ABSTRACT

Title of Dissertation:	Performing Play: Cultural Production on Twitch.tv
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Streaming is an emerging practice of videogame culture, where a player broadcasts a live capture of their game-play to an audience. Every day Twitch.tv, the most popular streaming platform, features thousands of streams broadcast to millions of viewers. Streams are detailed multimedia artifacts, and their study allows us to understand how the culture of games is produced, reproduced, and reinvented.

In this dissertation, I examine the act of streaming using a theoretical concept that I have developed called 'performed play', which combines social performance theory, game culture studies, situated learning, and sociological perspectives in order to understand streaming as an act that produces culture. Through the theoretical construct of performed play, I argue that we can better understand digital game-play as a cultural act. I present two interrelated studies: a grounded theory analysis of a social space dedicated to streaming, and an ethnographic study comprised of seven individual streamers.

I find that streaming is a practice comprised of three connected behaviors: assembling technology to produce the digital artifact of the stream, acting as a curator and manager of one's audience, and projecting a persona as a player. These behaviors are moderated by the goals and desires of the streamer, and influenced by the metrics displayed by Twitch (e.g., viewership). Activity within the practice is further mediated by one's history, relationship to games, and communities that are imported into the space of the stream. I find that streaming is very much a day-to-day activity, making the stream a blend of one's personal identity alongside an individual interpretation of game culture. Synthesizing findings across both my studies, I conclude that due to the highly personal and quotidian nature of performed game-play, the practice has the potential to change larger game culture by allowing previously marginalized populations to form their own communities as players of games.

PERFORMING PLAY: CULTURAL PRODUCTION ON TWITCH.TV

by

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Table of Contents

List of Figures

List of Tables

Chapter 1: Introduction

1.1: Placing Myself into my Research

     In the summer between middle school and high school, my older

brother bought a game called *Final Fantasy Tactics*. In *Tactics,* the player is in charge

of a group of soldiers who are controlled on a chess-board-like battlefield, with each

having a set of abilities and roles that must be carefully developed and monitored in

order to meet the challenges of the game. The mechanics of the game unfold amid a

fantasy version of Renaissance-era Europe, replete with scheming nobles, a corrupt

church, and a larger conspiracy of power and deception. To this day, *Tactics* remains

one of my favorite games, and every few years I'll replay it, much like rereading a

favorite book or re-watching a favorite movie. Despite knowing optimal strategies,

the twists in the story, and the quirks of the game engine, there is a comfortable

familiarity that keeps me coming back to it.

   My connection to *Tactics* (itself approaching the 19th anniversary of its

release) comes not from the strength of the gameplay, nor the memorability of the

storyline, but rather from an important aspect of gameplay which isn't inscribed in the

game's programming. I have a deep social memory of playing the game with my

brother. The PlayStation was in my brother's room, since he had bought the console

with his own money. We both had our own save files, and we would alternate playing

and watching. While doing so, we would swap strategy, talking about the best

strategies to build our respective armies and commiserating over some of the more

difficult battles. However, we would also talk about other things. We would talk about movies, we would listen to music (I can thank these same summers for introducing me to late eighties garage rock), and we would talk about our plans – mine for going into high school, and his for having recently left it.

I have played video games for most of my life. The Nintendo Entertainment System, typically credited with having brought video games into the mainstream of American households (Kirkpatrick, 2013), is about as old as I am. Games have been a fixture on the televisions in my living rooms, the hard drives of my personal computers, and the screens of my mobile devices. Over the course of my life I have played games in two senses: *on the screen* and *in the social*. On the screen is the moment-to-moment interaction with the machine and the code of the game – what we typically talk about when we talk about games. In the social, I have played not only with friends and relatives, as described above, but also in the online spaces. These online spaces have been my constant companion not only for informational resources about gameplay, but also as a space to interact socially with other gamers.

At times, these interactions were profitable. Involvement in online game-related spaces introduced me to the practice of modding, or changing the basic files of a game in order to substantially alter the way that it is played. Through modding I began to develop technical skills that would later translate into a wider interest in computers and technology, which has led me through a number of the careers. At other times these interactions were harmful. Using the same social connections and set of skills that directed me toward modding, I also found groups of players who developed software to cheat and ruin gameplay for others in competitive online

games. Taken in by the attitudes affected by these players, I spent time "griefing,"

cheating, and otherwise making the gameplay experience less enjoyable for my

fellow players. Having witnessed firsthand both the transformative and toxic

possibilities of game culture, it has been a lifelong fascination of mine to better

understand what it means to play, live, and learn in digital games and the social

spaces devoted to them.

The situation I describe above, acting as both a player and an observer to

social digital gameplay with my brother, is currently being enacted on a massive scale

in one of the most popular emerging genres of interaction with digital games: live

streaming gameplay. Playing *Tactics* with my brother over the summer has come

back to me frequently as I've collected data for the research presented here.

Especially so in a vignette from my time with a streamer named Mark.

In an observation session of one of Mark's streams (data collected for the

ethnographic portion of my dissertation, described in full in Chapter 5), he had been

playing a number of different games for his audience: a brand new interactive fiction

game called *Night in the Woods*, a fast-paced action game that he was particularly

dedicated to called *Death Road to Canada*, and he finished the night with a slow

paced farming simulation game called *Stardew Valley*.

Throughout the evening, Mark had been providing a nearly constant dialogue

of commentary over his gameplay. He would explain his strategies, talk about his

previous history with the games, talk excitedly about parts he likes, and give

exasperated notes on the parts that he didn't. More than gameplay, Mark also talked

about himself. He talked about his conversation session with a Japanese-speaking

student as part of a language class that he was taking, he talked about how hard his week had been at college, and he talked about his plans for the weekend. Towards the end of the stream, as Mark was playing *Stardew Valley¸* he came across a non-player character (NPC) in the town that serves as the game's central hub for the player – an older woman named Evelyn. Mark commented to the audience how cute she was, and how she reminded him of his own grandmother. The character then made him think about his extended family, and how they don't accept his lifestyle of being openly gay. He discussed (as he continued to play) the difficulty he felt over Thanksgiving, in the wake of the election, having to cope with their celebration of the Trump presidency. He talked about the difficulty of communicating with his mother, who he said meant well but often misunderstood his life. He talked about how bad it felt to be ostracized by one side of his family and to be a constant source of drama during familial gatherings. For Mark, the gameplay, the act of streaming it for his audience, and his own personal story became intertwined. It reminded me of my own time with my brother: on the one hand discussing strategies and elements of the game, and on the other hashing out the details of our everyday lives.

The situation I describe above with Mark, while a particularly powerful example, is not an isolated or uncommon phenomenon in streaming. As I will discuss in my findings section, the skill of putting one's self forward as both an individual personality and as a gamer is central to streaming. In streaming, we are given a powerful focus for the study of game culture: a cultural practice that combines both performance and play.

Placing myself into the research of performed play, I bring with me an insider perspective due to nearly 30 years of participation in the practice of digital play. However, I am approaching a gaming practice largely foreign to me: the performance of play for an online audience. I have approached streaming as an outsider to the specific practice itself, but with some degree of insider knowledge to the patois of jokes, memes, and references of general game culture. Through an insider-outsider perspective, I hope to bring streaming more fully into the scholarly conversation of game culture studies, and to consider what we might learn from the performance of digital gameplay.

In this introduction I will both describe what streaming looks like in a practical sense (terms, definitions, and examples), and I will build an operating definition of **performing play** that will guide the remainder of the work in the dissertation that follows.

1.2: Terms and Definitions of the Practice

Recently a new genre of social gameplay has begun to take prominence in the wider global game culture: the digital performance of gameplay for spectators. Perhaps the best example of performance play is Twitch.tv. Twitch is a platform that allows users, commonly called streamers, to broadcast their gameplay to a wide range of spectators. During peak hours, Twitch is one of the most popular sites on the Internet (Quantcast, 2016). Particularly popular broadcasters on streaming sites can clear upwards of ten thousand dollars a month, such as the famous Swedish streamer PewDiePie, who formerly had one of the most popular channels on YouTube (Zoia, 2014). Apart from these "Internet celebrities," thousands of other broadcasters are

making their gameplay available for eager spectators. The practice of broadcasting play - bridging the gap between social event, spectator event, and gameplay walkthrough - is a vital aspect of modern game culture (Hamilton, Garretson & Kerne, 2014; Walker, 2014).

Streaming is a new practice, and requires a considerable amount of jargon and inside knowledge to discuss it at length. The platforms that promote streaming are also, primarily, a visual medium, and therefore difficult to render in text. To help my readers understand the practice, I provide the following vignette, which is a composite of my data collected through the two studies that comprise this dissertation. They will refer to Figure 1, below: an image of a typical stream (pulled from one of the current top streams on Twitch), and a glossary of technical terms that will occur frequently throughout this document.

