives, which causes me to frame them as the visionaries on this game project. Their prior accomplishments and affiliations in the industry carried authoritative weight within BlueSky, brought many expectant fans into the player community, and shaped how they engaged with the DreamShooter Vision differently.

The CEO, Jake, was unquestionably the lead visionary behind DreamShooter. He was the spiritual leader of BlueSky Games, and the leader of business strategy. He also carried the title of CCO (“Chief Creative Officer”), meaning that he oversaw the design, art, and narrative teams. His voice was the authority over the entire company, but carried special weight pertaining to business and design decisions. Prior to becoming one of the three founders of BlueSky Games, Jake made his claim to industry fame through his tenure with Blizzard Entertainment. He joined them in 1997 as a producer, eventually working on both StarCraft and Warcraft titles before becoming Team Lead for World of Warcraft. After the launch and booming success of World of Warcraft, he left to found BlueSky Games with two other former Blizzard employees.

The Blizzard legacy permanently influenced the core of BlueSky’s values and development priorities. Not only did Jake and his fellow founding members eventually hire many former Blizzard employees⁹, he himself clung tightly to the Blizzard cultural priority of production quality. Blizzard was known for their commitment to an exceptional level of quality in their games, where terms like “Blizzard quality” and “Blizzard polish” referred to the highest quality standards in the industry (Nardi 2010; O’Donnell 2014:150; Taylor 2006a). One of their eight core values spoke to exactly that: “Commit to Quality” was an official value that explained how “‘Blizzard polish’ doesn’t just refer to our gameplay experiences, but to every aspect of our jobs. We approach each task carefully and seriously. We seek honest feedback and use it to improve the quality of our work. At the end of the day, most players won’t

⁹ I note here that BlueSky Games only “eventually” hired people from Blizzard because most non-compete clauses in game industry hiring contracts require people to refrain from actively recruiting people away from the company for a year (or more) after they leave.

remember whether the game was late—only whether it was great” (Blizzard.com n.d.). They themselves frequently pointed to this value as explanation for why a particular game might not be finished within a predicted production timeline. This was not to say that they were unique in their desire to make quality games; most game developers wanted to achieve quality. But Blizzard was rare in their resolve and in their exceptional business stability. Thanks to a unique constellation of support from an unparalleled, global fanbase, and immense financial stability, Blizzard’s timelines and development processes were not beholden to marketing-based release dates and budgets the way many other game companies were. The Vision itself was framed through a Blizzard-influenced set of production assumptions, but BlueSky Games proved to be a different kind of company, working within some very different key parameters, some of which I will outline later in this chapter.

The Lead Designer, Kevin Duke, was recruited through BlueSky’s “Golden Ticket” campaign in 2007, which the studio’s first formalized recruitment effort. In conceptualizing this campaign, Jake and his fellow studio founders had been inspired in many ways by tech industry visionary, Steve Jobs of Apple fame. Specifically, they were inspired by the story that Steve Jobs had taken a uniquely active role when he started Pixar, by personally calling the top fifty animators in the world to extend an invitation to come work for his new company. BlueSky’s management team wanted to establish personal rapport with these potential recruits through a similar process, and build a team that contained what they determined to be the best talent in the business. As was explained in a news entry on the BlueSky Games company website, “In the summer of 2006, [BlueSky’s founders] met with [an advisor] to discuss how to grow the BlueSky family. They all knew that recruiting in the game industry was crazy: people are constantly spammed by recruiters, and competition for quality talent is fierce. Still, the three BlueSkyers were determined to hire the best and brightest minds in the industry, while communicating just how damned cool it is to work at BlueSky Games” (BlueSky’s website).

First, they identified the one hundred industry veterans they hoped to lure away from other game companies, and put together customized packages containing beautiful and intricately folded envelope-boxes showing dramatic DreamShooter art on each surface. Unfolding all of the layers of a box revealed

an iPod shuffle (which, at the time, had not yet been released in the US) that was personalized with an engraving of the recipient's name. The iPod itself was preloaded with a personalized audio message inviting them to participate in this recruitment event and to learn more about BlueSky Games. The package also contained a unique code leading to a page on the BlueSky website that had been created specifically for that recipient, with a message from the CEO and a description of the job that had been "cherry-picked" for them. Starting with the "Golden Ticket" title of the campaign, drawing an explicit comparison between BlueSky Games and Willy Wonka's Chocolate Factory, both being wonderlands for magical, fun creations. They hoped to depict BlueSky Games as a game developer's dream.

The narrative about BlueSky Games that was told through press releases, forum posts, on the company website, and studio conversations, emphasized aspects of what Casey O'Donnell identified as part of the "myth of game development." Those outside of or new to the industry might imagine that, through game development, they would get to make the game *they* wanted, with all the support they could hope for (2014:148-153). Through the "Golden Ticket" campaign and every recruitment effort after, BlueSky spoke of an idealized environment where game developers would enjoy autonomy in the studio, opportunities to master their craft, extensive resources for support, and "the chance to contribute to a fundamental shift in the way games are crafted" (BlueSky Games 2013, company website).

Kevin Duke had been targeted through the Golden Ticket campaign because of his credentials as a lead designer of Starsiege: Tribes (known among veteran games simply as "Tribes"), a PvP shooter game that became well-known for its fast paced gameplay, unique jetpack-enabled flying mechanism. It was considered one of the best games published in the late 1990s, and one of the best FPS games ever made. GameSpot named it one of their "Greatest Games of All Time" in a 2005 piece, stating "Tribes was years ahead of its time when it was released in late 1998, and its influence is still easily apparent today" (Colayco 2005). The founders of BlueSky were fans of the *Tribes* games as well, and leapt at the chance to get the lead designer of *Tribes* involved in DreamShooter's design. Kevin brought all of his game design expertise, values, and knowledge into BlueSky, as well as a solid contingent of Tribes fans into the player community. The presence of jumpjets in DreamShooter was perhaps the most obvious example of

the Tribes influence.

Besides Jake, Kevin was the other most likely champion for the Vision of DreamShooter, and was capable of going into more detail about how the dreamed about game systems would function together. He was well respected for his design sense, expertise, and communication style, though he was known for a tendency to “blue sky,” referring to a habit of enthusiastically imagining versions of the DreamShooter Vision. This was part of what made Kevin effective as a vision carrier most of the time. Like the CEO, his passion was infectious. But at other times, this tendency was framed as problematic by other designers when they felt that imagining the long-distance future aspirations of the game were interfering with the process of addressing the low-level details that required immediate attention. But no one could argue with the fact that Kevin knew more about the game as a comprehensive whole than anyone else. He was the person in the company who logged the most hours of DreamShooter playtime out of all BlueSky employees. Kevin’s knowledge of the full game made him the foremost expert in the studio about DreamShooter, which made his Visionary style highly influential on the development team.

The reputations of both Jake as CEO/CCO and Kevin as the Lead Designer were local-scale narratives that were of central importance to DreamShooter’s existence and design, to BlueSky’s financial support, and to the unique community of early DreamShooter fans. Without their affiliations with previous game successes, World of Warcraft and Tribes respectively, BlueSky Games might not have ever gotten the funding they needed for eight years of development. PR and marketing communications out of BlueSky regularly mentioned the legacies of these two developers, which had the desired effect of bringing both World of Warcraft and Tribes fans into the DreamShooter community. The unanticipated consequence of these strong affiliations was that players came into the testing stages of DreamShooter expecting a game similar to the previous games from these two developers. The expectations of players presented a multi-layered challenge during beta testing not only because World of Warcraft and Tribes were very different games that framed feedback in wildly different ways, but because these two games were also significantly different from the Vision of DreamShooter being championed by BlueSky’s visionaries. As an ethnographic case study, DreamShooter can be seen as the technological product

emerging from an imbricateda layered context of socio-historical scaleshistorical narratives,, where the initial design environment was meaningfully influenced by industry pressures and personal legacies..

Industry Pressures in AAA Game Design

Developing a game like DreamShooter was expensive. During the extended period of DreamShooter’s development, from 2006 to its official commercial launch in 2014, there were significant shifts in the economic markets, including the 2009 global economic crisis and recession in the United States. The studio almost went out of business in 2010 until they were able to raise Round Series B funding¹⁰. The games and players were changing, too, particularly in how they were paid for. These large-scale market factors reverberated into the local-scale daily practices of BlueSky Games by changing the ways in which both games and their players were imagined by developers.

It has been helpful to lean on the theoretical framings laid out by the social scientists who have studied individual people and group economic practices as embedded within contexts influenced deeply by economic markets (Callon 1998; Granovetter 1985; Latour and Lepinay 2009). Callon and Caliskan approach an understanding of markets as “socio-technical arrangements or assemblages” defined by three characteristics: 1) the organizing of conception, production, and circulation of goods; 2) as “heterogeneous constituents” that employ rules, knowledges, narratives, and devices; and 3) the construction and delimiting of a “space of confrontation and power struggles” (Callon and Caliskan 2008:2). In this and the next several sections, an overview of the directly relevant industry pressures will help to expose how BlueSky’s daily practices were shaped by the larger game industry as an organizing force, as a source of narrative elements, and as a site of competition with not only other game companies, but with the players as consumers.

¹⁰ Venture capital financing sometimes involves successive rounds of funding, and in the case of DreamShooter, BlueSky eventually did Series B and Series C rounds to maintain funding for the game’s development.

BlueSky Games is a somewhat unique case study of game development in terms of which of the usual industry pressures it was subjected to, and which pressures it managed to evade, even if temporarily. DreamShooter was developed in an environmental assemblage of lenient financial factors, charismatic leadership, a populist studio culture, and industry climate that enabled an extended time period for development without the typical “crunch” and lay-off cycle seen around the industry during that era (Anderson et al. 1995; O’Donnell 2014). This special set of circumstances contributed to an exceptionally long beta test—two years, including both the Closed Beta and Open Beta—making BlueSky Games and DreamShooter an exceptional case study for studying how the game design process can be influenced by prolonged exposure to community feedback during vulnerable stages of development.

DreamShooter was an “AAA” game, and this designation communicates many of the design priorities that ostensibly characterized its development. As a category within the game industry, “AAA” refers both to an expectation of high-end production quality, and the high-end of the development budget range (O’Donnell 2014; Salen and Zimmerman 2003). AAA games can be identified by their glossy graphics, stellar frame rates¹¹, and typical game genre formula. The high-end production values of AAA game development require high-end budgets. It’s rare to see a AAA game that isn’t from the action, adventure, RPG, platformer, or shooter genres. Game companies do not usually publish their development budgets, and even when budgets are mentioned in unofficial public comments by individuals, it can be hard to distinguish between what was spent on the production of the game and what was spent on marketing. These budgets can vary wildly, but when I asked informants around the industry for their estimates in 2012, the general consensus was that AAA games usually cost \$20 million or more to make. This is compared to mid-level and independent games, which typically cost less than \$5 million.

¹¹ “frame rate” refers to the number of frames per second seen while playing a video games. The frame rate impacts the smoothness of the visuals; the higher the frame rate, the better. High frame rates require a lot of technical maneuvering and polish in game development, so frame rates are often interpreted by players and critics as primary indicators of a game’s overall production quality.

There are no public records about exactly how much money BlueSky Games spent on the production and marketing of DreamShooter over the course of eight years, from the inception of the studio in 2006 to the official commercial launch of the game in July 2014. Few people working for the company, outside of the CEO and a few executives, had an accurate idea of the amount of money spent on making games. This is typical for the game industry, where secrecy is part of the culture and resulting cultural mystique (O'Donnell 2014:150-153). Marketers know what their budgets are (and marketing spends are often reported publicly), but developers rarely know the full scope of the production budget for any game they are working on. Certain extrapolations can be made, however, based on the pieces of information that my informants at BlueSky Games were able to provide, and the estimates they themselves had made. By 2013, when the company had a staff of almost 150 people, several managers at the company cited a "burn rate" (the money spent just to keep the company running) of more than \$2 million per month. Based on an average salary and overhead costs for a studio in Orange County, CA, plus the estimated amount spent on marketing, it does not seem unreasonable to guess that BlueSky Games and their investors, particularly their primary investor, Chinese company BigBoss Inc., must have spent more than \$100 million before the official launch of DreamShooter. As a point of reference, it was said in 2011 around the release of *Star Wars: The Old Republic*, an MMORPG made by Bioware EA, that it was "the most expensive video game ever made," costing an estimated \$150-\$200 million for development (GameSpot.com 2014).

These significant investments were made based on the reputations and Visions of the DreamShooter leadership. According to rumor, BigBoss Inc.'s CEO, who was also Chair of BlueSky's board of directors, knew Jake from his days at Blizzard, when BigBoss Inc. published *World of Warcraft* in China. Their success with that title, and their preexisting relationship with Jake, contributed heavily to their willingness to bet \$100 million on the potential success of the DreamShooter vision. Reputation often plays a big role in the ability of game and high-tech start-ups to raise capital, where one's previous successes far outweigh one's failures (Barbrook and Cameron 1995; Borsook 2000; O'Donnell 2014). This case was no exception, in that the reputations of the Visionaries mattered greatly to the early investor

support. They also mattered as legacies that began haunting them through not only expectant player feedback, but in the specific pressures from the Board of Directors that emerged after many millions had been spent over an extended development period, and the first few months of the commercial open beta netted lackluster revenue results. When the anticipated success of the DreamShooter Vision began to falter, the Visionaries started to hear feedback that they should perhaps make a game more like the ones that had already garnered them so much success.

Publishers, Investors, and Developer Quality of Life

In this section, I outline several industry-typical operational details to highlight how BlueSky Games enjoyed a special status. BlueSky was an independent game studio that owned their DreamShooter IP and raised enough funding from multiple global publishers and other non-publisher investors to meet their expensive AAA production goals. This was the dreamed-of development arrangement that allows for the greatest creative freedom for the studio because the studio ultimately owns the rights to the game. Their investment deals were mostly with entertainment companies in Asia, most notably in Korea, China, Singapore, and Taiwan, and involved selling stakes in the company, but they retained ownership of DreamShooter and control of the studio's daily operations.

AAA video games usually require the cooperation of at least two companies, if not more, to get into the hands of gamers. Development studios do the design and technical production work, and publishers will handle the marketing and distribution. Development studios employ all of the designers, artists, programmers, network engineers, producers, sound engineers, and world builders who work on a game product. Development studios often partner with, or are contracted by, large publishing companies that already have well established publishing and distribution infrastructures (Dourish and Bell 2007; Mainwaring, Chang, and Anderson 2004; O'Donnell 2014; Ribes and Finholt 2007; Suchman 2000). Sometimes the development studios come up with the game concepts, and sometimes the publishers will contract a studio to develop a game around licensed intellectual property (IP). If the development studio comes up with the game concept, but works with a publisher for distribution, the ownership of the game

concept and its related intellectual property (“IP”) depends on the contract they work out and who is providing most of the funding support.

The most common type of publisher-developer relationship is one in which the publishers owned the game’s IP and contracted a development studio to build the game for them. The publishers provided the bulk of funding for development costs, but also stood to gain the most financially if the game is a success. Independent game studios like BlueSky Games were not owned by a publisher and might manage their own marketing and publishing operations, which included marketing, press relations, community management, QA testing, sales, customer service, web development, and localization. Many independent games studios, if they wanted to retain ownership of the IP, built games on smaller budgets because they were responsible for raising the capital. Those independent studios that did work on AAA-caliber games were usually contracted by a publisher to create that game under a publisher-owned IP.

The typical publisher-to-studio relationship frequently involves top-down budgetary and timeline pressure (O’Donnell 2014). Games that take longer to make, cost more. This would be true based on development team salaries alone, but also involves studio overhead, commercial software licenses, etc. Quality of life at these development studios is usually the first thing to suffer when pressures from the publishers begin to mount, contributing to “crunch time,” which can extend for weeks, even months (O’Donnell 2014:135-136). During crunch, developers might work 10-12 hours per day, for 6-7 days per week. This pattern is further perpetuated by the common, external narratives about the “passion industry” aspect of game development, in which many developers are described as loving games and being thrilled to have jobs in the game industry. They are portrayed, and usually expected to be, willing to work crunch times because of this passion. But while these stories about the passionate industry of game design are continually retold by players and developers alike, those narratives are frequently at odds with the lived experiences of many developers. The contextual factors that contribute to the seeming necessity of high-stress practices like crunch-time are not caused by the passion of game developers, but rather enabled by their own adherence to the idea that making games is a dream job and therefore worthy of tough life-balance sacrifices. Many other developers I talked to, including those at BlueSky, said that crunch time

was the inevitable result of mismanagement or poor planning by producers and managers. It was not uncommon to hear the narrative of the passion industry be told sarcastically by those developers who had extensive personal experience with crunch time.

Layoffs constituted another game industry pattern that was often facilitated by the typical publisher-to-studio relationship (Anderson et al. 1995; O'Donnell 2014). Development timelines always include a period after the initial prototypes and “vertical slice” (in which the team will complete a small chunk of the game for demo purposes) when they ramped up their development staff to complete production goals. The funding to support these larger teams only lasted as long as their project did (sometimes less, if their project missed milestones and was cut short before being finished). Once the project was over, or the funding ran out, studios often had to cut back on their staff, if not shut down entirely, by laying off employees.

Crunch time and layoffs were almost industry-wide assumptions in the early 2000s, and persisted through 2011-2013 during DreamShooter's development. But thanks to BlueSky Games' relatively independent status, and their visionary commitment to a healthy and supportive company culture, they defied both of these industry professional patterns. On multiple occasions, I overheard the VP and the CEO confirming “we don't believe in crunch here at BlueSky.” And if DreamShooter were to reach its visionary goals, it would not need to lay off staff because they would need them around to continue developing the game world as an ongoing service. Game worlds that were available 24 hours a day, for years, started being discussed as “service providers,” and the BlueSky Games management took this to heart. In 2012 they started looking to other service companies, like Zappos.com, as examples for the best ways to foster user loyalty through the best possible customer service experience.

Free-to-Play: A Changing Monetization Framework

The historical setting of the development of DreamShooter as a AAA open-world, PvP shooter involves several large disruptions of popular trends. In the wake of industry-changing games like World of Warcraft, design houses around the world were being pressured to build the “new World of Warcraft,”

or a “WoW Killer,” as they say. Additionally, new design imperatives were introduced by the burgeoning monetization strategy of “free-to-play” (F2P, or “freemium”) games. This new business model in games was a marked departure from the previous boxed-game and subscription models seen with all the most popular AAA PC games in North America prior to that point (Castronova 2005; Dibbell 2006; Nardi 2010; Taylor and Raleigh 2002; Taylor 2006b). This change in the business landscape, inspired both by other F2P gaming precedents established in Asia and by the pressures of DreamShooter’s financial stakeholders in China, required a shift in the framework of design priorities that challenged game designers to start perceiving games from the perspective of player as “constant consumer.”

With the level of financial investment that was required for AAA game production, financial goals were always a consideration. Within BlueSky Games, outside of specific conversations about the business operations or designing strategies for making the game profitable, the developers would talk about money in joking terms. On multiple occasions in meetings, I overheard exclamations about “making all the money!” followed by hearty laughter. The financial successes of games like World of Warcraft and League of Legends were fresh in people’s minds, and many of DreamShooter’s developers had industry friends who had made significant money as part of those teams. But making money was not one of the formalized values of BlueSky’s development culture, and in some narratives, “selling out” was framed as the antitheses of their championing of community-driven design. They might joke about making money, and jokes in these work contexts can often serve to bring certain cultural undercurrents to the surface ((Mellstrom 1995; Traweek 1988). but their openly stated motivations for making DreamShooter was to make a great game for gamers. In the immediate context of talking about the game, money was more commonly discussed as a requirement for keeping the studio afloat and getting to keep making the games the developers wanted to make. In this, and many other things, the passionate love for games framed how certain business goals were discussed and thought about. But making money with DreamShooter was never far from the thoughts of the executives responsible for managing the studio, and certainly not far from the thoughts of the investors who risked money on the game’s uncertain future success.

When DreamShooter was originally conceived of in 2006, the most popular and profitable games in North America were all premium and/or subscription based games, meaning that players paid for a box copy of the software, and also sometimes paid a monthly subscription for continued access to the online servers and virtual worlds. World of Warcraft and EverQuest were two such examples of games that were both sold in boxes for \$50-\$60 each, and also required players to pay a monthly subscription (usually \$10-\$15 per month) for access to the servers. But once players were in those worlds, they no longer had to think about spending real money. If they set up auto-pay through the online billing system, they rarely had to ever again think directly about the money they were spending to access their favorite games.

In 2010, the company's management considered shifting the monetization plan for DreamShooter from the premium content format to free-to-play. This business strategy saw early success in the North American game industry with casual games and youth-focused games like NeoPets, MapleStory, FIFA Online, and Runescape in the early 2000s, and success with hardcore games in Asian territories, like the Korean FPS CrossFire. North American hardcore gamers, especially the players of competitive games like MMOs, RTS, and shooters, were initially resistant to the F2P microtransaction format, in which users could gain access to the game for free, but additional game items would be for individual sale inside the game. Gamers feared that game companies would start selling items that would grant unfair advantages over the non-paying players, otherwise referred to by these hardcore player communities as "pay to play" or "selling power."

But the surging popularity of mobile games in the mid-2000s, spurred forward especially by the takeoff of the iPhone and iOS platform in 2007, helped to acclimate the North American gaming populations to microtransactions in F2P games. By 2010, the buzz in the industry was around F2P as the new model for success, largely because of the skyrocketing success of League of Legends, which released as F2P in 2009. In 2010 and 2011, many AAA titles launched as F2P or "relaunched" in the new format. Star Wars: The Old Republic, Team Fortress 2, EverQuest, Lineage II, The Lord of the Rings Online all changed from the box game or subscription format to the free-to-play/"freemium" format, and recorded dramatic increases in revenue as a result (Gamasutra.com 2011). The F2P model was also beneficial as a

way to avoid the challenges of piracy; if the game software and access to the world were free, then software pirates would have no business. Cheating the microtransaction system was considered to be exceedingly more difficult and less profitable for the effort.

DreamShooter originally began development as a game that would be sold as premium content, with players paying a one-time fee for a download of the software, possibly with an ongoing fee for access to the servers. By the time they decided to shift monetization strategies, there was already a significant set of built systems that would need to be reworked and reformulated to function effectively in a microtransaction system. Ever conscientious of the preferences of the players, BlueSky Games was determined from the beginning of their transition to the F2P format to make sure that they never sold items that would grant more in-game power to paying players than to non-paying players. They would sell aesthetics, and exciting new versions of balanced items that non-paying players could eventually get if they put in the time. They also sold every kind of convenience related to the otherwise time-intensive resource gathering and crafting mechanics in the game. Gameplay operations that might normally take an hour to complete would instead complete instantly if a player was willing to pay. The management and designers alike shared the narrative about their fair, non-pay-for-power F2P philosophy regularly through company-wide emails, in private design discussions, in forum posts to the community, and even in press releases about their plans and values. During a company-wide meeting, the CEO proudly discussed DreamShooter's healthy ARPU (Average Revenue Per User, the primary assessment unit for financial success in F2P games) a month after the launch of the Open Beta in July 2013, stating that DreamShooter's ARPU was better than the rumored ARPUs of blockbuster F2P games like League of Legends. He boasted "we have a system that doesn't sell power, doesn't bug the user to buy stuff all the time, AND we have one of the highest monetization rates for F2P PC games." (company meeting).

Even with this determination not to charge players for in-game power or impact the gameplay mechanics too directly with individual items, the question of how to effectively monetize the game became a dominant concern. Players were being portrayed in studio narratives as consumers much more than they had before the shift in monetization strategy, and players were also starting to think of

themselves more as entitled consumers, which shifted the scope and tenor of their beta feedback (Holin Lin and Sun 2011). After the Open Beta began and revenues were not yet meeting expectations, the primary investors and Board of Directors starting applying pressure on the upper management. Few details of the meetings with the Board of Directors were shared with the rest of the company, but there was often a hush of whisper around the office on the days when it was known that the CEO had talked to Board members on the phone, or if he had left suddenly to fly to China for a meeting with them. During that summer of 2013 when the Open Beta began, a few representatives from the investing companies moved to California and rented out an office space in a building next door to the one BlueSky occupied. There was no explicit communication about this, or the reasoning behind it, to the wider company, which itself was unusual when so much of the managerial machinations were made visible to the entire company. But I overheard and participated in at least three conversations in which their presence was mentioned uneasily. A programmer named Brad once noted that the “lurking” presence of representatives from BigBoss Inc. felt like “Big Brother watching our every move.”

Crowdfunding and Beta Tests

DreamShooter was developed during a time of great change in the game industry and in the virtual landscape of online consumerism. I take the space to identify some of the tangentially related trends to further contextualize the industry patterns that reverberated down through the daily practices of the local design studio. The innovations of online marketplaces and social media in the early 2000s changed the scope of possibility for consumer-producer relationships. Consumers were no longer required to leave their homes in order to purchase goods, so long as they had internet access, a credit card, and a little patience. Marketers could infiltrate even more deeply into the fabric of daily life, beyond even the online ads that color every webpage a potential user visited, into the social spaces of Facebook and Twitter. Companies were no longer limited to broadcasting themselves on televisions and radios, they could nurture personalized relationships with customers through social media. This period saw the spectrum of consumer-producer relationships shift to accommodate the new modes of online interaction

in which consumers influenced product developers through public performances as knowledgeable, experienced consumers, in addition to the power of their purchase. Community feedback became a kind of currency (Foster 2007).

A new kind of consumerism emerged from the entanglement of networked technology, multi-sited social marketplaces, and all-access communication modes during the early 2000s. The same people who began blogging, creating video, streaming themselves playing games online, and posting pictures they had taken of themselves (“selfies”) across various social media platforms, were also actively engaged consumers in online spaces. Establishing one’s identity and presence online was socially valuable. To have a presence online was to exist and be visible (boyd 2014). Some of the teenagers in danah boyd’s study of teens participating in networked publics indicated that if they did not express themselves online, they felt invisible and irrelevant. Social networks and online feedback systems facilitated new forms of creative expression, cultural sharing, and personal visibility, presenting countless new opportunities for the performance of identity to an imagined, potential audience (boyd 2014:43). I say facilitated here, not caused or led to, in an effort to avoid an overly simplistic technologically determinist formula of technology causing new forms of cultural practice. The emergence of these new forms came out of a mutually constituted entanglement of technological, historical, and social factors. The technology played an important role, but was no more solely responsible for online socialites or online consumerism than the socio-historically embedded people engaging in these practices.

This practice of projecting one’s self onto the many digital canvases of the socialized internet extended its influence into those interactions and communications with companies on brand pages and dedicated product forums. Consumers reached out with feedback with some hope of being heard, if not by the company than by the rest of the consumer community that was being cultivated in these spaces. Various platforms for ratings and feedback grew hand-in-hand with this trend in growing consumer entitlement. Two massive trends in online social technologies were closely intertwined with the emerging feedback culture: ratings systems and social media. At first, the most visible ratings systems popped up on large online retailers like Amazon.com and Zappos.com, where community rating systems allowed

consumers to give stars and reviews to rate their purchased products. Similar ratings systems became widely adopted by all forms of online retailers, including game retailers.

Platforms designed specifically as rating systems—including Yelp, Angie’s List, and TripAdvisor, to name a few—enabled customers to provide ratings and write reviews for anything, from restaurants to electricians to vacation resorts. Social media, as a more feedback-oriented complement, gave consumers a seemingly direct line of communication to any corporate online presence. Most companies created their own online marketing presence through social media accounts, like a brand-dedicated Twitter handle or a product Facebook page. Companies, including game company marketers and community managers, invited participation through these systems as a platform for an in-depth engagement with their consumer community. They hoped that by making personal connections with their most active and visible consumers, they would inspire brand loyalty and encourage word-of-mouth support by what online marketers called “brand evangelists” (Suchman 2007a).

In the years following the emergence of these kinds of services, users developed an expectation that they could provide feedback and be heard by someone. Whether praise or complaint, a consumer’s opinion would not be relegated to long, private phone calls or lonely emails sent into the opaque customer service machine. Instead, any consumer had equal opportunity to write editorial feedback that would then sit the virtual public face of a product brand page or business profile. By the time the DreamShooter Closed Beta began in the fall of 2011, almost all online consumers, even the most casual PC gamers, were accustomed to these kinds of online feedback platforms as a mode of entitled interaction with game makers in addition to the game forums and chat rooms they already frequented.

Ingredient in the new form of digitally-enhanced consumerism came in the form of crowd-sourced funding (“crowdfunding”) for the development of new products based on a simple prototype, or even just a convincing concept pitch. After some companies had started crowdfunding their communities for ideas or promotional support, a few enterprising start-up projects thought to reach out to potential consumers for the capital they would need to get the project off the ground. In the wake of the 2009 global financial crisis and resulting economic downturn, venture capital became even more difficult to

secure. Traditional investors were less willing to take risks or the money simply wasn't as available. But for small projects, large online communities represented a potential willingness to pony up money before the product was even launched, pitching in anything from \$10 to thousands of dollars towards a pre-established goal or "stretch" goal (which was met). These miniature reverse-sponsorships through sites like Kickstarter.com, Patreon, GoFundMe, etc., in which consumers essentially paid for the product upfront, and often got additional bonuses for their early commitment, meant that creators could theoretically circumvent the typical trials of investor funding and deal directly with their consumers from the beginning of development through to the launch of a product. There have been many video games supported by crowdfunding campaigns since this trend began. At the time of writing in 2015, the most successful Kickstarter campaign for a game was for Roberts Space Industries' Star Citizen which started in early 2012, and raised more than \$98 million from "future players" in just three years, despite the fact that they had not yet released their full-featured game (RSI 2015).

These crowdfunding systems floated on early-adopter excitement and, sometimes, the assumption that "backing" a product was equivalent to a game store pre-order, which was a trend in boxed games sales that allowed consumers to order a copy of a game months early. In reality, backing a product through these kinds of crowd-funding campaigns was like any other kind of investment based on the hope of positive performance, with the risk of getting nothing for your money. Unlike traditional capital investment, crowdfunding agreements never promised financial returns on an early investment by a player, only the product itself, possibly with some additional bonus content, perks, or recognition. But crowdfunded projects were part of a large trend of entitlement, and where crowd sourcing platforms enabled consumer entitlement to a product's outcome through a monetary investment, beta testing enabled game players their entitlement through the investment of time, data, and feedback (Callon and Caliskan 2008; Foster 2007). Crowdfunding became a prime example of the shifting narratives about the relationships between makers and consumers in which consumers had a more explicit role in the constructions of economic value.

Beta tests have long been a part of the stage-based game development process, as it is with most

forms of software development. Traditionally, “alpha testing” usually referred to the first stage of testing involving actual play, instead of testing the underlying coded systems which is typically done in “pre-alpha.” The game developers in a studio are usually the ones who test alpha builds. “Beta testing” usually referred to the first organized play tests for people outside of the development studio, and is done on a game build that is closer to “feature complete” (meaning it has all the basic game functionality) but is known to have various bugs and performance issues. The first iterations of many Beta tests are called “Friends and Family Beta Tests” because the first people outside a studio who are invited to play are often the friends and family of the developers. There is level of discretion demanded of a limited field of beta testers because of studio concerns about the security of their code and IP. During DreamShooter’s early Closed Beta test, BlueSky made a point not to invite games journalists or developers from other studios.

But that was one of the few things about the DreamShooter beta tests that was similar to the beta tests of other online games. Where beta tests are usually begun when a game is “feature complete,” DreamShooter was far from “feature complete” when their Closed Beta started in late 2011. But the intention was to get the community involved early, to give them a sense of ownership over the game, to invite them to actively participate in the design of the game. The decision to start beta testing at such an early stage was borne of an ideological commitment to the notion of community-driven design, to the point that it was implemented with almost literal precision. And this attribution of value to the word of the player was part of the overarching cultural shift in the relationships between consumers and producers. DreamShooter was unique in how extreme their beta testing strategy seemed—they were in beta for two and a half years before their “official launch,” and opened their in-game shop while still in beta, which was largely unheard of—but it was part of an early-beta testing trend in the game industry. More game studios were conducting extensive beta tests and incorporating design feedback, instead of the previous model of beta testing, which many players would criticize as being “trumped up game demos,” meaning that they were used more for hype and marketing to players than for actual testing.

The BlueSky developers were not only committed to the idea of community-driven design, they also took the risk of making in-game sales while still in beta. This was typically frowned upon by the

industry and player communities alike because of how this complicated the prospect of possibly having to wipe game data in the event of major changes to the game build after any given phase of testing. It was quite common to “wipe” data—purge all saved player data—during beta testing to then be able to test changes in a clean software environment. Players often didn’t like these “server wipes” because it effectively erased many hours of gaming effort. But if players were already paying for items, the studio could not wipe the data because it would delete whatever they had bought. When the store was opened, BlueSky’s CEO appeased player fears about a server wipe by promising that they would never wipe the servers. This was a move that, on the surface, made the players happy, and the opening the store made the investors happy. But it put undue pressure on the developers who could no longer rely on the option of a server wipe if they implemented any risky changes. It was still possible to reverse changes made to the builds, but it would have to be done in a live, messy and populated development environment. All of this development tension emerged from the extended beta test because of the large shifts in industry priorities – particularly those around F2P games and online consumer participation. The studio narratives shifted to accommodate this changing landscape, but then came to be at odds with the technological parts of the game that had been created under a different set of design narratives.

Conclusion

During the summer of 2013, the DreamShooter Vision was heard far less frequently that it had been in previous years. Instead, Milestone Meetings and casual design conversations around a designer’s desk were about monetization: what items were the most likely to sell? What could they charge for certain cosmetic items? What were other game companies doing? “Did you hear that EVE is selling a \$75 monocle?! Think anyone’s going to buy it?!” What currently was selling best, and why did they think that was? How could they reproduce it? Ultimately, the questions about design that had once been oriented around perspectives of fun (which are discussed in more detail in Chapter 4), were replaced by questions of design oriented around monetization, marketability, and what players were most likely to spend money on. There is some overlap in the Venn diagrams of “fun” and “most likely to purchase,” but they are not

identical. The large-scale market shifts impacting the game industry changed the environment and narratives around the studio (Castronova 2005; Dibbell 2006; J. R. Kucklich 2009). Designers were embedded in a context that necessitated them thinking about the Player as Consumer; the market and F2P games shaped how they imagined these players interacting with the game.

Monetization became a quest to find the proven formulae for successful sales. The developers at BlueSky started looking at the most successful hardcore PC F2P games on the market at the time—games like League of Legends, Warframe, World of Tanks, and CrossFire in Korea—and worked to reverse engineer how those models could work in DreamShooter while still maintaining a system that did not “sell power” to players. The DreamShooter developers put together Founder’s Packs and Starter Packs, which contained “Red Beans” (in-game currency), boosts (like XP earning boosts that increase a player’s rate of earning XP for a determined period of time), and some exclusive items that would never be for sale elsewhere. They sold “battleframe skins,” which were cosmetic designs for player’s mech suits. Following the pattern set by many collectible card games, BlueSky sold vending tokens that players would use on vending machines that would then deliver crates full of random goods. Sometimes rare and legendary items would be in these random goods, incentivizing players to buy more tokens to have more chances at these good items. The vending tokens turned out to be one of the best sellers! But while the designers were focused on pinning down what would sell, they could not be focused on designing new content that was fun. This was not a set of pressures that existed in the same way during the development of box-copy and subscription games, which were the monetization models that constituted the DreamShooter design team’s entire prior experience. Despite BlueSky’s genuine intentions to not let the F2P model impact the gameplay itself directly, it did so by changing the way that the developers had to think about the players as paying users, with every gameplay interaction interpreted as a potential opportunity for the player to spend money.

Game design requires the management of a chaos of multiple, different subjective lenses (Salen and Zimmerman 2003; Schell 2014). A designer’s assessment of their own iterative craft requires them to shift between, and often hold simultaneously, the perspectives of many different players. They must look

at the game they are creating and anticipate how the many-faced Player might interact, or want to interact, with it. They have to put themselves in the headspace of players who were promised they could be heroes, as well as the players who might be bored beta testers. They have to empathize with the players imagined as consumers who might spend a little money if properly motivated, while also interpreting the data showing how users are or are not interacting with their game. A game designer's embeddedness in an increasingly pressurized studio and industry environment can shape how well or how often they consider certain player perspectives.