Figure 1: A common layout for a stream. Taken from a top stream on the Twitch, March 10ᵗʰ, 2017, http://twitch.tv/zeiing
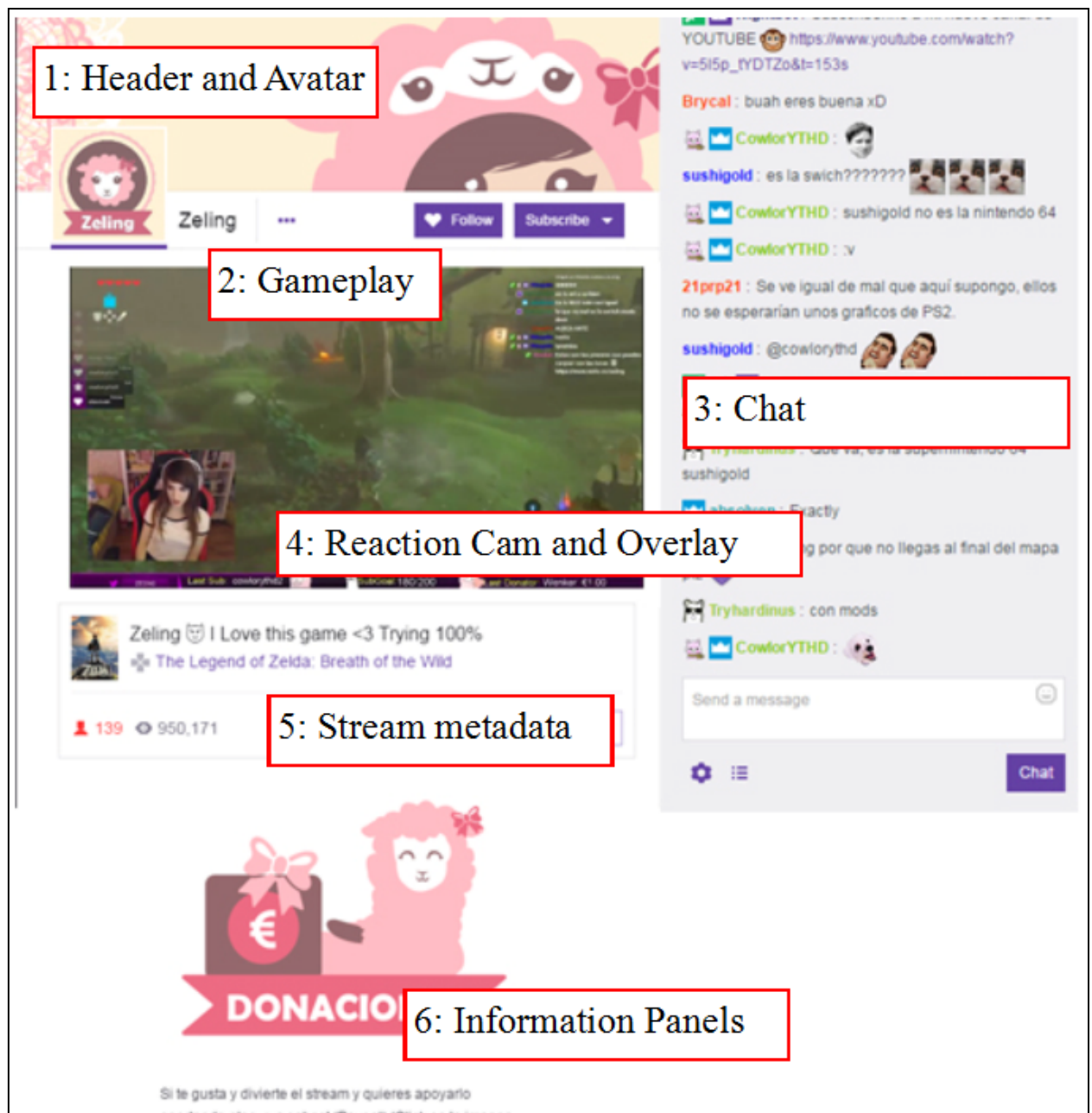
Table 1: Definitions for terms commonly used in streaming.

Term:	Definition:
Stream	A stream is an instance of a live broadcast on a user's channel. At a bare minimum, a stream has two components: gameplay, and chat. Most streamers add in additional elements to the stream. The term "Stream" is fluidly used to describe both an individual broadcast, and the entire online streaming presence of the streamer themselves. For example, as a specific instance, "Last night on my stream I beat the game" and as a metonym for the whole practice, "I like to beat games on stream," would both be understandable to those within the practice.
Channel (the whole graphic)	The channel is the web-presence on which a person streams. On Twitch, a channel is denoted by the URL formulation of http://www.twitch.tv/USERNAME. An individual streamer has a great deal of control over the appearance of their stream, and total control over its content (apart from advertisements that Twitch runs to support itself at varying points in the stream). In the above graphic, the channel is the entire image, taken as a whole.
Header and Avatar (item 1)	These elements are decorative, and serve as a way for the streamer to personalize their channel. In practice, many streamers use these graphical elements as a way to establish their brand. In Figure 1, the streamer is using yellow and pink pastels, and the cartoon figure of a llama. Although not apparent in the figure above, many streamers will also include their other social media details here, for example an Instagram, Facebook, or Twitter account.
Broadcast Window (item 2)	The gameplay window is one of the central focuses of the stream, and is a live broadcast captured by the streamer from either their computer, or from a game console. Primarily the broadcast window contains a game being played, but streamers may capture any element of their screen (e.g. bringing up a website with a leaderboard for a competitive game). Intermediary programs are used to capture screen data, with the most popular being the free application called Open Broadcast Software (OBS). By

	default, Twitch does not archive broadcasts, however streamers can turn the archive function on if they desire to create Video on Demand (frequently abbreviated as VOD).
Chat (item 3)	The chat is the other central focus of the stream, and it is a live text-based chat with every user currently viewing the channel. One of the most essential skills of streaming is interacting with the chat (see my findings section). Previous work on streaming has positioned the chat as a community (Hamilton et al., 2014), which has been supported in the work presented in this dissertation. In addition to text, chatters also often use emoticons that are specially designed by Twitch, and sometimes by the streamer themselves. Because of the social nature of chat, streamers have the ability to moderate chat through common moderator tools, such as bans, blacklists, and muting. They also may promote members of their chat to moderators, who have the ability to do various moderation activities if the streamer is unable to (as they will often have their attention on the game instead of the chat window).
Reaction Cam and Overlays (item 4)	In addition to capturing gameplay, most streaming software gives the user the ability to create what are called overlays. Overlays are additional, dynamic information that is placed over top of the gameplay broadcast. The most common overlay is the "reaction cam", which is a live feed of the streamer themselves. In the above example, we can see the streamer sitting in a desk chair in front of a bookcase, although some streamers will use greenscreen technology to erase their physical location from the broadcast. Other overlays include (as in the above example) people who have recently subscribed to or followed the channel, donations that have been given to the channel, and a duplication of the chat box so that chat is saved for later viewing through pre-recorded VODs.
Stream Metadata (item 5)	The metadata section is hardcoded into each page, and displays the current viewership (the red text with an eye icon), and lifetime views (the gray text with an eye icon). Streamers also have the option to title their stream, in the above example "Zeling >:) I love this game <3 Trying 100%". In my data collection, stream titles were commonly used to convey jokes, set the tone for a stream, and draw in viewers. Players also have the ability to set which game they are playing; in the above example, the

	streamer is playing the recently released title, *Zelda: Breath of the Wild*. For viewers, games are categorized into browsing sections on the Twitch front-page, allowing them to quickly find streams of games they might be interested in. On the metadata section of the screen there is the option to "follow" a streamer, meaning that they are added to a current activity page on your dashboard, and you are notified when they start streaming. Stream metadata is often used by streamers to set viewership and follower goals, and is used in an official capacity by Twitch to decide which users to offer "partnership", meaning that they receive remuneration for the advertising revenue that they generate.
Informational Panels (item 6)	This section of the page is entirely designed by the streamer, and has limited capabilities for HTML coding and graphic design. Common usages of these panels are rules for chat, the schedule that the streamer operates on, a link for monetary donations, and links to outside social media. In the example above, the streamer has designed their "donations" graphic to match their header and avatar graphics, indicating a larger, overall branding effort.

In order to put the terms and definitions into context, I will present a fictional vignette that acts as a composite of my experiences with streams during my data collection.

Jenny is a college sophomore who is a regular streamer on the site Twitch.tv. She streams on Tuesdays and Fridays, because those are the days in her schedule that are least occupied by schoolwork, her job, and other social commitments. On her Twitch page there is an informational panel that relays that schedule to her audience, as well as a brief blurb about her: "I'm a 20 year old gamer from Maryland. I play all kinds of things, even if I'm not that good! I stream on Tuesdays and Fridays and sometimes Sundays. Be nice, or I'll ban you <3," She has a regular audience of 5 viewers, who are drawn from her real-life friends, as well as people she has met in

other online communities. She will often get 2 or 3 strangers stopping by the stream as well. Because she sometimes attracts unwanted attention as a woman gamer on Twitch, all of her regular friends have been given moderator privileges in chat, allowing them to ban and mute any troublemakers. Jenny doesn't have to use moderator functions often, but it's nice for it to be available.

Jenny considers herself a "variety streamer." What variety means, is that she plays games from a variety of genres, and tends to mix up her game choice on a regular basis. She has just gotten the recently released game *Resident Evil 7*, which is a horror-action game with a first person perspective, for her PlayStation 4 console. Jenny has decided to stream *Resident Evil* for her Tuesday stream, since people in her chat had been excitedly talking about it in last Friday's broadcast. The day before the stream Jenny loads up the game without turning on her broadcasting software, and plays through the first two hours in order to familiarize herself with the controls, as well as to prep for what she might say on stream. She also goes into a program called Open Broadcast Software (OBS) to set up a new layout that plays a small snippet of music, and displays a funny animation of a bear dancing (since her icon and her channel graphics all feature bears) whenever someone follows her on Twitch. She uses a guide that she found on YouTube to implement the "follow script" feature of her channel, and she was inspired to implement the bear graphic because a more popular streamer that she follows uses a similar set-up.

On Tuesday, a few hours before the Stream, Jenny goes onto her Twitter account, as well as her Tumblr account, to announce to her followers on those spaces that she will be streaming in two hours. She has made an image of her avatar's face

pasted over the cover art of *Resident Evil 7* in an intentionally sloppy and low quality

fashion to serve as an advertisement of the stream.

As she prepares for the stream, she logs into OBS, and does a quick test to

make sure that the follower script she'd set up yesterday works, as well as testing out

a relatively new piece of hardware (called a capture card) that reads the video and

audio signals from her PlayStation 4 console, and incorporates them into her stream.

She readies her microphone and web-camera, which have been bought for the express

purpose of giving high fidelity audio and visuals for her on-screen presence, and for

her running commentary with her audience. Before the stream, she pops into a social

channel on an audio chat service called Discord, which serves as the meeting point

for fellow gamers at her University, and mentions that she will be streaming tonight.