BlueSky Games and the development of DreamShooter serve as a case study for the interconnectedness of global shifts and local cultural conceptions that shape daily creative and technical processes. The actions of BlueSky developers were embedded in a global market, in a game industry, and within a local community. The intersection of these historical contexts can be seen in the Vision narrative that framed perceptions of BlueSky Games and DreamShooter, as well as in the changes in the relationship between that narrative and the changing design priorities that guided DreamShooter through several years of development.

CHAPTER 2

Politics of Creative Spaces

Most workdays started with a walk through the lobby of the office building that BlueSky Games shared with several doctors, dentists, and a vision center. Navigating around elderly drivers and pedestrians in the parking structure, and riding in the elevator with geriatric patients on their way to a checkup, was a normal part of working at BlueSky. The office directory in the building's open and sunny first floor lobby was unclear and poorly updated, causing confusion for new visitors and patients. There were several occasions when BlueSky employees escorted lost patients to the right office after finding them looking lost outside the locked doors of BlueSky's internal lobby space.

The second floor was fully occupied by BlueSky's primary office space. Upon exiting the elevator, there was only a set of locked double-doors, a doorbell button, and a small suite number placard on the wall next to the doors for Suite 200. BlueSky was listed nowhere externally except on the first floor directory. It was pointed out to me by Kristen, the head of Business Operations at BlueSky, that when they had been looking for office spaces to rent, they had been careful not to choose any places with 4s in any part of the address because of the Chinese belief that 4s are unlucky. They did not want to accidentally warn off BigBoss Inc., BlueSky's main investors, and a potentially large community of Chinese players by building their studio in an inauspicious location.

The main entrance to the BlueSky offices, those remarkably unremarkable double-doors on the second floor, could only be opened from the inside by the nearest helpful person, or from the outside with a keycard given to every employee on their first day. These kinds of locked doors and minimal signage were common security measures in the game industry where development studios are distinctly closed to the public and, ostensibly, to potential code poachers. IP and technology protection are paramount in the competitive game industry, especially during the early stages of development when a competitor might still have a chance to rush out their own product based on "stolen" ideas and software code. But more

than those functional considerations, secrecy was a deeply rooted part of the game industry mystique, as well as part of game design culture (O'Donnell 2014:12,145-149). Game theorists might note how this parallels certain characteristics of play itself, as identified by John Huizinga: "The exceptional and special position of play is most tellingly illustrated by the fact that it loves to surround itself with an air of secrecy" (Huizinga 1950:12; O'Donnell 2014:146).

The double doors opened to a small waiting area and welcome desk. Once inside, the environment is more inviting, but still clearly separate from the regular workspaces. This was a purgatory space dedicated to welcoming and processing visitors; an antechamber for anticipation. But this was where the first true signs of the company beyond could be seen. A giant BlueSky Games logo sign—consisting mostly of a large, red number 5—proudly shone from the wall above the receptionist, and a visitor sign-in sheet sat on top of the welcome desk counter. The tiny waiting area had two comfortable chairs and a loveseat clustered near a side table that was covered with magazines, a pile consisting of multiple issues of *Popular Mechanics* (a magazine about engineering and technology), *WIRED* (presenting "in-depth coverage of current and future trends in technology"), *PC Gamer* (dedicated to "all your favorite PC gaming franchises"), or *Maxim* (a men's lifestyle magazine, touting "girls, entertainment, sports and jokes," that was especially well known for their beautifully produced, high-gloss photo spreads of gorgeously airbrushed women in their under-garments) (Maxim.com 2015). Any visitor—business, family, or otherwise—given the opportunity to peruse these magazines would have gotten a glance at a meaningful constellation of the most common, outward-facing interests of the developers making games behind the closed doors of BlueSky Games. This particular collection of print media, piled casually in the waiting room of this independent, AAA game development studio in Orange County, California, might have said a tremendous amount about the cultural context of the game industry at large.

One of the main goals of this ethnography of BlueSky Games is to illuminate the embeddedness of game design practice in the translocally situated context of a game development studio.

Anthropologists, STS scholars, and HCI theorists have all chimed in on the importance of studying

activity as embedded within their particular local context of space, technology, histories, and social relationships (for example, Suchman 2007; Bijker, Hughes, and Pinch 1987; Callon 1986; Goffman 1963; Latour 1987). Lucy Suchman's definition of "situated action" touches on a helpful notion of this relationship between practice and setting: "That term [situated action] underscores the view that every course of action depends in essential ways on its material and social circumstances. Rather than attempt to abstract action away from its circumstances and represent it as a rational plan, the approach is to study how people use their circumstances to achieve intelligent action" (Suchman 2007:70). Certain this is theoretical ground that has been covered extensively by anthropologists, just one of the more visible examples was Geertz who argued that approaching an understanding of someone else's "point of view" "demands setting that conception aside and seeing their experiences within the framework of their own idea of what selfhood is" (Geertz 1974:31)

Studying the local environment of BlueSky Games became especially important in this analysis of a local game development culture because of how much productive work happened in the gaps between "formal" work spaces. The casual communications that took place outside of conference rooms—like at people's desks, in passing in the stairwells, while heating up lunch at the kitchen microwave, around the Street Fighter arcade cabinets—were as crucial to the game development process behind DreamShooter as any other kinds of activity that might be recognized as formal work in other offices and other industries.

In many ways, the studio spaces and social practices were essential components of the casually productive development communications themselves. Any attempts to extract these essential conversations about design from their surroundings would inevitably sacrifice something of their use and meaning. A positive precedent has been set for the ethnographic study of physical and virtual spaces in productive, organizational work spaces scientific laboratories and design studios (Latour and Woolgar 1986; Malaby and Burke 2009; Traweek 1988). Looking at daily practice from a theoretical perspective framed by situated action, activity theory, and ethnographic methodology, this chapter provides an ethnographic vignette of an average day as meaningful played out in and around the office spaces at

BlueSky Games.

A Developer's Day

As an employee of BlueSky, my daily experience navigating the office spaces seemed similar to most. A typical day started around 10am, and I would arrive frequently wearing jeans, simple shoes, and a casual shirt, often a t-shirt. The dress code represented the game development norm: decidedly casual and comfortable, but not sloppy. After making my way through the sunny lobby of the glass-enclosed office building and up the elevator to the second floor, I would use my card key to beep myself in through the main double doors. I always said “Good Morning” to the receptionist and facilities manager, Magda, who was usually working behind the front welcome desk in the office’s anteroom. Then making my way down a short corridor, passing from the well-lit front welcome area and around a corner, I would enter the dimly-lit but wide-open main floor. This was the central collaborative work space in the office. It took up more than two-thirds of the entire second floor, which was a long rectangle spanning over 12,000 square feet. There was a scant handful of offices along the left-hand windowed wall, and the open common spaces were in the far left back corner, on the opposite end of the building from the front entrance. The contiguous office space was only broken up by a few partial walls, a few rooms towards the back, and several pillars supporting the main open space. This space was filled with approximately 80 desks that were clustered in groups of 8-12 that had little to no division between them. These were not cubicles, but desks, making for an “open floor plan,” which had become quite popular throughout the tech industry in the 2000s. This is where the development staff spent the majority of their time physically, either at their desks, around the desks of colleagues, and engaging in conversations across all the spaces in between.

Some of BlueSky’s philosophical priorities were made immediately clear upon entering that office space. First, the openness of the desks was intended to facilitate spontaneous, productive conversation and creative collaboration. Getting to my desk from the office entrance required winding through and around the casually clustered pockets of desks, often drifting past multiple ongoing debates, usually about one video game or another. Another materially expressed priority was in the fact that the

lights were usually off and the windows covered with blinds. Any ambient light came from a multitude of scattered computer screens, some personal desk lamps, fluorescent lights coming through the internal windows of conference rooms and offices around the perimeter of the open space, and sunlight sneaking in through cracks in the horizontal blinds covering all of the windows. The darkness was always explained as a requirement for the artists who claimed to function best in their detailed capacity when glare is minimized. Colors and contrasts pop from the screen when the surrounding environment is dark. The art in DreamShooter, and the quality of its rendering, was one of the defining features of DreamShooter's production value and quality. The art and the artists were hugely important, so their demands for optimal working conditions significantly impacted the space. Furthermore, many of the other developers appreciated the darkness and lack of glare because, as hardcore PC gamers, they were usually appreciative of better graphical accessibility, so they did not argue for the lights to be on.

At my first assigned desk in the studio, my closest neighbor was a talented 3D character modeler named Jonas. We shared a long, curving desk space oriented so that when we were both sitting facing our computer screens, we would be almost back-to-back. He was one of the quieter people in the office, and since our work did not intersect directly, we made few opportunities to chat. But I would frequently sneak peaks at his screens when I leaned back in my chair to stretch and take a break from my own work. The level of detail in his character models was astounding, and I was amused and impressed to note that he could sometimes simultaneously watch episodes of old television shows like the X-Files "picture-in-picture"* on his main or secondary monitor while he doing certain kinds of busy-work. My other neighbors included a Josh, a Senior Programmer across the walkway between desk clusters, Jon, a UI Designer on the end of that neighboring desk cluster, and Roman, a QA tester sitting on the other side of a low divider at my same desk cluster. These three were talkative, and formed a regular knot of activity and boisterous discussion. Most of the time, I was more than happy to join in on many conversations when they spun up. But if concentration was required in the moment, the only way I could avoid getting drawn in was if I put my headphones on and hunkered my shoulders slightly, intentionally assuming what I hoped would look like "don't bother me" body language. Even that strategy didn't always work,

especially because my desk was near a relatively busy intersection of paths.

Take this example of a time when I was watching a video at my desk with my headphones on. It was a video critique made by one of DreamShooter's better-known competitive beta testers. The video itself was full of gameplay footage recorded by the player, with his narrative over the top of it. The video creator's main argument was that the most recent patch had made the character movement speed too slow, especially for the heavier mech battle suits. I got a couple minutes into this video before becoming aware of some conversation right behind me. I glanced back to see that my neighbor Josh had rolled his desk chair to a place where he could lean over to peak at the video on my screen, and one of the combat designers, Cory (who must have been walking by on his way to the kitchen), stood behind my other shoulder.

Cory: [to Josh] ...you see this already? yep. I knew they were going to bitch about that

Josh: [to Cory] well yeah, the hardcore players care because they want it to be hard. They know [it] already so they get advantage with the speed. But there's like 10 of them...

Cory: [interrupting] come on... there are more than 10 of them

me: the thread in the forums is already to 6 pages long and that's from this morning. I think there are more than 10 of them

Josh: yeah but the problem is that we have to be accessible to the new players who aren't competing. It's impossible to hit anyone unless you're a top notch player. They're not having fun.

Cory: yeah, I know I know... accessibility. That's why we [the combat team] didn't fight it harder, but I think we lose something. The feel before was more like Quake or like, the lighter 'frames felt more like the TF2 scout...

me: ... that's why I loved the speed before!

Josh: see yeah Quake is way too fast. If we want mainstream players, it can't be so hardcore"

me: our competitive community isn't going to ever love "easier." Why couldn't we just slow it down for open world?

Cory: sucks to feel slow in the open world, too! But nah, we don't want to make PvP and open world characters feel too different that way

Josh: besides, they still have sprint...

Cory: oh shit! That reminds me! [Turning to Josh] Have you played the new TF2 patch at all yet? They totally changed the ...

This conversation continued past when the video playing on my screen had ended. Several minutes of lively discussion passed, until I saw the time, remembered I had a meeting soon, and turned back to my computer to finish another email before the meeting time came. My day would progress in periods like these, of becoming absorbed in the activities on my two computer screens—completing digital tasks, writing emails, reading forums, glancing at the IRC chat room, sometimes playing the latest production build*. These periods were regularly interrupted by ambient conversations of varying lengths, usually on various game-related topics. Sometimes the interruptions were the result of scheduled meetings, my own restlessness and need for stretched legs, or a visit to the kitchen or bathroom. I often took a late lunch break, and would message one of several coworkers using the office’s internal¹² instant messaging system to ask if they wanted to come with me to grab lunch at one of the restaurants in the nearby mall, or at the market across the street. I would then gather up whomever agreed to come along, and we would wander off to get lunch and bring it back to the office. Walking was the most common mode of transportation to nearby restaurants, but some would drive to eateries that were outside of easy walking distance. On my average day, I would walk somewhere nearby, decompressing on the walk, then take my food back to my desk and multitask.

During the non-crunch¹³ times, the ever-present background of conversation and laughter in the office would peak in volume around lunchtime, between 12pm and 2pm, and again around 5pm, slowly ebbing as the people start drifting out between 6 and 7pm. The soundscape was various. Jokes and

¹² “internal” refers to things hosted or served within the office and/or on the studio’s local servers. This “internal” chat client could only be accessed by people on the local network.

¹³ “non-crunch” was common for most of this research period, meaning that developers were not frequently required to stay late or come in over the weekend to finish milestone goals. “Crunch time” is a game industry norm, and is one of the top contributors to a poorer quality of life for many developers.

laughter were perhaps the most commonly heard across the open office, though serious discussion and work-related debate always seemed to be happening somewhere in the office. Heated argument was rare, though it became somewhat more noticeable as DreamShooter's Open Beta launch grew near. The second floor soundscape was generally jovial, and I enjoyed the atmosphere even when it made it more difficult to do certain solitary work tasks requiring extended periods of concentration. Some other employees, including my neighbor Aaron the UI Designer, said that the open desk arrangement was fun, but that it made it "impossible to get things done sometimes." When he had task deadlines coming up, he would often come in early, between 8am and 9am, to work while the office was relatively quiet, before the majority of the staff arrived around 10am. I was the opposite of this early-rising friend. If I had pressing deadlines, I would stay late to take advantage of the quiet and the absence of social distraction. Even if staying past 8pm, I was never the last person to leave. There always seemed to be a few people staying late to play video games at their desks, and sometimes upon leaving, I would come upon a small group gathered in the bright lights of one of the conference rooms playing *Magic: The Gathering*, a popular collectible card game, or *Warhammer*, a board game played with hand-painted miniatures.

The persistent theme of the office's layout was openness: open desks, openly viewable screens, open communication across the space. The studio's daily social practices, including employee choices about wardrobe, who to eat lunch with, what items to decorate one's desk with, what car to drive, among many others, all signal membership and association with particular subject positions within that particular workplace (Kelty 2008; Kirkpatrick 2013; McInerney 2008; O'Mahony and Ferraro 2004). In Gideon Kunda's engineering field site, for example, noted that business attire "seems almost theatrically out of place and suggests association with the outside world, usually with "business types," which represents the orientation of local studio membership as juxtaposed to the values of outsider "business types" (Kunda 1992:2). There was a very similar pattern to be observed among the game developers who reinforced their membership and belonging through their daily practices within the studio space, such as in wearing t-shirts displaying geek culture references, debating the merits of a recently released video game down to granular detail, or carefully displaying a small collection of game-related figurines on one's desk. The

developers of BlueSky Games were proud to be geeks, and proud to be part of an openly collaborative creative environment in which they got to make video games, sharing this trait with many of the other professionalized geeks of technology production (Kelty 2005)., As part of game development culture's shroud of mystery, however, they enjoyed the fact that the rest of the outside world could not see or access their creative spaces directly.

Open Spaces and a Flat Structure

The material spaces of BlueSky Games warrant deeper description because they reflect belief about the distribution of power. The founders of BlueSky wanted the company to function as a relatively populist creative organization. They claimed to want to “make a game for gamers, by gamers,” and they wanted their developers to feel personal ownership over the game. CEO Mark Kern said often that he felt the best game would come out of everyone being able to explore their best ideas, and he worked hard to create a cultural environment within BlueSky that would facilitate that. The result was a studio environment that was both culturally and spatially open, and a “flat” organizational structure, meaning that there was minimal ladder of authority or management titles. There was the upper management team that consisted of the CEO himself, and the “Wolfpack” of seven team leads. Every other employee at the company reported to one of those eight managing individuals, even when the company grew to over 150 people. There was a period of several years when alternative, unusual job titles were encouraged. New employees had the opportunity to pick their own title, but were asked to avoid the typical identifiers of experience or seniority. There were few “senior” and “lead” titles on business cards. Instead, new hires selected custom titles like “the Rainmaker,” “Pixel Pusher,” “FX Wizard,” and “Marketing Guru.” In theory, every member of the BlueSky Tribe owned rights to the creative development of DreamShooter, and this philosophy was articulated throughout the game studio's office spaces in the form of the open floor plan. The fingerprints of BlueSky's value system were all over the material space of the office.

Several different philosophical paradigms determined how desks were assigned to employees throughout the studio's history. In the company's earlier years, developers were grouped by specialty.

Artists were grouped in one area, designers in another, programmers in another, etc. Several of the veteran developers told me stories about how strife between groups was accentuated and perpetuated by their physical segregation, to the point that if someone would wander into an area occupied by another group, they were subjected to hostility. To prevent this kind of segregation, and to foster a more congenial corporate culture among the Tribe, the management decided to start “shuffling” desks randomly through a desk lottery. This was the system in place during my time with BlueSky. Their intention was to shuffle desks every 3 months by assigning numbers to desks and having employees pick a desk number out of a hat. These shuffles were supported by everyone in theory. They agreed with the benefits of getting to sit next to and become better acquainted with more people at the company, especially as it grew in size. But I heard several grumbling objections. Some said they had grown comfortable in their location, and didn’t want to go through the hassle of moving their stuff. Others expressed dismay that the random shuffle would sort them far away from the team members that they needed to work with on a daily basis. These objections grew louder as the company outgrew the space on the second floor and had to spread into offices spaces on two other floors in the building, making the prospect of tracking down feature team members for discussion even more onerous.

But these desk shuffles applied to all of the developers, including the CEO and members of the Wolf Pack, which provided a measure of equalization that warded off most complaints. All of the development managers pulled desk assignments out of the hat the same as everyone else. As a result, the main floor space was well diversified in its distribution. Organizational ethnographers and anthropologists studying workplaces have observed that “differences in power and rank are to different degrees seen in the social and symbolic mapping of a workplace” (Greenbaum and Kyng 1991; Mellstrom 1995:7). This was true in the BlueSky offices in that the random distribution of personnel, the periodic shake-up to kindle opportunities for new social connections, and a disavowal of any strata between professional specialties and rank represented their cultural commitment to a populist organization environment. They did this to foster what they believed would be the optimal setting for creative work.

Some of the decorative details and common office practices also helped to emphasize that this

space was one dedicated to collaborative creativity. The walls of the second floor, were mostly decorated with DreamShooter concept art, marketing materials, and framed articles. There were two distinct places in the office reserved for employee artifacts and casual creative fun. One was the wall between the two bathrooms that had been painted with chalkboard paint to create a chalk-friendly, creative space. Pieces of chalk lived on a tiny shelf on the wall, and when it was first established, employees had fun writing some notes and simple drawings. The content related primarily to inside jokes for and about colleagues. The wall was slow to change, with additional notes and drawings being added sparingly, maybe a few times per month. Chalk wielders were almost always individuals who got bored while waiting for colleagues to come out of the bathroom to go to lunch, and they entertained themselves with chalk expressions. The second space for fun intra-office creative play was a corner of a central wall in the Tiki Lounge that had been reserved for employee shenanigans. This wall was casually known as the Wall of Shame, and images and quotes had been printed and taped or pinned in no organized way. The content was always funny in nature, frequently embarrassing, but always friendly. There was at least one unflattering and silly picture of the VP, and a few quotes from emails that had been originally sent to the company SPAM (fun) list. There were also a selection of comic strips from online comics that were especially pertinent to BlueSky developer humor.

The walls around the second floor office space were decorated with several nicely framed, exemplary concept art pieces from the proceeding six years of development. In several cases, the actual content seen in these pieces of art were no longer related to anything in the game itself, or still had yet to be implemented in the publicly playable builds. This art was slowly updated and replaced during the course of my fieldwork, and there were several times when art had to be taken down or covered up because of an impending visit by press or community members. The management did not want to have unannounced content seen by the press or public. As the design processes became more AGILE¹⁴

¹⁴ AGILE was a particular project management strategy that was popularized in software development. It is supposed to facilitate faster iterative design and development through the focused coordination by small

influenced, some of the wall space became functional Task Walls¹⁵. Other walls were claimed for television screens that would show graphs of live game data, or live gameplay from a spectator camera¹⁶. It was possible for the developers to enter an observer mode and cycle through random players in-game, watching them as they played. They did not have it set up to observe player chat, only to see their gameplay without the HUD¹⁷, which was potentially informative as part of the various beta test stages, but was used most commonly on these central screens as entertainment and decoration.

In this start-up spirited professional space, where the hierarchies were not formally defined by titles and management levels, social hierarchies became the basis for navigating authority. Game design requires debate. The process of “finding the fun” was a persistent back-and-forth among individuals that have clear but shifting ideas about “fun,” an inherently ephemeral sense. To complicate matters further, the developers trying to “find the fun” are simultaneously grappling with the challenges and limitations of building a complex technological system. Debate was crucial, and the topics are often approached from perspectives colored by emotional investments. As a “passion” industry, so many shared ideas have deeper lineages in emotional connotation.

Virtual Work Spaces and Platforms for Collaboration

The physical and material spaces that constituted the BlueSky Games offices were integral parts of the social interaction and work activity behind the making of DreamShooter. But equally important was the multilayered realm of virtual spaces where crucial development and design work happened.

teams. SCRUMS (brief, daily update meetings), “User Stories” and “Task Walls” were both part of the AGILE system at BlueSky.

¹⁵ “Task Walls” were wall spaces covered in different colored notecards with development tasks written on them and ordered according to priority.

¹⁶ “spectator camera” allows a spectator to view live gameplay from the perspective of (“through the eyes of”) an active online player.

¹⁷ “HUD” stands for “Heads-Up Display”, which usually shows a player important information, such as how many health points they have, how much energy their jumpjets have available, ammunition stores, etc.

Every member of the BlueSky development team spent a great deal of time on their computers engaged in different, overlapping forms of communication and making. The organization of physical space reflects and reproduces “Technical space connects both personal and social space since the artifact in technical work works as the organizing principle and the symbolic framework for the material organization of the workplace” (Mellström 1995:7). Of the many spaces where work-related communications took place, a few stood out because of their heavy use or unique role in the productive studio environment. In this section, I discuss three of the networked communication platforms that BlueSky Games used during the development of DreamShooter.

Microsoft Outlook was the integrated mail system at BlueSky Games. The system lived on the office’s local servers and coordinated everyone’s calendars. This calendar coordination included a meeting-invite system that would help meeting organizers see when people were otherwise scheduled as busy or free, essentially making any individual employee’s time in the office a segmented and quantified artifact to be manipulated and worked around. The mail itself could be organized however an individual employee wanted—in folders, with flags of different colors, with priority levels, etc.

Email at BlueSky Games was used most often for communication between Feature Teams, which were mixed groups containing members from a variety of professional specialties, all of whom were dedicated to the development of a particular feature or in-game system for at least an 8-week period, depending on the needs of that Milestone Sprint. Sometimes feature teams were as small as two to three people, and other times they had as many as fifteen people. Email served as a good gathering surface for ideas, debates, and plans for implementation. It allowed asynchronous exchanges, taking place over disjointed periods of time, while also keeping the discussions organized as chronological conversations.

One interesting feature of the use of email at BlueSky Games was how frequently they used

company-wide email lists¹⁸ for both official work discussions, and also for casual, fun discussions. There was an email list titled SPAM that was used for all “off-topic” (i.e., not directly work-related) conversations. Even though everyone technically received those emails from the SPAM list, many people sorted them into a separate file in their Outlook inboxes that they never or rarely checked. The BlueSky Games “Everyone” list was the one used for work-related company discussions, but it was used quite frequently even for mundane notes. One of the most interesting trends I saw was in how employees would email the “Everyone” list to report that they were sick and therefore not coming in for the day. The same would go for people who were going to be late because of a flat tire or a dentist appointment; they would email “Everyone” with a brief note about when they expected to be into the office. This seems like the kind of thing that would make sense in a studio environment only employing 30 people, where everyone’s work is only one or two steps removed from another’s work, meaning that your absence would be noticed and possibly by the majority of the Tribe. But this trend in reporting in sick via company-wide email persisted as BlueSky grew, continuing even when the company employed over 130 people. This seemed to be perpetuated by the “flat” hierarchy and management system, because most people did not have a traditional boss to report to. In lieu of emailing a direct supervisor, Tribe members notified the entire team when they wouldn’t be there to pull their weight because they felt accountable to the entire team. The populist Tribe culture and sense of ownership of the project was perpetuated and represented by this particular use of email.

“Spark” was the Instant Messenger (IM) program that was officially served and maintained by the IT staff at BlueSky Games. It functioned much like the standard IM clients of the day, with a list of members (meaning anyone with a BlueSky email address) who were currently online (meaning that they were logged in to the company’s private network) or offline, and clicking on one of those names would

¹⁸ “email lists” were pre-designated groups of email addresses, grouped into lists for certain purposes. There were company-wide lists as well as lists dedicated to each professional specialty, such as “Design,” “Programming,” “TechOps,” etc.

bring up a window for chatting with them directly. You could also create group chats between multiple other employees by adding them to an existing chat window. IMs were also used around the company as a way to coordinate meetings, future in-person discussions, or ask quick work-related questions without having to get up from one's desk to go find someone else's desk. This became more urgently needed as BlueSky grew to take up spaces on the first and fourth floors of the same building. Not only did the prospect of traveling to talk to a fellow feature team member become a much bigger effort, but with so many new faces, there was an increased chance that you wouldn't recognize someone's face in relation to their name. Finding a colleague's name was much easier in the IM client context.

IM was a particularly helpful communication tool in such an open office environment, because it offered one of the few private channels for chat with other employees within the walls of BlueSky itself. The Spark chat windows represented a rare form of encapsulated, small-scale social space that was otherwise impossible in the wide-open collection of desks and common spaces. Because of this, Spark was one of the main communication backchannels that was used to communicate potentially scandalous ideas, or critiques of the company's management or direction. In their study of the use of Instant Messaging programs in work environments, Nardi, Whittaker, and Bradner identified that the kind of communication that takes place in these small virtual spaces could be called "Outeraction," as compared to "Interaction" (Nardi, Whittaker, and Bradner 2000). They define Outeraction as "a set of communicative processes outside of information exchange, in which people reach out to others in patently social ways to enable information exchange" (79). IM chat seemed to be an especially well adopted communication tool around the office for the kinds of social exchanges Nardi and her team discussed partly because many of the developers already had established many years worth of comfortable practices using various forms of IM chat clients to socialize with both local and long-distance friends. Many of the developers I asked, in fact, said that they commonly used IM chat clients to plan gaming sessions with their friends, or to organize guild or clan activities. This ease of use and familiarity carried over into the workplace practices of IM use, influencing the use of IM in the office through relocated casual, friendly, and conversational chat habits.

The third example of a networked communication platform used in the office as both a social and work organization tool was FogBugz, a company-wide task-management system that allowed the sharing and exchanging of task “cards” between employees. Feature teams used FogBugz to keep track of the tasks they had lined up for each stage of their iterative design process. With the start of every new Milestone sprint, a feature team would gather in a conference room or common space like the Tiki Room couches to discuss their priorities in terms of “User Stories.” This procedure was borrowed from the AGILE toolkit, as were the “daily stand-ups” in which a team would meet for 15 minutes, all while standing, to catch up on one another’s progress from the day before, and to see if any new roadblocks or priorities had come up. AGILE was one of the most popular project management strategies for software development teams around the tech industry during the time of DreamShooter’s development. AGILE was adopted by BlueSky Games as a way to be able to react quickly to shifts in priorities or landscape—to be “agile—and to maximize the benefits of an open, supportive creative environment. AGILE deemphasized top-down leadership and “pipeline”¹⁹ bottleneck, instead enabling feature teams to design and create features quickly and effectively as a small, relatively-autonomous unit.

When asked during a company-wide meeting why BlueSky Games was trying to adopt this project management system over others, the VP of Development explained that they had seen the drawbacks of the pipeline system, in which Producers would hand out tasks and then manage them. He pointed out that BlueSky used to be like that, but they felt like it stifled creativity. If someone had an idea under that system, it had to go through the producers, was put on priorities list somewhere, and by the time they’d get around to it months later, the passion would be lost. With AGILE, the hope was that new ideas could be shared with the group and they, as a team, would have the early ability to take action.

Creating “User Stories” was the first part of every feature team’s process, in which the team

¹⁹ “Pipeline development” was another popular project management system used in many software development studios, typically considered more formally structured than AGILE. Pipeline usually involved a producer managing the timelines for every member of a feature team.

would approach answering questions of design and development by thinking through the optimal player experience. Tasks started out as identifications about what the designers wanted the player experience to be. For example, the feature team working on the equipment crafting system knew which system they were working on, but they identified user stories like “Putting together refined resources to create a new item looks and sounds like a satisfying kind of winning,” or “ I can understand how much time I have left in each build,” or “Successfully creating a rare, customized item makes everyone nearby envious.” Once the feature team can generally agree on what experiences are most important, they approach the development of the feature through the lens of these experiences. The user story serves as question about how to facilitate a particular kind of situated action, and the better this question is framed, the easier it becomes to answer.

FogBugz was used to manage all of these user stories and the tasks that descended from them. But it is interesting to note that these user stories always started out as social working artifacts in the physical space of the office. During the initial planning meetings, developers would help write these User Stories on white 4x5” notecards that were then stuck to the SCRUM wall (there were multiple SCRUM walls, one of each taking up a chunk of wall on every floor of BlueSky’s office space. Underneath the user stories, the developers identified tasks that could answer the questions posed by the user stories, and these tasks would be recorded on notecards of various colors (blue, yellow, and pink). These notecards stayed up for easy viewing and reference, pinned to certain walls around the office throughout each milestone period. They stayed on the wall even after one of the associate producers hand-enter every User Story and task card into the FogBugz system online, creating a digital replica of the physical cards, containing the same information.

Once a task was input to FogBugz, it could be assigned to someone and put on a calendar with due date reminders. But as that task progressed, it could be reassigned to the next person on the feature team who needed to do something related to it. With each transfer of responsibility (reassignment), employees would include notes about what had been done so far, any hiccups, and what needed to be done next. This exchange of developer stories and experiences created a process that codified developer

narratives and imagined player subjectivities into discreet work tasks. The translation of the physical cards into digital form demonstrated a technologically-mediated translocal movement of knowledge and values from one kind of space, where design work looks like the messy negotiation of ideas through conversations, to a regimented, process-oriented virtual platform where design looks like a check-list of tasks and a system of accountabilities (Anderson 1994; Dourish and Bell 2007; Williams, Kabisch, and Dourish 2005). Julian's Orr study of Xerox printer technicians and how their knowledge sharing practices involved a similar exchange of contextualized narratives that was then eventually mediated through a technological system (Orr 1996). And much like in this case, Orr highlighted how the contextualized process of technicians talking through tech problems by storytelling their past experiences helped them to cope with an ever-shifting set of technological factors.

The fact that these communication platforms, like email and IM chat, were being used in a game development studio does not, itself, tell us much about the values or meaningful social action in that environment. But the particularities of how they were used to accomplish certain goals within the technosocial setting of game development at BlueSky reflects much about how the local studio cultural values of openness, creative agility, and player perspective (Ito et al. 2006; Meyrowitz 1985). Electronic media and digital communications have the ability to break down certain social boundaries and provide certain collaborative efficiencies for work (Brown and Bell 2004; Irani, Hayes, and Dourish 2008; Orlikowski 1993; Williams et al. 2005), but they can also construct boundaries while also changing the format of knowledge and social relation by codifying them in sterile, encapsulated ways. This can be beneficial for the speedy division of labor in a complex work environment, but can also divorce tasks from meaningful context, possibly altering the narrative about player perspective that is at the root of the task.

The interconnections between these spaces are also representative of the transmodality of design communications within BlueSky (Murphy 2012). Though the Swedish furniture designers studied by Keith Murphy used sketches on paper, renderings in computer programs, and printed drafts to communicate and collaborate on design ideas, the game designers working on DreamShooter used a

similarly disparate assemblage of tools and spaces to collectively refine their designs. “A designed object emerges through contrapuntal movement between these different formats and through various modes,” and in the case of game design at BlueSky, the different formats and modes involved many variations of textual exchange across different physical and virtual spaces (2012:1970).

Shared Space and Social Work

One of the key arguments I am making through this ethnographic investigation of BlueSky’s office spaces is that much of the most important productive “work” done by developers was done through the casual conversations and social exchanges – those not organized explicitly around a development task - that might not qualify as “work” in certain fields of organizational study. BlueSky’s common spaces were, therefore, central to the game development process and to the Tribe’s local culture, not, as some might assume, incidentals or amenities aimed to make the employees happier. They were intended to foster open communication and collaboration between developers, which was assumed would be optimal for creative production. The common areas and dedicated group work spaces did much of what was intended, but like with most designed artifacts, they afforded far more than was intended by the original designers.

The large common space was the Tiki Room or Tiki Lounge. It was decorated loosely in a tropical theme, with a dark green cargo net and vines hanging from the ceiling. The Tiki Room was named for its central resident, the first official BlueSky purchase upon the founding of the company in 2006: the tiki bar. Sitting on the north side of the room near the shuttered windows and door to a large outdoor balcony, the tiki bar was a convincing replica of a small-scale, stylized tiki bar, complete with bamboo bar and chairs, overhung with a straw roof, decorated with fake ivy and small string lanterns. The bar was stocked with all kinds of alcohol. A small amount of glassware was kept around the tiki bar, but most of the alcohol was sipped from the red plastic party cups made available on the kitchen side of the room. This kitchen side of the Tiki Room hosted the coffee machine, water cooler, and a large drink refrigerator with clear glass doors that let people view the assortment of drinks available for employees,

which included sodas, juices, energy drinks, and bottled water. There was also a residential-sized refrigerator for holding lunches and company meal leftovers.

Between the refrigerators and sink was one of the BlueSky points of pride: a short row of beer taps. Of the four taps, one was a dedicated nitrous tap for a keg of Guinness, and the other three enjoyed regular rotation through different beer varieties. New kegs were usually brought in on Friday afternoons right before weekly Tiki Time, and a member of the administrative team would print up a new list of the available beers to post on the wall behind the taps. Both the tiki bar and beer taps were free and open to employees, and there were very few rules, if any, about how or when alcohol could be consumed during office hours. In practice, employees were almost never seen drinking alcohol before noon, but it was not unheard of for some employees to have a beer at lunch, and then continue to drink beer casually for the rest of the day. This did not represent the majority of the employees, nor any employee's daily experience that I observed, but it was common enough on certain Fridays, and during especially stressful or celebratory times.

Being on the second floor, there was not much ready access to outdoor spaces from the office itself. But there was a large balcony space stretching the length of the office that could be accessed by a door in the reception area, or by a door in the tiki lounge. This space went through various stages of furnishing during the 2011-2013 period, but it was always intended to be a comfortable space for socializing and taking breaks from work. There were several picnic tables surrounded by chairs and partially shaded by a couple large umbrellas. At one point there was a large outdoor grill that was used during after-hours gatherings, but the building management eventually banned the use of the grill because of fire safety concerns and the apparatus was removed. Smokers used this balcony for their smoke breaks, and though they made up a small part of the employee population, there was almost always someone on the balcony taking a quiet smoke break while using their cell phones to check text messages, read news, use social media, or have personal phone conversations. The balcony became a refuge from the work space in many ways, and though meetings were sometimes held out there at the picnic tables when all of the conference rooms were booked up, it was more often a place where employees would have

conversations that they might not want overheard by the management or by other employees. This was a space for venting and negotiating political alliances as much as a space for recuperation.

On the farthest, eastern side of the tiki lounge, there was a computer and projector set-up for all-hands meetings. Couches and chairs broke up the space between tiki bar and beer taps, and became the staging ground for any of the larger meetings scheduled for the lounge. Additional chairs were lined up for the full company meetings once there were more than 70 people. On the western most corners of this room, there were two retro arcade cabinets, including one StreetFighter machine that got a decent amount of attention. There was also a car racing simulator game that I never saw anyone play, and was powered off on most days. A television screen and set of current generation consoles, including the Xbox 360, PlayStation 3, Nintendo Wii, and various peripherals were set-up for open play. All of these game systems were open to employees. The office would go through phases of communal gameplay practices, like when they would regularly challenge each other at Guitar Hero and Rock Band, and during certain periods of avid Street Fighter tournaments. They even created an analog “randomizer” for employee match-ups in Street Fighter, which consisted of a simple box with a hand-scrawled “Randomizer” sign on it, and there were around ten employees who played daily for a number of months in 2011, and during sporadic periods in 2012 and 2013.

There were only two conference rooms on this main floor, both named after game-related spaces: New Eden and Ember. New Eden was the larger of the two, comfortably fitting approximately 15 people around a large table that has a speakerphone conferencing system in the center. New Eden was the best-equipped conference room, used for the most important meetings with corporate partners, the Board of Directors, and the Wolf Pack. It was also used for daily meetings, and could be booked through Outlook’s calendar system. There was a small refrigerator containing drinks for meeting attendees, which included an assortment similar to what was available in the tiki lounge drink refrigerator. There were whiteboards on both of the short ends of the rectangular rooms, and windows to the outside balcony and inside space on both long sides of the room. There were blinds on all of these windows, though the blinds facing the internal space were usually open. It was a common practice to sneak a peak into the conference room to

see whether it is open and who is having a meeting. One of the shorter walls also has a large monitor screen and networked PC that is often used to walk through parts of the game for discussion purposes. This PC can also be (often simultaneously) used for PowerPoint presentations, video conferencing, and looking up references online. The second conference room is slightly smaller, seating ten people around a conference table with speakerphone calling system, and has white boards on three walls, and large glass windows on the contiguous side with the internal office space that makes the room feel a bit like a fishbowl.

In 2011, the second floor was also home to a playtesting space deemed the “Killzone,” containing twenty networked PCs, keyboards, mice, and headsets. This space was located in a corner of the open bullpen space and was separated from the rest of the office by temporary walls. It was used for regular playtests among employees, and also sometimes hosted competitive play sessions for other games like Team Fortress 2. As the company grew and expanded, the Killzone was relocated to a large conference room on the first floor. Moving this space allowed for more desks on the second floor, which allowed more developers to be within conversation radius of one another, but also made the Killzone less accessible for regular pick-up games for the majority of the employees.

It was in all these spaces that some of the most influential discussions took place, and where bonds were formed through shared experience (Mellstrom 1995). The great majority of the time, these discussions and experiences involved the developers playing video games, with or against one another. This shared basis for reference formed an important undercurrent in the ongoing development of DreamShooter, and the spaces facilitated this shared enjoyment of the centrally important craft. Another core element of shared experience was in the consumption of alcohol, which played a daily role in the studio, even if only with a small group of regulars. All of these group spaces were oriented towards inspiring creativity through fun and a whimsical sense of ease.

Private Space Politics

Where the shape of public, common spaces within an organization's environment is representative of organizational priorities, so too are the private spaces—their use, their assignment, their locations—indicative of the prevailing set of values as they are manifested and reinforced. The decisions behind who gets to use what kinds of private spaces for which reasons, and where these private spaces live, make material the distributions of power and hierarchy of beliefs that inform the system of meaning within that environment. In the case of BlueSky Games, truly private spaces were intentionally scarce, and those that existed were often used for certain kinds of business operations, like accounting, human resource management, and legal matters. These tasks were noteworthy in their classification as the “non-development” parts of a game development business. Also consequential was the fact that the employees who inhabited these spaces were usually women, and those women were among the distinct minority for the whole studio's population; during the time of this research, there was a maximum of 13 women out of almost 150 employees, and of the 8 employees at the company that were expressly dedicated to non-development tasks, 5 of them were women. The use of private space within the BlueSky Games environment invokes issues of power, gender, and institutionalized secrecy around money, intellectual property, and personnel management.

Each employee's assigned desk space was semi-private. It was functionally “their” space, consisting of their dedicated computers, desktop, and small locking filing cabinet. But they were only semi-private in that they had mostly open sides, leaving the desk and its occupant mostly visible. This was intended to contribute to an environment of open communication and spontaneous collaboration, and but did sometimes leave the impression of constant, potential surveillance (Andrejevic 2005; Foucault 1977). Employees were always aware that their colleagues might have a sight-line to their desk and monitor screens, especially if they sat near the center of the space with their backs to the main thoroughfares. But some developers put effort into personalizing their spaces with various assortments of odds and ends and gadgets. It was easy to spot personal affects around the edges of people's desks, under the frame of their monitors, tucked behind their keyboards, or pinned to the low barriers between desks.

Most desks boasted at least a few geek cultural artifacts. At one point, I observed at least three Star Wars light saber lamps around the main floor of the studio offices, one of Jedi blue and two of Sith red. Brain teasers and puzzles were quite common, too, including rubix cubes and magic magnetic blocks. Humorous, photoshopped pictures of colleagues, and printed pages with relevant meme images, jokes, and artwork decorated some desk dividers. Figurines from Japanese manga and animation (anime) and other games could be seen everywhere. The CEO even had his own personal collection of impressive anime figurines in a glass case near the center of the main floor. DreamShooter swag was one of the most prevalent themes of desk decoration, from DreamShooter marketing material on postcards or posters, to Brontodon²⁰ plushies and blow-up plasma cannons. Every three to six months when a “desk shuffle” happened, people would pack up their computers and all of these artifacts of their interests and cultural loyalties to set up again in their new locations.

There were only nine private offices in active use on the second floor. All the accounting and administrative staff occupied these offices which were physically located around the edges of the main second floor space. This staff included the Director of Business Operations, two accountants (who also attended to more general HR responsibilities), the CEO’s Executive Assistant, and the Director of Recruiting. This staff was given their private office spaces because the nature of their jobs—handling sensitive accounting, personnel documents, and legal records—required the security of private spaces with locking cabinets and locking doors. Two sound designers also had relatively private spaces full of recording equipment, and connected to the main office space by heavily sound-proofed doors. But this privacy only existed for the periods when they did not have to record sound effects or voice-overs²¹, which necessarily involved other people spending hours at a time in the sound engineering spaces. These rooms were ostensibly private because of the nature of their jobs, needing to shut out all other office noise

²⁰ “brontodons” were among the most popular creatures in the DreamShooter world.

²¹ Every audio clip in the game of DreamShooter, including the dialogue of hundreds of different non-player characters, were all recorded in BlueSky’s on-site recording booths.

to get clean recordings for use in the game.

The two Internet Technology (“IT”) staff members also had their own small offices that also served as work spaces for them and informal storage spaces for additional computer hardware and parts to serve the entire company. In the middle of my time with BlueSky, when I the first-ever pregnant BlueSky Games employee, and successively their first-ever back-to-work mom of a newborn, the management team set aside one of these IT closets as my dedicated private space for pumping. It was surprisingly comfortable and cozy, despite the shelves of old computer monitors and cases that loomed behind me. These hardware storage rooms were next to another back room that housed the office’s many server computers that provided the infrastructure for the shared office network as well as for the internal production environments.

The servers were sacred because of their important role in the company: they served the virtual spaces where the compiled versions of the game lived while it was being built. They were also extremely expensive as computer hardware equipment goes, likely costing upward of \$100,000 per server, and there must have been at least 8 servers working in that back room. Walking into the server room, you would enter a crisply air conditioned space, maintained to keep cool the humming equipment that filled metal racks to the ceiling. There were hundreds of feet of wires and cables of various colors tangled through and around the server racks. There were buttons aplenty, including a couple large red buttons that simultaneously tempted and warned against being pressed. One IT person joked that if I ever got mad at any of the IT staff, pressing one of those buttons would be easy revenge. My understanding was that they were there for emergency shut-down of the servers, but I was not clear on what conditions would necessitate that kind of emergency maneuver. Regardless, this private space was treated like one full of precious knowledge and treasure, kept away from the main office population because of the danger they might have represented to the expensive and delicate operation of the server technology.

The walkway to the two bathrooms was an inevitable social juncture, being the only two bathrooms on the main floor hosting upward of 80 people. Upon asking the male employees of BlueSky about their bathroom social exchanges, they all said that their bathroom was far too frequently occupied

by other colleagues, so privacy was scant. Bathroom socializing among male colleagues was infrequent, as most said they preferred to avoid eye contact or make minimal acknowledgement before continuing with their business. One informant said that he definitely preferred not to socialize in the bathrooms, saying that he had a “shy bladder” already and conversing would make that worse. For the small number of women employees, the women’s bathroom was somewhat of a sanctuary in that it offered a space closed to the male majority of the office. Crossing paths in the ladies room almost always resulted in a short conversation and pleasant catch-up with a female colleague. Some of those same female colleagues confessed that the often-empty women’s bathroom offered them their only immediately-accessible privacy if they needed a few moments to themselves.

The walls of the women’s bathroom were painted bright fuchsia, possibly to differentiate it from the men’s bathroom. In late 2012, as a response to jokes made about posters on the walls of the men’s room, someone (rumored to be a mischievous pair of people) posted two posters on the otherwise blank wall of the women’s restroom. One was of Sean Connery from the cheesy science-fiction film *Zardoz*, wearing a comically revealing sci-fi inspired costume. The other was an explicitly sexualized image of soccer player David Beckham in a pair of briefs and an open, unbuttoned work shirt, appearing to be laying on a bed. This small representation of the female gaze was a rarity around the office, secluded where only the women developers and the janitorial staff would see it. Comparatively, there was no artwork or posters on the main wall of the men’s room, but there was a poorly printed image of Jeff Goldblum in one of the stalls with the caption “Jeff Goldblum is watching you poop.” During 2012, there were several months when the bathrooms were used as a prank space. An Annoy-a-tron noise maker was hidden in the ceiling tiles of both the men’s and women’s bathrooms. These small devices make random, loud, startling noises, and their presence spawned several company-wide emails with people begging that “whatever it is” be removed. Three separate devices were found by one informant: one in the ceiling tiles, one attached to a pipe under the sinks, and one in the housing of a small panel in the wall. The prankster was suspected but never confirmed. It had become a game in and of itself.

There were a few other smaller spaces kept behind locked doors, mostly closets used for storing

supplies for cleaning and restocking. The only person who regularly accessed these invisible spaces was Magda. As the facilities manager, she was the sole person responsible for registering visitors, restocking bathroom paper towels, processing mail, getting the coffee machine fixed when it broke down, tidying the kitchen area, etc. Everyone at the studio was friendly with Magda, certainly, but she was distinctly set apart from the “regular” game development practices in the office, including many of the social norms. Her role was decidedly “back stage” to BlueSky Games main operations, and occupied the spaces that were mostly likely to be identified as “back stage” spaces in Erving Goffman analysis of front and back stage spaces as they relate to performances of identity (Goffman 1956:69–75; De Souza E Silva and Sutko 2008; Star 1999). She worked at the fringes of the physical office space: at the front desk in the anteroom, in the bathrooms and the kitchen, and storage closets. In talking to her about her role at the company and about the game industry as a whole, she said that her two sons played video games: “they think its really cool that I work for a game company. They get cool points from their friends for that.” But Magda confessed that she did not play games herself, and had not ever played DreamShooter. When I asked her why not, she shrugged and said it dismissively that it was fine, that she wouldn’t be any good at it anyway.

As a Latina woman in her late thirties, Magda was an outsider in this AAA game development context, even as a daily inhabitant of the studio space. This was true of Magda more than any other person permanently employed by BlueSky Games, but to a lesser extent, this also applied to the people who worked in the private offices. Most of them were women, none of them were engaged in the daily work of game design practice, and almost none of them would have called themselves “gamers,” or been identified as gamers by the developers (Golding 2015; Taylor 2006b). This partitioning of space in the office, especially in an environment that was otherwise quite intentionally open and collaborative, mirrored a partitioning of roles correlated with differences in the employee demographic. Those individuals who worked at the fringes of the game development process, set apart from where game development took place—those who were considered to be “studio support staff”—were more likely to be women. This delegation of space conjured an eerie echo of the demographic stereotypes within gamer

culture where the women were subjugated to the fringes either as lesser members, or as prized, mythological anomalies (the much contested “gamer girl”) (Kolos 2010). This was just one of the many ways in which the cultural values and historically constituted environment were reflected in the use of space around the BlueSky office.

Conclusion

Game developer subjectivities are formed through their actions and practices, done in relation to the production of a video game. One of the most unique contributions of ethnography as a methodology for studying a local environment is in the portrayal of embedded detail. By bringing into focus the otherwise mundane-seeming textures of daily life, ethnography allows social scientists to study practice as emerging from a rich context of confluent factors and influences. As these actions and practices are situated within a local, dynamic work community, painting a detailed portrait of the daily flow through the office’s spaces can show meaningful parts of the technosocial context from which game design emerges.

The spaces within the studio reflected and reproduced certain kinds of relationships and subjectivities, and reinforced who was on the fringes of the development process and who was central to it. Many of the practices that took place within the office walls were influenced by the organization of the space, imparting and reinforcing certain social norms. The openness of the studio was a recurring theme across the office that reinforced the Tribe value of open communication and a form of group creativity unencumbered by walls. The fact that most of the women in the office saw to their work responsibilities at the literal edges of office life also helped to reinforce a preference for male membership through gendered space.

The office space also embodied a contradiction between BlueSky Studio’s stated values of openness, transparency and community involvement, and the tech industry norm of secrecy, intellectual property protection, and patents. Doubling down on the air of secrecy, the process of creating games and play has commonly been associated with a sense of mystery. There are numerous analogies in pop culture

narrative. Willy Wonka's Chocolate Factory²² is a tremendous example, not only because BlueSky fancied themselves in similar terms²³.

This example paints a stark contrast between the drab, mundane public world outside of the factory gates, and the secret, inside world where magic is made in unfathomably whimsical ways. This is an apt comparison to the game industry because many developers indeed think of their spaces and their craft in these terms. They make magic for a community of players and consumers behind many layers of secrecy and security, and some developers might argue that this is beneficial to their experience. Players don't need to see the inner-workings of their game systems to be able to enjoy them, and might even have some of their enjoyment diminished because it compromises the experience of discovery. Games still represent liminal spaces for the engaged players, and the mystery of their creation is part of this alterity, virtuality, and imagined separateness. But yet BlueSky Games wanted to bring the players into their studio. They wanted to be open and transparent about how they were making the magic of DreamShooter. This contradiction could be seen in the space of their offices, as well in the game development process itself.

²² See Chapter 1, Golden Ticket Campaign

CHAPTER 3

Developer Profiles and Professional Visions

Game development, with its multitude of interconnected and moving parts, is a complex practice. It is complex enough when dealing with the intersections of multiple technological systems in software development, some of which systems are antiquated and heavily patched together, where others are cutting edge but unfamiliar. But when you layer on the difficulty of grappling with the subjective quantifications of fun in games, the complexity takes on philosophical and creative dimensions. Furthermore, the online gaming industry is relatively young, meaning there are few consistent, formal processes for development. Even though many more developers are now getting formal training related to their professional skills than even a decade ago when most developers were self-taught, each studio represents a microcosm of similar-but-different-enough vernacular and process that each new hire may take months to get acquainted with a studio's development systems and environment.

What *is* consistent across the industry is that developers must learn how to make something work with the pieces they have available, and this extends to the social and creative dimensions of their craft as well as to the manipulations of the game technology itself. The composition of a development team, in terms of the roles and responsibilities that make up the personnel list, can be intriguingly representative of the development process itself. Often when a game is in its earliest prototyping phase, the development team is small, and individual developers wear many hats out of necessity. In DreamShooter's early stages, for example, the team was focused on the fundamental game engine, the art style and key concept art pieces, and basic gameplay systems like the character movement system. Members of the development team were grouped loosely along these main channels, but the most valuable contributors were those who were capable of working on all parts of the game.

Such technological considerations are added to the already highly variable landscape of MMO video game production, where art, animation, world building, sound, narrative, programming, network

operations, FX and gameplay design are all handled by different teams of people in the studio, but must come together as a cohesive experience for the player. Divisions of game development labor are often blurry, especially in smaller studios where everyone must be able to help with multiple, technical parts of the game to be most valuable. But generally, these divisions can commonly be seen along the kinds of tools or technological systems that a developer works with most, or has the most specialized experience with. Technical Operations people are typical network engineers, and work with servers and network code to determine how quickly and in what form the massive amounts of game information can be shot around the world to the potential players. Programmers build and manage the tools and integrative code that get systems to talk to one another. Artists create the visual assets that make up all of the objects, characters, and creatures that will eventually populate the world. World builders build those environments and populate the world with the objects that the artists made. Designers work with the overarching ideas of how all these pieces should fit together to create an intended set of opportunities and contingencies for a player, and often work with many of the top level systems (world builders, encounter designers, weapons databases, etc.), and always with testing zones in the most recent version of the game build.

This simplified list of development disciplines illustrates that the numerous possible kinds of professional visions that are simultaneously engaging within the work and environment of a game design studio. Goodwin's framework for "professional vision" describes a set of "socially organized ways of seeing and understanding events that are answerable to the distinctive interests of a particular social group" (Goodwin 1994:606). This is helpful for understanding how pertinent objects of knowledge are historically constituted and shaped through the meaning-making and discursive practices of a particular group engaging with particular tasks, technologies and knowledges (Balsamo 2011; Haraway 1988). Within game development, each professional role has its own vision, or way of seeing and understanding a game and the process of making it, as shaped by the technological systems they work with and their discipline's historically situated habits and terms of discussion. "All vision is perspectival and lodged within endogenous communities of practice" (606). It is crucial to recognize that while the members of one development team, like the one that made DreamShooter, are all working together make one,

cohesive game product, the process is constituted by a constant negotiation between a multitude of professional visions. The members of a studio's many techno-creative disciplines all have different ways of imagining, or seeing, the game's constituent parts, and different priorities in how to relate to those digital-material components. These differing professional visions are constantly being challenged and contested, each claiming ownership of the systems within their technological specialty while also trying to impose their vision and resulting priorities over the larger development process. These professionally social entanglements add yet another layer of complexity to the already chaotic process of game design.

Developer Demographics

My field research included a survey of the staff at BlueSky Games that gathered information about basic demographics, education, professional specialty, and personal gaming habits. After my years of working in the industry, I had some strong hypotheses about potential correlations between things like professional specialties and education levels, or professional specialties and personal gaming habits. I also had a confident sense of certain demographic traits that might show up among the developer population. 59 employees of the total 131 people who worked at BlueSky Games in that summer of 2013 responded to the survey (more than a 40% response rate). I knew based on raw observation that a great majority of the developers working on DreamShooter were in their late twenties or early thirties, identifying primarily as white, straight men. But I expected that my sense of the similarities around the office would turn out to be a biased overestimation based on my personal experience as woman in a male-dominated industry, and that perhaps the stereotype of the straight, cis, white, male game developer concealed a more vivid diversity. Though I did find evidence of that diversity through my observations and interviews, the survey data reinforced the typecast. And as we will see later in this section, the demographic similarities between studio employees might be correlated with certain practices intended to foster creative and social cohesion within the studio.

The cultural stereotype of the game developer is in many ways related to, and an extension of, the gamer stereotype. Game developers are commonly imagined as geeky, straight, white, males. "Maleness

in particular is the invisible trait of the gamer that has been cultivated for decades,” and I would argue that this trait has extended to the crafting of games as well (Golding 2015:130). Historically, game development has not always been so explicitly imagined as male-dominated, even though there was an early trend in computer science to write women out of the technological narrative. Several women game developers were credited with making some of the most popular games in the 70s and 80s: Carol Shaw of Atari and Activision in the 1970s and 80s; Dona Bailey, who helped to program Centipede in 1981; and Roberta Williams, who co-founded Sierra On-Line in the 1980s (Golding 2015:131). Several games scholars have credited game industry marketers of the late 80s and beyond with giving broader cultural momentum to the emphasis on the maleness of game players (Delany 1994; Kirkpatrick 2010). Marketers identified their audience as the 18-34 year old males, and reproduced this specific image of the video game consumer through the marketing they designed to cater to their presumed interests. The marketing caricature of the gamer as young and male shaped who felt most entitled to playing games, which in turn shaped who then wanted to become involved in making games.

The historical picture is much more nuanced, of course, and also includes the story of how computers and computer games were stigmatized as geek domain, and the subversion of this stigma through a fierce defense of the gamer identity by many who had found refuge and affirmation in gaming spaces. But for now, it is enough to say that the social imaginaries around game development cast the default developer as male, and the BlueSky Games staff ratio did nothing to dispute this.

Their professionalism is seen as casual but passionate, and instead of some of the socially negative connotations of the gamer stereotype in popular culture, the role of developer commonly is sometimes associated with a sense of mystery and creative business accomplishment. This relationship between gamer and game developer stereotypes is not coincidental, of course, given that game developer culture is deeply tied to and informed by gamer culture. These cultural groups share cultural forms as they share members. Those individuals who are members of both of these cultural groups carry through many of the same values, practices, and semiotic frameworks.

Echoing the reported trends in game development professions at the time, BlueSky Games staff

was, on average, 90% men. Through my hand-counts of the personnel lists from 2011 to 2013, even as the company grew from 65 employees to more than 130, the percentage of women employees stayed close to 10%. It was noteworthy, too, that a majority of those women occupied non-development jobs at the company, meaning that they were involved more in the support of the game and studio, and in the running of the business, than in the active making of the game itself. During my time with the company, there were only four women developers: one animator, two designers, and one programmer. In contrast, the support positions at the fringes of the development process—such as those in accounting, marketing, customer service, executive assisting, facilities management, and business operations—were mostly filled by women.

The majority of the survey respondents reported that they were in a relationship of some kind—44% of those saying they were currently married—compared to 30% reporting being single. I remember noting with curiosity that many of the relatively young developers—in their mid twenties—were already married. The studio's age distribution, according to my survey, counted 75% of the employees as being between 25-34 years old. Five were between 18-24 years old, and only three were older than 45 years old. Similar to how most of the women in the studio were relegated to supportive fringe roles in the company, those three employees over 45 were also fringe members of the development process.

The performances of masculinity within BlueSky Games were not always overtly normative hetero-masculine, even though 93% of the surveyed staff members identified as cisgender heterosexual. Only one of the respondents identified as homosexual, and three as bi-sexual. There was a common theme of toying with the subversion of normative hetero expectations, at least in casual conversation and humor, possibly as an extension of the geek cultural rejection of the hegemonic hetero-masculinity of jock culture (Bucholtz 1999; Kirkpatrick 2010). Humor served as a social lubricant across all of these spaces, and runs as a thread through almost every social exchange. Jokes and banter put people at ease while also reinforcing certain social barriers and cultural expectations (Mellstrom 1995:10). Those who get the joke and understood the references felt more actively included in the Tribe culture. Humor was used to identify group membership and social affiliation, and the thread around pretended homosexual affection towards

favorite colleagues was one of the more common of such practices in the studio.

The company's ethnic diversity as shown through the survey identified around 60% of the staff identified as white, claiming mostly European ethnicity. Close to 25% of the total developer population at Red Studios claimed Asian descent. 7% had Latino roots, and African and Native American roots were claimed by around 2% each. In discussing origins, 86.2% of the surveyed employees said they grew up in the United States. But it seemed particularly interesting to note that almost a full 50% grew up in California. This bias toward California natives seems reasonable in the context of studying a California-based company. But this deep commonality provided that half of the company with a common basis for reference that proves valuable later in the examination of what strategies the company employed for managing the chaos of the development process.

This developer survey also asked questions about personal and professional gaming practices, including how many new games they played per year, what their favorite genres and gaming platforms were, and how many hours per week, on average, they played games. Their favorite game genres were RPGs, shooters, and action-adventure games, which was unsurprising given that the game they were dedicated to making was an explicit blend of elements from these three genres. Likewise, their favorite gaming platform appeared to be the PC, which is once again what someone might guess of a developer working on a PC game.

One of the myths of game development, stemming from the imagining of games being a passion-based dream industry, is that developers get to work on any game they want (O'Donnell 2014). In reality, that imagining cuts both ways. On one hand, this imagining of the game industry as a place for a dream career inspires some to try to "break in" to games in whatever way they can find, which leads to many developers working on games they might not have ever dreamt of. On the other hand, those lucky enough to get jobs with the most popular games at the most prestigious game companies are almost always developers who have dreamt of working on those particular games because they are fans. This was such at BlueSky Games in that DreamShooter was a dream title for a great majority of the developers there. It made some sense, then, that these developers working on an open-world, PC, RPG-action-shooter would

also be gamers who preferred playing RPG-action-shooter games on the PC.

The overarching theme of the survey results spoke of a deep basis for cultural commonality among the employees at BlueSky Games. The portrait of the average DreamShooter developer was a white, cis, straight, male, Californian gamer in his twenties, with a bachelor degree in a discipline somehow related to game development, but likely with more years of playing and modding²⁴ than with years experience working in a professional game development environment. This cultural commonality is not a coincidence or accident, nor is it explicitly strategic. But as we will see later in this chapter, these commonalities are beneficial to the game development process within certain perspectives and professional frameworks, and therefore habitually, if not intentionally, encouraged through discursive studio practices.

Perspectives and Specializations

As I noted earlier, game development is a craft of perspective. Design, generally speaking, requires regular exercise of empathy for a multitude of prospective user subjectivities. Designers must project themselves into the anticipated perspective of future users to predict how the object of their design will be experienced and how players will interact with it. I would argue that a similar form of empathy is required for designers working within development or production teams. Certainly in the design of big-budget, high production value AAA games like DreamShooter, a team is required to support the technological vastness of the involved digital-material systems, and one of the biggest daily challenges faced by game developers is in understanding and coping with the demands of their development colleagues. Within each discipline, these demands, needs, and priorities are shaped by a particular professional vision, which is in turn shaped by their goals, social exchanges and understandings in their professional environment, and their daily interactions with the material technology of their trade. I relate

²⁴ “modding” stands for “modifying,” which refers to user-created plug-ins that modify to their gameplay experience by altering the version of the game software installed on their computer.

the concepts of “professional vision” and “subjectivity” here because they both relate to situated modes of meaning-making. The subjectivities of individuals filling a professional subject role can be directly related to professional vision, which engages with the particularities of meaning-making in a professional setting as they relate to “historically constituted discursive practices” (Goodwin 1994:606).

A noteworthy component of complexity within the game studio environment is in the translational and negotiation work that has to take place between individuals from various disciplines. Each disciplinary group has their own tasks to achieve to the best of their ability, within the limitations of their tools and craft. Their priorities are determined by their goals and feasibilities, and much of the time, their priorities are usually tangential, if not entirely contradictory, to the priorities of their coworkers. In order to accomplish their goals, they must work with the priorities of their coworkers to find understanding or compromise with their colleagues within the time and budgetary constraints.

Consider this excerpt from an interview with the Lead Designer, Kevin, in which he recounts a difference between his perspective as designer and the perspective of a “young artist’s” on the topic of visual detail on a map, as informed by the professional vision of each their disciplines.

Kevin: I was working on another game which was Syphon Filter, and I was working on a particular mission which was in this steel mill in the Eastern Bloc somewhere. Spetsnaz was going to show up and attack you. Anyway, I was working with this new artist, and the first time I was reviewing his level with him, I was like “why are we getting 2 frames per second?”

And he's like “this engine SUCKS!” I'm like “okay... lets figure out why we're getting 2 fps” And so we start to look at the art. This is a steel mill, and so the steel mill is made out of steel girders, and rivets that hold those girders in. THIS fucker modeled EVERY SINGLE MODE of those goddamn rivets with about 40 polygons PER rivet. And he didn't understand why we were getting 2 fps on a console.

me: *laughing*

Kevin: ...and he got pissed at *me*! I asked him “why are you not using a texture for the rivets?”

“Well because this is better!”

It was [about] the quality and how DARE I impact his quality!” [shaking his head]

Kevin: Framerate is key. If you don't have good framerate in your game, then your game is shit. That didn't used to be the case, but it is definitely the case now. Like when I first started making games, if you got better than 10 frames per second you'd think “holy shit

this is fast!” I can barely stand to watch movies anymore because 24 frames looks like blurry shit to me.”

This interaction from my fieldnotes describes an intersection of the three main disciplinary trade categories in AAA video game development: Design, Art, and Programming. There are meaningful subcategories, or disciplinary specialties, within these categories, and in the case of online games, one could argue that network engineering is important and different enough to stand alone from programming. But generally speaking, these three disciplines are the big three in game development, and shape the three main professional visions that developers learn. Here in Scott’s story, the designer’s priority is framed by an optimal player experience measured by framerate, or the smooth and seamless rendering of the visual aspects of the virtual world.

The difference in priorities can be summarized as follows. For designers, poor framerate degrades the player experience because it reminds the player that they are playing within a software program, possibly a sub-par software program, which takes them out of the flow of play. Immersion is frequently discussed as a positive quality of gameplay, and technical events that disrupt the sense of immersion are usually thought of as undesirable (Castronova 2005; Crogan and Kennedy 2008). The artist’s priority, on the other hand, is to make the world as visually beautiful and interesting as they possibly can. They, too, prize immersion into a game world, but they hope to accomplish this by creating captivating visual assets. There are different concepts of immersion at work here, which constitutes how artists and designers can imagine the immersive experience of an anticipated player quite differently, in very different technological forms, even though they are both valuing immersion. When the framerate issue was brought up, the artist blamed the poor quality not on his painstaking work, but on the engine, which is the domain of the programmers. Programmers build and manage the game systems that run the world and that render the world for the players as they progress through the game. Programmers are ultimately responsible for the flow of data that constitutes a virtual world, but they don’t determine the shape of the data units themselves. As the units of data become larger (like when an artist makes hundreds of rivets, each of which represents a relatively large data load), and the systems more complicated, the work of the

programmer becomes more difficult.

Designers determine what things should populate a world, and in what order. The artists create these things. The programmers make all the things run as smoothly and efficiently as possible. As disciplines, they are essentially and inextricably entangled throughout the development of a game. But the developers from each discipline have their own particularly situated vision of their work tasks, and how they will contribute to the eventual game product. Given how the intersections of these professional visions contributes to the vast majority of the debate and political negotiation between developers, it is worth noting the average traits and quirks of each group. Though demographics and cultural traits are very similar across the studio, there are some differences between groups that are of interest, particularly the distribution of education and personal gaming practices.

As a reminder about terminology used here, developer and designer are not interchangeable in the game design context. Developer refers to anyone working directly on the crafting of the game technology. Designers are a specific kind of professional developer, and they are the ones responsible for designing gameplay opportunities, anticipating the many contingencies within a player's experience, and assessing the "feel" of a game.

Designers

All development employees have some opportunities to be designers. In fact, Senior Designer Rudy, who had nearly as many years of design experience under his belt as the Lead Designer, was fond of saying that anyone can be a designer. He firmly believed that anyone, from any technical or social background, could be a decent game designer if they got some basic instruction about how to think through design questions. There was an echo of this philosophy in the Tribe culture, extending even to the community of players, whose opinions were considered to be valuable sources of design input by many of BlueSky's developers, including the management. But this was not to say that anyone who tried their hand at game design was necessarily good at it. Designers are consistently the harshest critics of the work of other designers, even (and maybe especially) the other designers on their same team. I remember a

particularly fervent rant by one designer, John, about how an animator (a sub-category within the Art discipline) had taken it upon himself to design and implement a game feature, and then had proceeded to do a terrible job with it. I mentioned Rudy's "anyone can be a designer" philosophy to John, asking him if he thought it might not actually be true, given this example. John paused briefly before clarifying that while he agreed that anyone *could* be a designer, not just anyone *should* be a designer because not everyone could be good at it. He used an analogy from the Disney Pixar movie Ratatouille, which is about a rat who turns out to be a marvelous chef, in which there is a saying that "Anyone Can Cook." The clarification within the movie was not to say that *everyone* could cook, but rather that there is the potential that a great cook could come from anywhere. John said it was the same in game design. Not everyone could be a great designer, but a great designer could come from anywhere.

Design requires the ability to empathize with many different players in as many gameplay scenarios as can be imagined. They must be able to approach questions like "if player A, who is new to this kind of game world, were running through a particular part of the world, trying to accomplish a particular goal, what would they see? What would their options be? How would they understand their choices? How would their experience feel if they chose one option over another?" Designers must have access to the subjective perspectives of various kinds of players. Even though everyone on the development team was required to empathize with the players through certain aspects of their daily development tasks, through the development of DreamShooter, the professional vision of game designers seemed to most frequently return to the empathic consideration of certain kinds of user perspectives more than others. The player perspective, their anticipated gameplay experience, and how to make their ideas technologically feasible were the primary concerns of DreamShooter's game designers. They are the ones who must be able to see the cohesive vision of the game even while simultaneously focusing on the implementation of smaller constituent parts.

In theory, game concepts are owned by the designers. The streamlined, "pipeline" process (which rarely exists in real-world development contexts) would have the design ideas steered by designers, then divided up into actionable parts and passed along to artists and programmers to implement. But at

BlueSky Games, after the initial game concept was hatched by the company founders, game ideas came from all corners of the studios. The more typical process for designing and developing features involved a team assigned to a particular feature idea (a “feature team”). The upper management, usually including the CEO/CCO, VP of Production, and Lead Designer, would outline a top-level concept along with the primary goals of the feature. They would then pass it along to the feature team at the beginning of a milestone, and the team was responsible for brainstorming the feature, conceptualizing and anticipating how the feature would work, and then tasking out, implementing, testing, and iterating on their own. Every member from every discipline was encouraged to put forward ideas. The game designers on any given feature team were not officially the organizers of these teams, but they often provided a mediating perspective on the quality of ideas as they relate the cohesive vision of the game, and in how they might contribute to the gameplay dynamics. They were the ones who would continually put questions about the technology into terms of the players’ subjective experience.

Designers were the ones tasked with conceptualizing what might be a fun gameplay experience for prospective players, negotiating their concept with design colleagues, and then coordinating the technical implementation of that idea with the rest of the development team. BlueSky’s designers were responsible for assessing, and ideally finding, some of the most elusive qualities of good gameplay: fun, appropriate challenge, transparent contingency, and more. They are the ones who dealt most directly with the questions of fun, choice, and reward. These qualities will be explored in more detail in Chapter 4, but these difficult considerations of the player perspective is part of why I ended up spending more of my research energies studying their modes of imagining, their professional vision, and their daily practices.

In my survey, most designers reported having some formal training (70%), and 100% said they had studied their craft outside of school, through books, videos, and articles. The designers at BlueSky Games ran the gamut in terms of experience. There were a good number of juniors here, as well as those for whom BlueSky was their first studio experience. But every single designer I talked to at BlueSky emphasized that they would not have “made it” into professional game design if they had not played around with making their own mods, maps, or games before getting a job. Designer Rob, who had been at

BlueSky for five years but had no experience with other studios prior to his BlueSky job, said that his Team Fortress 2 maps were directly responsible for convincing the DreamShooter developers to hire him. This pattern of amateur game development proved to be an indicator of how these designers, as a group, were personally invested in the craft of game making. All of them had come to it through a genuine admiration for games, rather than through some strategic plan to have a career in software development.

By necessity, game designers have to wear many hats. When conceptualizing features for a game, it proves tremendously helpful to have some familiarity with the art tools, engine, and network capabilities. Designers who can also script become especially valuable during crunch time if there is a staff shortage in any of the groups. It is only in the past decade that design has morphed into its own game development discipline (O'Donnell 2014). This specialization could be attributed to increased budgets, complexified technologies, and the growth of team sizes. As the new technologies of AAA, high-production value games emerged, the knowledge and skills necessary to manage them demanded specialized study. Bigger development teams and bigger budgets could be justified by the promises of blockbuster profits. Before that point, when teams were smaller and the technology was simpler, designers came from programming or art backgrounds, and fulfilled those respective tasks while also iterating to find the fun through a coherent, meaningful design.

In comparing game playing practices across the in-studio disciplinary groups, designers played more hours of DreamShooter per week than the other major disciplines, coming in second to QA testers. This follows given that testing and iterating on a game feature implemented in the internal test build should make up at least half of a designer's ideal day. This ideal was stated by several of the designers I talked to, who emphasized that the best game design process involves creating a playable prototype of an idea as quickly as possible to test its validity. "Fail faster" was one of the CEO's favorite mottos and company dictates for most of 2012, and reflected this belief that an idea for a game feature could really only be judged through active play. For designers who were constantly having to imagine themselves seeing their game through the perspective of the player, there was no truer test than becoming the player to experience the game through live interaction, even if only partially, with unfinished prototype systems.