When the stream starts, she has three of her regular friends in chat. Her

gameplay broadcast shows the starting screen for *Resident Evil*, and Jenny makes

small-talk as she waits for her other regulars to filter in. She talks about how she

played a remake of the original *Resident Evil* last year on a friend's GameCube

console. She also asks the members of her chat how their days went, and that prompt

leads to a discussion about how everyone hates Organic Chemistry. Finally, she has

her five regular viewers that she was expecting. Jenny starts the game, and narrates

her progress: "Oh man, this part is scary," or "Ugh, this part is so hard!" or

celebrating as she overcomes a challenge, "Yes! That part gave me so much trouble

when I tried it earlier today, but I just owned it." The chat is also responding, giving

her encouragement, or lightly poking fun at her when she dies. A friend from high

school who goes to a different college says, "Classic Jen skill right there, :kappa:

[Kappa is a universal twitch emoji which is used to represent sarcasm],” and she reads Andrew's comment aloud back to chat and light-heartedly responds with, “Shut up Andrew, I've seen you play shooters before.” As Jenny is streaming, a chatbot programmed by another user comes into the chat to advertise that user's stream. One of Jenny's moderators, Lulu (a friend that she met on campus during her freshman year), makes a joke about a robot uprising and bans the chatbot using her moderator tools that Jenny has given her privileges to use.

Jenny continues playing *Resident Evil* for about two hours, until she is frustrated with a certain part of the game and jokingly “rage quits” (meaning to stop playing suddenly due to anger), to switch to a lighter puzzle game which she plays for about an hour before signing off and thanking her audience for watching, promising as she goes that she will host (meaning to put another user's content on your stream, directing viewers to them) and watch Andrew's stream of *Resident Evil* later in the week on Thursday night after she gets out of class.

The above is a description of an activity that takes place thousands of times a day on Twitch alone, with several other platforms also offering streamed game related content. For millions of viewers, both streaming and viewing on Twitch has become a commonplace way that they both play and socialize around games.

1.3: Performance and Play

In order to capture the types of unique social interactions described above, I have developed a theoretical construct that I am calling **performing play**. Social interactions have long been framed as performative (Goffman, 1959), with the presentation of the self being a balancing act between information that is put forward

as intentional social actions, and information that is hidden and strategically backgrounded but may come to light unintentionally, for example backgrounded elements of the self that come forward without the performer's meaning them to. Managing foregrounded and backgrounded information is the goal of the individual, who takes on the role of performer, while others around them perceive and react to the performed self, with those others taking on the role of audience. In effect, everything that one does is part of that performance, either in intentional "doing" or through subconscious acts that serve to highlight, subvert, and underscore what one has done (Goffman, 1959). Given different social situations, what Goffman refers to as frames, people have differing notions of performance that they bring to the fore. For example, the performance that one gives at the bar after work will be markedly different from the performance they give at a job interview. The process of socialization is the process of understanding, practicing, and rehearsing these roles (Butler, 2006).

Performance theory has been developed and adapted from more formalized venues of performance, such as the theater, religious rituals, games, and children's play (Schechner, 2002). By considering the playful and performative aspects of everyday life, theorists give meaning to the way that individuals and groups form and maintain identities through both purposeful and incidental performative action (Hamera, 2006). Play (using the term in its broadest sense – so both childhood make-believe as well as a Broadway show) provides us with a situation where one can not only rehearse, but also reimagine and remix social behavior (Papacharissi, 2011). Play studies are based on the idea that play exists as a necessarily separate and

distinct form of interaction that allows for us to step outside of the everyday in order to examine it (Henricks, 2010; Huizinga, 2014).

However, not all forms of play are necessarily the same. Play takes on a wide variety of forms and valences, depending on its social context (Caillois, 2001; Huizinga, 2014). For example, Caillois (2001) breaks play acts into four distinct types based on their purpose: games of skill (agon), games of chance (alea), games of imitation (mimicry), and games of heightened emotion (illynx). Schechner (2002) highlights several aspects that demarcate playful and performative acts from other experiences (pictured in the table below) with the nature of a play act being largely defined by the way that it interprets and uses these characteristics. Schechner's (2002) schema is a more modern interpretation of the dichotomy between play and the everyday, with more classical theorists (e.g. Caillois and Huzinga) being inherently suspicious of incorporating play into day-to-day life, and eager to "defend the activity against encroachment from the outside," (Schechner, 2002, p. 13).

Table 2: Schechner's classification schema of common playful and performative forms. Reproduced from Schechner's 2003 book, Performance Theory.

	Play	*Games*	*Sports*	*Theater*	*Ritual*
Special ordering of time	Usually	Yes	Yes	Yes	Yes
Special Value for Objects	Yes	Yes	Yes	Yes	Yes
Non-productive	Yes	Yes	Yes	Yes	Yes
Rules	Inner	Frame	Frame	Frame	Outer
Special Place	No	Often	Yes	Yes	Usually
Appeal to Other	No	Often	Yes	Yes	Yes
Audience	Not Necessarily	Not Necessarily	Usually	Yes	Usually
Self-assertive	Yes	Not Totally	Not Totally	Not Totally	No

Self-transcendent	No	Not Totally	Not Totally	Not Totally	Yes
Completed	Not Necessarily	Yes	Yes	Yes	Yes
Performed by Group	Not Necessarily	Usually	Usually	Yes	Usually
Symbolic Reality	Often	No	No	Yes	Often
Scripted	Sometimes / No	No	No	Yes	Usually

Considering performance in the context of technologically mediated spaces (e.g. personal webpages, social networks, and digital games) complicates the theories outlined above due to the unique affordances of networked technologies (boyd, 2015; Hine, 2000; Papacharaissi, 2012). Recent work in the domain of performance across networks has found that networks complicate the identity and role management that people tend to employ as a strategy for existing in different contexts (to go back to my earlier example, being at a bar versus being at a job interview). Specifically, danah boyd (2015) refers to the described phenomenon as "context collapse", when audiences that are connected to a user through two different aspects of their life view a post through their own filters (for example "I got so wasted last night!" will be viewed differently by friends from the bar, and by friends from the job). In boyd's (2015) work the tangled nature of networks is especially difficult for youth, who are doing important performative identity work in spaces that they may not realize are public and searchable. The massive nature of networked communication leads to varying performative strategies that users apply to present themselves as they desire, including selectively choosing releasing sensitive information on networks where the audience is well known (boyd, 2015), as well as writing as abstractly and inoffensively as possible with a broad, generic audience in mind. Effective use of

these performance strategies often results in social and material gains while improper use result in drama and embarrassment (Ellison et al., 2011; boyd, 2015). A useful summary comes from Papacharissi (2011), who notes:

> *"The process of self-presentation is complicated in the context of [social networking sites] that combine a variety of audiences, a variable of privacy or publicity, into a single crowd of spectators observing the same performance, but from a variety of vantage points, depending on their relationship to the performing self. The individual must then engage in multiple mini performances that combine a variety of semiological references so as to produce a presentation of the self that makes sense to multiple audiences, without sacrificing coherence and continuity,"* (p. 307).

In other words, social performance mediated through technology is a multi-layered process that involves combining knowledge of pre-existing social contexts with knowledge of one's networks, and using these understandings to formulate and enact strategies in order to navigate that intersection.

The application of performativity theory in games studies, is rooted in the social performance theory described above, but is distinct in its specific application to the unique nature of play. For example, Fine (1983) adopts Goffman's (1959) ideas of self-presentation and frame analysis to consider tabletop roleplaying (i.e., *Dungeons and Dragons or D&D*). He finds that players are operating within three different frames of the game taking place: the fantasy of the game's narrative (their character's history and personality), the mechanical rules of the game itself (their character's numerical statistics that allow them to take certain actions or disallow them from

taking others), and the broader social context of the game as it is played (the personal

relationships between the players who are controlling the other characters in the

game). Therefore, for Fine (1983), the performance of a game of D&D becomes a

balancing act between these three complimentary frames. The application of

Goffman's (1959) framework for understanding the presentation of the self has been

applied to digital contexts, largely centering on Massively Multiplayer Online Role

Playing Games (MMORPGs), finding that there are similar elements of the back and

front stages of self-presentation, with players often striving to put forward a

competent and knowledgeable persona (Crawford, 2012). Games and learning

scholars have found that in apprenticeship situations in MMORPGs, players are often

learning not only the gameplay skills (e.g. how to use their character class effectively)

but also learning how to perform with the proper cultural values for the game (e.g.,

not rushing to take rewards that have been distributed from a particularly difficult

encounter) (Steinkuehler & Oh, 2012). Apart from cooperative role-playing games,

single player games are also often framed as performative identity work, with players

using the role that they assume as their game character to test out aspects and facets

of their real-life self in the safe space of the gameworld – what is sometimes called a

projective identity (Gee, 2007). Although the performative aspect of games is often

presented as being generally positive and affirmational (e.g. Gee's work on games

and learning), others point out that performance is often mediated by their gender and

ethnicity. As Nakamura (2002) notes in her work on race in networked spaces,

although a white man may role-play as a Japanese woman, and a Japanese woman

may role-play as a white man, the two situations are not intrinsically the same, due to

the larger imbalances of power that exist in the world outside of the game. Despite early utopic hopes for games as spaces free from the politics of the physical world, the politics and power struggles of the physical are equally present in our digital games (Lukacs, Wright & Embrick, 2010).

Feminist games scholars have sought to address these power struggles (as they exist within the culture of digital games) by drawing on Judith Butler's (1990) work on the performative nature of sex and gender. For Butler, gender and sexuality are both socially constructed aspects of a person, both require social performance to be established and built. The conversations that exist within both official marketing channels, as well as the social spaces that support gameplay tend to construct gaming as a white, male, adolescent pastime (Pelletier, 2008; Sunden & Sveningsson, 2012). Thornham (2011) finds that these gendered roles are performed even during in-person, collocated gameplay with men and women, with women adopting a less knowledgeable persona when in the presence of male gamers, than when in a similar situation with women. The gendered element of game culture will be discussed in more depth in the literature review section of this dissertation, but for now it is useful to note that gender in games has a tradition of being approached and understood as a performative act.

In conclusion, performance studies have long been applied to situations outside of the stage, and used fruitfully as a way to understand day-to-day life, and the lived reality of social interaction (Schechner, 2002). Understanding performance as a type of playful activity has foundations within games studies (Caillois, 2002; Huizinga, 2014). Using multiple literatures on performance, performativity, and play

19

as a way to understand interactions in online spaces is useful due to the unique

affordances that networked technology gives to users in terms of reaching widespread

(and sometimes conflicting) publics (boyd, 2015; Papacharaissi, 2002 & 2012).

Applying that idea further to streaming of games gives scholars a way to make sense

of both gameplay, and the attitudes that players adopt towards games as cultural

objects (Crawford, 2012; Dovey & Kennedy, 2006; Kerr 2006), especially with

regards to the ways that gender and ethnicity are performed within both gameplay and

game-related spaces (Consalvo, 2012; Gray, 2012; Nakamura, 2002). Therefore, I

have chosen the term **performing play** to highlight and foreground that element of

my research. I am interested in the ways that players, as they live stream, perform

identities as players of games, and creators of game culture.

Streaming, with its focus on the individual as a player who is performing

for an audience, potentially has a great deal to contribute to our growing

understanding of the cultures and practices associated with digital games.

1.4: Looking Forward Through Performing Play

Streaming is important precisely because it foregrounds the many questions of

performed identity that has long been key to who can and who cannot openly

participate in game culture (Consalvo, 2012, Gray, 2012). Two recent news stories

highlight the critical analytic power of performed play. The first comes from 2015,

centering around a popular streamer named Sky Williams and several other popular

female streamers. Sky claimed that these woman streamers unfairly earned their

popularity by wearing revealing clothing and acting provocatively on stream,

encapsulated in a video essay posted to YouTube called "Dear Female Gamers"

(https://youtu.be/M2ETEpZCQOU). High-ranking members [1]of the Twitch

community came out on either side of the debate (encapsulated in Figure 2 below,

showcasing a number of back-and-forth tweets among popular streamers about the

issue). An end result of the controversy was that Twitch changed its regulations to

clearly state and enforce decency rules about how much skin could be visible on a

stream without triggering a temporary or permanent ban of an account.

Figure 2: A Twitter conversation regarding female streamers. Images taken from

Grayson, 2015.

In the above conversation, we see a refrain that was common in earlier game culture studies regarding gender: that women in social spaces devoted to games are using their sexuality as a way to gain favor and advantage over others, when in fact most women in these spaces are acting normally while being given unwanted attention for having revealed their gender publicly. In my own data collection, these Twitch decency standards came up occasionally, always as a joke (in one instance a male streamer took off his top layer of clothing on camera, and his fellow casters joked that they were about to be soft-banned for 'boob streaming').

Similarly, in early 2017 one of the most successful and popular performers of play, PewDiePie (Felix Kjellberg), lost lucrative contracts with YouTube and Disney due to anti-Semitic jokes that he incorporated as part of a gag in one of his videos. Kjellberg claimed that the material was a joke that was taken too far, with his former corporate sponsors citing the frequency of these jokes (Romano, 2017). Racism is an unfortunately prominent aspect of not only the social spaces of game culture, but also frequently a key element of the plots and themes of the official products of the game industry itself (Daniels & Lalone, 2012; Gray, 2012). Kjellberg's behavior is not surprising to someone who has spent any significant amount of time in the pseudonymous social spaces dedicated to the discussion of games and game culture – the sort of intentionally offensive and derogatory humor that landed him in trouble with his sponsors is often a common social currency in these networked spaces (Auerbach, 2012). Once again, the attitudes evidenced by Kjellberg was a theme that was borne out in my own data collection, with trolling being unfortunately more

commonly directed to people presenting their identity as a person of color clearly on their Twitch channel.

However, despite the problems of game culture carrying over into the new space of performed play, I believe that live streaming also presents a possibility for change. In my work in both online spaces dedicated to the practice and individual performers in the ethnographic portion of my study, I have observed those typically marginalized by game culture (people of color, women, and LGBTQ people) openly sharing a love and enjoyment of games that is difficult to find in my many years as a participant in the social spaces of game culture. In my conclusion, I will discuss the ways that performing play on Twitch both resembles and resists previous conceptions of game culture, and what future researchers and designers might learn in order to create more equitable gaming experiences in the future.

An example of the possible remediation offered by studying streaming comes from one of the most popular female streamers, Kaceytron (shown as part of the Twitter conversation above). Kaceytron knowingly embraces and acknowledges the "gamer girl" stereotypes that permeate game culture, and as part of her stream actively seeks to subvert them. She will engage directly with users who come into her chat to harass her, defending her role and position as a popular female streamer, all while (also) playing popular competitive games. In an interview, Kaceytron describes her stream as such, "I have never intended to be the 'standard' model of a female gamer. People who look at the character I portray on stream and are unable to detect the sarcasm in it and take it a step further by assuming *all* female gamers are like that … I like to think of my stream as long-form improv. I want all of my viewers to be

entertained and possibly maybe even laugh" (FemHype, 2015, n.p.). Although the streamers I describe in this dissertation do not necessarily have the approach of intentionality, nor the viewership that Kaceytron has, her framing here is important. In streaming, she is actively and publicly performing what it means (for her) to be a female player of games. In short, the performance of play has many of the long-standing issues of toxicity and exclusion of game culture, but is different in the way that streamers will often directly address and seek to remediate those issues.

In the following chapters, I will first establish a theoretical framework that seeks to explore the performance of play as outlined above. I will generate a set of research questions from my theoretical framework, and then expand on a methodology that combines grounded theory content analysis of a social space dedicated to streaming alongside an ethnography that seeks to describe both online and offline lived reality of streamers. I will then report on the findings from those two studies, which both describe the practice of performed play, and individual conceptions of what it means to engage with that practice. I will finally conclude by synthesizing those studies together into a cohesive model, and drawing conclusions about how my work fits into the larger conversation of performativity, game culture studies, situated learning in affinity spaces, and digital games as a field of cultural production.

Chapter 2: Review of the Literature

2.1 Predecessors of Performed Play

2.1.1 What do We know About Performing play?

Alongside the rise of Twitch and the soaring popularity of celebrity gamers who both stream and pre-record their gameplay (Zoia, 2014), performed gameplay has become increasingly validated by the games industry itself. For example, both Microsoft's XBox One and Sony's PlayStation 4 have taken steps to integrate streaming capabilities directly into the software of their gaming platforms (Walker, 2014). Advances in high-speed Internet access and the low barrier of entry to services like Twitch have democratized streaming, and made it a commonplace activity (Smith, Obrist & Wright, 2013; Walker, 2014). The increasing ease of access to streaming, and general interest in streamed gameplay has made Twitch into one of the most trafficked sites on the Internet, routinely hosting millions of unique views per month (Quantcast, 2016).

Performed gameplay tends to take on three major genres: e-sports (e.g., competitive gaming broadcasted much like professional sports), speedrunning (i.e., playing through a game with a goal of beating a record time), and non-competitive walkthrough content. Previous work, which has focused largely on spectatorship as opposed to performance, has found that spectators for these products exist among a

number of types, depending on their familiarity with the game being played and their attitudes towards it. Spectators are likely to engage with multiple roles at the same time, and perhaps even change their role within the span of a single stream (Cheung & Huang, 2011; Hamilton, Garretson & Kerne, 2014). Intense communal bonds often exist among audience members, and audience members will often work together to make the experience as enjoyable as possible (Cheung & Huang, 2011; Postigo, 2014; Walker, 2014).

Hamilton, Garretson, and Kerne (2014) find similar motivations for spectatorship in their ethnographic investigation of Twitch streams. They frame their findings within Gary Oldenburg's sociological construct of "third places." Third places are largely defined by their separateness from either the home (first place) or the workplace (second place), and are marked by the presence of regulars, who give continuity to the social experience of the space, and welcome and integrate newcomers into the social fabric (Oldenburg, 2002). Hamilton et al. (2014) find that popular streams have desirable atmospheres, which are cultivated by the broadcasters. The stream functions as a social space not only for the audience, but also for the broadcasters themselves, who largely view their audience as a sort of ready built community for engaging with their interest in digital games. Their findings are in line with similar research on the third place phenomenon in earlier MMORPG game experiences (e.g., Steinkuehler & Williams, 2006).

Hamilton et al. (2014) find that spectators come to develop identities as regulars in streams, even though they aren't playing the game directly. The third place nature of the stream is reified by the structure of Twitch streams, which allows

broadcasters to promote certain audience members to the position of moderator, allowing them to enforce and set community norms specific to that channel. However, Hamilton et al. (2014) also find that there is a certain sweet spot for community involvement in streams. At around 1,000 chat participants and observers, most spectators agreed that the atmosphere was less like a friendly meeting in a bar (as an example of a traditional third place) and more like the hectic roar of the crowd at a physical sporting arena.

Kaytoue et al.'s (2012) quantitative analysis of Twitch streams provides additional data about audience preferences for streams. Their analysis finds that e-sports tournaments tended to take the most popular spots. Single player games were far less popular, but these streams often found higher levels of popularity when they focused on newly released games. Viewership on Twitch tends to focus on a small number of very popular streamers, with the rest of the streamers taking small slices of the remaining audience.

Research on streaming spectators finds that, for a number of reasons, the expression of game culture through Twitch.tv provides a compelling way to appreciate high level competitive play, learn about new games and products for purchase, and enter into social spaces centered on gaming (Kaytoue et al, 2012; Walker, 2014). For streamers who manage to tap into a faithful audience, there are serious economic stakes. Successful broadcasters are able to quit their jobs and make a living from performance play. However, most players fall into an amateur or semi-professional role (Hamilton et al., 2014). Regardless of the specific economic compensation for the broadcaster, nearly all performance play is effectively 'doing

work.' These broadcasts are hosted on either streaming or asynchronous video platforms that draw revenue from embedded advertising or by charging audience members to become subscribers to the channel. The commodification of play on these broadcast sites often creates an uncomfortable tension between leisure and labor. The tension between work and games makes performance play a fruitful area for larger economic issues regarding production and play in the larger context of the professionalization of digital games (Postigo, 2014; Walker, 2014).