The BlueSky Tribe explicitly valued the opinion of the gamer, more so than any other AAA studio had publicly claimed to that point. BlueSky was fiercely proud of their ideological stance on “community-driven design.” It was no wonder then that the design team at BlueSky provided opportunities for players to break into the industry. In fact, there were a couple community members who were hired directly into the design team during the time period of my research. One had shown tremendous dedication to the competitive modes of DreamShooter, and impressed the Lead Designer when he visited the studio with a group of community representatives. The other was a well-known modder from the community who had made numerous useful plug-ins and was fluent in LUA, the scripting language that was adopted by the design team in 2012. Both were seen as having a certain knack for design, usually described in terms of having properly considerate perspectives and thoughtfulness about design problems.

A designer’s judgment of a game through their own eyes as player always became the ultimate test for any new feature. While drafting ideas, the empathic sense of design—being able to project oneself into many different kinds of player subjects—was crucial for sorting the worthwhile ideas from the bad. But once the game was sufficiently complete to play, designers testing and tweaking the game always fell back to their own play experience to judge the “feel” of something. I once asked the Lead Designer how one could possibly design for something as subjective and elusive as “feel.” He answered “you don’t. You can only twist the knobs,” referring to process of adjustment and rebalancing that begins as soon as a feature has passed the first few potential points of failure and has been deemed worth of iterative refinement and further playtesting. Ultimately, despite extensive brainstorming, negotiation of ideas, and allowances made for every discipline’s priorities, the designer’s own player subjectivity, the one they don’t have to think about consciously, carries the most weight. Those designers who are deemed “the best” by their colleagues are the ones who have become so familiar with the many other player subjectivities that their own subjective sense has been shaped by them, and can therefore account for them seamlessly.

Artists

DreamShooter was a 3D game world set in a science-fictionalized, post-apocalyptic future, and modeled loosely on the non-fictional coastal cities of Brazil, with narrative elements focusing the story around fictional New Eden, the region near the future ruins of the city of Fortaleza. The great majority of the environmental “zones” in DreamShooter were some variation of tropical, surrounded by lush, colorful foliage, giant trees, and a sparkling ocean. The cities and major landmarks—referred to in the studio as POIs, for “Points of Interest”—were also colorful, detailed in their post-civilization dilapidation, showing evidence of the game world’s various NPC* factions. Copacabana was the first town that a player would encounter, and it looked mostly civilian-occupied, with thatch-roofed buildings and merchant stands full of vibrant wares. Trans-hub, the next major POI along the thread of the game’s narrative, was the operating base of the military faction known as the Accord. It was full of dark greys and military greens, shot through with highlights of bright orange and electric blue. Sunken Harbor looked like an abandoned sports stadium, with large, sprawling spaces and still-operational holographic signs heralding the champion players of this fictional world’s most popular competitive sport, Jetball²⁵.

The world was uniquely gorgeous, even by AAA video game standards. And every visual element of that world—including everything from the plants, the stairways, the creatures, the weapons, and the ships—had to be crafted in some form by an artist. There were concept artists who drew the initial images that would set the style for a particular area, character, or feature. There were modelers who used programs like 3DS Max and ZBrush to connect polygons and layer on textures to make the kinds of mineral deposits, creatures, and loot crates that would later be placed together by world builders to create a coherent world environment. Modelers would also build the character models and avatar faces that would then be rigged* by animators to make them move convincingly, as if affected by real-world

²⁵ “Jetball” was one of DreamShooter’s objective-based player-vs-player modes; it resembled basketball, but with jumpjets and plasma guns.

physics in response to real-world resistance and stimuli. FX artists would create the sparkles, flashes, smoke, and shimmers that would complement player actions or object responses. UI artists designed the User Interface, the meta-layer of visual information that communicates details that the environment can't. This is often information that is crucial to the player's ability to understand and approach gameplay objectives, such as the player's health, how much ammo they have left, where their weapon is currently pointing, how much an item costs at a vendor stand, and much more. All of these sub-disciplines within art used a powerful set of tools, each of which required years of experience to be able to use to the level of proficiency required by DreamShooter's art standards.

The artists at BlueSky were highly likely to report having had some amount of formal schooling. 78.6% of the artists who responded to my survey said they had gone to school to learn their craft, where 85.7% said they had gone to classes outside of their formal educations to learn and practice their art skills. 100% said they had additionally studied on their own, using books, videos, and internet guides. The average artist at BlueSky had over 3 years of industry experience. Many of the tools that they used were the more common, non-custom tools, such as 3DS Max by Autodesk, ZBrush by Pixologic, Adobe Photoshop, and Adobe Illustrator. Because these were so commonly used outside of BlueSky Games, there was a wealth of knowledge on the internet in specialist forums and social media networks about how to do anything with those tools, and how to approach any problems came up. The artists at BlueSky were, therefore, more independent in their work than the practitioners of other disciplinary trades.

On the gaming practice side of things, artists were the most likely to say that they didn't play many video games, and that they did not consider themselves gamers. To be sure, there were plenty of artists at BlueSky who did identify as gamers and played more than 10 hours per week, but of those who claimed lesser gaming habits, saying that they rarely played, or usually stuck to one or two specific games, they were mostly from the art discipline. The art team was a mix of geeks and non-geeks. Some thought of their jobs as creative trade professions in which they came to office, did the job, and did not bring their work, or any gaming habits, home with them at the end of the day. Other artists had more in common with their colleagues in design and programming who claimed to have pursued their jobs

because of a passion for games. The Art Lead himself, for example, would stay late after normal work hours to play *Warmachine*, a miniatures-based tabletop game, an inarguably geeky pursuit.

Art represented the most expensive set of creative practices in the studio, in terms of funding, time, and data. The amount of time, and the related amount of money an artist's time was worth, to create certain important art assets was commonly inflexible. Modeling a new character could take an individual artist two months of solid work to complete. Just the face alone could take a full month because of the level of detail involved. Those two months were just for the modeling, not for the animations, clothing and accessories, hairstyles, etc. All of those items would require their own time and attention. Smaller items might take only a week, or a few days at best, but the time needed to make them was incompressible. The time and funding requirements were relatively inflexible, especially for central assets like character models because their detail can't be faked or easily short-cut. AAA games, in particular, rely on their visual assets to be high quality because their players are expecting a cutting edge gaming experience, and therefore allowed for few compromises within their art team's handiwork.

Because of the investment required to model new assets, it was nearly impossible to make sudden changes in the art direction without having to throw out a large amount of valuable work, and it was very difficult to have new "doodads" (what many of BlueSky's developers called the game's art assets) made quickly. When large-scale design changes were made to the game, or new features were approved, designers could not usually expect the art team to make brand new assets immediately because they had schedules already booked up with previously planned art. A system of reuse and resourcefulness emerged from this set of limitations. Consider this example as discussed by DreamShooter's Lead Designer:

Kevin: you start to really understand what the cost of things really are. Building characters is reeeeeeally expensive, one of the most expensive things to do because of the polygons in those char are a lot... the amount of time that goes into that, the amount of time that goes into supporting that, just goes through the roof.

me: So how do you manage that with your design, when you have a concept that is so heavily impacted by...

Kevin: You try to be smart. You try to reuse. You try to kitbash what you can, to be more efficient.

me: What does “kitbash” mean?”

Kevin: “Kitbash” means I’ve got a kit of art. I’ve got a tree. I’ve got a rock. I’ve got a building. I’ve got this other thing. But if I combine those things together, I can make something that isn’t any of them.

me: So, using things that exist already...

Kevin: Yeah. You use your kit, and you BASH something together. And so we do that a lot.

Like, look at Copacabana. What are the rooftops in Copacabana.

me: Uh... tile?...

Kevin: No. The rooftops in Copacabana are thatch roofs. But if you pay a little closer attention, you’ll notice they’re the thatch umbrellas. That little umbrella that’s down on the beach? That little thatch thing? That’s the roof of all those buildings.

me: *laugh*

Kevin: Right? It’s scaled up, it’s “kitbashed.” We didn’t make a new roof for that. We reused an asset that worked. And so you do a lot of that in video games. You try to be efficient. Change an asset slightly, you get more bang for your buck out of it.

The demands of the art process influenced the shape of the overall studio’s timeline and resources such that designers and world builders (a sub-category within the art discipline) had to be resourceful with the asset that already existed if they wanted to make something new. The term “kitbashing” actually comes from model building in the physical world, such as in building model trains or other kinds of model toys, which were also the personal hobbies of some of the BlueSky developers. This resourcefulness and practice of reuse for strategic world building was common around BlueSky, and became a regular tool in the development toolkit especially when time and money ran short in the months prior to each major milestone.

Most artists at BlueSky enjoyed a certain amount of craft purity. Their perspective on the game and their work tasks were always about exceptional quality first. They had to make allowances for future functionality within the game, of course. Even the most beautiful art assets had to be able to function within the rest of the game’s technological systems for them to ever be seen or enjoyed by the player. But beyond artists having to meet certain technological requirements (such as the artist in the example of the

rivets who was then required to remake his assets to cost far less in data), it was usually the realm of designers and programmers to figure out how to make things work together in the live game world. Once artists made an asset and revised it to specifications, they would hand it off and move on to the next task. This element of detachment in their work created certain tensions between them and the two other groups of developers. Their lack of investment in the playability of their content could put them at odds with the designers, and the technological demands of their creations could put them at odds with the programmers.

Programmers

The programmers' domain was under the surface of everything happening within a game world. They managed the game's technological infrastructure. Their work was essential for the function of the game and made all the moving parts come together, but the majority of their work was in service to the designers and artists. An analogy that some of my programmer colleagues preferred was that of puppet master. If the artists made the pieces of the puppet, and the designers choreographed the scene, then the programmers were pulling the strings. At BlueSky, the programmers were responsible for any behaviors in the game that weren't provided by the players themselves. They were the ones responsible for making the world capable of responding to the player's actions, setting up the feedback systems that are crucial for gameplay. They were the ones who created the system that told creatures in the game world how to act (the game's large-scale artificial intelligence). They worked in coordination with both designers and artists to build the foundational tools that each group would need in order to do their respective jobs around the game world.

One of my favorite examples of programming work that was clearly intertwined with the art team was in the sky in DreamShooter's world. The sky was one of the most visually striking elements of the game because of how it changed dynamically to simulate the transitions between daylight and nighttime on a shortened 1/8th cycle. The sunsets and sunrises could be breathtaking if you happened to see them from one of the high cliffs or vistas in the landscape; many such spots had been designed into the terrain with the hope that players would stumble onto that view. This sky, and the associated lighting dynamics

throughout the game world, were a magnificent work of combined programming and art talents.

On average, the programmers had the highest educational level among the disciplines at BlueSky Games, with several of them having masters degrees, and one having a Ph.D. in mathematics. 90% of the programmers who responded to the survey said that they had formal schooling related to their profession. Conversely, there were a few programmers who reported that they had done no study on their own, like in reading books or watching videos. This was only noteworthy because 100% of the artists and designers said they had done their own self-study. But the programmers at BlueSky were also quick to acknowledge that they frequently rely on information from external community-based sources to figure out how to solve certain problems or accomplish specific goals with their tech. I once came upon an online conversation between several of BlueSky's programmers laughing about this very topic:

Tali: Someone asked "How did you figure that out?" I told them "...the internet. I found another idiot on a forum that had the same problem as I did." I can't even imagine what my career would look like if there wasn't a glut of related tech forums all within easy reach. Mostly because documentation for most software is flat out awful.

Tyler: Google, also known as, "How do I do my job?"

Mike: That's my job 100%. Every new piece of software and hardware we get someone has broken as badly as you just did and knows the fix.

Jerry: Development is 50% knowing how to search StackOverflow²⁶.

Roy: 50%? Shooting low there.

This kind of knowledge sharing is common among those in the technical development crafts, and has become more recognizable and accessible as online databases and topic-specific communities on forums, mailing lists, and social media groups. The study of printer technicians by Julian Orr explored how technicians shared technical knowledge through storytelling (Orr 1996). They would describe encounters with particular tech, the problems they faced, and the way they solved them. Orr then

²⁶ Stackoverflow.com was a popular database for programming information that was entirely populated by community users.

examined the corporate process of codifying that knowledge into a database that could be accessed by other Xerox technicians. This study was done before the internet had settled in to business operations and personal homes. During the time of DreamShooter's development, the public resources for knowledge sharing had flourished for years. Many private corporate databases, like Xerox's, had been set up by large corporations for their own internal use. But the public resources, which were built through the voluntary labor of sharing by thousands of programmers from various tech industries, had an advantage in helping to answer questions about any software tool that was not entirely proprietary. All of the fundamental coding languages, with all of their quirks and foibles, were discussed among the many threads on StackOverflow and similar community sites.

The programming work at BlueSky was particularly intensive because, early on, the company decided to license a new and somewhat risky game engine²⁷—the Offset Engine—to run their game. Within those first couple years, the company that had made and supported the Offset Engine sold it to another company that effectively shuttered it. Typically when an engine is licensed like this, there is an agreement that the developers of this engine technology would keep it patched and updated so that it could adjust to things like changing software compatibilities, evolving needs, and security vulnerabilities. Without this support, BlueSky had to either choose a new engine and scrap all the work they had done so far, or customize and maintain the engine themselves. They dauntlessly chose to customize, which many felt was worthwhile because of the unique look and feel it lent to the game.

Many game design studios use third-party design tools, like the Unreal Editor made and managed by Epic Studios, to create their games. This means that they are using a standardized tool that many designers are familiar with, that is maintained by another company. These tools are relatively well-known quantities and the problems have familiar solutions. BlueSky Games chose to customize and create many of their most central development tools. According to some of the company's earliest Tribe members, developing

²⁷ "game engine" is the programmed system that is responsible for organizing all of the many games systems and is responsible for rendering objects in a virtual world.

just the foundational tools for building the game took two solid years.

This customization came at a high cost. It meant that the programmers had to be constantly tweaking and adjusting the engine code to make sure it could keep up with other important licensed software, such as the 3D modeling tools used by the artists. This was in addition of the management of their own fully custom tools, which included an Encounter Builder that enabled designers to create levels using Lua (a flexible and increasingly popular script at the time of DreamShooter's development), and the Art Tool which allowed artists and designers to populate the world with art assets from the asset library (which was its own system called Alienbrain). BlueSky's programming team also made the company's own world building tool, called The Forge, which was a juncture of several other building systems. As tool creators and managers, the programmers were responsible for these crucial infrastructural elements of the game development process.

The customized tools for building, as well as the custom engine that ran the game, all contributed to DreamShooter's uniquely beautiful look and ambitious gameplay, and helped the game achieve some of their otherwise-unthinkable goals of network efficiency. But this also meant that the DreamShooter developers not only had to learn the unique junctures of new systems when they joined the company (as they would with any new game industry job), many of the tools themselves were new and had to be learned. The custom tools were also subject to irregular changes and periods of obsolescence depending on how the game features evolved and how much time the programming team could spend on updates. Bugs, limitations, and unexpected quirks within the tools themselves were discovered along the way, adding to the programming workload and overall development timeline. More importantly, the places where these custom tools intersected with standard industry tools often gave rise to incompatibilities, presenting new, unfamiliar obstacles, and difficult layers of complexity to an already complex set of systems.

The Technical Operations (or "Tech Ops") team can be loosely affiliated with the programming discipline because they do deal in code, but they also have their own specialization quirks related to their dealing with network hardware in addition to network software. The Tech Ops team was full of network

engineers who could manage server technologies and the network of connections between them. Their infrastructural components were what enabled the game data to be transmitted around the world for players to interact with. The network technology of an online game like DreamShooter makes it possible for many players to occupy the game world's virtual spaces simultaneously, and interact with one another as co-habitants.

The programmers at BlueSky worked on a fascinating plane between, and connecting, the more apparent components of the game world, as those who build infrastructure often do (Ribes and Finholt 2007). Their work was essential, and could be roughly acknowledged as relating to the management of the game world as an intensely complex matrix of data. They occupied an interesting place of power within the studio environment: their technical knowledge, problem solving skills, and manipulation of the existing systems was crucial for making any new doodad or feature function in the game, but the shape of their technologies was usually initiated and shaped by the designers or artists. This division of labor seemed to deepen as the company got larger, whereas when it was smaller, the programmers themselves had more say over the gameplay design. The programmers who had been at BlueSky for more than two years seemed to be the most likely to have experience with design concepts, and had more practice considering the needs and desires of prospective players. Generally, though, the professional vision of programming prioritized the demands of technological functionality and efficacy over both the needs of their designer and artist colleagues, and prioritized all of these over the needs of the players.

Conclusion

The BlueSky Games developer population managed to represent many opposing, conflicting perspectives on game design despite an overwhelming trend of sameness through their demographics and cultural experiences. Lively debates about everything from design philosophy, to the solution for a specific systems incompatibility, were daily occurrences. I credit this fact largely to the geek cultural remnants that put a high premium on debate and the display of knowledge (Bucholtz 1999). But it also came partly from the tensions that emerged while attempting to resolve the disparate perspectives and

priorities of the studio's different disciplinary factions. Even when game developers could agree about a design concept (a rare enough occurrence), the mode of implementation, the details of asset creation, the competition for time and resources, the subjective judgments about what might make it fun, and more, all had the potential of putting the designers, artists, and programmers at odds.

Each discipline caused its respective development practitioners to be located within BlueSky's technocultural setting in particular ways. The requirements of their professional tasks aligned them in relation to their colleagues and specific material technologies (especially their software tools) in ways that revealed and prioritized certain fields of agency while obscuring others. These professional visions were all subsumed under game development, but were noticeably different within the practical, daily context of getting work done. Within the subject positions of designers, artists, and programmers, their professional visions were largely determined by their specialized social imaginaries. The possible actions and contingencies imaginable by each group shaped what actions they chose, what habits they got into, what things they chose to fight for. In accounting for all of this chaos and the multitude of professional visions shaping the game development process, the perspective of the player was an object of knowledge seen differently by each professional vision.

This section ties into the conversations around organizational studies and the anthropology of work about tech industry creative practices, technology production, and the use of technologies to get work done in professional environments (Balsamo 2011; Dourish 2006; Malaby 2009; Martin and Deuze 2009). It also ties into a growing dialogue about diversity (or lack thereof) in high tech industries, including video games. There been discussions for more than a decade about the observation that video game content, particularly among AAA games, has continued to perpetuate certain oppressive tropes against women and minorities (Higgin 2008; Sarkeesian et al. 2015). Furthermore, there has been a growing concern about the low involvement of women and minorities in the high tech business, particularly in Silicon Valley start-ups and in the video game industry where only 20% are women, and many of those are in publishing roles unrelated to the development of the technology (Barbrook and Cameron 1995; Borsook 2000). This was exacerbated by a drop in the numbers of women enrolled in

computer science and engineering programs in college.

When considering the influence of particular developer subjectivities within development practice, it seems important to also consider how identity and personal backgrounds might also play a role. Is it possible that increased diversity on a development team might provide a wider range of ideas and solutions to problems? Might there be a more diverse range of explored ways of resolving professional conflict and finding compromise? Or is it possible that increased diversity among the developers might contribute enough additional complexity and difference of opinion that more explicit modes of unifying the local culture might become necessary?

CHAPTER 4

Coping with Complexity

The labor of game design at BlueSky Games, like game design at most studios, and indeed in many creative technology fields, was a messy business. One of the most common thoughts I had while working and researching with the developers of DreamShooter was that the process of creation behind a game of this imagined scope and size was almost unmanageably complex, and that it was a miracle that games like this ever got made. It was no mystery to me that DreamShooter had been in development for an unusually long time; what they were trying to do was remarkably difficult. The complexity of the process was not only in grappling with the multi-layered, interwoven software technologies themselves, though that was certainly a large part of it. The complexity was also in the scope of the imagined game world they hoped to create. It was in the challenge of communicating those imaginings, their ideas about how the game should be, what the player's opportunities should be, and selling them to their development colleagues whenever their imaginings didn't match up. The daily debate about which ideas to implement, along with how and when to get them done, was itself complicated by the social interactions and politics of the studio.

To make these complex matters even more puzzling, even though these same interwoven systems existed in most studios where cutting-edge technology was being used to make massively multiplayer online games, there were few industry-wide processes or broadly institutionalized strategies to help developers handle these complexities more easily. Every time a developer took a job with a new company, not only did they have to learn the concept for the game, and possibly familiarize themselves with new development tools, they also had to learn the local procedures and terminology that made progress possible.

Throughout the creation of this massively multiplayer online shooter game, the complexity of the

design team's vision (which, itself, was different depending on who you talked to and when you talked to them) was multiplied by the complexity of the technological systems underlying the game world's functionality. This itself was laced through with the complexities of social interaction and studio politics, deepening the already existing difficulty of communicating complex imaginative concepts. The complexities of game development were observable on at least four different dimensions: 1) the technological, 2) the imaginary, 3) the financial, and 4) the political (or professionally social). Each of these dimensions themselves represents a host of interconnected, interdependent layers, and in truth cannot be cleanly distinguished or abstracted. Any attempt to isolate these layers for analysis and consideration mirrors many practices in the design studio itself where certain features or goals may be temporarily—for the length of a meeting conversation, at most—considered as an independent entity for the sake of conceptual simplicity. But as soon as the discussion turned to questions of enactment within material systems (even as those materials are digital), all of that entity's messy entanglements became visible once more.

The technological dimension serves as a good representation of the kinds of interdependencies that a game developer might cope on a weekly, if not daily, basis. Any AAA video game is made possible by systems such as a graphics engine (the system that determines how objects and characters are visually rendered in a game), a physics engine (the system that determines how objects and characters move in a game world), “artificial intelligence” or AI, (the system that tells creatures in a world how to behave and respond), collision detection (the system that tells objects in the world how to relate to one another), and a database management (the system that manages all of the thousands, if not millions, of game files). Online games have additional, immensely important systems, including server infrastructure and network code, that allows multiple players to occupy these virtual spaces simultaneously. All of these systems, which alone are complex technological products requiring extensive knowledge to work with, are crucially interconnected for the playability of the game. Not only can each system not stand alone meaningfully for the player, any changes, additions, or removals of code from one system can cause a ripple effect through multiple, interdependent systems.

BlueSky Games was both a corporate organization with an executive committee steering the business toward certain goals, and a team of game-loving development professionals working together for a common, long-term, creative goal. They adopted (intentionally choosing) and adapted (unintentionally acquiring as habitus and discursive practice) a number of different strategies and systems for coping with the overall chaos of the development process (Balsamo 2011; Bourdieu 1972; Ortner 2006). They attempted to align their visions and work styles with a formally recognized set of company values—the Tribe values. They spent time with one another socially, playing games and drinking beer, to deepen their fluency as a collaborative team. They borrowed strategies from the project management system known as AGILE that had become popular among Silicon Valley’s software development start-ups. They developed communication styles and base for common reference that helped them to translate the game as they imagined it into the game they could play. Managing the chaos of the studio environment and development process seemed to be the greatest purpose of the company’s management, but was also something that every individual at BlueSky, to differing degrees, learned to cope with, and sometimes thrive within.

This section proceeds first with an outline of how particular professional visions shape the daily priorities for members of each of the main development disciplines in the studio. Then, I investigate some of the ways that the developers at BlueSky Games coped with and managed the chaos of their trade, through both strategized processes, and through practices that were both emergent and socially traditional.

Cultural Unifiers

Many of the explicitly organized social practices that I observed were intended to be team unifiers. The company’s management were keen on creating a unified corporate culture, and set up several regular activities and an official set of “Tribe Values.” These strategies had several intentions, but stemmed primarily from the belief that the best games were made by companies that socialized well together, and that uses the same guiding principles for their behavior and engagement with the job. This reflects certain values and social strategies seen in studies of collaborative practice (Brown and Bell 2004;

Irani et al. 2008; Nardi and Harris 2006; Rees 2007). This belief was adopted from popular studies of tech and creative industry success stories, and was reinforced by certain game industry examples, such as Blizzard Entertainment. They also believed that a united corporate culture would help BlueSky Games to cope gracefully with a team that doubled in size within a year. Additionally, I observed that these unifying practices gave developers social means and communicative tools that were helpful especially when coping with the particularly intense complexities of AAA game development.

Organizational scholars have described “corporate culture” as a gloss for an extensive definition of membership in the corporate community that includes rules for behavior, thought, and feeling, all adding up to what appears to be a well-defined and widely shared “member role” (Kunda 2006:7). Kunda saw the cultivation of corporate culture by senior managers as a way to control for practices and traits that were seen as beneficial to the goals of the company. By encouraging values like loyalty, togetherness, family, and uniqueness, they hope to elicit behaviors from employees that will “facilitate the management and increase the efficiency of large-scale bureaucratic enterprises faced with what the managerial literature refer to as “turbulent environments”: rapid technological change, intense competition, and a demanding and unpredictable labor force” (Kunda 2006:13). According to this theory, the ideal employees in the eyes of management were those who have internalized the company’s goals and values, and therefore require less direct, hands-on management to get the same levels of productivity from them. Certain employee behaviors were encouraged, either by direct or indirect means, and employees negotiated these pressures through daily practice.

Many of the practices adopted at BlueSky officially seemed like common sense to the developers working there, speaking to some of the cultural assumptions and the social imaginary that was already in place. The developers envisioned BlueSky Games as a place where passionate gamers were living the dream of making the Next Big Game, the game that they, as players, had always wanted. They were the misfits of the corporate world, wearing jeans and t-shirts to work, not caring about the bottom line, but caring about the authenticity of their craft. Except, of course, that making a ton of money would certainly be cool too, and would validate their belief that creating a game from the love of it, and from their own

sincere passion for games, was the only real way to make something genuinely good. “Everyone here is a designer” was said regularly by members of the management, especially the CEO and Lead Designer. Many of the developers there believed, at least in theory, that the perspectives of all Tribe members were valuable and worthwhile, and that top-down authoritative corporate hierarchies and rigid pipeline production strategies would only stifle creativity. Many of their social practices, including those that were not so strategically planned, played off of and reinforced these beliefs.

Various strategies for unifying the Tribe were tried, and several others emerged from the local culture without intended planning. Some proved sticky, persisting for years. Others were cast off almost immediately. In the summer before I arrived, for example, the studio had around 60 employees, and the management organized a company trip to the nearby island of Catalina. The tales they told about the trip afterwards made it sound like a raucous combination of team building exercises (including an epic scavenger hunt), and partying. There were several occasions when my colleagues told me colorful stories about wild and incredible things that people did, and then promptly made me promise never to put those details in writing. Everyone who recounted stories said they had fun and remembered the trip fondly. Many said that they felt this trip helped them to feel closer to their coworkers, and that they felt more a part of the Tribe because of it. Despite the apparent success of this trip, budgetary limitations, milestone timelines, and the logistical difficulties of organizing a trip for a company of more than 100 people prevented them from ever doing this kind of trip again.

The unifying practices I recount here include the establishment of their “8 Core Values,” Tiki Time and social drinking in the studio, hiring practices, and the cultivation of cultural touchstones. Each emerged from different aspects of the situated local culture, influenced by industry trends, gamer cultural patterns, and the California Ideology, which itself is a blend of bohemian values of creative freedom, and libertarian free-market business ideals (Barbrook and Cameron 1995). These practices outlined here vary in their pervasiveness and influence on the daily development process, but they are all noteworthy as forms of the social working that happens in the gaps between “official,” or more traditional, work activities.

BlueSky Values

I heard many sayings repeated by BlueSky's developers during the development of DreamShooter that were intended to encapsulate certain philosophies as they pertained to their creative, productive processes. "Change Everything. Create Fun," was one that the CEO especially liked as a BlueSky motto, and he referred to it frequently through company-wide emails and large presentations. Sometimes, he would repeat it as an edict or challenge to the designers during design meetings. "Fail faster" and "Iterate, iterate, iterate!" were said to inspire people to be riskier with their creative ideas and follow them up with rapid prototyping and testing so that they could move on more quickly if their ideas proved untenable. "Keep it real" was a favorite of the VP of Production who wanted to encourage people to be true to their authentic love of games and create something that they could be passionate about.

But in 2012, BlueSky's upper management team, otherwise called the "Wolf Pack," sent out multiple emails to the entire company requesting ideas for what BlueSky's core values should be. In the late spring of that year, the Wolf Pack spent a full day away from the studio at a private, off-site meeting to draft up what would later become the company's "8 Core Values." It was a list of philosophies, similar and related to the other commonly cited sayings. They brought back their ideas and organized a half-day, full-company meeting during which the entire company was given the opportunity to give feedback on these values. At one point, employees were broken into 8 different groups and stationed at disparate corners of the office space for an hour-long discursive exercise where we were asked to interpret one of these proposed value, identify what it meant to us, and rephrase it if we felt rephrasing was necessary. All the groups came back together afterwards to present their understandings and a final version of their assigned core value.

After this extensive and inclusive process, BlueSky's 8 Core Values were made official. They were posted on the front page of the internal company website for all to see anytime they logged in. There were several copies printed out and posted with tape or thumbtacks on walls and boards near some of the central walkway junctures and office common areas. A copy had been printed out and taped to the corner

of the most-used whiteboard of one of the two main conference rooms. Quickly, the values were seen everyone around the office, and became a common touchstone for guiding behavior and development practices. When conflicts arose or hours got long, the core values were intended to offer support.

The 8 Core Values of BlueSky Games as established in 2012 were as follows, and always listed in this order:

- Embrace the Tribe
- Be adventurous
- Be Passionate—Love games—Have fun
- Take Ownership
- Be heard—Listen louder
- Be positive
- Communicate openly and honestly
- Inspire Excellence
- Don't be a dick

These cultural guidelines emphasized some clear values in multiple ways. “Embrace the Tribe” and “Take Ownership” were both about loyalty and devotion to the studio and to DreamShooter as more than a workplace and product. It was hoped that this loyalty would stem from a passion and love of games as a creative medium and as a lifestyle symbol, and to help justify some of the difficult demands of typical AAA game development. These points were further emphasized by the “Be adventurous,” and “Be Passionate—Love games—Have fun” core values. There are clues to the importance of clear and diplomatic communication in a chaotic, flat-structure creative environment like BlueSky's in the core values of “Be heard—Listen louder” and “Communicate openly and honestly.” Unclear communication and social-political disagreements could severely undermine daily development processes by adding further confusion and delay to the already challenging task of making a massive game world. These daily development processes not only required clear and honest communication; they also required that colleagues be willing to collaborate and get along.

“Be positive” and “Don't be a dick” spoke to a need to balance out the potential angst that can result from communicating honestly about something someone is passionate about, when that thing they are passionate about is also undeniably complex and frustrating. These two values were cited most often

between BlueSky's employees after these core values were established. It's worth noting, too, that "Don't be a dick" was inspired by a well-known internet meme known as "Wheaton's Law," which was first created by geek-pop culture star Wil Wheaton when he passed along "Don't be a dick" as one of his simple, guiding principles and a basic requirement in exchange for his engagement with his online fan community. "Inspire Excellence" was an edict for quality. The developers at BlueSky frequently claimed that they would ultimately produce a game that met the industry's highest AAA quality standards in terms of art and gameplay, but this proved to be one of the most difficult values to apply on a daily basis when so much of the development process involved finding resourceful compromises between conceptual content and technological feasibility.

Gideon Kunda classified this kind of local cultural cultivation by corporate managers as "normative control: under normative control, members act in the best interest of the company not because they are physically coerced, nor purely from an instrumental concern with economic rewards and sanctions.... Rather, they are driven by internal commitment, strong identification with company goals, intrinsic satisfaction from work" (Kunda 2006:11). The intrinsic motivations and social imaginary of moral order are manipulated to create a specific kind of membership as defined by a specific set of "behaviors, thoughts, and feelings" (7). Suchman points out that this system in creative environments is an attempt to mediate the potential contradiction of technology producers who are expected to exercise their skill autonomously while still operating within the structure of an employer-employee relationship; 'corporate culture' like the Tribe culture engages these creative professionals in a "form of voluntary commitment to corporate goals" (Suchman 2003:5). And where BlueSky's employees were expected to adopt these values themselves, they were also encouraged (along the lines of the "Communicate openly and honestly" value) to remind their colleagues directly, one-to-one, to honor and be mindful of the Tribe's core values. BlueSky's developers were urged to support one another by holding their colleagues accountable for these philosophies in their daily practice.

These core values were not unusual for the games industry. In fact, Blizzard Entertainment (where several of BlueSky's founding members and many of the veteran developers they hired

subsequently had worked prior to building DreamShooter) had a similar set of 8 core values. Chris Metzen, one of Blizzard's original artists and eventual Vice President, gave credit to their core values as being part of the reason why they were able to make successful games and remain a cohesive development team despite the risks of organizational destabilization that were likely as a result of their rapid growth in size and ambition (Kollar 2014). This example made the 8 core values more appealing and understandable to the DreamShooter development team.

By asking the BlueSky developers to use peer pressure to encourage these values in one another, they hoped to not only provide a unifying guideline for behavior, but they hoped to reduce the amount of one-to-one management of individuals by the managers themselves, several of whom had far more people on their respective teams than they could effectively manage in a traditional hierarchical manner. The VP of Production himself, for example, was the direct supervisor of more than 30 developers from different disciplines at one point in time. The hope was that he would not have to do much, if any, direct supervision if the core values were successfully embraced. This attempt at fostering a kind of distributed governance met with mixed results. The 8 Core Values were mentioned on a semi-regular basis for several months after their adoption, most often during instances of disagreement, when one person was dissatisfied with the result or progression of a work-related debate. In these cases, the dissatisfied employees rarely confronted their antagonists directly with a reminder of the core values, and were instead much more likely to mention to another colleague that the person wasn't following the guidelines. "Don't be a dick" seemed to be the clearest of the values was the most difficult for some to follow, perhaps because there were no further guidelines about what specific behaviors entailed being a dick.

The cultivation and adoption of the BlueSky Tribe values was orchestrated by the Wolf Pack, but were inspired and shaped by the ideological hope that the Tribe, as a productive and creative working family, would be united by their authentic values. They hoped that by extracting the philosophical priorities and values from the developers themselves, that they would be able to foster a self-governing, collaborative team. But there was no erasing the fact that the impetus for creating this explicit value system initially stemmed from a the managerial desire for control over the company's culture and creative

motivations. The managers championed a belief that BlueSky's culture would grow around a shared love of games, and particularly of the game they were making, and that this culture, if given a proper foundation, would be the only real managing authority that this flat structure company would need. This kind of dispersed management turned out more like the surveillance cultures discussed by social scientists studying populist distributions of power (Andrejevic 2005; Foucault 1977; Taylor 2006a, 2009). There seemed to be a genuine intention among the managers to find a way to support the ideals of a creative environment, but they could not escape the fact that these values were still ultimately sanctioned and enforced by the managers through a thinly-veiled kind of top-down authority. Even so, though the Core Values eventually slipped out from under the daily attentions of BlueSky's developers, it did serve to reinforce certain underlying priorities that did serve as some basis for unification and resolution during the management of the studio's tumultuous processes.

Drinking Culture

Every workday at BlueSky Games was punctuated by periods of formal work activity, cushioned by periods of more informal social activity and rest. All of these activities, both formal and informal, actively contributed to the making of DreamShooter. Formal work activities could be classified as those pertaining directly to game development activities, including coding, writing emails, modeling world terrain, brainstorming in meetings, etc. The informal activities that take place in between and around the formal work constitute an important part of the work culture, particularly when considering that many of the informal activities involve playing games, which is directly related to the formal work of making a game.. The conversations and shared social activities, whether or not directly about the game in production, contributed to the culture of the work environment, which could then also influence the formal work activities. Game-related debates often had clearly observable influence on design and production decisions, but conversations about the latest Star Trek movie had while sharing beers after hours also had influences on the creative imaginaries that served the backdrop for productive work.