The professionalization of leisure, as we can think of performance play, has its roots in the genre of play called *e-sports*. E-sports were one of the first genres of digital gameplay to be broadcast to a wider audience. In researching the practice of e-sports, Taylor (2012) finds that, for many players, the path to professional is "quite bumpy and often unsuccessful," with their progress often being "heavily dependent on being actively socialized in a professional identity by a range of actors and forces" (p. 86). What she means by that statement, is that being an eSports competitor builds upon pre-existing identities as a player of games, and requires competitors to be socialized, additionally, in the way of playing necessitated by spectated competition.

The skills that professional players must learn to succeed in e-sports are not only those one would expect—twitch reflexes and in-game knowledge—but include a myriad of other skills related to existing as a professional player. For example, e-sport competitors must have the technological skills to set up gaming computer systems and to make use of professional-level tools that enhance play. They must think strategically and be aware of the so-called meta-game aspect of competitive play, where they incorporate the latest changes to the rules of the game into their play.

They must have social skills, since competitive players often come out of clans (i.e., semi-formal clubs that provide practice and social support) that are often rife with drama and politics. They must also be career savvy in order to build a personal brand that will insure that they are invited to gaming competitions and garner valuable sponsorships from companies that produce products related to gaming. The time and effort that it takes to develop the above skills places the practices of e-sports as something that exists in a liminal space between work and leisure (Taylor, 2012).

Taylor (2012) positions e-sports as a "lifestyle" sport, similar to skateboarding or surfing. Lifestyle sports are activities that exist in a fringe relationship with regards to mainstream society, and often prompt their practitioners to fiercely adopt a label as a part of their identity. For e-sports the label is that of 'gamer'. Taylor finds that the gamer identity is intrinsically part of e-sports culture, with many attendant problematic aspects, such as stereotypical geek masculinity, and issues with homophobia and misogyny. Although a small minority of women find success in e-sports, they often must devote much more effort to the negotiation of themselves as women in a male-dominated space, with many of them either being chased out of the practice or taking steps to hide their gender altogether (Taylor, 2012; Walker, 2014).

E-sports have brought professionalism into the realm of digital games, where the activity was (formerly) largely informal and amateur. The change of gaming from largely amateur to highly professional is similar to changes in physical sport with the introduction of radio and television broadcast technologies (Hutchins, 2008). Hutchins' (2008) finds that the integration of technology, gameplay, sport and participatory media make e-sports a phenomenon that is uniquely of our present

29

moment. Specifically, he argues that when examining e-sports, it is nearly impossible to separate the categories of technology, sport, and media. Because of the tight integration of these categories, Hutchins argues that there is a need to "develop a sociology of media that is sharply attuned to computer games and gaming and their intricate and manifold social, economic and cultural effects" (p. 865). Therefore, Hutchins (2008) is arguing for an analysis of performative gaming beyond the textual and the technical, but instead a view that encompasses the cultural and economic dimensions of the practice as well.

Walker (2014) makes a similar call. In his examination of the literature on streaming gameplay, he finds that a large portion of the research is dedicated to making the broadcast platforms of performed play more effective at engaging audiences and generating revenue (e.g. Smith et al, 2013; Kaytoue, 2012; Cheun & Huang, 2011). Very little critical work has been conducted to understand the lived reality of what is rapidly emerging as a vital aspect of global game culture, and indeed global culture in general (Walker, 2014). Similarly, nearly all of the work cited above focuses largely on the spectatorship of performed play, and very little focuses on the production (with Hamilton et al., and Gray being notable exceptions). The studies presented in this dissertation are an effort to answer the above calls to action, and to provide greater clarity about what it means to produce performed gameplay for an audience. As Walker (2014) puts it, "new technologies have allowed for even [single-player game experiences] to take on a new sort of social character … streaming raises new questions about the relationship between play, labor, subjectivity and agency under late capitalism" (p. 1).

In the following sections, I will first outline current tensions and open

questions in game culture studies that I believe the study of performing play can help

answer. I will then present work on social learning in games, which is a key facet of

how game culture is instilled into individual players, but which may not be equally

available to people of all backgrounds due to the often exclusionary nature of game

culture. Finally, I will present the theoretical framework of Field Analysis, which is

crucially concerned with imbalances of power, and questions of equity in access in

fields of cultural production. I will conclude by delineating the research questions that

rise from that theoretical framework with regards to both game culture, and social

learning in games.

2.2 Game Culture: Gameplay as the Everyday

2.2.1 Game Cultures: The Practice of Playing

Within the study of games, there are a number of different approaches that one

can take, often influenced by the goals and aims of one's research (Sutton-Smith,

1996; Konzack, 2007). Taking a sociocultural approach to understanding gameplay

has grown in prominence over the past decade (Calleja, 2011). Scholars who employ

a sociocultural approach seek to move beyond strict interpretations of games as sealed

systems to also consider the lives and culture of players (Dovey & Kennedy, 2006;

Kerr, 2006). Following from the increasing prevalence of the socio-cultural approach,

there is a growing effort to apply ethnographic methods in order to better understand

how games interact with the day-to-day lives of their players. The goal of these

studies is to describe gaming as a socially layered practice that is enacted across a

number of contexts and platforms: both physical and digital (Taylor, 2009;

Thornham, 2011).

To conceptualize the game culture approach to understanding games, Dovey

and Kennedy (2006) make use of the metaphor of an arcade filled with coin operated

games: the arcade is a place that is set aside for play (and therefore within its own

Magic Circle), but there are still outside issues that must be factored in order to fully

understand play that takes place within that space. The games themselves are objects

with gameplay mechanics (like the rules and strategies of a fighting game) as well as

textual storylines (like the rationale for the player beating up a dozen strangers). The

games in the arcade have an economic dimension, as they are programmed and

designed to maximize the number of new credits players will spend money to acquire

in order to beat the game. The arcade, and the games within it have certain

advertising strategies meant to attract new players. Players also form communities –

for example, all of the players of a popular fighting game may recognize and socialize

with one another. Using the arcade metaphor, we could examine various levels of

detail within the space of the arcade: we could examine *Pacman* as a technological

system, looking at its rules, and programming as a study in game design. We could

study *Asteroids* as a text, looking towards its influences from 1970s speculative pulp

fiction, and the shadow of the cold war. We could move a bit further out, and study

the arcade as a group of players, for instance, examining the way that a group of

regular *Street Fighter Alpha* players interact with one another. We could then break

the circle itself, and examine the ways that the global flows of capital influence the

production and sale of coin operated games in general. The game culture perspective

seeks to use ethnographic methods to blend these various layers of meaning in order to understand gameplay as a practice that takes place not simply within a single layer, but across all of them simultaneously (Dovey & Kennedy, 2006). The goal, then, of game culture studies is to consider the way that games are produced and experienced across the varying social situations in which they are enacted: from the moment of play between the machine and the player, to the overarching patterns of capital and culture which guide the game industry (Crawford, 2012; Calleja, 2011).

Therefore, digital games must be considered as not only cultural artifacts, but also as experiences that are actively played – that is, engaged with by the consumer, who puts in their own work to make meaning out of them (Kirkpatrick, 2013; Calleja, 2011; Dovey & Kennedy, 2006). Since games are experienced actively by the player, enjoyment and appreciation of games is necessarily tied to a certain, unspoken set of practices that is necessary to consume them, in a way that is unique to the form and makes gameplay distinct from other media experiences (Calleja, 2011).

Kirkpatrick's (2013) reading of gamer culture places skill at the center of gameplay as a practice. "Gameplay" (a concept developed in early digital games media to describe the combination of the game's mechanics, and the experience of play) is the measure of worth not only of games, but of gamers themselves. Being able to play well involves not only the strategic thinking and twitch reflex skills that we would expect, but also the ability to speak the common language of digital games and be a seamless part of the culture. Kirkpatrick says of the combined skill / culture blend,

"Playing a game is an active performance that is only possible for someone who has habituated themselves to gameplay as a subjective possibility. For this, they must have stretched their sensory configurations in specific directions and twisted their bodily dispositions so that a joystick, for example, has become a familiar object, and no explanation is needed regarding the role of the fingers affecting what happens on screen," (p. 162).

Put in these terms, gaming is a **cultural practice**, which is learned and developed socially by the player, through the larger social contexts which the player inhabits. Mia Consalvo (2009), in her study of cheating in games, comes to theorize the specific quality of gaming practice as **Gaming Capital**. The acquisition of gaming capital occurs through the combined social spaces that surround and support games: for example magazines, fan publications, and community spaces devoted to gaming. Consalvo finds, through a textual analysis of walkthrough sites related to games, that gaming develops its own specific cultural practices, which must be internalized and understood in order to engage fully with the analysis of gameplay.

Crawford (2012) agrees generally with Consalvo's conception of gameplay as practice, however disagrees with the idea of gaming capital to specifically describe the relations of power within the practice of gaming. Instead, he takes the theoretical approach of Bourdieu's field analysis, meaning the relations among actors within a system which are mediated by exchanges of capital (e.g. gaming capital). Bourdieu has been applied to a number of game culture studies (e.g. Dovey and Kennedy, 2006; Kirkpatrick, 2013; Nichols, 2013), and his ideas with relation to game culture

will be explored in more detail later in this chapter. Central to Field Analyses of game

culture, is the idea that certain types of gamers have more access to the benefits of the

culture than others, largely depending on the backgrounded demographics of the

participant. Because of that attenuation towards power imbalances I will be applying

Field Analysis as my own primary theoretical framework to understand performed

play. I will detail my approach to Field Analysis more fully in Section 4 of this

chapter, but for the moment it is worth noting that my adoption of Field Analysis

comes largely from its power in understanding both apparent, as well as unspoken

relations of power within a cultural domain (Ritzer, 2002; Swartz, 1997)

2.2.2 Constructing Gamer Identity

In the previous section I have posited game culture as the wider series of

practices that are associated with gameplay. A concomitant theoretical concept that

goes along with the idea of gaming having its own unique culture is that of gamers

having a specific identity. There are many difficulties in asserting a singular gamer

identity, although the concept has much traction in conceptions of gameplay as a

practice (Shaw, 2012). For example, and centrally to my topic at hand, gaming can be

a practice that is engaged in in many different ways, with many different audiences.

The very broad nature of gameplay (everything from a five minute burst on *Candy

Crush* to a three hour session with *World of Warcraft*) makes it difficult to pin down

exactly what we talk about when we talk about gaming. In the game culture approach,

gaming can instead be understood as a series of strongly interrelated practices, where

even a single practitioner might adopt several different identities depending on the

context. For example, a single person might be playing a game of *Call of Duty* with

friends in a living room, playing single player on a personal computer, and discussing

the game on the official forums for the producers of the game, and adopting differing

attitudes towards the game at each point (Calleja, 2011; Crawford, 2012; Ito 2010;

Postigo, 2014).

The gamer identity (or, at least, that identity as it is perceived by the game

industry – I will be using the term **perceived gamer identity** to differentiate between

these conceptions) is an important force that shapes the official output of the industry,

as it seeks to market to that identity in order to maximize sales (Anthropy, 2012;

Kirkpatrick, 2013). The "gamer" category (real, imagined, or both) leads to certain

types of games, and certain trends within game design, being reproduced through

both marketing and play, with the attached stigmas as games being adolescent,

violent, misogynistic, homophobic and racist (Anthropy, 2012; Consalvo, 2012;

Jenkins & Cassell, 2008).

Dovey and Kennedy (2006) develop the specifics of gamer identity as **Edge**,

meaning the cultural capital that combines the specific tastes of the gamer archetype –

an affinity for fantasy, technology, and a cutting sort of intellect. In many ways Edge

can be seen as similar to Consalvo's (2009) theory of gaming capital. Dovey and

Kennedy identify the ways that adopting the Edge of the gamer identity leads an

individual towards greater access of the benefits of gamer society. Outing one's self

as not having that Edge, or being tasteless and declassee, opens one's self up to

ridicule. An example of Edge from the early days of gaming come from Gary Gygax,

the father of modern Role Playing Games by way of *Dungeons and Dragons*. He is

famously quoted as saying, "males dominate RPG design because 90% or more of the

players are males. Males dominate all games, for that matter, as they are more

oriented towards game play. Do I think that male-designed games prevent more

females from playing games? No way! If there was a significant portion of the

market, female game designers would have tapped it long ago," (Gygax Online,

undated, as cited in Dovey & Kennedy, 2006). Here, it is apparent that the way a

heavily constructed white, male gamer identity serves as a self-justifying basis for

further discrimination and lock-out of women in that specific example, and all

marginalized groups more generally. All groups are equally able of being players,

however as Dovey and Kennedy put it, "… the power of hegemonic dominance is

such that, first, technicities [referring to Edge, as defined above] that do not fit the

dominant model are made invisible by those that do, and second, that those of us who

do not belong to the dominant group also internalize their power and make ourselves

invisible," (p. 80).

However, Adrienne Shaw (2012, 2014) pushes back at the hegemonic and

shaping effect of gamer identity. Her argument rests in the idea that the issue at hand

is not so much exclusion of groups from a male centered hegemonic gamer identity,

but rather a reluctance of individuals to subscribe to the gamer label because of the

marginality of games as a cultural form. In talking to players about their identification

with the practice of gameplay, Shaw's conclusion is that "rather than focus on gamers

or marginalized groups, researchers must address how video games enter into

people's everyday lives. Normalizing video games for all audiences, finding ways to

emphasize their 'everydayness' in contemporary media culture, is a more productive

approach to demands for representation" (2012, p. 44).

Drawing on Shaw's work, De Grove, Courtois and Van Looy (2015) found

that a strong gamer identity among real-life friends did in fact lead to stronger gamer

identities in individuals, and that certain aspects stereotypically associated with the

gamer identity (maleness, playing 'core' games instead of casual or mobile games,

youth, time spent playing) strengthened the network gamer identity. Talking about

games within networks correlated to higher network gamer identification. However

playing games had no such correlation. In other words, a network might play together

frequently, but without the running conversation about the act of playing there wasn't

a strong identification as a gamer. Importantly De Grove et al (2015) illustrate the

idea that the gamer identity is highly constructed, and largely dependent upon social

support to maintain.

An important aspect of the relationship between gamer identity and the

products of the game industry, especially in light of the persistent harassment of vocal

minority voices in digital gameplay, is the role that online social spaces play in

driving game culture. As noted by Gee (2004), digital gameplay lends itself to loosely

formed pseudonymous spaces where gamers socialize and share information to

facilitate the act of play. However, the group dynamics within these spaces often

award shocking, witty, and mean-spirited expressions – a sort of lowest common

denominator trending towards stereotypical adolescent boy humor (Auerbach, 2012).

At best these spaces adopt an assumed white male normative quality, and at worst

chase out those who they deem to be outsiders to the specific niche interest that the

space is dedicated to, or those who do not fit with the overriding a-culture of the

space (Auerbach, 2012; Consalvo, 2012; Gray, 2012; Sarkeesian & Cross, 2015; Nakamura, 2012).

In summary, gamer identity is one constructed by marketing categories that exist within game culture, and are a legacy of the practice's white, male, nerd roots. Gamer culture, although it can be refigured by individuals, often is toxic to outsiders, specifically to women. Because of persistent discrimination in the informal online spaces that support gaming, marginalized groups are often excluded from the higher levels of cultural production of digital games. Therefore a loop exists: marginalized groups never get into the pipeline of amateur production that leads to positions of power within the field of game production, leading to the same perspectives being presented in game marketing, leading to a fixation of the gamer identity, and so on (Fullerton, 2008). However, the above characterization may paint an unnecessarily bleak and static picture of game culture. Game culture has in the past, and can in future, change (Dovey & Kennedy, 2006), and with my work I seek to examine the ways that change within game culture is happening within the practice of performed play.

2.2.3 Reintegrating Performance

The review above presents a theoretically rich set of questions for researchers to consider:

- **To what extent does the perceived gamer identity exist?** While there is certainly an identifiable 'gamer' persona (Dovey & Kennedy, 2006; Kerr, 2004; Kirkpatrick, 2013) which is marked by a preference towards Edge, adolescent humor, and an antipathy towards outsiders, there are standing

39

questions as to whether the gamer identity is largely an imagined construct, and whether it is truly a worthwhile aspect of gaming to consider (Shaw, 2014).

- **To what extent does the perceived gamer identity exist within a feedback loop to the games industry itself?** The game industry is largely made up of former hobbyist gamers who have developed the skills and passion necessary to enter into the demanding work of making games (Nichols, 2015). The economic structure of games as a hobby being a pipeline to participation in the official production of those games is problematic, because the exclusionary nature of game culture means that women are generally shoved out of the pipeline before they get into the careers and positions where they might be able to create official industry products that resist typical adolescent, male conceptions of fun and gameplay (Anthropy, 2012; Sarkeesian & Cross, 2015). Previous work has suggested that given support and positive models of game culture, women are able to overcome negative aspects of the perceived gamer identity, and also enter into not only the games industry, but STEM fields as a whole (Fullerton, 2008; Pelletier, 2008).

- **In what ways might the gamer identity be changed and modified, given its long-standing reputation for toxicity and exclusivity?** Given the above, one sensible approach is to think about ways that we (as researchers and designers) might better understand the processes by which game culture is reproduced, and design interventions which might allow it to be remixed, or changed (Harvey, 2015; Yee, 2014).

With these questions in mind, I return to the concept of performativity.

Although thinking about larger trends of women and people of color in relation to

the perceived gamer identity is useful, it is also important to consider the ways that

individuals adopt, resist, and modify that identity in their individual performances of

gameplay (Shaw, 2014). Previous work has sought to understand gameplay and

gamer idendity in the context of existing social power relations (Thornham, 2011),

and the ways that game consoles serve as domestic household technology (Harvey,

2015). Understanding how individuals interact with the perceived gamer identity is

important when we turn from studying games as pure entertainment, and seek to "do

things" with games (Bogost, 2011). Understanding the way that individuals interact

with gamer identity is especially important when we seek to use games and game-

related spaces as educational interventions (Pelletier, 2008). Game-based learning is

a promising avenue for bringing individuals from underrepresented backgrounds into

the digital economy (Gee, 2003). However little work has been done to understand

the ways that backstage elements of the self (such as ethnicity, gender, and

sexuality) interface with the learning that takes place in game-based environments,

specifically the "affinity spaces" that drive much informal learning and sociality in

game culture (Duncan & Hayes, 2010; Lammers, Curwood & Magnifico, 2012;

Pellicone & Ahn, 2015).

2.3 Situated Learning in Games and Game-related Affinity Spaces

41

In the optimistic atmosphere regarding games for learning throughout the early to mid-2000s, two major approaches developed with regards to games-based learning. The first involved learning from principles contained in commercially successful games in order to develop educational games for specific use in the classroom. The second approach involved advancing understanding of the learning properties of games *in situ* as they were played for entertainment (Connolly et al., 2011; Kerr, 2006; Klopfer, Osterweil & Salen, 2009). As the newness of games as learning systems has worn off, some of the enthusiasm for games in the classroom has as well. Researchers are increasingly studying the ways that game-based learning doesn't so much have a palliative effect to 'traditional school', but rather offers a unique approach that works in some cases and doesn't in others (Connolly et al., 2011). Critical perspectives of games-based learning have called for a move "from rhetoric to reality" (Buckingham, 2007, p. 49) to understand how learning in gameplay happens in day-to-day life.

In terms of learning theory, much game-based learning research tends to fall into the socially situated perspective (Greeno, Collins & Resnick, 1996; Hung, 2001; Kirriemieur & McFarlane, 2004; Fosnot & Perry, 2005). Situated learning takes on many assumptions of constructivism in terms of the way that knowledge is built within the mind of the learner (Hung, 2001), while also taking steps to consider how learning occurs within the social and political context of its environment (Brown, Collins & Duguid, 1989). Lave and Wenger's text *Situated Learning: Legitimate Peripheral Participation* is considered foundational for the Community of Practice approach. Lave and Wenger (1991) find that traditional education, especially the

American instantiation of that, tend to ignore place, history and practice. Instead, knowledge is abstracted away, and presented in a sanitized fashion devoid of context. In contrast, Lave and Wenger find that, in reality, learners build knowledge within specific contexts, and grow to understand not only facts and strategies, but also the social values of that context (Lave & Wenger, 1991).