Aside from lunchtime, the most socially productive time of any day at BlueSky Games was "Beer

O’Clock.” In the late afternoons, sometimes as early as 3pm, but more commonly between 4pm and 5pm, a handful of employees would trickle into the Tiki Lounge to get their first red cup of beer from the company’s beer taps, provided for free to employees as a company perk. Sometimes they would take these back to their desks to continue working. Other times they would use this time to decompress and chat with coworkers in the Tiki Lounge. By early evening, eddies of social activity would form around the Tiki Lounge, with the red cups in hand. Simple chatter and playing arcade or console games were the most common accompaniments to the beers. Bonding happened in these spaces of release and social enjoyment. There have been several ethnographies of high technology companies that describe social drinking within those environments. Mellström includes some particularly noteworthy examples, including that of a drinking ritual, the “beer heave” to induct new engineers into their first year of engineering school (Mellström 1995:VII). Mellström also observes that social drinking among the engineers in a Swedish tech firm ties into practices that emerge from employee negotiations of work time boundaries.

“On a Friday night, down in the lab, [some of the engineers] have gathered. There, they start mixing the ubiquitous Coke with red wine. The week is turning into weekend, the workday is slowly becoming partytime. ... As working hours fluctuate depending on the general work load and as liberal attitudes concerning what is considered normal work time are socially justified—although not encouraged officially—fundamentally different conceptions of time have emerged” (70).

He also explored the notion of “bachelor time” in this same office, which refers to the company’s cultural yet unofficial assumption that an individual’s work hours “are related to civil status. The five bachelors tend to work late in the evening and arrive late in the morning... The average working week expanded far beyond forty hours. [...] A lot of pressure and overtime were put on the staff, in particular onto the bachelors” (Mellström 1995:70). Practices such as drinking with colleagues in an official work space on a Friday evening, and regularly working weekends as a single male all emerge from the cultural assemblage of the workplace and represent the assumptions about lifestyles and demographics that they, in turn, reinforce.

The tone of discourse around Beer O’Clock was often jovial, exercised as a space for fun and joking. But these spaces were always undergirded by casually productive discourse. Games were a common topic, and the even when the game being discussed was not DreamShooter, the ideas shared gently shaped the perspectives of the people involved. Films and television shows were commonly discussed, and the agreements and disagreements about their content contributed to the ever-growing shared vocabulary of studio employees. While making jokes about the use of lens flare in the newest Star Trek movies, these developers were simultaneously figuring out how to think and talk about lighting effects in science-fiction media. When YouTube videos and Reddit memes surface during relaxed chats over Guinness, they are automatically incorporated into the library of shared reference points that are inevitably tapped for later communications about work-related discussions. The BlueSky employees that did not frequently participate in these social practices found themselves at the fringes of the active system for cultural reproduction. The non-drinkers, long-distance commuters, and pregnant women at BlueSky necessarily participated less in that process of making BlueSky’s design culture. All social interactions among development colleagues subtly shape the shared, creative landscape, but at BlueSky, a noticeable amount of the imagining work was done during beer-related activities.

Tiki Time and BlueSky Tribe Ritual

The management at BlueSky Games instituted several company-wide practices to help foster a positive, inclusive, and family-like culture. One of the most prominent of these was Tiki Time on Friday evenings starting around 5:30 or 6pm in the Tiki Lounge. Employees were encouraged to invite their families and significant others to socialize with the rest of “the Tribe,” the company-curated moniker for the BlueSky team. This phrase was intended to conjure a sense of a unity based on deeper bonds than the stereotypical professional relationships. BlueSky’s management team chose this concept of “the Tribe” to help cultivate the cultural values of togetherness, mutual support, family-like loyalty, and unprocessed authenticity. The selection of “the Tribe” to identify BlueSky as a cultural group was intended to connote an organization based more around shared values and similar backgrounds than around a formal corporate

structure. Tiki Time was an officially sanctioned social time during which this particular sense of togetherness could be nurtured and deepened. On the surface, this kind of “team bonding” seems like a straightforward way to improve employee relationships and smooth the rough edges of teamwork, but the effects of these designed social activities can be seen deeper in the grain of the company’s cultural woodwork.

Tiki Time was for bonding a complexly interrelated team that was rapidly growing in size. It was not specifically mandatory, partially because it could not be fully mandatory in legal terms, and there were several individuals who consistently left the office before Tiki Time. One employee would leave for Shabbat services at their synagogue on Friday evenings, and was therefore never able to attend Tiki Time. But Tiki Time attendance was heavily encouraged, especially when it was also being used for company announcements and Welcoming Ceremonies for new employees. Alcohol was the most common accompaniment for all Tiki Time gatherings; the bar and beer taps saw their heaviest use on these Friday evenings, and the kegs were always restocked hours before these gatherings began. The Tiki Lounge’s computer, projector, and projector screen were used to play music and music videos to help create a laid-back party atmosphere. Employees would often sneak up to the computer to subject their colleagues to funny videos and meme content.

The fun atmosphere of Tiki Time would usually last for two hours, sometimes longer, and in the cases when the group had momentum, they would head to nearby restaurants or bars to continue the festivities. One particular bar in Aliso Viejo, near where many employees lived, became the most consistently chosen hang-out. The Lead Designer was a distinct influence in this choice, as he was with most beer-related topics. Colleagues who worked with this Lead Designer on projects prior to his employment at BlueSky said that he was known for being a highly social drinker, and was commonly at the center of after-hours revelries.

Early-on, some Tiki Times were used to communicate about work-related problems that needed solving, and presentations about the company vision were made often, but this practice was curbed after a directive from the CEO stating that Tiki Time should be 100% dedicated to forging Tribe connections and

socializing. Eventually, Tiki Time was most commonly organized to welcome new employees to “The Tribe.” The Vice President of Production (the only official VP in the company) would lead these welcoming ceremonies enthusiastically, and orchestrated activities for the new employees to do. They varied in intensity and involvement, but the most complex ceremonies had new employees introducing themselves, then performing a joke, dance, or song. Sometimes they were asked to display a special talent instead of performing. There were at least three months when there was at least one organized Tiki Time per month for three months. It seemed that the management preferred to wait until they had more than five new employees before organizing the next Tiki Time welcoming ceremony, but casual Tiki Times still occurred. A much smaller group would consistently show up in the Tiki Lounge on Friday afternoons and hang out into the evening, drinking, chatting, and playing games.

Less common than the Welcoming Ceremony Tiki Times were the Anniversary celebrations. Groups of people who had been at the company 5 years and 1 year were celebrated during special Tiki Times. They were commemorated and presented with tokens of their commitment. 1-year employees received black-on-black letterman jackets emblazoned with the BlueSky Logo. 5-year employees received large, trophy-sized figurines of the DreamShooter game character, Typhon. This practice harkened back to the BlueSky founder roots in Blizzard where long-term employees are honored for every 5 years at the company. At 5 years, veterans get a full-size replica of a legendary in-game sword, mounted on a placard. At 10 years, they get a life-size helm. At 15 years, they get a ring. These trophies reified the local cultural values of long-term loyalty to the corporate social family group.

Big, important milestones for the game in development also warranted special Tiki Times, and sometimes their own special evening event in the middle of the week. The launch of the Closed Beta, opening of the in-game store, and launch of the Open Beta were all celebrated by special Tiki Times. The company provided dinner before the boisterously choreographed event by the VP, and always with some sort of speech from the CEO. Both the launch of the store, which signified the first opportunity for BlueSky Games to start bringing in revenue after 6 years of unfettered spending, and the launch of the Open Beta, were celebrated with mandatory ceremonies where every individual employee was presented

with a commemorative pin, a goody bag (usually with some kind of t-shirt or sweatshirt, and smaller, random DreamShooter swag) and handshakes and Thank Yous from the upper management (VP and CEO). Names would be called, one by one, for each presentation in the front of the Tiki Lounge, while everyone else watched and clapped.

The vibe of these celebrations evolved. When the store launched in 2012, there was an upbeat, optimistic energy. The game was making progress, and while everyone knew there was still a long way to go, there were hopes. There were expectations of press coverage, and upcoming tradeshow, that opened windows of opportunity for positive feedback as much as it did revenue. The nervous, somewhat reserved excitement spoke to a hope shaped by a simultaneous belief that the game was good and worthy of attention, while acknowledging that this core of quality would have to be seen and appreciated through several unfinished layers and absent content. The small torch of hope burned around the idea that the beta build of DreamShooter could foreshadow the potential of the game's direction, prove irresistible, and result in an unrealistic windfall of cash despite its flaws. Breath was baited, and there were few who would have said they firmly believed that this would happen, but after they years of work, this result would have been a delightful, fulfilling surprise. This was not fated to be, however, and a retrospective analysis reframes the store opening as an example of “jumping-the-gun” in the face of a multitude of pressures from the community and Board of Directors, and inaccurate estimations by some key members of the management team about the work that was still needed.

Officially organized Tiki Time at BlueSky consistently happened at least three weeks out of every month during the early part of this research phase in the fall of 2011, but it slowly dwindled in frequency through 2012, and became as rare as once per month later in the development cycle, when deadlines and funding pressures were taking their toll on company culture, quality of life, and morale. Casual Tiki Times became less common, too. The newest hires were eventually Welcomed, but they were not indoctrinated into the Tiki Time practice the same way that veteran employees had been. Veteran Tiki Time attendees furthered their bonds while new hires did less so. As some older employees became worn out or disgruntled, a common occurrence during periods of increased pressure or big changes in

development direction, Tiki Time became less appealing. Some employees stated that they would rather be home with their families whom they felt they rarely got to see, rather than stick around the office to spend time with colleagues. Encouraging employees to bring their families helped soothe this complaint to some extent, but also lost efficacy as pressures mounted.

Cultural Touchstones

For almost three years during the development of DreamShooter, the development team played Team Fortress 2 together. It was the after-work game craze in the office. There were many other games played within the studio. Aside from social bonding over beer, the most common form of connection-forming socializing among the DreamShooter developers was playing video games together. Consistently, every day, there were developers playing non-DreamShooter games together. This means that despite all the many hours they might spend each day working with the various parts of each DreamShooter build, testing new features and recent changes, painstakingly building maps, or hunting down bugs²⁸, they still turned to video games to blow off steam and have fun. Often when a new MMO or shooter came out, the designers would make a special point of playing it together. But Team Fortress 2 was one of the special ones that made such a deep impression on the team that it became much more than just an effective form of social bonding. Team Fortress 2 became such a cultural touchstone around the BlueSky Games offices that its influence on DreamShooter became readily apparent.

Several veteran developers recounted the story of how the CEO had bought copies of Team Fortress 2 (“TF2”) for all BlueSky employees after it came out in October, 2007. It was a competitive, first-person shooter game that used an unconventional art style. It had many traits in common with the envisioned future DreamShooter, and thus the CEO urged everyone to become familiar with it. They did not expect TF2 to become so popular with the BlueSky team, but it quickly became the game of choice for social play, with many developers taking breaks from work to play, and gathering together for a few

²⁸ “bugs” are problematic errors in software code.

online matches during lunchtimes. They played it so often together that they were formidable in their online pick-up matches. Over the next couple of years, they would continue playing regularly together, talking about it often, and even competing in a few organized tournaments. There was one story in particular—the Legend of the Studio Rumble—about the time they were competing in a tournament against teams of developers from other studios, when they came up against a team from Valve, the studio that made Team Fortress 2. They were playing them in the semi-final match, where the format was best-of-3. BlueSky’s team barely scraped a win in the first game, and, as they tell it, the scores were close and the time running short when suddenly, the Valve team quit, citing a lightning storm as the reason they had to shut down. Even years later, the developers who had played in that match recounted this story with fervent incredulity. The storytellers rarely continued telling the story after the bit about this match, which I eventually learned was because the BlueSky team later lost to Valve’s team in the rematch.

Everyone working on the game during this time played enough TF2 to understand it when used as a communication tool for design reference. It wasn’t the only such reference, of course—Tribes, League of Legends, and World of Warcraft also became hugely important references. TF2 wasn’t necessarily everyone’s favorite game, but it was familiar and therefore valuable as a cultural touchstone because it could be used as a meaningful reference in both social and professional contexts. This game in particular was inscribed on an especially deep social level because they had spent such time experiencing it together. One developer explained that TF2 was “heavy on people’s minds, speed movement, how the plasma cannon worked,” etc., during the early, formative years of DreamShooter’s development. Their shared experience promoted further shared experience. Colleagues were able to pull on detailed memories of their teamwork and adventures together, enhancing their sense of rapport and trust in one another. They also used the stories about their experiences in Team Fortress 2 to signify veteran membership in the group, and as communication short-cuts when talking about complex design ideas or technological systems. With references as simple as “more like the Scout’s shotgun” or “remember that roof in Badlands?” the developers of DreamShooter were able to communicate nuances about complex technological and gameplay systems in just a few words.

Design of any kind is ultimately a process of communication and negotiation accomplished through an exchange of narratives (Murphy 2011, 2015). There was a common joke around the studio that people would come up to them all the time with “a great idea for a game,” but that they, the professional designers, knew that having a great idea was only a small part of the process. Being able to communicate your idea, convince other developers that it is worth trying, and then figuring out how to make it technologically feasible were all much larger parts of the game design process. Anne Balsamo spoke to this when she identified that one lesson about technological innovation was that “design is as much about social negotiation as it is about creativity” (Balsamo 2011:11).

Cultural touchstones provide some of the most common imaginative content for what Keith Murphy identifies as “embedded skits,” a strategy used by designers to help their colleagues envision a design in a particular way (Murphy 2011:243). The major cultural touchstones in a design studio like BlueSky’s were tools for this kind of negotiation and creating a common design imagining, and they functioned in two main ways. First, they provided opportunities for inclusion and cultural belonging that helped individuals identity and reaffirm themselves as part of the group. Building these kinds of shared references together shaped their understanding of what qualified group membership. This inclusion could ease tension in high pressure work situations, and make communication across multiple platforms and technological dimensions flow more smoothly. Secondly, their shared experiences deepened the well of commonly understood vocabulary that then enabled the conveyance of certain complex, artistic ideas through simple, efficient references. TF2, for example, became one of the primary touchstones for the DreamShooter’s art style and the foundational shooter mechanic because designers could explain their ideas through commonly understood references to that game’s existing features. Consuming and exploring this kind of cultural media together expanded the shared base of references and understandings that these producers of technology would later use for conceptualizing and communicating their design ideas.

When designing the combat abilities and weapons for DreamShooter, designers regularly referred to how the movement speed in TF2 varied with the classes, and how the different weapons had different

feels. During initial prototyping, TF2 came up. During playtesting and iteration, TF2 would come up. During debates about the next round of tweaks, TF2 would come up. And this is from my research starting in 2011, after they had started playing TF2 in 2008; it was a long-lasting reference. For example, when the team was strategizing Free 2 Play monetization, and one of the automatic themes became “silly hats,” without even necessarily directly referencing Team Fortress 2. The team produced multiple rounds of these, which eventually ended up being received poorly by players who wondered how this fit into the overall context of DreamShooter’s world and narrative, which is set during a time of the Earth’s impending doom. But when designers are trying to find elusive qualities like “fun” through iteration and playtests, and one of the common ways of narrowing down the particular forms or sensations is by comparing it to the fun of another game.

Cultural touchstones are built primarily through shared experience. Individual experiences do not have to coincide, but actively shared experiences provide a wider breadth of opportunities for shared reference. Many forms of shared experience can contribute to the growth of a group’s cultural touchstones, as I identify them here. Organized and sanctioned bonding for the Tribe sometimes took the form of larger field trips, like their previously mentioned weekend trip to Santa Catalina Island, an hour-long ferry trip off the Orange County coast. They rented out a block of rooms at one hotel and spent several days having fun socializing, drinking, and doing team-building exercises including an elaborate scavenger hunt that had BlueSky’s developers roving all over the island’s main town and beach. Their main activity hub was a local bar called Luau Larry’s, “home of the famous Wiki Wacker.” Employees from that era in BlueSky’s history glow while recounting stories from the Catalina trip, and everyone has at least one fond story of hijinx that I had to promise not to recount in print. When BlueSky launched the online store more than a year later, they named the in-game storefront “Luau Larry’s,” complete with an NPC named “Luau Larry” and a purchasable, consumable item called the “Wiki Wacker” that would make a player’s in-game vision somewhat swirly, simulating intoxication, for as long as the item’s effect lasted.

BlueSky’s team built their basis for shared reference through everyday socializing, but also through

formally organized activities. BlueSky Games sponsored several trips to the movies for the entire company during work hours. These were not mandatory but well-attended. Employees were asked to RSVP to the organizer (always one of the administrative staff), and they were responsible for organizing their own transportation, but a ticket was provided to them for free. These company outings were prescheduled with the theater to make sure there would be enough space left in the theater to accommodate everyone. I went on two of these movie field trips with BlueSky, to see *Prometheus* in the summer of 2012, and then *Star Trek Into Darkness* in May, 2013. During the *Prometheus* viewing, we actually shared the theater with a large group of Blizzard employees who were attending Blizzard's similarly organized company movie day. This was a rare opportunity to see the overlap in friendships between a noticeable portion of BlueSky's staff and Blizzard's staff. During the *Star Trek* viewing, the entire BlueSky group erupted in cheers during the short cameo of an actor who had worked with BlueSky and portrayed one DreamShooter's main characters at live events for two years of trade shows and fan conventions. Both movie field trips provided good fodder for discussion of various aesthetic and content topics influenced by science fiction stylings. Inside jokes emerged, and film elements worked their way into design discussions as new potential reference points.

While a majority of the Tribe's social gatherings were knit together by the sharing of alcohol, tabletop games served as another appropriate hinge for after-hours socializing at BlueSky. Tabletop games—specifically board games with miniatures, card games, and role-playing games—were organized among small groups in conference rooms after the main swell of the workday had ended. One evening when I was about to wrap up a day of work, I saw a wife of a nearby coworker winding her way towards us, pulling something like a rolling suitcase through the clusters of desk. When she got to us, I saw that she had brought an entire stack of metal cases full of exquisitely painted miniatures for the board game *Warmachine*. They set up their boards on the large table in one of the conference rooms, and within 20 minutes there were six people arranged around the table, talking, examining pieces, and tinkering with their formations. I saw these kinds of evening board game sessions coalesce a few times per month. *Magic the Gathering* was another tabletop game that was popular around the office, and because of the

portability of the cards, it could be played in various places around the office after-hours. Pencil-and-paper *Dungeons and Dragons* games were organized a handful of times as well.

Developers playing video games together provides a valuable example of how cultural media can be reproduced in particular meaningful ways when it influences the social imaginaries of technology producers (Adorno and Horkheimer 1991; Balsamo 2011; Martin and Deuze 2009). As much as it is an opportunity for social bonding, this kind of regular sharing of cultural experience shapes the imaginary that is shared by their small social group. Cultural touchstones gave these developers important short-cuts for communicating complex technological parameters and evasive design ideas by referencing something that was familiar to those involved.

Hiring Practices

Building and growing your development team is crucial to the success of any kind of technology. Quality products are made by teams of quality people that are more than the sum of their parts. Hiring processes at a company like BlueSky Games involved many people, not just the recruiters and individuals who would be the direct managers of any new hire. Groups of developers would take an hour at a time out of their day to participate in an interview of someone they might work with in the near future. Sometimes as many as three people at a time would gather in an interview panel to ask questions and assess their answers, with a potential candidate meeting with several such groups during an on-site interview visit. There are human resources laws in California that protect against hiring discrimination based on certain kinds of traits and related lines of questioning. But even being considerate of these laws and the intentions behind them, the hiring process at BlueSky was one of the main ways that the development team was guided towards cohesion. By selecting candidates who represented a common background, similar perspectives on game design, and access to the right set of cultural references, the company evolved a team that had an easier time communicating through some of the complex problems of development, but also lacked in a diversity that might have been beneficial to the team's overall capacity for creativity and resourcefulness. Despite the fact that almost every developer I talked to at BlueSky Games was

enthusiastic and supportive about the prospect of working with women developers and developers of color, the hiring practices themselves contributed to the studio's population being predominantly white and male.

Recruiting top talent is a highly valued professional skill set around the technology industry, no less in the making of games, as evidenced by the fact that BlueSky Games employed a dedicated Director of Talent Acquisition for nine years, including the two years of my field work there. He was not a generalized Human Resources person, but rather a hyper-focused recruiter of development talent who spent all of his time working to fill the BlueSky ranks with the most highly qualified and sought after developers. If a developer had years of experience and a long list of games with their name in the credits, he had likely looked them up and reached out with an inquiry. The advent of professional social networks like LinkedIn made his job far easier, and increased his reach throughout the industry. He was also the first line of assessment for any resumes that were sent in by proactive hopefuls.

But getting talented people to consider BlueSky long enough to start the interview process was the simplest part of the hiring process. Resumes and development credentials would indicate some level of proficiency, and the relatively small size of the industry meant that many applicants were referred by a friend who worked there already. Having a connection to someone willing to vouch for you from inside the company culture was the surest way to land that first phone interview. The company used a multi-stage interview process to identify whether or not a candidate was a "good fit" for a job and for the company. In addition to being questioned and tested to prove technical knowledge and problem solving capacity, candidates were also evaluated based on how well they might fit into the local culture.

The interviews and design tests for those applying for design jobs at BlueSky Games were laden with hypothetical design challenges that are trying to elicit answers to three main questions: 1) can they anticipate the player perspective? 2) how do they handle stress and complexity? 3) are they passionate enough about games? After passing the first couple rounds of phone interviews, design applicants were sent an extensive design test with a limited amount of time to return the answers (usually a few days). These written tests were able to give members of the design team a sense of the applicant's basic grasp of

design principles, familiarity with certain tools, and creative potential. They looked for answers that identified ideas that were both feasible but also interesting. When talking about potential candidates with a designer named George, he recalled a recent applicant who had demonstrated extensive technical knowledge and additional statistical acumen that would have been a nice bonus, but he noted that her solutions to some of the design problems were deemed “not Out of the Box enough, which wouldn’t be a good fit at BlueSky where we have a flat structure.”

If a candidate passed this stage of testing, they would come to the offices for in-person interviews, where their player empathy, management of stress, and passion for games could be assessed. But unlike the written design test, the live interviews followed no script or rubric. BlueSky developers did not undergo training about how to properly interview, nor were they given any official guidance about what to ask or what to look for. But within each disciplinary team, they found a few of their own strategies for identifying who might make a beneficial addition to their group, and (they hoped) to the company at large.

Designers conducting interviews would typically present more hypothetical design situations, and the candidate would have to come up with ideas and solutions on the fly. Antoine, who was one of the designers most interested in the details of the hiring process, subjected every applicant he interviewed to a kind of “stress test” in which he challenged them to come up with six different encounter scenarios in a minute and a half, and then convincingly pitch all six of them in another minute and a half. He explained that no candidates ever completed this task entirely, but that he was looking more at how they approached the task, how far they got, “how flexible they were in their design,” and where and how they failed. Were their answers redundant? Did they get flustered? How clearly did they communicate their idea? These were but a few of the kinds of questions that might be addressed by an interviewee’s handling of live design challenges. Antoine also noted that he would listen specifically for answers to questions and design challenges that mentioned the player’s perspective, or might indicate a capacity for player empathy. He admitted that sometimes he would trick these job applicants into talking about how the player might perceive their design, because even though he believed “most of them subconsciously

understand the value of this, not everyone is capable of talking about it.”

After a day of interviews, those who had met with the applicant would gather briefly to share their impressions, usually concluding with a Yay or Nay, with or without qualifications. In addition to a review of the content of their answers, this is when judgments about their “culture fit” were discussed. In most such discussions that I overheard, applicants would get credit for being passionate if they could talk fluently about loving the same kinds of games that the existing group of developers had also loved. If they had a large overlap in their favorite games with any of the people they had interviewed with, they had a higher likelihood of being described as passionate, and were more likely to be deemed a proper culture fit.

I talked to several of BlueSky’s designers right after they had hired their first woman into the design team, and they consistently described her as passionate. One designer said emphatically “we were looking for passion and she blew everybody's doors off! The chick can communicate with all the same vocabulary. She can dish it as well as anyone else.” With some deeper digging, several of those designers mentioned with rich tones of approval that this woman designer had cited *Shadow of the Colossus* as one of her favorite games. The way they talked about this fact indicated that liking this particular game was like a secret password for acceptance. *Shadow of the Colossus* and *Team Fortress 2*, in particular, were references that were interpreted during interviews as indicators that an applicant might do well within the existing local culture. It is worth noting here, too, that even though she was being talked about in complimentary terms, this designer was spoken of as set apart from “anyone else” by her deviation from the model of male-as-default.

Given the complexities and pressures of game development, it is little wonder that developers were keen to hire colleagues who could start the job with a fluency in both the technical tools and conceptual references that were used regularly around the studio. Training time was minimal at BlueSky as it was. There was no standing structure for it. Veteran developers would volunteer to introduce new hires to BlueSky’s custom development tools, but this training time was never built into the company’s milestone schedule. This meant that any time spent training new hires was time taken away from the development of the game’s features. The lack of formality around the introduction of new developers, which was not

uncommon around the game industry (especially in relatively small studios), created an unofficial priority on hiring people who would require the least amount of in-house training, or who seemed the most likely to be able to figure out the studio's processes without guidance (Malaby 2009; O'Donnell 2014). This meant that they preferred to hire people who were already well familiar with the studio's favorite cultural touchstones, a preference that was laden with unrecognized bias and, despite the intended open-mindedness and conscientiousness about discrimination in hiring, helped to perpetuate BlueSky's demographic homogeneity.

Conclusion

In coping with the chaos of game development, many creative ideas were lost to considerations of feasibility, efficiency, convenience, and cost. Timelines, technological limitations, and politics all contributed to an environment in which more nuanced philosophical debates were overwhelmed (Mellstrom 1995; Schwartzman, Vila, and Parikh 2009). The great majority of the developers I worked with at BlueSky Games aspired to create meaningful gameplay for their players. They wanted to create a captivating world with a deep narrative that could tell a worthwhile story and provide motivation for a multitude of different players. Their long-term goals, both for philosophical and financial reasons, included having as many people as possible play their game. They wanted DreamShooter to be inherently inclusive and offer something for everyone. But it was all too easy for these kinds of goals to disappear in the maze of daily tasks, especially in the thick of development when pressure to deliver was mounting. In those months prior to delivery deadlines and important milestones, development energies necessarily shifted from framing big-vision creative goals, to applying their most resourceful problem-solving skills to the arduous tasks of simply making the overlapping technological systems work well enough to be playable. Many of the ideas that started out being passionately supported ended up abandoned along the path of implementation.

During the years of development behind the creation of DreamShooter, the BlueSky Tribe was working to resolve a three-way tension between their ideological creative goals, the material realities of

their technology, and the financial goals of the company. Every developer there felt some degree of investment in each of these dimensions. The general imagining of their process involved a shared, if vague, understanding that they all ultimately wanted to make brilliant meaningful games, but that their game would also have to be financially successful for the company—and their jobs—to continue to exist. This is why, even though many of these strategies for cultural unification and team bonding were organized by the management team, they were nonetheless embraced by many of the employees. While in there was an undoubtedly some element of intention to control and manage company personnel, and their eventual technological product, by instituting a system of self-regulating values, these practices truly were not top-down (Andrejevic 2005; Chun 2004; Kunda 1992; Mellstrom 1995).

It is worth noting that there were plenty of attempted unification practices that never took hold, or had only short-lived success, likely because they could not effectively mediate the existing tensions between creative, technical, and financial factors. The Catalina trip, for example, was wonderful for helping bond the Tribe and build common experiences, but they were too expensive for a company of one hundred or more people that was not yet making a profit. Company movie field trips were beneficial when they happened, but there were few films that the majority of the developers were eager enough about to sacrifice precious work time for, turning several organization attempts into duds. A company-wide competitive tournament, made up of 5-person randomly-chosen teams, was initially engaged with enthusiasm, but ran into difficulties when they had to schedule matches around the work schedules of the many disparate team members. For these kinds of cultural unifiers to last, they had to be carried through by enough of the studio staff to build social momentum. These ideas for bonding activities could not simply be imposed from the management down, especially in this flat structure environment where every developer had been promised that they would not be subjected to the usual corporate hierarchy. There had to be genuine cultural resonance and environmental feasibility for them to become true unifiers.

Ultimately, all of these unifying practices shaped and formed common ground between the social imaginaries at work in BlueSky's collaborative work environment. Their unifying practices generated imagined relationships between common experiences and participating actors, connecting those who had

access to their shared memories. Every common experience contributed imaginable potentialities to the social imaginary, influencing how the participants might imagine and interpret the world around them. It was like slowly assembling a unique and shared vocabulary that participants could use to communicate more easily and more deeply, as well as to affirm their membership. The beauty of these unifying practices is that they offered common ground, and shared experience, where perhaps a diverse group of people might not have otherwise had them. Granted, BlueSky's group of developers, like most in the industry, was constituted by many men of similar age with similar cultural backgrounds (Barbrook and Cameron 1995; Borsook 2000; Mellstrom 1995). But some of these practices, like playing games together, drinking together, and watching movies together, did provide opportunities for those few from the fringes to have more in common with their colleagues which, in turn, made them all more effective at weathering the storm of chaos and complexity that was AAA game development.

CHAPTER 5

The Art of Fun

The Playtest

It was 5 versus 5, as DreamShooter PvP always was, in a room full of computers and only one window that looked into the downstairs office space, letting fluorescent light into the already fluorescent-lit space. There was no sign of Southern California spring weather downstairs in the KillZone. It was slightly stuffy, smelling of sitting sweat and overheated computer dust. The furiously clicking plastic sounds of mice and keyboards underscored the sounds of competition. This playtest was louder than usual, actually, with at least half of the participants communicating vocally, frequently attempting to call out enemy locations or bits of strategy, but having to use more words than usual to frantically describe unfamiliar map features on-the-fly. The less communicative players broke their concentrated silences with grunts of dismayed confusion or shouts of delight, usually culminating in one team scoring.

Members of the two teams were dispersed unevenly among the computers, twenty in total, which lined all 4 walls of the room. Only ten of the computers were being used for the playtest, but five additional observers floated around the room, occupying empty stations to take notes, or hovering to watch the players in action. This was this group of players' first playtest of Jetball, the fourth PvP game-mode designed and tested for DreamShooter, but the first that resembled a kind of actual-world ball sport. Jetball was designed to be a 5 vs 5 competitive game mode on a mostly symmetrical map, with each team spawning on their respective end of the map, and a ball spawning in the middle. The objective was to outscore the other team by the end of three play periods, each period lasting five minutes. Players could score points for their team by throwing/shooting the ball through the hoop (1 point), or by flying through the hoop while carrying the ball (3 points). The game mode took full advantage of DreamShooter's most

distinctive gameplay traits such as the jumpjets²⁹ and shooter mechanics, plus the different battleframes and their specialized abilities being used for creative defensive and offensive strategies. In a nutshell: it was like large-scale basketball with flying mechsuits.

Before initiating the first games, the organizers prefaced the playtest with brief notes about the particular build they were playing on, focusing on what issues the team already knew about (such as clipping and collision problems with the hoops), what things were clearly unfinished (the User Interface was temporary and the art assets for the ball were placeholders), and what things they were already planning to address (they would add at least two more power boosts to more central points on the map). With those caveats taken into consideration, the players set to work, competing and collaborating using game mechanics that were familiar, but in a new virtual space, with new gameplay objectives.

The ten developers who were actively playing the game had been recruited specifically because they were not on the Jetball feature team³⁰, and had therefore not yet worked directly on honing the gameplay for this new game mode during the previous three months of its development. The players came from various departments, and aside from not having yet played Jetball, they were there because the feature team's "goalie" (the assigned lead of this temporary feature team) had sent out an email requesting volunteers for a playtest beginning at 2:30pm; these ten happened to be available and willing. Among the players, there two programmers, one web programmer, one associate community manager, one marketing manager, one sound engineer, one animator, one concept artist, and two game designers. The five observers included two members of the Jetball feature team (both designers), a managing Senior Designer, a UI designer tasked with helping finalize the mode's UI, and me.

After three full games over more than an hour of playtime, the players pushed back from their computers, stretching, and swung their chairs around to face the center of the room, settling into a loose

²⁹ "Jumpjets" are a defining trait of DreamShooter's character movement mechanics; they allow players to fly vertically for short periods of time.

³⁰ "Feature Team" refers to the small group of developers dedicated to working on a particular game feature.

circle that was filled out by the observers, who also took seats. The goalie of the Jetball Feature Team, who also happened to be the primary designer responsible for conceptualizing this ball-centered game mode, organized everyone with questions for feedback. He began with the question that was encouraged as the starting point for all playtests: “How fun was it on a scale of 1-10?” Going clockwise around the loose circle, the players offered numbers as low as 3 and as high as 7. No one offered any “Fun Scores” higher than 7, but no playtester at BlueSky that I ever observed gave anything a Fun Score of 10. When I asked one of the designers about this, he replied “there is always room for improvement,” indicating a desirable conceptual gap between the realities of designer analysis and the ideal of Fun, the 10 out of 10. Most of these playtesters answered with 5 and 6s, sometimes including half increments (one gave it a 5.7) and a few sentences about the rating they had assigned. The goalie encouraged them to keep it brief at first, while jotting down scores, and once he’d gathered them all, he continued; some questions were more general, like, “What parts did you like the most?” “What parts did you not like?” “Was anything difficult or confusing, besides those unfinished parts we already know about?” Other questions were more targeted: “How did you feel about the hoops? Were they too big? Too small? Difficult to hit?” “Any specific thoughts about the map size?”

The structure for giving answers quickly fell away, and the players started describing their experiences as they remembered them, with the more talkative players jumping in as other responses triggered their memories. Most of the observers took some notes on paper or tablets, and some, like the Senior Designer, asked their own questions after the first few rounds of questions had progressed. There were inevitable drifts into design suggestions, these developers-in-player mode, or vice versa, offered ideas for how to make certain parts feel better or be more balanced. As was often the case, many of these playtesters, especially the designers among them, had a difficult time staying within the subject position of player while giving feedback, and would frequently shift back into their perspectives as designers. The goalie himself was a quieter person on the scale of communicators at BlueSky Games, except when he found a particular design point that he wanted to impress upon anyone. Otherwise, he let the players give their feedback with very little structure or guidance, interrupting only to clarify the intentions behind

certain design decisions, or to ask any of the quieter participants if they had any points to add. The Senior Designer stepped in a few times to redirect conversation back towards player-perspective descriptions of their experience, and away from debates about what specific fixes could or could not be made within various timelines or technological constraints.

Many of the designers I interviewed emphasized the importance of playtests as a regular part of rigorous, conscientious, and smart game development. Playtesting is a fundamental part of the iterative design process, and “iteration” was one of the most frequently echoed design philosophies around BlueSky Games during the development of DreamShooter. One designer explained that “you do problem solving through playtesting.” When asked about the most important skills for a game designer, he said “you have to have the ability to playtest and iterate: be disciplined about doing this every step of the way. Every time you do something, you want to prove it to someone else.” His ideal design scenario involved playtesting for the bulk of his day. His hope, even in non-ideal scenarios, was to do at least a couple hours of playtesting every day. He emphasized that playtesting can help with the problem that “fun is subjective” by framing player experiences as “more objective” playtesting data points.

The studio’s management, the CEO in particular, held to identifying good design and good practice using terms like “fun” and “feel good” and “flow,” examples of what Keith Murphy identifies in his design scholarship as a “final vocabulary” (Murphy 2015:41). These value-laden “final vocabularies” are “final in that those who sincerely employ them cannot conceive of any other legitimate means of expression,” being taken at face-value whether or not they are actually true (41). The “fun scale” that all employees at BlueSky were encouraged to apply to every aspect of their game development process applied a sense of fun that was taken at face value. It was the job of the game designers, in particular, to unpack these otherwise unquestioned vocabularies into manageable, codified design goals.

The Playtest at BlueSky Games was a regular practice that highlighted a productive confluence of game design factors, pressures, and underlying considerations. Playtests offered designers the chance to reengage with the slippery quality of fun within their designs, while also grappling with the in situ realities of their technical craft and the expectations of potential players. It was a chance to practice the

translation of reported player experiences into a fine-grained, technical plan for what to change and improve upon. Playtests are valuable sites for investigating the game design process because of the required translational work, where game designers must unpack and interpret player descriptions of what is or is not “fun” into components that can be deciphered, designed, and coded. The subtle and difficult work of game design emerges most brilliantly during this process of “finding the fun,” in which a quality of experience that is fundamentally elusive, fluid, subjective, sensory, and emotional for players, is translated into a matrix of psychological and technical data that can be adjusted by designers for greatest player enjoyment.

The Fun Scale

The most common descriptor, the most fundamentally assumed quality of a “good game,” is that it is “fun.” The most brief answers a researcher might get when asking a player why they play games, or what they like about them, is “because they’re fun.” But any efforts to more deeply understand this quality of experience quickly become complicated. Most could probably agree that Fun describes a sensation, the quality of a mental state. It is almost a feeling in and of itself, except that it is not explicitly a feeling we produce on our own. Our modes of discussing fun identify it as something external, something outside of ourselves that we experience as a result of meaningful interacting with the world around us. We can find fun, we can have fun, but we do not feel fun the way we feel happy or sad, excited or angry. A senior designer at BlueSky once emphatically and playfully typed to me during a casual online conversation that “FUN IS LIKE ENERGY AND CAN NEITHER BE CREATED OR DESTROYED” (his original emphasis). As a kind of kinetic energy, fun emerges at the points where individual interact meaningfully with the world, with concepts, in which their choices and actions are taken to achieve a contingent outcome. At best, fun is a subjective, emotional experience. At worst, fun is problematic and unproductively vague.

Some designers, including some at BlueSky Games, and design theorists have opted to avoid the term “fun” entirely in their discussions of game design (Salen and Zimmerman 2004:334). That same

senior designer who described fun as a kind of energy more soberly explained later that “fun is neither created nor destroyed—it's not even really there at all. Being a designer is about managing user expectations and setting up environments and feedback loops that reward behaviors that sustain and engage them for long periods of time. Some might describe this as “fun” but such a subjectively interpreted word isn't very useful for those of us in the trade.” But regardless of its inherently problematic role in the understanding of what makes for good game design, fun was an essential concept within the bounds of design process at BlueSky Games, and is therefore an essential concept that needs unpacking for this analysis. How do designers break down the concept of fun into practical design goals they can help to produce the systems that enable players to find and experience fun?

BlueSky's CEO was the most emphatic advocate of the “Fun Scale” during DreamShooter's development. There was a spread of several months from 2011 to 2012 in which he mandated that employees apply the 1-10 Fun Scale as a measuring stick for successful progress on every project being undertaken, including projects not directly related to the game's development, such as the company's marketing efforts and web design goals. Every aspect of BlueSky's ongoing work was aimed at providing a fun experience for both prospective and active players. There was no established rubric for how to grade the fun of any particular project. Usually the “fun score” was requested, from every individual on a specific project, at the very beginning of weekly meetings. For the most part, employees reported that they gave scores based on gut reactions, and over time, based on whether or not they felt that improvements or progress had been made. The specific details about what could make for the best possible player experience were talked about after fun scores were noted.

Fun was an almost sacred element within BlueSky's creative culture, indicated and maintained by the subjectivity of its judgment as an overall quality. It was discussed on this level as something that could be intuitively grasped by anyone, and perhaps was the most importantly recognized outside of the limits of rational, detailed explanations. This is not unlike Bourdieu's “habitus”, summarized by Greg Acciaioli as “product of history [that] produces individual and collective practices” and which “objectivism discerns in the social world without being able to give them a rational basis” (Acciaioli 1981:28; Bourdieu 1972).

Indeed, it is a history of playing and having fun that gives people the sense about what fun is, without usually teaching what components contribute to that quality.

The players themselves, who often had a difficult time explaining why or exactly how something was fun, certainly didn't rely on explanations or processual understandings to enjoy their games. Where the programmers and artists who worked to create the bones of the gaming systems needed to understand the inner-workings of their tools and coding languages, the game designers were the ones tasked with understanding the inner-workings of fun. They were the ones tasked with managing how all the game systems would fit together and be communicated so as to give the players a particular set of opportunities to find fun. They approached this problem resourcefully within the bounds of a highly complex technical system, and leaned on some psychology, cognitive science, game design theories, and shared gaming experiences to create the game conditions that were most likely to facilitate this sacred quality of fun.

Within game design as a professional discipline, which has not been a specialization for very long (O'Donnell 2014), designers have built their tool kit out of a combination of functional understandings of game theory and psychology. In particular, psychological investigations of concepts like motivation, contingency, attention, fulfillment, pleasure, enjoyment, control, and consciousness, have all been played with by game designers in developing their own practical science of fun. It is common for them to use psychological studies, cognitive science theories, and sometimes physiological data when available, to break down what factors contribute to this overall sensation. As an example, the 2011 Games Developer Conference had multiple lectures on topics that sounded like they could have been given at psychology conferences. One in particular was a post-mortem discussion from a designer at Valve about creating enjoyable "moments of tension" in a game Left 4 Dead, and included suggestions for how designers might assess a player's state of anxiety or relaxation through biofeedback in the future (Valve at GDC 2011).

Scholarly game theorists have been less preoccupied by psychological studies when unpacking what constitutes a "game" and what activity traits qualify as "play." In studying games and play as culture, games are most commonly defined as being voluntary, rule-based, goal-oriented, involving

decision-making, and involving contest (Bettelheim 1987; Caillois 1958; Huizinga 1950; Juul 2005; Koster 2004; McGonigal 2006, 2011; Salen and Zimmerman 2003; Schell 2014). Most designers would likely agree with a definition of games based on those components, just as game designers would agree that games are often, though not always, sites for play and the notion of play refers to a wide range of activities that can produce everything from poor to optimal enjoyment. But the game designers that I did my research with were not preoccupied with how to define game or play as much as they were interested in how those defining game traits, such as the rules, goals, and points of contest, could be designed to provide the most fun. They did sometimes debate quality of play, or more specifically of “gameplay,” referring to player interactions with designed game systems. One BlueSky designer, during a discussion about fun, posited that “you can find the fun in X activity but it's a short hand way of saying “polish the experience to make it feel good.” When pressed to explain this also highly subjective concept of what “feels good” in gameplay, this designer and many others often referred to flow, or would often use similar feeling gaming and non-gaming/analog experiences to communicate through comparison (Csikszentmihalyi 1992). It is through the game designer’s attention on the interaction between player and system itself that they come to understand fun as a sensation that results from a combination of pleasurable or enjoyable experiences.

In keeping with the ethnographic perspective of the game designers at BlueSky Games, the following practical framing of “fun through game design” is informed by many of the same literatures that they themselves use as regular reference points in their design work. Practicing game designers like Raph Koster, Katie Salen, Eric Zimmerman, Brenda Romero, and Ian Bogost formulated some of their design theories for the public, and in some cases have taught in professional and undergraduate classrooms. Most of this kind of knowledge, however, is shared and reproduced by colleagues in studio spaces, online spaces (like forums, blogs, and Facebook groups), over beers in casual social spaces, and at conference lectures (Dickey 2006). At BlueSky Games, at least, new game designers were never given in-house training in design theory or psychological concepts. They were rarely given any in-house training at all, except in the cases when new employees needed to be taught how to use one of BlueSky’s many

custom building tools. Designers hired by BlueSky were expected to already have enough experience, or to learn what they needed to learn from their design colleagues or through self study. Regardless of this lack of formalized training, I found a strong trend between the concepts discussed by BlueSky's designers and those theories I had tracked down in books and articles about game design theory. I also found a pattern in what non-game-specific literature or theorists they referred to as sources of understanding.

One of the most noteworthy of such sources was psychologist Csikszentmihalyi's book on Flow, appropriately subtitled as "the classic work on how to achieve happiness" (1992). "'Flow' is the way people describe their state of mind when consciousness is harmoniously ordered, and they want to pursue whatever they are doing for its own sake" (6). It was not clear to me or the designers I talked to how long the term "flow," or the phrase "being in the flow" had been being habitually used by game designers to describe a positive kind of unselfconscious engagement. But by the time of my research in 2011, Flow was used with some regularity to discuss how a particular play experience should "feel," which was another way designers discussed a positive quality of experience.

It is important to note that not all players of online games or of DreamShooter would claim to have achieved the "flow" state as described by Csikszentmihalyi, and in fact there are a great many players who engage in positive play and gaming experiences that do not involve a sense of flow. In other words, flow is commonly associated with the activity of play, but it is not a required component of play. My use of Csikszentmihalyi's framework in this analysis emerges from the observed pattern that many of the components of "good game design" and explanations for "what makes games fun" as discussed by game designers happen to coincide with the "elements of enjoyment" as outlined in Csikszentmihalyi's treatise on flow.

Crossing cognitive science with an extensive background in game design and the resulting theories of practice, Raph Koster links "fun" with "a sense of enjoyment," similar to Csikszentmihalyi, but specifies that, "fun from games arises out of mastery. It arises out of comprehension. It is the act of solving puzzles that makes games fun" (Koster 2005:40). He theorizes that the kind of enjoyment that we experience when we play games is a result of how our brains are pattern-seeking machines, and when we

start to detect a pattern, we gain enjoyment from tracing it over and over until we master it, at which point we then get bored. The job of a game designer, then is to provide patterns with enough variables to make the discovery and mastery of the pattern interesting over an extended period of time, but not so complex that the pattern is too frustrating to grasp. The pleasure is in the learning of a pattern, and the opposite of this is boredom (40-46). “Meaningful play” is a concept that was formulated by designers Katie Salen and Eric Zimmerman’s in their 2003 volume, *Rules of Play: Game Design Fundamentals*. They pull this notion together as an encompassing philosophical goal and guiding post for game designers, influenced by the great game scholars and scholarly designers who have written about their practices and perceptions of fun, games, and play. According to Salen and Zimmerman, “the goal of successful game design is the creation of meaningful play” (33), and “meaningful play occurs when the relationships between actions and outcomes in a game are both discernable and integrated into the large context of the game” (34). The discernibility and integration aspects of meaning play pertain to particular forms of gameplay, but illustrate actions and outcomes in ways that highlight how other concepts like choice, contingency, and awareness fit into the nascent science of video game design.

I observed BlueSky’s game designers using design concepts similar to those defined by Koster as “fun, by Salen and Zimmerman as “meaningful play,” and by Csikszentmihalyi as “flow” during their efforts to decode, communicate, and design gameplay features in DreamShooter. I use all three of these as reference points for the review and analysis of the game design theories that were enumerated by the designers I interviewed and observed during my fieldwork. Through my observations, five considerations for fun emerged as guiding priorities for BlueSky’s game designers, and I use the three concepts above to bolster an analysis of how these conditions are imagined and communicated. These five considerations address the perpetual game design question: “what makes something fun?” within this particular game design context. These considerations may persist in the development of radically different types of games, but they may also be interpreted and used in practice much different. I explore these five considerations in order to trace the philosophical patterns in the game designer practice that I was lucky enough to observe while hanging out in a studio where a AAA open-world shooter game was being made.

Design Consideration #1: Challenge

The first of the considerations for fun, framed most simply by Csikszentmihalyi's first "element of enjoyment," is *Challenge*, or a challenging activity that requires skill (1992:48). In particular, it must be a challenging activity within the scope of a player's existing skill set. "Any activity contains a bundle of opportunities for action, or "challenges," that require appropriate skills to realize. For those who don't have the right skills, the activity is not challenging; it is simply meaningless" (50). A gaming example of this would involve the frequently observed frustration that players who are new to console gaming have, when the console controller is still unfamiliar and awkward. That new player does not have the controller manipulation skills necessary to have fun with the game in the beginning; the lack of skill negates the accessibility of the challenge, rendering it unpleasant. However, once that player acquires applicable knowledge and skills, the challenge becomes accessible and comprehensible. Even if the player can't beat a certain game challenge or accomplish the game objective in that early stage, the baseline skill set makes it possible for them to imagine how they might do so in the future. According to Raph Koster in his thesis on fun, "Real fun comes from challenges that are always at the margin of our ability" (97).

One of the favorite sayings related to optimal game design around BlueSky Games, as well as across the game design community, was that a game should be "easy to learn, difficult to master" (Salen & Zimmerman 2004:xiv). This saying touches on the kind of challenges found in a game system that often lead to the best player experiences, the most fun, and a sense of flow. In designing the PvP game system for DreamShooter, the BlueSky designers hoped to make a PvP shooter that was easy to pick up and required a relatively low level of skill to learn, but that had enough "depth" that players would have to play and practice for a long time to master all of the battleframes, abilities, and weapons. It should take time to become the best competitor, and give the elite player something greater to keep striving for. The ideal game-based challenges, according to both game designers and flow theorists, strike a balance between game difficulty and player skill, to guide the player experience to exist in a sweet spot between anxiety and boredom. According to Csikszentmihalyi's framework, anxiety occurs when the difficulty of

the challenge far surpasses the player's skill. Boredom, on the other side of the graph, occurs when the player's skill far surpasses the difficulty of the challenge. The most enjoyable play experience, the fun and the flow, can be found somewhere between these two suboptimal experiences, in "the golden ratio between challenges and skills" (52). It needs to be difficult enough that players have to focus, but not so difficult that the discrepancy in player skill leads to frustration.

This balance between skill and difficulty produces a type of focused attention and competent, skillful engagement that is a core to the sensation of flow. Not all play activities require this kind of focused attention, and indeed flow itself is not a given emergence from a player's interaction with any kind of game systems. But within DreamShooter at least, players did report feeling this kind of flow when navigating around the game world using their jumpjets and glider pads, when fighting large swarms of mobs during thumping missions, and while playing PvP matches against a well-matched team. DreamShooter's designers were attentive to the opportunities for this facilitating this sensation, though during the process of designing an open-world online game, I observed that they were far more likely to reference flow and think about this golden ratio of skill and difficulty when designing discreet in-game experiences, such as a particular mission or raid. In this context, designers could think through a specific gameplay experience and all of the components necessary to strike this optimal balance.

For example, designing the Black Water Anomaly (BWA), the first "instance" designed for DreamShooter, provided an opportunity to imagine a player's full experience during this team-based mission, from beginning to end. The level design, effects, AI programming, narrative, and sound effects were pulled together to create gameplay that was a considerable challenge for players of a certain level, but not so difficult as to be frustrating. For instanced missions like this in MMOs, designers usually expect that only the players of a particular level range will be able to happily access it. For BWA, it was recommended that players under a certain level not attempt it unless they were with a team of much higher level players. In other game genres, like action games that direct gameplay along a more linear, story-driven path, developers sometimes employed technology that could interpret a player's actions as feedback about their skill level, and would adjust the intensity of certain game systems, such as the

responsiveness of the AI (which dictated the actions of the computer-run opponents, or “mobs”) to make a particular level or boss better match the player’s skill.

Achieving this golden ratio becomes more complex, and itself more challenging, as the game worlds themselves become more complex, like in MMOs and competitive FPS games which are made up of multiple layers of game systems. Each game system—whether it be a shooting mechanism in particular weapons, game world physics, player movement, AI programs, resource mining, etc.,—contributes its own forms of challenge, difficulty, and achievement to the player experience, and players interact with many of these differently. When conceiving of the “challenges” that can be found in these complexified, game-based worlds, we must go beyond the designed or intended challenges as scripted by designers and also include the unintended challenges presented to players as a result of interacting with a highly complex system. This issue of managing all manner of challenges that face players—intended and unintended—ties into our third for fun: intended actions and expected outcomes. But before we can investigate the crucial relationships of action and outcomes in games, we must unpack the concept of Choice. “Giving players choices” was one of the most commonly cited priorities of game design when DreamShooter’s designers were asked what makes a game fun.

Design Consideration #2: Choice

A sense of challenge in formal gameplay structures is based upon meaningful *Choice*, making this the second consideration for fun. A choice in a game is meaningful when there is contingency. A player must have the opportunity to choose one action over another (including an inaction) and know that different outcomes are contingent upon these action choices. One of the best contextual examples of the importance of choice in this kind of MMO game came from one of my interviews with DreamShooter’s Lead Designer.

Kevin: One of the biggest changes we made to DreamShooter—it bothers me still—is that we took away player control. And so we had... when we did the FIRST version of progression in DreamShooter, we were a LEVEL based game. And as you went up in levels, you got access to more gear. The problem is the rate of reward was *this* (gestures with a steep, almost-vertical hand). right? and so ... levels 1-5 felt pretty good.

Beyond that, it started to SUCK! And so I'm realizing 'shit, I have to fix the rate of reward. Maybe levels are the problem. Lets get rid of levels. Instead, let's do this TIER system'. Oh and as we were doing this tier system, we also decided to make it eeeeeasier for players and get more visually motivating by doing a Tech Tree, not realizing that you took so much CHOICE away from the player that now... what happens is I have to take bad choice after bad choice just to get the choice I want. Why should a game ever do that to me? Why should you have to take a bad choice in hopes of getting a good choice later? Makes no sense to me.

me: hm! Yeah...

Kevin: And how that changed was, the crux of the situation was that before, we had a componentized system. I could build a plasma cannon, and plasma cannon had 3 module slots. What goes in those slots? Up to ME. If I want to do all damage? I could. If I want to do reload speed? Good! And that gave players a lot of freedom of choice for how they chose to build their gear. This was paramount for making the player feel smart. Give them choice. Give them ramifications for those choices that are meaningful to the gameplay experience.

me: what do you mean by "meaningful"?

Kevin: Meaningful, as in ... I could do This or I could do That. If I do This, it does something different. If I do That, it does something else. Either one has positive outcomes, but I can only do one. So, the decision is meaningful.

Meaningful choice, as he describes it above, is about creating a system of actions and outcomes that feels good. He identifies that choice as enjoyable because it makes the players feel smart, which is pertinent for games that contain strategic challenges and objectives. In these kinds of systems, a player's thoughtful choices directly and clearly impact their gameplay experience by changing what kinds of power (ie. gear and abilities) they have access to. Another way of looking at this is that meaningful choices are enjoyable because they give the player a sense of control. Csikszentmihalyi discusses "the Paradox of Control" as an element of enjoyment: "... what people enjoy is not the sense of being in control, but the sense of exercising control in difficult situations. It is not possible to experience a feeling of control unless one is willing to give up the safety of protective routines. Only when a doubtful outcome is at stake, and one is able to influence that outcome, can a person really know whether she is in control" (1992:61). There must be consequences, such as the possibility of failure or of sacrifice, to contextualize a choice as meaningful within a game system. Without the possibility of choosing the wrong door, or the chance of not triggering an ability quickly enough, choices are meaningless and boring.

These notions of choice and control relate to other socially interesting concepts, such as contingency and agency. Malaby notes that “the complex contingency of today’s large-scale online games has powerful effects on meaning, conceived here as always arising from the meeting point of existing, shared interpretive frameworks and unique, contingent circumstances” (Malaby 2006:108). Meaning in play is inextricably linked to the player’s exercise of agency within a game, and the potential to exert that agency in a way that accomplishes a desirable outcome when that outcome was not otherwise guaranteed. Indeed, Anthony Giddens’ concepts of action and agency depend upon contingency: “It is a necessary feature of action that, at any point in time, the agent ‘could have acted otherwise’: either positively in terms of attempted intervention in the process of ‘events in the world’, or negatively in terms of forbearance” (Giddens 1979:57). Giddens’ formulation of agency echoes the sense of control, or at least the potential for control, that exists in most flow-worthy scenarios of play.

There are a wide variety of choices in games, however, many of which that are interacted with differently, such as the skill-based ones that are best made intuitively with no thinking at all. Salen and Zimmerman argue that “in order to create instances of meaningful play, experience has to incorporate not just explicit interactivity, but meaningful choice” (2003:61), and clarify that “‘choice’ does not necessarily imply obvious or rational choice, as in the selection of an action from a menu. Choice can take many forms, from an intuitive physical action (such as the “twitch” firing of a Time Crisis pistol) to the random throw of a die” (61). Salen and Zimmerman reemphasize that meaningful play can only exist in game systems that are discernable and integrated, and the sub-category of “meaningful choice” is dependent upon integration into a pattern that is outside of the context of the immediate challenge. When games successfully become these kinds of complex, integrated systems, they can provide a plethora of different kinds of choices. All kinds of choices can contribute to gameplay that “feels good” if there are transparent consequences for how a player’s chosen actions impact their progress and the game world around them.

Design Consideration #3: Variable Patterns

The third consideration for fun in game design emerges from a most fundamental game mechanic: a player takes action, and the system responds. I summarize this consideration as *Variable Patterns*, which incorporates aspects of expectation, awareness, and trust. When players are first learning a game, they take action experimentally to figure out how the system will respond, and what the outcome will be. The patterned relationship between actions and outcomes indicates to the player what the objective of the designed game system they are interacting with. They build a kind of trust that the system will respond in the same way that they have come to expect when a particular action is taken. The element I want to unpack is this learned expectation, this imagined relationship between action and outcome. When a player imagines how an action relates to an outcome, and that imagining is confirmed by the system's response, a sense of trust emerges and provides an essential platform for fun in gameplay.

Returning to that quote from the BlueSky designer about a designer's role in "creating fun," he said "being a designer is about managing user expectations and setting up environments and feedback loops that reward behaviors that sustain and engage them for long periods of time." The expectations and loops mentioned here indicate that the fun of playing game is not in the outcome itself, but in the process of learning and practicing a game mechanic, in discovering the pattern in the relationship between action and outcome. Another BlueSky designer, when asked about fun and the goals of design, said "I think a lot of it boils down to humans being effective at recognizing patterns and systems, and when something syncs they appreciate that because it allows them to stay engaged." Raph Koster's also summarizes the fun of games as a process of pattern recognition.

Noise is any pattern we don't understand [...] When we meet noise, and fail to see a pattern in it, we get frustrated, and give up [...] But once we see a pattern we delight in tracing it and in seeing it reoccur [...] We call this practicing, and the more we do it, the less we have to think about what we're doing [...] Games are "about cognition, and learning to analyze patterns (Koster 2005:24-31,37).

And the role of game designers, therefore, is to create systems through which players can discover and practice patterns that require an appropriate level of knowledge and skill.

Koster also wrote about how boredom occurs when a player has fully mastered a pattern and no additional variables are introduced to add complexity to the pattern. “Boredom is the opposite. When a game stops teaching us, we feel bored” (2005:42). He identifies a need for unpredictability unpredicted—new data, not a new pattern—in the player experience. Within the framework I am crafting here, I refer to “predictability” as staying within the overarching logic of the learned patterns. It is when there is an unpredictable break in that overarching logic, or in the overall system, that there is an unpleasant disruption in the enjoyment of the pattern. “The brain craves stimuli... This doesn't mean it necessarily craves new experiences—mostly, it just craves new data. New data is all it needs to flesh out a pattern. A new experience might force a whole new system on the brain, and often the brain doesn't like that. It's disruptive” (42). New data and new variations provide new opportunities for players to practice a familiar pattern, which feels good. But breaks in the system feel like the intrusion of a new system, feels like noise, and this is not conducive to a fun play experience.

In Salen and Zimmerman’s concept of “meaningful play,” which they argue is the central “goal of successful game design,” becomes especially helpful for exploring how game systems must provide a secure and predictable systems environment for players to find enjoyment (2003:34). They identify meaningful play as emerging from the relationship between player action and system response, and specify that the relationship must be both “discernable”(sic) and “integrated” (34). The discernibility requirement speaks to the necessity of a player developing trust in how a designed game system will respond. “Discernibility in a game lets the players know what happened when they took an action. Without discernibility, the player might as well be randomly pressing buttons or throwing down cards. With discernibility, a game possesses the building blocks of meaningful play” (2003:35). Within this formulation, discernibility is required for the game to make any sense at all, let alone be meaningful. There must be some understandable relationship between action and outcome for players to even begin conceiving of an in-game challenge or objective, let alone beating it.

Csikszentmihalyi describes how, in the flow state, “people become so involved in what they are doing that the activity becomes spontaneous, almost automatic; they stop being aware of themselves as

separate from the actions they are performing” (1992:53). When applied to games and the imagined relationships between actions and outcomes, this flow sensation of merged awareness is not possible without a persistently reaffirmed trust in how the game system will respond to particular actions. As long as the game system continues to respond as predicted, the flow state can be maintained while a player engages in the use of skill or knowledge that is necessary for accomplishing an objective. But if the game system “breaks,” or responds in an unpredicted manner, the flow state is disrupted. Frustration occurs in these moments of dissonance. These minor betrayals by the game system can occur as a result of bugs in the code, disjointed systems design, opaque game logics, or a steep discrepancy between player skill and task difficulty. Enjoyment, by moment and over time, can emerge when the sensation of harmonious interaction far outweighs the moments of frustration.

Design Consideration #4: Transparency

Directly related to the design of predictable pattern is the fourth consideration, that of transparency. Game goals and objectives, and the player’s progress towards those goals, must be clearly communicated through game system feedback. The goal of a particular puzzle does not necessarily have to be screamed at a player as she approaches each new game system, or provide detailed written instructions; the process of discovery and initial learning of the puzzle’s pattern can be part of the fun. But once the outline of the pattern emerges, there must be a transparent and understandable goal that the player is working towards. And more than that, the player must get feedback about how their actions are, or are not, bringing them closer to this goal. The sense of progress motivates a player to continue learning the pattern and practicing their skills, and the goal that is finally achieved after a measurable struggle is more satisfying than one that seems random in that the path to get there was unclear or opaque.

Our expert literature has much to say on the topic of fun, flow, and meaningful play being based in clear goals and feedback. “Enjoyment is characterized by this forward movement: by a sense of novelty, of accomplishment” (Csikszentmihalyi 1992:54). Relying on a favorite game example, Csikszentmihalyi uses the clarity of chess’s goals and each player’s progress on the board as central to the

game's fun. "Almost any kind of feedback can be enjoyable, provided it is logically related to a goal in which one has invested psychic energy" (Csikszentmihalyi 57). The designers of highly complex games have made an artform out of feedback. The outcome of any action may be communicated in a multitude of ways, all in a carefully choreographed manner. When a character achieves something in a game, it might be communicated through a special character animation (like a dance or gesture), as well as with a few unique sound effects (such as the famous "ding" of leveling in EverQuest," and some special visual effects (like confetti, fireworks, glow, etc.).

In the case of leveling in most MMORPGs, there is always some kind of "experience bar" that shows a player's progress towards the next level as a gradually-filling bar. Once that level is achieved, there is also a change in the player character's visible level identifier, as well as the potential for new spells or gear accessibility, depending on which level they have reached. All of these count as valuable and important feedback for the player to know that their actions have resulted in a particular kind of outcome which builds into a larger context. Game designers will often use this kind of feedback, or the negative corollaries (sad sounds, depressed graphics, visible gear damage, etc.) to show the system's preferences for certain actions and behaviors over others, as well as to contribute generally to the positive, feel-good sensation of interacting with the system.

The discernible and integrated aspects of Salen and Zimmerman's "meaningful play" edict both speak to the importance of transparency and feedback. They summarized the role of this kind of pattern-perpetuation-through-feedback in the following way: "As a player achieves a short-term goal, the movement toward, through, and beyond that goal should be clear. The game must communicate where the goal is, how it might be achieved, whether the player is making progress toward it, exactly when it was reached and completed, and its impact on future play. There is room in this experience for uncertainty and ambiguity, but a certain kind of clarity must underlie every action in a game" (Salen and Zimmerman 2003:354). For play actions to be meaningful, there must be clear feedback that ties the action into an entire system of outcomes—a coherent pattern. Game designers take this into consideration on even the most minute details, even down to the simple sound effects of individual keystrokes or interaction points.

In DreamShooter, for example, the action involved in using a particular weapon was accompanied by a unique sound, particle effect, and animation that differentiated the use of that weapon from others, and ideally also made using that weapon “feel good.” The use of weapons, in fact, along with the movement system for player characters (how fast they moved, how suddenly or gradually they changed directions, what animations accompanied their jumpjets, etc.) might have been the two most common junctures for discussion among DreamShooter designers about how to make the gameplay “feel good.” They put a tremendous amount of energy into tweaking the feedback provided by the game system upon every “pull” of every virtual trigger in the game.

During the two years of my research, DreamShooter’s progression system took three different forms, from a level-based system (like in the most popular MMOs such as EverQuest and World of Warcraft), to a “tier” based system” (in which players would use XP to unlock certain battleframe abilities, eventually unlocking a new tier), to a “constraints” based system (in which XP points were used to enhance a player’s battleframe within certain categories, gradually unlocking new capabilities). The philosophy behind the resistance to the original leveling system was that the BlueSky visionaries did not want DreamShooter to be a game that required players to “grind” (play through repetitive gameplay experiences just to gain enough XP to reach a prescribed character level) in order to be able to be competitive within the world.

The original Big Vision for DreamShooter involved an ideal of open-world PVP in which the highest skill shooter players, would be able triumph even at the lowest level of XP and gear, and lesser skilled players would be have a chance to fend for themselves based on earned battleframe abilities and gear. The designers went through these different progression systems as an attempt to rebalance how in-game power was distributed among players, and as a way to deemphasize “the grind.” They hoped to instead motivate players through their game’s resource and crafting systems. But on a fundamental, under-the-hood level, DreamShooter was still measuring player progress based on XP points and giving the more experienced players access to greater power. The most drastic changes were in how the XP-to-power distribution was communicated and made transparent to players. Through the course of the beta

test and the unrolling of the open world system, DreamShooter players frequently reported confusion or lack of motivation in relation to the progression systems themselves. The tiers and constraints systems did not give players enough satisfactory feedback about how their in-game actions were contributing to their growth and progress. Ultimately, DreamShooter's progression system was reconfigured into levels, and stayed level-based through the game's official launch in 2014.

Design Consideration #5: Embeddedness

The fifth consideration of fun, embeddedness, is closely related to the “integrated” prescription of Salen and Zimmerman's “Meaningful Play.” Integrated gameplay “means that an action a player takes not only has immediate significance in the game, but also affects the play experience at a later point in the game” (Salen and Zimmerman 2003:35). Patterns within larger patterns contribute to a deeper sense of meaning in a player's actions. Her actions are embedded within a meaningful context. When a pattern becomes more complex, is colored in by a wider variety of data, the game is more meaningful and fun, according to Raph Koster (2005:38). The context does not only have to be in the complexified patterns of the formal game mechanics, but could be in the context of the game world's narrative and social environment. Many game designers, including Raph Koster, would argue that complexity in the narrative cannot makeup for fundamentally boring or confusing game systems. “Story, setting, and backplot in games are nothing more than an attempt to give a side dish to the brain while it completes its challenges—sometimes, the hope is that it makes up for an otherwise unremarkable game” (87) It is likely that all game designers, however, would agree that the games that can achieve integrated gameplay both on a larger formal gameplay system, and a rich world setting and storyline, are the best kinds of games.

Embedded gameplay contributes to several aspects of the flow sensation as defined by Csikszentmihalyi. Concentrated immersion, loss of self-consciousness, and transformation of time are all highlighted as elements of enjoyment. “One of the most frequently mentioned dimensions of the flow experience is that, while it lasts, one is able to forget all the unpleasant aspects of life [...] The clearly structured demands of the activity impose order, and exclude the interference of disorder in

consciousness” (1992:58). Integration contributes to the deepest kind of immersion because it enables players to transition easily from one patterned gameplay practice into another without disrupting their engagement with play (Schell 2014). The better integrated the action-outcome relationships with a larger system of meaning, the lesser the gaps between systems. Play becomes a “seamless flow involving hundreds of choices the players doesn't perceive; instead, they only perceive excitement and participation” Salen and Zimmerman 2003:66).

Csikszentmihalyi goes further in explaining this focused perception within the flow state, and how it contributes to a loss of self-consciousness: “in flow there is no room for self-scrutiny. Because enjoyable activities have clear goals, stable rules, and challenges well matched to skills, there is little opportunity for the self to be threatened. [...] What slips below the threshold of awareness is the concept of self, the information we use to represent to ourselves who we are. And being able to forget temporarily who we are seems to be very enjoyable” (63-64). One’s everyday sense of time becomes transformed during this kind of flow state, as well. Players of well-integrated games will often report that they lose track of the passage of time, saying, for example, that they had meant to spend a short period of time in the game world only to suddenly realize they had been playing for hours. “During the flow experience the sense of time bears little relation to the passage of time as measured by the absolute convention of the clock” (Csikszentmihalyi 1992:66).

All of these traits of the flow experience are noteworthy as indicators of how much “fun” players have found in a game, how meaningful their play within these systems can potentially be. But they are also significant in how they reinforce the role of fantasy immersion in the Gamer Imaginary. Gamers are conditioned through enjoyable gameplay to imagine game worlds as spaces where they are temporarily parted from their realities, from the regiment of time, even parted from their own sense of self. This recursive process of building player expectation that games provide a temporary, alternative mode of consciousness is, according to Csikszentmihalyi, more than about escaping from reality or finding temporary relief from one’s everyday reality. “We found that every flow activity, whether it involved competition, chance, or any other dimension of experience, had this in common: It provided a sense of

discovery, a creative feeling of transporting the person into a new reality. It pushed the person to higher levels of performance, and led to previously undreamed-of states of consciousness. In short, it transformed the self by making it more complex” (74). He would argue that there is positive value in these kinds of liminal opportunities to build one’s sense of self through accomplishment.

Conclusion

Game design involves highly complex processes in managing the highly subjective quality of fun. Managing expectation is one of the emerging cruxes for this process, and one of the clearest ways to break down the otherwise ephemeral concept of fun. Managing player expectation becomes exponentially more difficult during beta testing, because players are now forming expectations through actual play experiences with your game. They grow used to certain mechanics, and the longer they play, the more ingrained these patterns become. If designers want to make a design decision that changes anything enough to impact player expectations, especially if it means making something more difficult, or changing a fundamental system mechanic, players will protest because the change will not “feed good” to them according to their expectations. Their protests are not necessarily a reflection of whether or not the game decision improved the design or not, and they are no longer capable of giving feedback the way a new player would.

An example of this in DreamShooter was the addition of item durability, a system in which usable items and gear will gradually decay and eventually break, rendering them unusable. This system was added to DreamShooter almost a year into the beta testing, meaning that the players who had already playing the game for months were used to having gear that did not break through use. The purpose of this design decision was to add meaningful choices about how to use one’s resources as related to gear. But it became controversial when in-studio play testers and long-time beta testers gave negative feedback. They had become used to a system with no durability concerns, and the relearning of this process therefore did not feel good. It felt like punishment to the players, the opposite of the “feel good” sensation, because of the way their experiences had shaped expectation.

Game design practice, especially the design of AAA MMOs, therefore requires the management of experiential patterns on at least three different dimensions: 1) that of the game's intended, designed mechanics, which is at the core of the discoverable gameplay and takes into account an imagining of how players will ideally interact with the systems; 2) the unintended anomalies of the highly complex, overlapping assemblage of technological systems that make up the material of the game world; and 3) the expectations of players that have been shaped not only by years of gaming experiences in other games, but also by whatever experience they have with the game being made. Player expectations represent a history of game exposure and interactions with game systems. As Raph Koster would point out that brains are pattern-seeking machines, discovering and learning an entirely new system is not as pleasurable as fitting new data and variables into a familiar pattern. When players encounter gameplay conventions that they recognize from past experience, that gameplay is more likely to "feel good" to them. The best game designers are masters of juggling the different realms of consideration—formal, technical, imagined (expected), and social—for meeting this condition of designing playful, predictably patterned game systems.

For players who have played games on a particular platform before—be it the PC or any of a variety of consoles—certain norms of practice and action develop in how they interact with those particular game system that then influence their expectations for similar enough games on the same platform. For example, in PC MMOs, striking the "~" key has become a conventional keystroke shortcut for "auto-run," in which a player's avatar will continue running in a straight line until redirected or stopped. Without using this key, players usually have to continue holding "w" to indicate the character should move forward, which can be tiresome when traveling long distances in some gigantic MMOs. This shortcut has become almost rote for many MMO players; they expect that when they play a new MMO, hitting "~" will do the same thing that it did in their previously played MMOs. When conventions like these are changed or ignored by the designers of a new game, players will report this as a moment of disruption, an element of play that does not feel good to them. A BlueSky designer described this phenomenon: "The longer I do this work, the more I copy conventions. It's less work, feels better, etc.

There are “wins across the board.” It’s important to put designer ego aside. Design doesn't have to be new all the time.”