2.3.1 Situated Learning in Games

Gee's (2004) text *Situated Learning and Language: A Critique of Traditional Schooling* positions the learning offered by games as being, intrinsically, situated learning. For Gee, the start of the new millennium represents an epochal change in how life is organized. He writes that the predominate challenge of educational research is to "ensure that all children - rich and poor - are able to learn, think, and act in new ways fit for our new high-tech global world" (p. 2). Central to all of Gee's work that factors into my analysis (Gee, 2004; Gee, 2007; Gee, 2010; Gee, 2012) is the unique learning offered *by games* and the oppositional relationship that game-based learning has compared to *traditional schooling*.

In his body of work, Gee is primarily concerned with Discourses (the capitalization is intentional, and distinguishes them from discourse, which is day-to-day conversation), which are systems of understanding that allow a person to operate within a specific field. Whether academic language or digital-game literacy, Discourses are invented tools that allow us to accomplish certain tasks (Gee, 2004 & 2007). Traditional school tends to only honor the Discourse that is instilled into children of a certain culture (generally, middle class and white), while denigrating and ignoring the cultural Discourse practices of other cultures. Since Gee argues that

traditional approaches to teaching are lacking because of the inherent culture

problem, his solution is that learners acquire specialist language through active

participation in the worlds that contain the Discourses that are being taught. For

example, participating in actual scientific work in order to learn science as a

discipline is a process of learning a specific Discourse (Gee, 2004). Gee ties the

power of active, situated learning to the type of learning found in games. Participation

in a Discourse such as a digital game gives one an identity as a gamer, and the ability

to extend game skills to other game environments. For example, playing one puzzle

game keys you into certain ways of thinking that make playing future puzzle games

easier (Gee, 2007). With the above situated version of learning offered by digital

games in mind, Gee defines what he means when he talks about 'good' video games

that inspire good learning,

> "Good video games are complex, challenging, and long; they can take 50 or
>
> more hours to finish. If a game cannot be learned well, then it will fail to sell
>
> well, and the company that makes it is in danger of going broke. Shortening
>
> and dumbing games down is not an option, since most avid players don't want
>
> short or easy games. Thus, if only to sell well, good games have to incorporate
>
> good learning principles in virtue of which they get themselves well learned.
>
> Game designers build on each other's successes and, in a sort of Darwinian
>
> process, good games come to reflect yet better and better learning principles,"
>
> (2004, p. 57).

By Gee's own terms, there are good games and bad games. Good games take a specific form, which closely resembles the sort of hardcore gaming discussed in Juul (2010), Kirkpatrick (2013), Kerr (2006) and Dovey & Kennedy (2006) - that is, complicated, heavily skill-based, and of substantial length. Furthermore, games that are "shorten[ed] and dumb[ed] down," (Gee, 2004, p. 57) are not good games. The logic for the dichotomy of good and bad games is that game developers arrive at formulas for successful games through a process that is presented as naturalistic, and furthermore, heavily embedded in market logic. Games are designed the way that they are because of the knowledge of the market, which rewards good (and therefore educational) game design, refining and honing the twinned educational-gameplay values of 'good' gameplay. Gee's conception of what makes for a good learning game heavily mirrors a number of conceptions of performed gamer identity that I have outlined so far. Work within the domain of game culture has found that hardcore gamer tastes derived from gaming related media (Kirpatrick, 2013), gaming capital (Consalvo, 2009), and Edge (Dovey & Kennedy, 2006) are often used as rationales for excluding women from gameplay, and likewise used to critique genres of games typically enjoyed by female players (Juul, 2010) as not being "good" games (Sarkeesian & Cross, 2015).

Although Gee's work on games-based learning has been instrumental to the field as a whole (Kerr, 2006; Klopfer, Osterweil & Salen, 2009; Hung, 2011), it is worth noting that Gee's theoretical framework toward games-based learning is not without criticisms. Buckingham (2007) contextualizes Gee's work as coming about amid a great deal of millennial anxiety over games as corrupting, addictive, and

violent. Buckingham says that the negative atmosphere around games at the time where Gee was writing leads to "… having to prove that games and their users are not as stupid as they are frequently made out to be. This often results in a merely celebratory stance that ignores significant aspects of the phenomenon it is so keen to justify," (Buckingham, 2007, p. 106). Because of Gee's need to defend games from detractors, Buckingham argues, he does a great deal of rhapsodizing about 'good' games where definitions of good are nebulous, and often "strangely timeless," and "universal," (ibid, p. 107). The celebratory attitude that Gee attaches to games also extends to the online spaces used to support social gameplay.

Buckingham (2007) argues that Gee's idealized conception of gaming social spaces as "non-hierarchical, lacking in discrimination, and accepting all form of knowledge as valid," (ibid, p 107) is often far from the truth in practice. Gee's conceptions of 'good' (in terms of both spaces and games) is tied to commercial success, contrary to later work that finds these so-called hardcore games are actually enjoyed by an influential and vocal minority of players (Juul, 2010). Specific content of games is also downplayed by Gee. Gee adopts what might be considered a ludologist perspective (Newman, 2015), where the mechanical aspects of the game are privileged above concepts like graphics, presentation, and story. However, Buckingham (2007) says that the ludologist stance that Gee takes results in ignoring that "participation in [these] games … is effectively premised on an interest in scenarios that are well-established aspects of male adolescent fantasy" (p. 109), mirroring the findings in many of the authors from my section on game culture.

Buckingham (2007) highlights Gee's conception of game design as a Darwinian process, ignoring the multitude of complexities that lead to finished game products through the process of design, ignoring the economic and cultural realities of the field of game production. Social spaces related to gaming receive similar vague treatment, with such spaces being gated by a variety of socio-economic factors, leading to "not provid[ing] a level playing field: on the contrary, they are spaces in which relations of power and inequality are inevitably rehearsed and reproduced," (ibid, p 110).

2.3.2 Affinity Spaces as the Site of Game-based Situated Learning

As described in the section above, Gee's situated framework for games-based learning focuses not only the game itself (that is, the interaction that happens within the software and experienced through play) but also in the social environments that crop up around the game to support gameplay. Gee (2003) uses the term **affinity spaces** to describe these environments as a contrast to what he sees as the overbroad use of **communities of practice**. Communities, as they are used in *Peripheral Legitimate Participation* (Lave & Wenger, 1991), carry intrinsic ideas of belongingness and membership. Instead of community, which requires a firm delineation between who is and who is not involved, Gee introduces the concept of space.

Affinity spaces are the informal social structures that tend to support fan related activity, or a common endeavor that people share a passion for (Gee, 2004 & 2007). In Gee's earlier work on the concept, a number of common attributes are posited:

- A common endeavor defines affinity space participation instead of outside aspects of personal identity or community affiliation. Personal aspects of the participant (e.g. race, class, and gender) are foregrounded and backgrounded strategically as necessary.

- New participants and veteran participants share the space, and the space is not segregated by experience.

- Affinity spaces are able to create new content for their area of focus (e.g. a Minecraft forum that generates modifications for the gameplay).

- Both deep and surface level knowledge is honored, and knowledge is located in both individuals and in distributed community resources such as guides and walkthroughs.

- Affinity spaces encourage users to branch out to related spaces and don't prioritize the knowledge contained within its strict boundaries.

- There are many different ways that users can participate, both peripherally and centrally with those different avenues of participation all awarding their own sort of status among other users; leadership is porous and fluid, with very few official 'bosses', and instead different users who take over leadership roles as the situation calls for it (Gee, 2004 & 2007).

In later work Gee, and Elizabeth Hayes, refine the concept of the affinity space, and provide greater nuance to the idealized concept presented above. Primarily, Gee & Hayes (2012) draw a distinction in the ways affinity spaces incorporate and welcome new members. In later work, they find that spaces tend to be

either nurturing or elitist. Nurturing spaces are those which act in a way that is "accommodating [to] new members and encouraging [to] committed members," (Gee & Hayes, 2012, p 135). Nurturing spaces don't draw distinctions around either the participant's age, or level of expertise, with participants of all backgrounds and knowledge levels sharing the same space equitably, and without requiring members to demonstrate their skill before being accepted. Instead, there is a constant atmosphere of support in producing the artifacts which drive the space (e.g. fan-fiction, or game modifications). The atmospheres of nurturing spaces lead to the creation of knowledge which exists "in the space itself or the community that exists in the space," as compared to "in individuals' heads," (ibid, p 139). To account for the difference, Gee and Hayes (2012) write, "How people behave in these communities is not, in fact, a fixed property of them as individuals. It is certainly not due just to the presence of women or men," (p. 150) instead by tracking participation of the same individuals across both nurturing and elitist spaces, they find that the same participants tend to act according to the norms of the site that they are using at the moment. Instead of earlier conceptions of community and culture being divorced from affinity space participation, "How these communities behave is ultimately a matter of the culture a group grows and attempts to sustain," (Gee & Hayes, 2012, p. 150).

Work over the past decade within the framework of affinity spaces has shown that the concept of backgrounding and foregrounding is not so neat as Gee (2004) initially proposes nor as he later reconsiders the topic (Gee & Hayes, 2010; 2012). For example, Lammers (2012) recognizes the increasingly social nature of affinity

spaces, Duncan (2012a; 2012b) explores the intersection of corporate and fan interests, and Lammers, Curwood and Magnifico (2012) explore the methodological concerns of researching spaces. My own research has found that even spaces which can be thought of as nurturing and supportive will often have conflicts due to the identities that participants are bringing with them into their online interaction (Pellicone & Ahn, 2014), and furthermore that the act of backgrounding and foregrounding is more difficult for participants who don't already fall into the dominate identity of the typical gamer (Pellicone & Ahn, 2015).