The most perfectly balanced gameplay in the world can be rendered indiscernible, unlearnable, and unfun if the technical systems that are running and framing the gameplay also disrupt the gameplay in unintended ways. The ever-present threat of bugs in the code, emerging at the often-mangled junctures of heterogenous game systems, cause a great deal of the daily struggles that all designers and many developers have to cope with. Frequently, the concerns about interruptions caused by technical glitches (or unintended outcomes) can overshadow the task of creating gameplay that “feels good.” Designers, working with the engineers and artists on their teams, will often fall back on creating game systems with chunks of code that have been proven and polished by previous games. The pressure to implement technical systems that do not break the sense of fun and flow in a gameplay experience can become particularly strong especially when tight timelines come into play.

When the conditions of “fun” involve seeking familiar patterns, and when using preexisting code becomes technologically easier than trying to create a new system from scratch, there is a tremendous amount of momentum behind the reproduction of previously established gameplay patterns. Game industry marketing contributes yet another compounding layer of perpetuating pressures, where marketers rely on market research within existing brand and genre realms to find the most successful trends in what has already worked. There are plenty of data that will say what kinds of ads, story lines, art styles, and demographics have already resulted in huge profits for game companies. That data, logically, does not exist for the kinds of properties or demographics that have not yet been tried. When faced with a large financial risk, the executives and marketing managers are far more likely to make a financial business recommendation about the preferred shape and flavor of a game based on existing data.

These factors all contribute to a build-up of pressure to perpetuate, reconstitute, and produce within a recursive technocultural dynamic. A repeating cycle of reproduction often emerges from these considerations for fun, contributing to a phenomenon where many games, especially within the high-risk AAA space, end up seeming quite similar. Game trends that show success in the form of positive critical

feedback, positive community support, and financial measures, are picked up, reworked, and reproduced on all levels of game development. This in itself is not necessarily a bad thing. Within this kind of system, good ideas are subjected to an industry-wide, collaborative kind of iterative design. Often times the best ideas rise to the top and continue being honed and practiced and reproduced in even smoother, tighter, more fun ways. The gamers who enjoy these established gameplay patterns are given never-ending opportunities to hone their skills within these familiar systems; games predictably feel good to them. But this process also makes deviation from the conventions extremely difficult, which can contribute to unfortunate cycles of reproduction in the cases where a problematic content ideal is being perpetuated. For those potential gamers, perhaps a more diverse demographic, who have not yet learned or enjoyed the patterns of the recurring gameplay systems, this form of reproduction can turn into a powerful loop of cultural exclusion.

CHAPTER 6

The Gamer Imaginary

An Imagined Community of Players

The developers at BlueSky Games prided themselves on practicing “community-driven design.” The company’s central tenets included transparency in their process and respect for their players. They proudly described DreamShooter as “made for gamers, by gamers” (www.DreamShooterthegame.com). The community, and their respective feedback, was central to BlueSky’s stated priorities. Their intentions to honor player wishes were as sincere as any player community could hope, enforced top-down from the CEO. There were surveys and playtests in addition to the official forums and UserVoice³¹ feedback system. While the content of their feedback was diverse, the *practice* of players giving feedback about the game was shaped by a social imaginary in which these players were cast as rightful contributors to the design process. Indeed, this social imaginary gave shape to an underlying assumption that the desires of the players were of utmost importance, that the responsibility of any moral game studio was to listen to their playerbase.

The players of DreamShooter were part of the growing trend in proactive digital consumers who were making regular use of user review and rating systems, as well as social media and forums to discuss any kind of consumer or hobbyist choice. These players were promised, and therefore expected, some amount of involvement in the development process itself. This expectation was not only informed by BlueSky’s explicit avowals that player feedback would be key to DreamShooter’s quality, but by fundamental patterns in their gaming culture. They were embedded within the messy entanglements and recursive relationships between creators and consumers during a time when the traditional delineations between these groups were being rapidly dissolved by social media, digital marketplaces, and accessible

³¹ UserVoice was a social platform designed to allow members to give feedback and present ideas for possible changes. Other users had a limited number of votes that they could use to ““vote up”” their favorite ideas.

building tools like map editors and open source code. Not only were the consumers of digital content gaining more direct access to the artists and producers of their favorite content, the game designers themselves grew up in the same online communities, nurtured to the same set of values and priorities.

Within this section, I rely on the meaningful differentiation between player and gamer that I established in the Glossary and Introduction, in which I set these terms apart based on a difference between subject position and cultural identity (Galloway 2006). They are related, but used differently in ethnographic context, and are helpful for meaningful analysis. “Player” refers to an individual game user, the person interacting with a game from the position of the player; they are the one playing a game. “Player” refers to anyone engaging with game technology from this subject position; the player plays the game. “Gamers” identify culturally with the regular practice of gameplay, and imagine a broader community of gamers as game enthusiasts, whether or not they themselves are actively social members of any particular gaming community. Not all players identify as gamers, and like in any cultural group, not all gamers identify themselves the same way. The gamer identity, like any, is fraught and contested, but constantly reproduced and reshaped by the discourse and practices that are generally imagined as inclusive (things gamers say and do) or exclusive (things that non-gamers say and do). Gamers are engaged in perpetual debate with each other within their own communities, but will frequently band together when engaging non-gamers or imagined “outsiders.”

During my research with the DreamShooter community and developers, I observed some persistent patterns in the ways gamers identified themselves, what they considered important, and how they imagined the games they played or hoped to play. Partly following from Benedict Anderson’s 1983 theoretical work in *Imagined Communities*, I attempt here to trace the shape of the Gamer Imaginary by outlining how the gamer community imagines itself, through the ways they discuss themselves and the ways they discuss the game worlds they base their identifications upon. Play is itself a practice that is largely dependent upon imaginative process. Being able to make choices in games requires imagining contingencies (Giddens 1979; W Keane 2003; Malaby 2006; O’Donnell 2014; Salen and Zimmerman 2003). Making meaningful choices engages an individual’s imagination, and the ways individuals

imagine or fantasize about the world around them is significantly influenced by the social imaginaries they are embedded within. Clarified by Charles Taylor in his exploration of the particular social imaginary enabling modernism, “the social imaginary is not a set of “ideas”; rather it is what enables, through making sense of, the practices of a society” (Taylor 2001:1).

The social imaginary that matters most within the scope of this research—the Gamer Imaginary—is an amalgam of how players imagine themselves, how they imagine the community that they are part of as players, and how they imagine their potential engagements with these online games worlds. The ways in which gamers imagine their theoretical future experiences in these virtual worlds become important components in the construction of this shared imaginary. In much the same way that the imagined community of a nation is partially constituted by the imagining of the nation’s spaces and inhabitants, gamers imagine their games and gaming social spaces in ways that are consequential for their cultural practices (Anderson 1983).

Most DreamShooter players identified as Gamers, and many of those specified that they were “PC Gamers” when asked about it during interviews. “Gamer” is a commonly referenced identity formation in gaming communities, along with “nerd” and “geek.” This identity is tied to an imagined community of gamers that spans games and platforms, united by an enjoyment of video games, and complicated by a conflicted sense of cultural affiliation. Those who proudly claim to be gamers often do so defiantly, echoing a register heard in other “counter-culture” movements, in line with some of the positive identity practices observed among geek girls (Bucholtz 1999). The widespread negative stereotypes surrounding video games and their avid players creates an environment in which some players hold onto their passionate pastime with subversive intensity. Others within this same community may identify as gamers, but do so with reservation, anxiety, or a sense of embarrassment. Considering that almost all of the game designers I studied with at BlueSky self-identified as gamers, the Gamer Imaginary importantly influences the values and design ideologies that are frequently championed around game studios. Understanding the cultural genealogy of this community of players and the social imaginary that influences their interactions is crucial for approaching an understanding the development processes

behind games like DreamShooter at design studios like BlueSky.

The process of imagining is dependent upon a gap between that which is directly experienced in the present, and a framework of conceivable contingencies. To imagine is to interpret and derive meaning from something that is implied but not necessarily directly experienced. Benedict Anderson's defines that nation as an *imagined* community "because the members of even the smallest nation will never know most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the image of their communion" (6). The Gamer Imaginary that I define here encompasses the imagined community of gamers as well as the technosocial spaces where they exist and potentially interact with one another and with their chosen virtual game worlds. The technological basis for their imagined communion is an important and influential component of the framework for the values observed amongst gamer groups .

The ways that this community and the technologies that bring it together are imagined have emerged from a background assemblage of historical, technological, and cultural elements that grew together through more than twenty years of internet sociality in game worlds and online social spaces. It is informed by the socio-historical construction of the internet as a technology whose early adopters were artists and opportunists, many of notable libertarian ideological leanings. The digital frontier of the 1990s was cultivated early-on by the technologically savvy bohemians and innovators (Barbrook and Cameron 1995; Barlow 1996; Borsook 2000; Doherty 2004; Kelty 2008). These first "netizens" were drawn by the newly imagined capacities for freedom and power promised by digital networks, separate from external authorities, an alternate dimension from the actual world (Turner 2006). They wrote frequently about the internet as a technology of and for the people, and there are threads of related technolibertarian cultural values that can be traced into PC gamer communities like DreamShooter's.

The Gamer Imaginary is rooted in years of gameplay across a full library of games all built around framing and rewarding certain play practices as achievements, including problem solving, collecting, exploring, and competition. Gamers hone their skills—both social and play skills—in hard-coded systems designed so that all players start at the same level and are given equal opportunity to win. Everyone has the same choices, the same contingencies, and everyone makes progress based on their

decisions and use of skill (Koster 2004; Salen and Zimmerman 2003; Schell 2014). Inequalities between players emerge as some players are able to spend more time playing and developing more skill or in-game power than other players. With this emergence comes an assumption that those who become elite players have done so through inherently superior skill and strategy, laying the groundwork for a social pattern in which game power can often be equated to social power (Silverman and Simon 2010; Williams 2006). This game-centric, social Darwinism is a consequential part of the social imaginary that forms the social background of game community spaces.

The Gamer Imaginary is colored by an expectation that games should be rewarding, alternate, fantastical, and affirming. Many gamers explain their motivation for playing games in terms of escapism, distraction, and alterity; there is value in the imagined separations between actual and virtual. Game worlds are presented in media as alternate worlds for achievement and success, apart from the actual world (Ito 1997; Williams 2003). And studies of play as a therapeutic activity show that games are capable of distracting players from pain, anxiety, and depression. I link this imagined alterity to the fundamental game studies concept of the Magic Circle.

Adhering to Charles Taylor's definition of a social imaginary as a framework for making meaning, rather than a set of ideas itself, the pillars of the Gamer Imaginary framework were enabled by the advent of video games and online technologies (Taylor 2001). The primary emerging imaginative themes include: the moral order of technolibertarianism, a meritocracy of social status based on game world reward systems, and the promises of fantasy escapism. These themes within the Gamer Imaginary provide the framework of meaning around these larger cultural patterns and the resulting game community practices. I approach an understanding of this social imaginary from these three intersecting constituents: 1) the history of a techno-libertarian ideological morality in online communities; 2) the meritocracy enabled by designed systems in social online games; and 3) the escapism and alternate narratives offered by game worlds.

Embedded Ideologies: Technolibertarianism in Gaming

PC Gamer culture emerges at the nexus of several cultural eddies. Their social imaginary is framed by the techno-libertarianism of both Silicon Valley capitalists and digital Bohemians, the destabilizing anarchic tendencies of disgruntled youth, the escapist dreams of fantasy and science-fiction fans, the entitlement of digital content consumers, and the meritocratic ideals of online gamers. The PC gamer imaginary frames three overlapping ideological value sets: 1) freedom (anti-regulation) and free speech (anti-censorship), 2) fantasy empowerment and escapism, and 3) social status and value through gaming achievement. Demonstrations of these cultural values can be seen across the many online platforms where players of the same PC games congregate: online forums, chat rooms, Instant Messaging services, social media pages, and of course in the game worlds themselves.

The techno-libertarianism of Silicon Valley is a significant part of the “California Ideology” as defined by Barbrook and Cameron (1995). It encompasses a set of values forged by the optimistic pursuit of digital creativity and Silicon Valley tech innovation, “promiscuously combin[ing] the free-wheeling spirit of the hippies and the entrepreneurial zeal of the yuppies. This amalgamation of opposites has been achieved through a profound faith in the emancipatory potential of the new information technologies” (Barbrook and Cameron 1995:1). The belief in the power of the individual to create our new, collective, digital future was fueled by the explosion of financial backing for internet technologies in the 1990’s. This was the era of the burgeoning virtual utopia, when The WELL (originally founded in 1985) and other similar communities based around the communalist idealism championed by figures like Stewart Brand were thriving and expanding (Turner 2005). This was more than a decade before the relatively dystopic, anarchic communities like 4chan (founded 2003) and Reddit (founded 2005) emerged and grew to become the biggest examples of a very different kind of online community unanticipated by the early web pioneers. A full 30 years after the inception of The WELL, “freedom of speech” and “freedom of expression” were commonly used to test the boundaries of acceptable claims to these values, presenting persistent challenge to the original hippie-inspired values of benevolent, populist internet communities (Turner 2006).

Freedom is a concept of central importance to the online communities organized around technophilic pursuits like PC gaming and open source coding (Kelty 2008; McInerney 2008). Mostly unregulated by state governments or global organizations, the internet is still discussed as a kind of “Wild Frontier” of unhampered potential for entrepreneurship and personal expression. Governance in the online spaces of the early twenty-first century is most commonly the responsibility of the companies that own and run them. The online discourse of power saw a shift in its center of gravity from government entities, which featured prominently in early internet cultural narratives, to corporate entities which had become more centralized and intricately embedded in the digital social landscape. The imagined internet of the 80s represented opportunities outside of the top-down power structures of governments and the perceived encroachment of a culturally dominant corporate advertising complex (Barlow 1996; Turner 2005). The imagined internet in 2012 still seems like a world apart from the heavy hand of government regulation, but years worth of digital infrastructure is built around corporate interest, advertising, and fetishist consumer culture. The internet is still a vibrant space for creators, but a great bulk of online engagements are framed through the perspectives of consumers and producers. In the gaming world, gamers imagine that they have freedom to express their opinions and that they exercise influence with companies through their feedback and purchasing decisions, but they are deeply embedded in systems shaped by the push and pull of corporate pressures.

The movement of the New Left into the technomediated social spaces of the internet in the 1990’s was fueled by the promise of creating an ecotopia (Barbrook and Cameron 1995; Doherty 2004; Turner 2005). This was the realm of individual freedom, where new spaces could be created outside of the powers of governments and large corporations (citations, California Ideology, Barlow, etc). Many of the early pioneers brought the hippie idealism of the 60’s civil rights movements and the technophilic imaginary of Marshall McLuhan to shape their belief that “the convergence of media, computing and telecommunications would inevitably create the electronic agora—a virtual place where everyone would be able to express their opinions without fear of censorship” (Barbrook and Cameron 1995:3; McLuhan 1962, 1964). Their future was a world in which expressing free loving, anti-corporate, anti-war

sentiments would craft a new and beautiful world. 20 years later, the exponential expansion of the technosocial internet spaces has fulfilled certain aspects of these dreams, while fulfilling other aspects in grossly unanticipated ways.

The narratives told by many PC gamers about why they prefer their PCs as their mode of gaming typically connects vaguely to themes of freedom and the creative power of the individual, and it is not uncommon for them to cite their perceived rights to freedom of speech (Kirkpatrick 2013). There is a common misappropriation of the “freedom of speech” from the United States Constitution that indicates this conflation of government and corporate governance within the Gamer Imaginary. There is an expectation that players will be allowed to express their opinions within the bounds of a general Code of Conduct that usually prohibits players from using extreme profanity or hate speech, and limits how much they can fling personal insults at one another. Even when a player might agree that a post was excessively negative, and even when the conversation in question is happening in the privately-owned space of the company’s official forums, the act of deleting an offending post will almost always be called out by a loud minority as unacceptable censorship.

“Freedom of speech” tends to be seen most often shouted by those who imagine that their opinions are at risk of being “censored” either by pressure from the community, or by top-down governance from an administrator. This is where the “freedom of speech” notion is overgeneralized to refer to more than governmental censorship, and comes to include the unregulated expression of ideas even in private spaces, and sometimes even “censorship” in the form of vehement disagreement. This expansion on the original meaning is seen most commonly among those whose opinions are closer to the societal fringe. The difference between the society of the 1970s and 1980s, —from whence the New Left and California Ideology emerged—and the society of the 1990s and 2000’s is that bigotry, homophobia, overt racism, conspiracy theory, and “vulgar capitalism” (Barbrook and Cameron 1995; Waterman 1999) have been pushed further towards the fringes. Additionally, computing and internet spaces became more exponentially more accessible, necessarily being occupied by a more diverse set of people. According to US census data, only 36.6% of US citizens had home computers, and only 18% had internet access in

their homes (US Census 2000). By 2013, 83.8% had home computers and 74.4% reported internet use (US Census 2013). Which means that instead of the internet spaces being inhabited mostly by white, middle/upper class, educated technophiles, it is inhabited by a full range of people expressing a far more diverse spectrum of beliefs.

To the extent that internet spaces are unregulated and accessible to most, those users voicing unpopular, fringe beliefs online can work to make themselves more visible through time and prolific posting. When administrators or other communities critique these opinions or the people expressing them, the chant of “freedom of speech” will come up as a defensive maneuver. Surprisingly, this defense will sometimes stay regulatory measures. Dynamics like these have presented opportunities for “trolls,” community members who take advantage of these dynamics to push the boundaries of tolerance within their communities, often for fun or social validation through acknowledgement. Fringe opinions involving extreme ideas of bigotry and hatred can gain visibility as a combined result of communicative efforts by both trolls and true “haters.”

PC players have traditionally been sensitive to the presence or exercise of authority in their online game communities. This tended to go beyond the libertarian values of California Ideology, into a persistent rejection of things representative of social or political authority outside of the game world. Echoing the anti-capitalist Bohemian libertarianism of their internet forefathers, they decry the authority of corporations especially, expressing suspicion about the motives of any corporate entity to make money any way possible, including concealing their aims in otherwise seemingly noble, creative intentions.

Conflictingly, most of the PC gamers that I spoke to said they believed in capitalism and free-market economics, but in the same conversations said they were suspicious of many game companies for being “only in it for the money,” as opposed to doing it for the love of the game. This recurring tension exemplifies a philosophical juggling act between the social Darwinist elements of techno-libertarianism, that people should be free to compete and succeed as they wish, while also believing that games are an artistic expression and media, best when designed by people who genuinely love them. The intention to make money by marketing and selling games is juxtaposed with the integrity of making a quality game.

These goals are frequently portrayed as mutually exclusive through community discourse, while the ideologies behind them—right-wing libertarian capitalist freedom and left-wing libertarian artistic freedom—are held in casually dissonant simultaneity, the tenets of each side employed depending upon whose governing authority is in question.

Fantasy Immersion and Escapist Imaginings

Video games are, at their essence, imagined in terms of their alterity. They provide alternate worlds for play, story-telling, exploration, competition, socialization, creation, customization, and more. Video game marketing commonly reflects and reinforces how online game worlds are spaces for heroic reimagining, using terminology like “Heroes play free” (DreamShooter Launch Trailer 2014), “Greatness Awaits” (Playstation 4), “Live in your world, play in ours” (PlayStation 2), “Seize your Destiny, and Become Legend” (Destiny E3 Trailer, 2014). Fantasy as a game world genre implies a process of imagining alternate selves, and though all video games from all genres theoretically necessitate this kind of illusory construction of player selves, the fantasy genre neatly speaks to game-related imagining as a potential response to psychological need (Strauss 2006:326).

Depending upon the individual game’s designed features and affordances, the topics of fantastical daydreams are given virtual life through video games. Online games grant perpetual access, allowing players to spend all of their waking hours in these worlds if they wish; some of them do. As diversions from the pressures of the actual world, these alternate worlds have an aspect of imaginative potential in common with books, films, and television shows. All of these media provide the blueprints for worlds apart, defining spaces for the player, reader or watcher ready to be populated by the details of their imaginations. These worlds are simultaneously imaginary, virtual, and real. They are imaginary as anticipated, expected, believed systems that shape how players make meaning from their game experiences and project their future goals. They are virtual as alternate worlds created by digital objects, parallel to the physical world (Boellstorff 2008; Malaby and Burke 2009; Malaby 2009; Taylor 2006b) They are real as spaces with meaningful influence on the real time, real perceptions, real emotions, and

real world views of the players that engage with them.

Players of online games invest themselves and their time in these colorful social systems. A player's gameplay activities may have little direct impact on their actual world jobs, or school, or relationships with their families. But this apparent gulf between a player's actual and virtual world is shown false by the true work being done by the player who exists simultaneously in these two dimensions. The age-old benefits of play are in the learning, growth, and creative experimentation afforded by a liminal setting (Csikszentmihalyi 1992; Ito et al. 2008; Kafai 1994; Nardi and Harris 2006). The benefits are within the player, developing through the valuable exercise of one's imagination and the honing of problem-solving skills. They are in the practice of social skills like communication and teamwork. They are in the emotional respite from whatever may ail a player in their actual lives, and in the opportunity to grow and achieve things in an entirely different system.

These benefits have real meaning to the player, regardless of the virtual form of the world. In some ways, these realms of play become very serious topics for the players because of how importantly, deeply, and meaningfully invested they are in their activities there. When a game promises to make a player's dreams come true (a common trope in the marketing for AAA games), the Gamer Imaginary is shaped by that messaging, and the player's expectations are informed by this imaginary. They can be set up for drastic disappointment if the final product does not deliver, or somehow deviates from what they have imagined. In many cases, the more detailed the information provided by the design studio, the more crystal clear the image for what is expected, and the more likely it is for the result to fall short.

For players, their investments in online game worlds can be serious. As alternate worlds, they can be sources of comfort, accomplishment, fulfillment, personal growth, learning, and diversion. Many of the players I interviewed spoke of the satisfaction they felt after positive events in games, as well as the sense that games provided a temporary respite from various hardships in their lives. One player spoke of long hours spent in a job he did not love, during which he would spend all day looking forward to the games he would play when he got home. Another player told me about how his teammates and their in-game wins helped him get through a difficult break-up. Yet another player told me that the DreamShooter

beta was a rare source of distracting relief from a painful debilitating illness that had him bed-ridden for months. The immersion in a fantasy world, character, or narrative can become especially precious for those seeking an imagined break from actuality.

The dichotomy of ‘virtual’ and ‘actual’ helps to differentiate the game world from the physical world (Boellstorff 2008). Players themselves often make this distinction as “in-game” vs. ‘IRL’, (‘in real life’). But this conflation of “real” with the physical or “actual” world threatens to undermine the intensity and importance of in-game practices. Many of the accomplishments, challenges, and lessons learned in a game world are experienced by the player through a matrix of real emotions, and certainly the social relationships that help to develop real problem solving skills. Certainly the social relationships that emerge in online games can be importantly real for what they can offer a player in terms of connection, friendship, and romance. The *time* spent in these game worlds is also significantly real, even as spatial geographies are contracted and rearranged online. Differentiating the physical world as ‘actual’ helps us to identify online games as alternate, virtual worlds without degrading their potential importance to the player.

Of the many motivations that players listed during interview and in public forums to explain why they play online games, five themes emerged as most common: spending time with friends, competing against other players, achievement of various in-game objectives (sense of accomplishment), exploration of alternate narratives and identities, and therapeutic escape or relief. The following quotes are representative of some of these stated motivations:

gaming has become an avenue for me to connect make friends & work on things I deal w/ such as anxiety depression & ptsd (informal survey response).

since I was a kid I've used it as an outlet to quiet my brain and sort thoughts. Still do through adulthood. Stress sorter (informal survey response).

Because I like organized play for pvp. If I can't kill another person, I won't likely play the game (informal survey response).

its also satisfying to see what you can accomplish in video games” (informal survey response).

Where else can I be an MLB All Star, Space Marine, NFL star, plumber driving a go kart, and Batman all in one weekend? (informal survey response).

These explanations resonate with three larger motivational classes that were outlined by Nick Yee in his study of motivations among MMO players (Yee 2002, 2006): 1) Socialibility, which describes those playing with friends and those craving competition against other people; 2) Achievement, which encompasses problem-solving engagement with all forms of challenging game content; and 3) Fantasy Immersion, which underscores a player's desire to experience an alternate world, whether for roleplaying, narrative, or therapeutic reasons.

The descriptions of the allure of online games speak to the ways in which they are imagined, the value that players expect to find in online game worlds. Players imagine them to be spaces for fantastical content, compelling narratives, meaningful accomplishment (i.e. with gameplay challenges that are difficult, but overcomeable), and other people to play with and against. Significantly for those doing psychological analysis of motivation, games provide a canvas upon which a player can project these alternate, imagined selves (Bartle 2003). Gamers imagine games as potential sources of relief, joy, pride, and social worth, and they may spend hundreds of hours in a given game world pursuing the fulfillment of their gaming fantasies.

An essential, consistent element of the imagining of games and their game worlds is in their alterity, their fundamentally conceived separation from the actual world. Beyond even the dimensional shift of being in a virtual world, there is a contributing sense of liminality within the very practice of play that has been the crux of many academic game studies. The notion of the "Magic Circle," as theoretical concept used in theorizing gameplay, has been both applied and deconstructed across game studies to describe how games are conceived of as special spaces (Boellstorff 2008, 2010; Consalvo 2009; Huizinga 1950). Johan Huizinga's original formulation of the Magic Circle identifies play as "set apart" from normal life, where the rules of the actual world do not apply, thereby creating a special kind of liminality (Huizinga 1950:57).

The movement among games researchers over the past decade to reaffirm the real life importance of play and context of certain play practices has involved a problematization of the Magic Circle concept. Some have debated whether or not the Magic Circle truly “exists” at all, and was perhaps most boldly refuted by Mia Consalvo who challenged the use of the Magic Circle metaphor to describe in-game practices and engagements as being somehow essentially separate from the real and therefore inconsequential to “real life” (Consalvo 2009).

For my purposes, the Magic Circle has some use when read metaphorically as a way of understanding how players *imagine* a separation between game and life (Boellstorff 2012; Juul 2005). For many gamers, this imagined separation is what they seek to gain from most game worlds. They present imagined potential for alternate storylines or narratives, alternate characters and avatars, alternate skillsets, and alternate measures of success (Caillois 1958:x; Galloway 2006:7) To some, this separation allows games and their game worlds to be imagined as safe spaces for the kinds of exploration, experimentation, and socialization that would be intimidating in an actual world setting. Many gamers go to games with the intention of being temporarily apart, or at least distracted, from the demands of job, school, family life, and physical embodiment, even though the Gamer Imaginary is still significantly influenced by elements of actual world existences.

Fantasy immersion is partially constituted by this imagined set-apart condition of games and game worlds. There is another gap set up by the potent anticipatory tension between what the player expects or imagines that their in-game experiences will be, and what they truly experience in the game world. Online games are especially vivid sources of content for anticipatory imagining, likely for several reasons, including how they are marketed, how they are framed as safe spaces, and how much time a player could potentially spend playing. These particular components also contribute to a deeper investment in their hopes and expectations. It often seems, too, that the more detailed a player’s anticipatory fantasy, the wider the gap between their imagined game experiences and their real game experiences.

Players demand information before a game’s release, and reward companies with praise when

information is given because it temporarily satiates their feverish desire to imagine what playing will be like. Though they still cannot play within them, there are whole communities that gather to build the particular social imaginary around game worlds long before they are accessible. There is also a related phenomenon in which those communities that exist most vibrantly before a game's release often turn noticeably sour after the game comes out, when their high expectations are not met.

During the stages of anticipation (pre-play) and the first few hours of play³², players are capable of imagining game worlds for their potential palliative and social value. The more deeply they become immersed in the real details of the game, the more their imagining necessarily shifts to accommodate the details of their real play experiences. The gulf of difference between the player's pre-play fantasy (what they hope to find in the game world before they have been there) and their game fantasy after playing can cause moments of fractious dissonance and intense frustration. Players typically do not imagine that their gaming experiences will involve defeat, stress, boredom, or harassment from other players, for instance, but yet many online gaming experiences contain these elements in some form. All games must have the contingency of defeat, or else there can be no contingency of success and accomplishment. A game designer's difficult task is to balance these: expectation with experience, constructive failure with affirming success.

During DreamShooter's open beta testing period, the forums gradually filled up with posts about this gap between imagined or expected experience, and true experience. In 2012 when the closed beta test was still gaining momentum, the testers were still highly optimistic about what the game would become, partly because the available part of the game was quite limited. There was not enough game content present to challenge their imagined, anticipated play experience. Many comments in the beta forums looked like this one from January, 2012:

Right now the BETA is pretty short on content, but still fun for many people who want to help a game progress and develop. In the long run DreamShooter has a lot of great potential and when it is all said and done should be a fantastic experience for most people

³² Importantly considered for playtesting and beta testing periods.

who like both PvE and PvP FPS games (DreamShooter Beta Forums, January 2012).

Other posts commonly displayed the scope of their anticipatory fantasies, comparing their imagined versions of DreamShooter to other fully released games:

Some of the games DreamShooter is better than are: Tribes Ascend (Tribes 2 is pretty equal with DreamShooter), Combat Arms, Global Agenda, Planet Side 1 & 2, Call of Duty (All of them of course), Metal Assault, And More (DreamShooter Beta Forums, April 2012).

The imagined game that brought players to the beta test in 2012 met little challenge in the first few months of beta testing because the game world itself was still small and the gameplay experience intentionally limited. There was enough to validate some set of expectations about the kind of game it might become, but most mismatches identified across this gap between fantasy and true experience could be justified as the result of the early stage of beta testing.

Two years later, after the game's official commercial release, expressions of disillusionment had become much more common in the forums, not only because individual game fantasies had been challenged, but because some testers had also had time to grow attached to certain features within the beta version of the game that were then removed or changed.

I use to love DreamShooter. I brought about 5 people who all paid real money for a decent frame and the jump pad. The leveling was tolerable and the end game promised to be good. However the "fixing" of the jump pad was the straw that broke the camels back. Without the fun budget movement mechanic we all just up and quit that day [...] I use to tell everyone i knew about this game. All my wow, tf2, and tribes friends were all berated about a game that i thought would have the best of all those worlds. I would probably have gotten about 20-30 people to play with me eventually. [...] I also know that most of the "hard core" players i had gotten to know also quit when the jump pad was "fixed." All of us complained on the forums, some of us started threads others posted on them. I bought the founders pack the digital collectors pack and tons of beans, I've prob spent about 400\$ on this game. I have been with this game since very early beta. But with real pvp still not available and the one really fun mechanic "fixed" this game is just now a grind simulator 2014 with no end game content (sic; DreamShooter Forums, November, 2014).

This rant was not uncommon in the forums, and demonstrates the dissonance caused by a conflict between the anticipatory pre-play fantasy and real world information, as well as the frustration of

reforming one's play fantasies around real game world features only to have something in the game change again. Players become emotionally, socially, and financially invested in these possible future self-images—their imagined player subjectivities—within potential, contingent play experiences. As much as online game worlds are imagined as alternate and designed for fun challenge and engagement, players will imagine, in detail, how they might find relief and joy in their favorite games. Sometimes they become invested before there is even a game to play, speaking to the online games as an especially potent source of imaginative material; even just anticipating them can provide some sense of escapist comfort.

Video game escapism was demonized by popular media in the late 80s and early 90s, framing this particular kind of diversion as an irresponsible departure from actual world responsibilities (Williams 2003). The assumption was that people spending time playing games were not spending time on commendably productive activities like working at a job, spending time with family, or being a “productive member of society.” The “family values” political rhetoric influenced a North American cultural framing of video games as representative of an avoidance of “reality.” Other diversionary activities are rarely framed so negatively, even when representing some departure or break from actual world social responsibilities. Vacation travel, for example, is not described in terms of destructive “escape from reality.” The attribution of games as a negative form of escape reflect a lingering cultural stigma against games as children's toys that are a “waste of time” when played by adults (Aarseth 2005; Golding 2015; Kent 2001; Williams 2003). Certainly, there are cases in which players use games as a distraction or shield from other responsibilities, sometimes leading to a kind of involvement that some would deem unhealthy. But the popular media's historical propensity to seize upon these dramatic instances has drawn an overly stark picture of this phenomenon. The modes of involvement and interaction that players have with games, especially online and social games, are always nuanced, multi-hued, and fluctuating, not simply summarized as “healthy” or “unhealthy,” “responsible” or “irresponsible.”

The “gamer stereotype” that has emerged from this historical contextualization of video games as socially destructive and unacceptable paints an image of an anti-social, unattractive, white, adult male, living at home, playing games in the dark of his parent's basement (Taylor 2006b; Williams, Yee, and

Caplan 2008; Williams 2003). This stereotype, as cultural framing, shapes the social imaginary of gamers in meaningful ways, and complexifies the ways in which players grasp onto “gamer” as identity. For self-defined gamers, the imagined gamer community is primarily unified by a love of games. But built on top of that fundamental bond, there are commonly feelings of uncertain affiliation, subversive ownership, and protective membership. Many of the players I interviewed described their own gamer identity in conflicting terms, often to say that they did consider themselves to be gamers, but with qualifications. Notably, those gamers who do not match the gamer stereotype—many female gamers, for example—are the most likely to display an intense relationship with their own gamer identity, either by claiming it fiercely, or by shyly hiding some parts of their affiliation. There have been other studies to show that women who play games are entirely less likely to call themselves gamers in the first place (Shaw 2015).

Games theorists and games enthusiasts alike have been working to break down this negative cultural reading of video games by showing how virtual worlds are importantly intertwined with our actual every day worlds, how the practices and socialities within them are very real, and how these worlds have been known to provide noteworthy relief and therapeutic distraction from pain and anxiety (Bardzell and Bardzell 2008; Consalvo 2009). Through the duration of my fieldwork, I encountered some players who said they probably “play too much,” or had been told by loved ones that they spend too many hours gaming. Rather than framing escapism as a negative or destructive symptom of unhealthy detachment, I found that the escapist motivations described by DreamShooter community members highlighted how this imagined separation from reality offered a beneficial, sometimes explicitly therapeutic, form of relief.

Not all players claim to have an explicitly escapist relationship with online game worlds. But of the players I interviewed, 41.4% of them mentioned that games represented some form of escape for them, a brief break from the stresses of their other daily life practices. Within these, 58.3% (24.1% of the total players interviewed) explicitly said that games provide them with relief from regular stress or anxiety, and in some cases, clinical anxiety and depressive disorders. The imagined virtuality, or alterity, of these online game worlds enable player fantasies about occupying an alternate world and alternate persona.

Because life out here is mundane, and in there, I can be a space marine, or a barbarian, or a... you get the idea (informant interview)

Some say they like being able to role-play new and different characters, while others delight in exploring other-worldly landscapes that may not exist or be accessible in the real world. Some enjoy being immersed in the contingencies and alternate self-image of worlds based on fictional narratives, presented with choices that are high-stakes for in-game characters, but low-stakes in the player's actual life narrative.

I love getting lost in game worlds and experiencing their stories or environments. It's escapism from my daily struggles (informant interview).

The mentions of anxiety and social connection are significant as an indication of how online games are imagined as spaces for potentially easier, less stressful social interaction with likeminded people and friends, compared to the imagined harsh social environments of the actual world, full of judgment, exclusion, and rejection. Again, not all players seek social connection in online games, but for those who do, social anxiety and awkwardness are frequently mentioned as motivating reasons for immersing themselves in online game worlds. One player I interviewed, Jaxus, described how his social anxiety was so severe during his high school years that he contemplated suicide, and he credits video games with giving him respite from his social awkwardness and isolation. He became deeply engrossed in EverQuest because of the role-playing and vast world, but was comforted to find kindred spirits among the game's other players. He joined multiple guilds during his years of playing EverQuest, and has continued playing with a core group of these other players, moving from EverQuest to World of Warcraft, to Guild Wars, and finally to DreamShooter. The friends he made through online games were especially precious to him given his contrasting social experiences at school and later at jobs. For a certain population of gamers, online gaming spaces can provide a sense of social acceptance and achievement that they do not easily find out of the game. As a result, they are especially keen on protecting these spaces from perceived interlopers, namely, anyone whom they might imagine would exclude or judge

them in the actual world spaces where they usually feel anxious.

For those players who look forward to a game as a way to escape from actual world stress, any disruption of that expectation has the potential to be met with extreme disappointment. For example, many players expressed utter dismay and distress when DreamShooter was unexpectedly unavailable due to server outages or emergency maintenance. The IRC chat channel would be flooded with messages of frustration, sometimes boiling over to outrage, when they could not play as they had hoped. A similar phenomenon of expectation produced negative player responses to unanticipated changes made to the game. There was a common back-and-forth on game community forums in which some players would express deep frustration and anger about things in their game worlds not living up to expectations, and others would counter by saying they were taking it too seriously. “It’s just a game” was an oft written response, but the frequency of this saying indicates that for many players, these online game worlds are *not* “just games.”

In a 2008 study of EverQuest2 players, Williams, Yee, and Caplan were able to replicate Yee’s earlier factor analysis of player motivation through a survey of 7,000 self-reporting players. They re-identified the three main factors of Sociability, Achievement, and Immersion. They found that players were most motivated by Sociability, second most by Achievement, and least by Immersion. When they correlated these motivation factors with play times, they were surprised to find that Immersion had a *negative* correlation with play time, meaning that those players who ranked highest in Immersion factor motivation were likely to play less than those motivated primarily by Sociability or Achievement. My ethnographic data from the study of DreamShooter and its player community outlined several instances in which highly visible, active, and enthusiastic players communicating in the forums and chat room prior to the beginning of the DreamShooter beta, those who were the most likely to use terminology indicating immersion-based fantasies, later became the most vocally frustrated and angry in the year following the beta’s release.

But the escapist aspect of game worlds also causes some to feel protective of these digital havens. Many gamers feel their game worlds would be degraded by the presence of outsiders. Those who are

imagined as not sharing the same values and “authentic” love of these fantasy worlds are seen as a potential threat. They can be reminders of the social systems outside of games that may seem less accessible or more stress-inducing than the online game worlds. In the imagined worst-case scenarios, these outsiders might have the potential to somehow fundamentally change them, possibly to make them less like the imagined sources of relief they have come to depend upon, or to make them more like the social systems in the actual world.

My ethnographic data sketches out a cycle of involvement that has some consistency with Yee’s 2008 study findings that the highest factor-rated Immersion players might end up playing less over time. Of the players I interviewed and observed who seemed the most enthusiastic about their detailed anticipatory imaginings before the launch of DreamShooter, many had left the game and community the summer of 2013. They were expectant and hopeful in their language and behavior early in the study before the DreamShooter open beta, but over the course of the following year, they became disillusioned, disgruntled, and frustrated. This process of frustration, seemingly caused by the gap between their initial imagining of DreamShooter as an immersive escape, and the reality of their game experience, could be a clue into why Immersion fantasy players have a negative correlation with playtime.

Achievement Meritocracy

Key to the concept of the technosocial imaginary is the role played by technology in the transmission and reproduction of a social imaginary as meaning-making device. Technology, be it the game software or the hardware running it, does not play a determinative or generative role, meaning that it does not fully determine or directly generate cultural forms. To say that technology *causes* any particular practice or trend risks obscuring the complex assemblage that gives shape to culture. But technology can play a significantly influential, shaping role, especially when talking about technomediated socialites. I have already generally discussed ways that certain game features can influence sociality, such as how many online RPGs reward time-consuming activities, and the sheer quantity of meaningful game interactions, with in-game power, resulting in increased opportunities for

social status. In this section, I make a more pointed argument that the fundamentally win-based structure of many online games contributes to a cultural meritocracy, a social hierarchy based upon in-game achievements (Schulzke 2011; Silverman and Simon 2010; Williams 2006). Game worlds *afford* winning and accomplishment. They are predicated upon gameplay challenges that offer players opportunities for actions that can fail or succeed. As such, the Gamer Imaginary frames all kinds of social contingencies in terms of these potential accomplishments.

An “online game world” is a type of virtual worlds that is defined by the gameplay systems that shape the majority of its designed elements. These fundamental gameplay systems differentiate them as a specialized kind of virtual world. Everything from the art design to the narrative to the AI programming is developed with consideration to the underlying gameplay systems and objectives. The gameplay systems operate as an infrastructural layer upon which many other parts of the game’s design depends. This infrastructure has significant influence over the social value systems in online game worlds. As the processes for leveling and skillful accomplishment translate into greater gameplay power, they also correlate with greater social power, which creates something like a meritocratic social hierarchy. The most powerful players in the game systems typically have a higher social status in all of the game’s related social spaces. Gameplay power translates to social capital. This is particular to multiplayer online game worlds because there must be a social group present to attribute value to in-game achievements. Such meritocratic social systems, those equating gameplay mastery with social value, cannot exist in the same way in single-player game worlds where there is no audience for one’s achievement.

“Winning” comes in all shapes and sizes in online games. I define a win as any successful accomplishment of an in-game objective. The more complex the game, the more varied the opportunities for players to win. Many online games, in fact, have no clear way to win the game with finality. Instead, the developers of those games continue providing players with ways to keep climbing a seemingly infinite scale of win. In MMORPGs like World of Warcraft, player objectives represent an array of activities, from collecting items to defeating foes to achieving the next power level. In shooter gamers, player objectives most commonly involve shooting opposing players more times than they shoot you or your

teammates, which leads to winning that particular match. But many shooter games also include objectives around leveling, acquiring new, more powerful gear, and earning commendations for other comparative successes, like “best kill/death ratio,” “most accurate,” “most assists,” etc. All of these individual wins—the data points marking successful play actions—can be tracked and made visible to other players, thereby constituting a passive social system through which players can compare themselves to one another. This system enables a game-based social meritocracy in which there is a direct correlation between the success in-game and social status.

Online game technologies provide players with ways to interact with each other and with the game world. The particulars of these features depends on the game, but the socially impactful features take two main forms. The first can be described as active social features, those that directly enable communication, competition, or grouping in the game world (Salen and Zimmerman 2003; Schell 2014). These include features like chat channels, guild/clan building systems, and matchmaking. The second are the passive social feature. These are features that make certain information about or traits of a character *visible* to other players. Designers choose what information is shared or visible between players, including their character level, their gear, their class or specialty, and some of their accomplishments in the game. Leaderboards qualify as a passive social feature because they do not explicitly facilitate social interaction, but do compile, make visible, and provide players a rank based on their statistics. The visibility of this information makes it a socially significant system through which a social hierarchy of gamers emerges.

This designed social visibility of gameplay achievements enables their inclusion as part of a game community’s social imaginary. Avatars are designed to visually represent their growth in gameplay power. A character’s level is always easy to see, and the highly prized gear that requires an intense commitment of time and effort to earn is usually quite visibly apparent, with unique designs and fancy visual effects, like glowing elements, bright colors, and particle effects (smoke, etc). Players can inspect one another’s avatars to see all the details of their in-game merits, including their level, powers, gear, and any special designations. The longer any players plays, the more familiar they are with the symbols of great in-game accomplishment, and the more likely they are to attribute social value to certain pieces of

gear or accolades.

Designers intentionally design these accolades and markers of growth to be visible and alluring. They *want* players to covet the gear and abilities of other players' because designers believe this will encourage players to play more and spend more time in the game world seeking these rare items and powers themselves. Several interviewed DreamShooter players said that they worked hard for certain achievements just so they could show off their "cool" or "elite" gear and abilities when playing with or against other players. The "coolest" or most "badass" looking armor, weapons, and accessories are almost always difficult to earn and require a powerful character plus the time, knowledge, and luck to have completed a complex quest or raid (Nardi 2010; Taylor 2006b, 2009).

Saw someone running around with badass flaming helmet. I had to have one! (in-game /yell chat)

In shooter games, other players can look at levels and rare gear, in addition to the statistics and/or rankings on a post game screen (to be explained more), and have an appreciation for what those visible markers represent in terms of skill, knowledge, and time. Other players recognize what is involved in these accomplishments generally because of their own play experience, even if they haven't encountered those specific parts of a game. The competitive DreamShooter players expressed that these achievements were important for being identified as upper echelon players, which could impact their chances of joining a good competitive clan.

The chat channels in the games themselves will often contain positive or envious comments about especially rare or unusual gear (like weapons or armor pieces) that they see on other players. Comments about especially good performance in matches can trend towards reverential, including such like "yay on Dozer's team this game!," after the player Dozer had ranked highest in K/D ratio in the previous four PvP matches. In the official forums for games, the especially high level players can be talked about in reverent terms as well, or given more support from other players when they share an opinion or piece of advice.

I played 10 games with this guy he kept DOMINATING. Best firecat I've seen
(DreamShooter Forums)

Players with extensively displayed knowledge, usually through long forum posts, can also become the target of reverent treatment, especially if that knowledge is confirmed or echoed by a game's developers. The most outstanding players sometimes are talked about with reverence between other players. They share stories about their encounters with them, or memories of noteworthy feats.

The relationship between social status and in-game winning is also enforced through the teasing and harassment of less experienced and less skilled players. Across many gaming communities, calling other players “newbies”³³ or “newbs/noobs/noobs” is a common practice, and regularly identified noobs are almost certain to be excluded from high-performance until they can disprove their noob status. The critique and discrediting among other players seemed more common than positive compliments, making that rare social praise even more meaningful.

The status afforded by visible markers of accomplishment might only be a bonus and not central motivator to certain players, but they are part of a recognizable social system that is first established by the game designers. The designers create the hierarchical system for character progression and equipment, in which the simplest powers and gear are given to those players who have played the least, and the most amazingly powerful powers and gear are the most difficult to get and require the biggest investment of time. Players who invest a ton of time are rewarded, and this serves as the basis for a win-based social meritocracy within online games.

Game worlds are fundamentally designed to give players challenges to overcome and problems to solve. The objective of winning—and the contingency of failure—undergirds the very technological structure of these virtual worlds, and persists through numerous, designed social features of the game world, both active and passive, as a tool for making meaning. The essential game-based design of these

³³ “Newbs/newbies/noobs” are new players, though it can be used as a demeaning term for someone experienced who is playing poorly.

worlds sets them apart from the larger category of virtual worlds, not all of which are built primarily to facilitate gameplay. Winning is a crucial element of the Gamer Imaginary in the way that comparative achievements within the game's own systems can be read as socially meaning information about other players. The meritocracies shaped by these designed systems give social value to markers of skill, knowledge, longevity (how long they have been playing), luck, persistence, and ingenuity.

Social status and meaning are found in demonstrations of gameplay successes partly because game technology gives comparative context to each win. Take an online multiplayer shooter game as a simplified example. Team Deathmatch is a popular game mode in which two teams of players compete throughout a match to "kill" the other team's players. The main objective is to get more kills than the other team. When a player is killed, they respawn somewhere on the map and enter back into the fray. Depending on the game or game mode, a team "wins" either when they reach a predetermined number of kills before the opposing team, or if they have more kills than the opposing team by the end of a regulation time period. At the end of a match, team and player statistics are often displayed to everyone in a Stat Screen or Post Match Summary, and it is quite common to list individual player statistics, ranking them in order from most kills to fewest kills, sometimes accounting for "Deaths" (how many times a player was killed, which represents positive kill points for them). Many games will rank players based on their Kill/Death ratio, which indicates their overall positive contribution to their team's performance. Such ranking systems are reflected in the dynamics of social status in the communities that grow around these games. Superior performance as defined by the game is often correlated with superior status in the social spheres. Better players are more highly regarded because of the skill, prowess, and knowledge that is represented by those displayed statistics. As the objectives of these games are all designed as some form of win or achievement, there is potential social value in every win.

To be clear, not all people who play within online game worlds are primarily motivated by a desire to win or to be the very best. Gamers play for different kinds of reasons and experiences, and they care about success measures in degrees that vary over time and gamescape (Pearce 2006, 2009; Williams et al. 2008; Yee 2002, 2006). There are many who enter online game worlds for the exploration, the social

interconnectedness, the opportunity to role-play through fantasy narratives, and the sheer distraction offered by a game's dynamics. But the complexities of many social online games, especially MMOs, often provide a plethora of ways to win, catering to and encouraging a variety of play styles. Mastering the economy in a complex online game world, for example, is one such pursuit of winning (Castronova 2005; Dibbell 2006). Collecting items or achievements can be another kind of winning. Exploring every corner of a world map is another. Organizing guild raids is a feat in itself, in addition to whatever success the raid itself might bring. Some players are "min/maxers" or "power gamers," approaching the challenge of achieving objectives in the fastest, most efficient way possible (Silverman and Simon 2010; Taylor 2006b). Others may only care about leveling up so that they can continue playing with a group of friends as they advance³⁴.

Most online games track and display these various successes in some way, and reward players not only with socially visible accolades and measures (such as higher levels and badges for certain accomplishments), but with better gear, upgraded spells, and a more powerful character. Even among those who value the clearest demonstrations of winning, the visible evidence of winning does not *guarantee* high social status, but it is a prerequisite. Upper echelon guilds in any MMO or FPS game world require this kind of demonstration of skill and dedication before admitting a new member. For many of these games, including DreamShooter, only players who are members of a well-organized guild or clan are able to access the most challenging and rewarding content. That social support is made necessary by the difficulty of the gameplay, contributing to the interrelation of game prowess and social status.

Within the context of the PC gamer culture, winning has become a tentpole cultural value, and a fundamental influence on the associated Gamer Imaginary. Practices and social relationships are interpreted for meaning through an imaginary that emphasizes and informs this correlation between in-

³⁴ In many MMORPGs, characters with more than 10 levels difference between them can have difficulty finding content to play together

game success and social worth. This contributes to a community culture that frames the best players (according to the game's own definitions of success) as the most valuable members of the community. The decisions made by designers during the game-making process gives shape to this kind of social Darwinism that is based upon a false assumption of initial player equality. Like any Darwinist social theory, the gamer meritocracy emerges from an assumption that all players have equal access to the tools for success and that, therefore, those who achieve success must be stronger, more worthy, superior.

Technologically speaking, games do typically provide all the same options to all new players equally. They can choose from the same in-game equipment and character classes, complete the same quests, and explore the same regions. But usually, long-term success and achievement in MMORPGs and shooter games requires certain favorable actual world conditions that are not similarly accessible to everyone. Time, for example, is a finite element that is directly proportional to in-game success; players who play more hours will inevitably have stronger characters, better skills, more accolades, and, as a result, higher social status. Financial resources, in some measure, are required for access to the necessary hardware, broadband internet, and (again) time necessary for playing some of these games. In shooter games, for example, superior equipment can make a difference in overall in-game performance. Communicating proficiently in English can make a difference as well, especially when being part of a clan or guild can make an enormous difference in your access to high-difficulty, collaborative activities and competitions. All of these become limiting factors that influence who can become an elite player and who cannot.

As a function of game-world power distribution, games reward achievement with more in-game power. Those players who have spent more time on the game and/or shown higher skill earn more powerful characters. This appears to be a simple gameplay dynamic within the confines of a virtual game world's designed feature set. But in a social online game populated by thousands of other players, the structures of game power acquire social meaning that is not confined to the virtual world space itself. The meaning-making follows the players wherever they go, and becomes concentrated wherever they congregate. Whatever boundaries may exist between these social spaces are smudged over by the easy

multilocation or simulocation of social entities, existing in some simultaneous form in-game, in IRC, in forums, on Twitter, on TeamSpeak, etc. This means that those meritocratic logics that aid the conversion of in-game achievements to social status are not contained within the limits of the software-driven game world itself. It is in these spaces beyond the game, where there are no coded enforcements of equal access to resources and achievement, where the problematic aspects of false equalities become especially pronounced.

The concept of “meritocracy” was originally framed through satirical fiction by Michael Young in 1958 to illustrate the problems inherent to the idea of system of political and social power based on perceived merit (Young 1958). In just a half century since its introduction, various corporate entities across the business have embraced merit-based rewards systems for their personnel, and became especially notable among Silicon Valley technology companies during the Tech Boom (Castilla and Benard 2010; Oracle 2012; Towers Watson 2014). Within the scope of “performance management,” companies strategized to maximize their productivity by nurturing “top-tier talent” through a process of identifying and communicating company goals, then rewarding employee achievements of these goals with bonuses, promotions, and more opportunities. According to a 2010 “Global Compensation Survey,” more than 80 percent of companies around the world were using “variable-pay” or “performance-based” award structures (Hewitt 2010).

The similarities between the description of this system and that of many online game systems are striking when juxtaposed. Game designers and corporate executives both set up goals and objectives, rewarding participants according to their level of accomplishment. And similarly, there is a built-in assumption of equality, where in fact, individual factors—human factors—cause a great deal of variability that is elided by these kinds of reward structures. “Meritocracy contradicts the principle of equality, ... no less than any other oligarchy” (Arendt 1954:4). Game-based social status ladders brim with promised potential for those seeking escapist, fantasy spaces where they can play out dreams of notoriety and accomplishment. Where certain online games offer the player many opportunities to prove their worth through gameplay practices, there are players willing to spend thousands of hours doing just

that. Their in-game successes are not only fulfilling as a personal measure of accomplishment, they are also socially affirming. Game designers understand that making gameplay accomplishments visible to other players creates a system of social motivation in which players want to keep playing, to continue collecting their accolades for their own sense of proud accomplishment and progress, and/or to compete with their friends for better gear and achievements. They generally believe that social recognition of gaming success encourages deep engagement with the game system, which is perceived as generally good for business, thus perpetuating these achievements-based, comparative social systems.

Conclusion

The Gamer Imaginary provides the ideological basis for players to question game makers, and contributes to bimodal relationship of trust between players and game companies. Gamers are simultaneously worshipful of the studios that create their fantasy worlds, and mistrustful of powerful, governing authorities, including those that govern their games. As a result, they demand authenticity and transparency of companies and company employees, while staunchly fighting for their own rights to anonymity and playful artifice. All these elements come together to inform a shared gamer imaginary from which their hopes, dreams, and expectations for an upcoming game will emerge. When talking about community-driven design, the imaginary of the gamers in this community become a crucial tangle within the cultural assemblage of a game's creation.

From within the studio, the Gamer Imaginary necessarily shaped the essential process of design empathy. DreamShooter's developers were constantly doing the work of imagining themselves in the position of various kinds of players to anticipate how their game systems might be engaged, what the player experience might be like, which agencies and contingencies they would see and act upon. Since many of the developers came from gaming communities and identified themselves as gamers, their perspectives were already influenced by the gamer social imaginary. They valued many of the same things and strove to appeal to their escapist, achiever, and freedom-loving players. As an example, the developers made sure to make the game as customizable as possible, based on the standard expectation of

hardcore PC gamers. They also allowed, and even encouraged, players to create mods to enhance their play experience. They built publicly visible ranking systems so players could compare their victories. Almost all of the features of the game, and features of the imagined future game, could be seen as some extension of the values and expectations that were framed by the Gamer Imaginary.

But with the start of the closed beta test, when public players were first allowed access to portions of the game, the inundation of direct player feedback from numerous external sources created a kind of double-vision for developers. They were already trying to account for the player perspective through regular practices of design empathy, but the Tribe valued emphasis on player opinion put extra pressure on them to absorb and interpret the words of the players. There was no system within BlueSky to guide the developers in how to translate those opinions into usable feedback. The resulting double-vision caused developers to grapple simultaneously with their own empathetic understandings of how players might interact with the game, and with the players' explanations of how they saw themselves interacting with the game. These understandings were never the same and almost always used very difficult vocabularies. Without a unified way to find common ground or translate what the players were saying into comparable development priorities, their feedback became volatile fuel for debates between the disciplines.

CONCLUSION

This research has been intended as a contribution to larger scholarly conversations about design and the production of technology, inspired by the legacy of research about the social constitution of fact and scientific knowledge (Bijker, Hughes, and Pinch 1987; Bowker 1994; Haraway 1988; Latour and Woolgar 1986; Pinch and Bijker 1987; Poovey 1998). The technologies that we engage with everyday are not designed or produced in a perfect vacuum of objectivity, just like scientific knowledge is not created without the influence of politics, economics, and social relation. They are locally situated, created by people who have located accountability, not designed from nowhere (Suchman 2000). As an ethnography of a specifically located space, and the professional social group working within that space with specifically located technologies, my hope was that this research might provide one example of how the local-scale, day-to-day processes of making new technology is particularly embedded within multiple, larger, overlapping, cultural scales. What happens in a design studio is meaningfully shaped by historical, economic, social, and technological trends that can be seen throughout a globally constituted industry. And as part of this important relationship between cultural scales, what happens at the local design level also meaningfully reproduces, influences, and contributes to those trends on a global scale.

In this ethnography, the primary mode of cultural transference across scales is seen in the flow between variably situated social imaginaries. This folds into anthropological conversations about how ethnography can be used to help us examine translocal flows and ethnoscares across not only multiple physical world sites (Appadurai 1996; Boellstorff 2010; Escobar 1994; Rabinow 2003), but also across multiple technological and virtual sites (Boellstorff 2003). The technologies of today are shaped by the imaginative capacities of their developers, which are constituted by the many social, economic, and historical factors of their local situation. Ideas that are “new” are usually permutations and combinations of preexisting ideas, possibilities that have been imagined, played with, and reformed with other imaginings to create a creatively different version. Those preexisting ideas, which ones are known about

and within the realm of consideration are all subject to things like production goals, technical skill and requirements, and the demands of economic pressure.

But the questions that become important outside of this ethnography involve the reproduction of these imaginaries through the technologies we use everyday. How do the games that people play, and the software they use, shape their imaginings of what is possible within their lives? How do these social technologies, which are made by locally-situated developers, influence people's ideas of challenge, accomplishment, collaboration, and personal skill? Games in particular are realms where social imaginaries are developed on multiple levels, because games themselves are designed to teach players what their options are, and present them with opportunities to exercise their agency in ways that are deemed correct, and ways that are deemed incorrect. In cases of emergent play, the players are learning lessons and discovering agency that the designers did not intend (Malaby 2006; Pearce 2009; Taylor 2006b). But the dynamic of play is still oriented around a player's capacity for imagining a certain set of possibilities, and these imaginings are embedded within multiple social scapes.

The concept of technocultural imaginaries provides a framework for understanding how subjectivities are shaped by interactions with technology, and even in how they can be shaped simply through an engagement with a particularly imagined technology. The technology itself does not have to be reified in material form for it to have a significant influence on the social imaginaries, the requirements of membership in an imagined community of future players, or the system of values and meaning-making that might emerge in such a community (Anderson 1983; Appadurai 1986; Geertz 1963). During the time of my research, the beta testers of DreamShooter all imagined themselves as players and users of the technology, but the game was never stabilized as a finalized, finished technological product. The two-year beta process felt like a "permanent beta" to many players (O'Donnell 2014). They were always playing through a loose assemblage of technological components that were tied together more by the anticipation of that imagined final game than by the game systems themselves. In fact, there were many avid members of the DreamShooter community during the early beta testing stages that spent time in the forums and chat rooms, talking about the game they hoped DreamShooter would become, long before they ever

received an invitation to the closer beta. Early on, their community and local culture was entirely imagined around the anticipation of a technological game idea rather than around the technology itself. The problem of technological determinism seems especially irrelevant when studying the influences of a technology on a community that has coalesced around an expectant imagining, but have never actually touched the technology in question.

Only some of the many cultural processes behind the formations of social imaginaries could be examined within this study of BlueSky Games. I focused particularly on how the shared imaginings within the local cultural group, within the studio practices themselves, were constituted by, and reconstitutive of, larger trends in the communities of players and in the global game industry. But there are several more large factors that would be worth considering if wanting to expand the view on the social construction of these technocultural imaginings. Marketing and advertising mechanisms are huge contributors to the imaginings of technological products. BlueSky itself did limited but targeted marketing to their direct community by creating video trailers and extensive player guides portraying a polished version of the game that the developers imagined, and the investors hoped, it would become. Their marketing effort was relatively minor compared to what drives the successful product launches for many of the largest game companies in the industry. The advertisements for games and software technologies, just like advertisements for any consumer product, present a theoretical relationship between the product and the potential user. They answer questions about what the problems the product might solve, what experiences it might offer, what agencies it might enable (Lien 1997; Mazzarella 2003). These contribute in subtle but significant ways to the spectrum of possibilities, and possible subjectivities, that are imaginable within any situated cultural group.

The next stage of exploring the technocultural imaginaries related to video games would benefit from questions about how game industry marketing has meaningfully shaped the values and systems for meaning-making within game communities, as well as how they have shaped the ways games and the people who play them are imagined by people who do not play them. These scalar imaginaries could be important parts of the picture that might help build a better understanding of the cultural group tensions

and contests of membership that have started to plague gaming communities as their favorite entertainment medium has matured and become more popular.

Mindful Design

Questions about the emergence and constitutions of social imaginaries lead to questions about design and the embeddedness of the designer when asked in the context of technology production. Some threads within STS, and many organization scholars looking at the systems of professional technology development, often point their findings towards some considerations for the designers, or “implications for design” (Anderson 1994; Dourish 2006). But these kinds goal-oriented analyses can degrade the efficacy of ethnography to capture otherwise elusive and messy traits of a complex cultural assemblage. Rather than commenting on the product or design process itself, this analysis presents an opportunity to examine how the pressures and cultural forces molding local environments of technology production reproduce themselves. It gives us a glimpse of how inequalities are perpetuated not through the intentional, conscientious actions of a destabilized majority, but the result of people doing the best they can, with the values they’ve been taught, in an unbelievable complex technocultural system.

This case study has presented an opportunity to look at design as located, partial, and constituted of practices that are meant to provide some temporary basis for collaborative stability on top of a perpetually contested and shifting landscape of ideas and expectations. This exploration builds upon Balsamo’s assertion that “cultivating and shaping the technological imagination is a cultural imperative of the highest order” (2011:7). Designing games is more about navigating the tricky digital-materiality of software, and managing the multi-disciplinarity required to make that software, as it is about coming up with ideas and selling them to the rest of the team. These feats are typically subsumed within the “black box” of technology production, just like with knowledge production (Latour 1987; Lien 1997), making it difficult to see from studying the technology and user interactions how much of the design process is about resourcefulness and “making it work” whatever the cost rather than about a well-controlled exercise of intent and plan into material form.

The myths and cultural imaginings around design, particularly in the game industry where game makers are idolized for their mysterious craft (O'Donnell CITE), create a difficult tension for designers who are torn between the sense of this external expectation, and the reality of their daily experience, which is far different. Instead of outlining any implications for particular technology designs, or even for the design processes themselves, I want to trace the shape of implications for design culture. Where designers serve as cultural mediators, “translating among languages, materials, and people, to produce—among other things—taste, meaning, desire, and coherence” (Bourdieu 1984; Balsamo 2011), they must be willing to mediate their own local cultures. The cultures within environments where “thoughtful design” (Lowgren and Stolterman 2004:2), “participatory design” (Suchman 2000), and “mindful design” (as I describe it) can take place, enable technology designers to acknowledge the inherent complexity of the assemblages their processes are embedded within.

Similar to the importance of recognizing the complexities of technology design, striving for design empathy is important. But empathy, like any perspective or knowledge, is partial. Combined with the knowledge that the realities of a design studio will put pressure on the processes of empathy, it becomes crucial for designers to accept that though they may strive for perfect empathy with all the prospective users of their future designs, there will always be significant portions of the creative process in which the designer must rely on their own partial perspective to assess their own work. Designers must recognize their own perspectives outside of the exercise of imagining the player. They must learn to question their own ideas without losing touch with that finely tuned sense of feel and flow. They must acknowledge that their sensibilities about what design features “feel good” are not necessarily “right” on a universal, objective level. Subjectivities are situated, emerging around a located subject. Their agencies, contingencies, limitations are shaped by the subject’s capacity for imagining. A designer’s personal inclinations and dispositions are central to the process, but when they are made transparent, design empathy actually becomes easier and more effective.

Lastly, part of creating a culture for mindful design requires an awareness of the systems of meaning-making that shape the creative ideas, modes of communication, and collaborative efficacies

around the office. And more than just being aware, actively cultivating the cultural touchstones that will motivate local trends in creative work and communication could help to align the many disparate priorities of a multidisciplinary development team into a unified image of what the gameplay experiences of the many players would hopefully be. Feminist threads of video game critique in the past decade have identified many of the tropes in game content, many of which favor the white male demographic at the expense of more diverse perspectives (Higgin 2009; Kafai, Cook, and Fields 2010; Martin and Deuze 2009; Sarkeesian et al. 2015; Shaw 2015). The pressures of the AAA game industry often constrain the perspectives of AAA game developers. They are encouraged to make what is familiar, what is proven, because of the amount of money invested and the limited time available. Independent developers working with smaller budgets have less capital, but more flexibility to try new things. Part of mindful design would be in recognizing the pressures to reproduce the familiar, and to resist these through the mindful cultivation of a cultural infrastructure that could help to brace a team against the storm of development chaos. Another strategy towards creating more awareness within game development would be to actively cultivate a diversity of perspectives through conscientious and diversity-motivated hiring practices.

Hiring and Diversity

Regarding the reproduced demographic homogeneity, the observed lack of diversity was not ever a matter of deliberate strategy or intention. There were no moments I am aware of in which the management team at BlueSky Games expressed any preference for a 90% male development team. In fact, I observed several discussions around hiring decisions that emphasized how it would be beneficial to hire a woman for a particular position. But in consideration of the many traits and experiential qualifications that are typically thought to enhance team cohesion, similarities and common backgrounds seem beneficial to the process, especially when the pressure of time and funding starts weighing down heavily later in the development process, which is also often when teams are ramping up their development numbers. Studios want to hire people who are experienced, know the tools, and can understand the vision for the game through the most-used cultural touchstones. They rarely have time to

do more than basic tools training with new hires before they need them to start making valuable contributions to the process. The culture of creative chaos sets up a crucible of pressures that weeds out diversity not by intention, but by a sense of necessity.

By extension of the logic that the odds of landing upon a good idea is more likely when there is a larger pool of ideas to consider, diversity is beneficial to the creative process. Ideas are inspired by personal experience, social experience, cultural experience. The more diverse this set of experiences, the more ideas become possible. Having a creative development team of people all from similar backgrounds does not inherently benefit the quality of potential ideas. Those similar backgrounds do, however, make the challenge of game development somewhat more manageable because there is a deeper well of common vocabulary and references that make complex communication and technological configurations easier.

The challenge for a development studio wishing to innovate is to hire a diverse team of developers with the necessary technological skills, and then carefully cultivate the cultural touchstones that can serve as a common base of reference. Training new hires, not only in the technical tools of the studio, but also in the company's values and favorite touchstones, could potentially save the team many frustrating debates and failed iterations. For example, if the majority of team has been playing Team Fortress 2, or rewatching all the old *Star Trek* episodes together, it would be worth inducting new members of the group by introducing them to these meaningful artifacts. Even the best-intentioned group of techno-creatives can become overwhelmed by the pressures of implementation in the moment. Being aware of, and intentionally shaping, the local social imaginary might allow diversity to flourish for the benefit of players and investors alike.

People's Design: The Future of Community-Driven Design

By the time the DreamShooter Closed Beta began in the fall of 2011, almost all online consumers, even the most casual PC gamers, were accustomed to providing some kind of feedback for their experience directly to companies. During this same time period, dedicated rating platforms like Yelp rose

to the heights of popular use. Major online retailers all had rating systems for all of their items. Social media enabled a sense of direct, 1-to-1 interaction between consumers and brands. Within the game industry specifically, game-dedicated message boards and chat rooms had long been in use, and with the increasing employment (and recognized value of) Community Managers, these game companies almost always had representation dwelling amongst the fans.

During the five years leading up to DreamShooter's launch of their closed beta test, beta tests had been coopted by marketing, used as a way to get players excited about upcoming games by allowing them to have access early in the form of these kinds of beta tests. Google's extended beta test of Gmail, which allowed people access to the platform for years before the company gave it official launch status, provided a precedent for this kind of extended, public beta testing that had not been seen before. This was the very example cited by the CEO as a justification for starting DreamShooter's beta test before the company even had a clear idea of when they would finish the game. Combined with the ideological primacy of the community's opinion and enabling "community-driven" design, BlueSky's management were eager to begin their beta test long before many other game companies would have. Their hope was that the beta test would foster excitement among the community, while also giving the developers what they believed would be valuable feedback about the state of the game. The actual response from community was far more protracted and problematic for the company.

The launch of the closed beta did, indeed, foster community excitement about DreamShooter in 2011. Players were eagerly receptive to the message that their opinions and feedback were paramount, and that their participation in the beta test would influence the shape of what hoped would be the next great game. But when a limited set of players got access to the closed beta, there were many who were disappointed to find that the part they could play was only three PvP maps, compared to their grand imaginings of what DreamShooter would eventually be. Those parts of DreamShooter were in true beta form—all of the basic mechanics had been polished, the maps themselves extensively play tested, and the PvP experience was fun despite some lingering glitches—but it was far different than what many community members had expected to be "the next World of Warcraft, but with guns and jumpjets"

(DreamShooter forums 2013).

The feedback was deeply mixed as a result of this discrepancy. The shooter players who had come for the PvP experience loved it, but had some feedback about how to make it more balanced for competitive play. The MMO players, however, wanted to know where the rest of the world was. They wanted quests (something that had not been part of the long-term development plan before the beta started) and vehicles and the open world they *imagined* they had been promised. This feedback put BlueSky's developers in a quandary. They sincerely intended to respect the opinions of their gaming community, but had to decide how literally they would interpret their words. They also had to figure out how far they were willing to expand upon their original Vision to incorporate all of the MMO features that they had not initially planned. This was compounded by pressure from the investors who were literally banking on the hope that DreamShooter would become the next World of Warcraft.

To additionally complicate things, players engage with games in ways that are different from how they engage with a software tool like Gmail or an iPhone app. The challenge that makes games requires some aspect of surprise or newness. A player cannot play the exact same puzzle over and over again indefinitely. Eventually, they learn the lessons the puzzle has to teach, hone the skills necessary to act on those lessons, and acquire a competency that enables them to win. There must be permutation, some change in the variables, either from the game system itself or from other players, to keep a game exciting and challenging. This means continuing work for the developers. During the beta test, they had to cope with stabilizing the existing systems, while also continually building new systems and content for the players to play through. All the while, the players were becoming more familiar with the game, losing their spark of anticipatory excitement, and, when the developers could not keep up with their demands, getting bored and leaving.

This combination of factors demonstrated the potential of degrading the marketing benefit of early beta tests, and even threatened to undermine the sense of trust between developers and players. Even though the BlueSky developers genuinely wanted to deliver on all of their promises to the community of players, the players' imagined game outpaced what the developers could reasonably accomplish. Not to

mention, many of the things players wanted were frequently far outside of the scope of what the BlueSky team ever envisioned or wanted to do. Where much of the initial excitement for the new product fizzled out long before the game was officially release, after the understandably unfinished beta test version of the game could not match their grand imaginings of what the game would be like. The kinds of escape and achievement they hoped for were not there yet, and many of DreamShooter's players left to seek them in other games before BlueSky's developers had a chance to deliver on what they, too, hoped would be the next big game.

The interwoven relationships between technology producers and users has been studied extensively by STS, CSCW, and HCI scholars (Greenbaum and Kyng 1991; Kallinikos 2004; Kouprie and Visser 2009; Poster 2004; Suchman 2000; Woolgar 1990). Players have been studied well on the side of games scholarship as well, but almost always through the perspective of the player and communities of players. This opportunity to study the view of the player through the subjective perspectives of the developers has allowed a shift in an understanding of the user in relation to the design of play. Fun and the capacities for play within a liminal game world creates some unique striations within that messy layering of connections between developer and player. Creating fields of contingent agencies for the player seeking wonder, novelty, and challenge requires a deep empathy that brings into question that division between the maker and the consumer. As the global markets for virtual goods continue to proliferate, development tools become more accessible, and consumers become more intimately involved in the creative processes, the actual and imagined barriers between those who make things and those who use things are increasingly destabilized and contested. Things like crowdfunding platforms (Kickstarter, GoFundMe, Patreon, etc.), open source development, independent game distribution networks like Steam, and years of social media interaction between makers and users, are already blurring those divisions and creating new channels for recursive, cultural production. Games, in particular, inspire the reconfiguration of vivid social imaginaries, framing how players imagine themselves in their relation to this powerful technology. Gaining a better understanding of who and how current games are created may help us to be more aware of our processes and patterns of cultural reproduction when we, as players, discover that we

are actually the ones with the creative power.

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