Gee (2012) attributes the difference in the tenor and tone of various spaces to a matter of culture. However little empirical work has been done to understand the way that culture influences the formation of spaces (Lammers, Curwood & Magnifico, 2012). Gee and Hayes (2012) phrase the need for expansion of the affinity space concept as, "How these affinity spaces are developed and sustained remains an important question not only for game studies but also for the learning sciences as a whole," (p. 151). As mentioned in the previous section, the pipeline from amateur enthusiast to legitimate producer of game culture often runs through these spaces, which are highly contested and fraught with bias and discrimination. Affinity spaces enable the learning of skills which may be expanded out to material capital in the larger world (Durga, 2012; King, 2012; Pellicone & Ahn, 2015), and in turn have a constitutive effect on informing the larger game culture through the products that are produced in the higher levels of the field (Kirkpatrick, 2013). In understanding the affinity spaces that support the performance of play, I will also be understanding how

the specific tastes and values for the practice are formed, and gain insight into larger

ideas of the way that gamer identity is both structured, performed, and reconstituted.

2.3.3 Learning and Performing Game Culture

Being a gamer, and performing that identity, is a form of Discourse (Gee,

2007; Duncan & Hayes, 2010). Mastering the Discourse of 'gamer' gives one access

to powerful learning experiences that involve design, technology, and analytical

thinking. However, due to the nature of game culture (Kirkpatrick, 2013), people who

do not fall within the perceived gamer identity are excluded (either through active

harassment, or through passive intimidation) from participation in these spaces

(Pellicone & Ahn, 2015).

Prior work in the area of situated learning in affinity spaces has found that not

only practical skills are passed on in game-centered relationships, but also the tastes,

values, and knowledge necessary to perform the identity of a player. Steinkuehler

(2012) found in her study of apprenticeship in MMORPGs that players often received

instruction not only on ways to effectively play their character, but also in aspects

such as polite behavior, and in ways of interacting with other players that fit with the

larger cultural values of the game. Steinkuehler and Oh (2012) conceptualize the

values passed on through game-based apprenticeship as, "The master inculcates the

learner not only with a set of practices but also with a particular set of values or

dispositions that hang together as an underlying 'cultural model' of the Discourse,

one that allows speakers and hearers to display and recognize one another as

members – as 'people like us'," (p. 178). However, recent work has moved beyond

the idea of play occurring largely within the confines for the game (as was the focus

in Steinkuehler's study), and instead examines the way that play is connected across a number of satellite locations that support the game (Curwood et al., 2012; Kafai & Fields, 2013).

Ito and Bittanti (2012) draw on Consalvo's (2009) notion of gaming capital, and the production and engagement with texts and spaces exterior to the game itself, writing, "video games can become tools of production for students eager to combine the literary … and the visual. Rather than being alternative to traditional learning practices, digital games can become complementary and enriching educational experience: the pedagogic values of such practices lie not only in the information apprehended but also … in the technical, social, and personal domains they entail," (Ito and Bittanti, 2012, p. 227). Their work with teenaged gamers found that participation in cultural production related to games (e.g. making short movies using game software as a medium) was a sort of situated learning that lead to later interest in formal education in the visual arts.

However, they also find that "the practices associated with aesthetics and design tend to be gendered female, while those relying more heavily on technical expertise tend to be gendered male" (ibid, p. 228). Similar to Shaw's (2012; 2014) findings, gamer identity performance had very specific gendered interpretations. Although female participants may have been engaged in highly technical and deep practices related to gaming, female participants were reluctant to identify themselves as gamers. The gated nature of genres, performances of identity, and allowed social interactions leads to a difference in the quality of informal learning that their participants experienced in gaming affinity spaces (Ito & Bittanti, 2012).

More recent research into the performativity of games-based learning has investigated the ways in which the social learning of gameplay happens in a mixture of both online and offline contexts (Ames & Burrell, 2017; Kaffai & Fields, 2013; Dezuani, O'Mara & Beavis, 2015). Of special note is the research conducted by Dezuani, O'Mara & Beavis (2015), which was a case study of an all female group of young *Minecraft* players. Their theoretical focus was specifically on that group as an affinity group (enacted over a number of affinity spaces: online spaces, domestic spaces, and traditional classroom spaces), and the ways that knowledge was performed and enacted by players, drawing on Butler's (2006) theories on the performativity of gender. They found that the players in their study took on differing strategies of play, depending on their standings in the classroom, their prior knowledge and skill with the game, and their social position in their school. They write,

> "A key role for affinity groups, though, is that they provide the audience for self-representation, digital curatorship and displays of knowledge and expertise – an individual can only become recognizable and therefore socially viable when there is someone else to recognize them." (Dezuani, O'Mara & Beavis, 2015, p. 161).

Related work on connected learning by Ames and Burrell (2017) has also used *Minecraft* as a focal point of study, and similarly focused on a setting that blends both online and offline environments (a summer camp focused on computer science) in order to understand how backgrounded elements of identity influence students' engagement with computer science through *Minecraft* gameplay. The authors chose

53

Minecraft in large part due to its popular reputation as a far more equitable and welcoming game and player base than is typically expected of online gameplay. Their findings, however, showed repeated surfacing of backgrounded elements in their students who did not fit the dominant identity that established itself in the gameplay community that formed at the camp. Often players of color, female gamers, and those without details computer science and gaming knowledge were "rendered largely invisible" (np) due to a lack of choices in avatars that represented their physical bodies, ability to participate in server-wide chat, and to manipulate the game world through higher level authoring tools. Despite these challenges, the campers that Ames and Burrell studied loved the game, and received a great deal of educational value from their play. However, in the design and implementation of learning systems using gameplay, it is not enough to simply provide access and expect players of all backgrounds to be on equal footing. Ames and Burrel's findings present a perspective similar to my own previous work with social gameplay and learning (Pellicone & Ahn, 2015 & 2014), as well as previous work by Kishonna Gray (2012 & 2015). Social gameplay has great power as an environment for situated learning, but access to those opportunities is often gated by an individual's performed identity as both a gamer, and the backstage elements of their ethnicity, race, sexuality, and gender.

In the previous sections I have outlined the performative aspects of play, presented previous work in this space, and outlined a central problem related to the ways that performed gamer identity can gate access to learning and socialization in game-related spaces. The issues at play revolve around power relations in a specific

cultural field: digital games. Individuals enter into the field, and given their

competency and familiarity with that field, are afforded differing levels of access to

represent themselves, and perform a chosen identity in the social spaces of that field.

In order to understand and approach these relations of power, I now turn to my

primary theoretical framework for this dissertation: **Field Analysis**. As I will explain,

Field Analysis is centrally concerned with relations of power and access such as

these, and provide a powerful toolset by which to understand those relations as they

exist, and how they might be changed and modified in the future (Bourdieu &

Wacquant, 1992).

2.4 Field Analysis: A Theoretical Approach to The Production of Game Culture

Game development is a complex task that produces culture, and can therefore

be analyzed in terms of its qualities as a cultural field (Bourdieu & Johnson, 1993).

The game development industry involves a number of competencies and skillsets to

carry out: deep knowledge of technical systems and coding, art production within the

constraints of a game engine, understanding the language of game design, and being

able to successfully communicate these elements to consumers via the established

market logics of the game industry. Development teams divide these tasks (even in

small development houses), and require many hours of work from their employees to

hit deadlines with code that runs effectively, art that looks professional and cohesive,

and experiences that meet player expectations for the genre (Nichols, 2014).

The impact that the complexity of game development has on game culture is

that, "technology has, to date, tended towards the production of particular genres.

Because of the investment necessary to write [game software], it will have a

determining effect upon the choices available to a software studio," (Anthropy, 2012,

p. 59). A critical implication of the economic conditions of game development,

especially when combined with the risk adversity on the investor side of game

production, is that many of the same types of games are made over and over again in

order to hedge bets against bad investments (Anthropy, 2012; Consalvo, 2012).

O'Donnell's (2012) ethnographic study of the game development process

finds that game development, due to the unique nature of the industry, differs quite a

bit from what we would typically consider software development. Instead O'Donnell

places games within the cultural industry bracket, writing, "Games are certainly

infused with culture. National culture, nerd culture, geek culture, gamer culture,

anime culture and numerous others instill all aspects of game and game development

studio alike," (p. 29).

The labor of game development can be incredibly intense, with workers

routinely working as much as 80 hour weeks (Nichols, 2014). Although the high-level

designers of AAA games tend to be well compensated compared to the general

population, there is almost no unionization, and reports of burn-out and low levels of

job satisfaction in the industry are widespread. Due to the high skill requirements, and

demanding nature of the job, game development talent is often selected from the

groups of players who choose to modify and create independent games for free in

their own time (Kerr, 2011; Crawford, 2012). It is within the spaces of video game

fandom that these skills are developed, and that the social and instrumental support

for developing both programming and project management skills emerge (Duncan, 2012; Durga, 2012; Pellicone & Ahn, 2015).

However, these spaces are marked by a certain degree of toxicity for outsiders (Gray, 2012). Therefore, the dismal numbers of minority groups in digital game production remains a clear and persistent issue that is influenced by, and influences the lack of diverse representation found within the official structures of the industry (Nichols, 2014; Consalvo, 2012). The two issues described above (the risk adversity of the industry, and the demographically homogeneous makeup of its workforce) show the constitutive force that the culture of digital gameplay has on the economics of games as a commodity, and the feedback loop that exists where the economics of games as a commodity determines large portions of the culture of games. In the next sub-section I detail one of the prominent theoretical approaches to understanding the relationship between game culture and the economic realities of the industry: Bourdieu's concepts of habitus, field, and flows of capital. I begin by describing Bourdieu's theories in general, describe how they have been applied to the field of digital gaming, and conclude by applying those theoretical concerns to the issue of play and production in digital games.

2.4.1 Applying Bourdieu to Digital Games

Bourdieu's theories come from his lifelong concern about the invisible aspects of class, taste, and power as they exist in modern society (Bourdieu & Wacquant, 1992; Grenfell, 2008; Ritzer, 2012). Over a course of study that looked from topics ranging from the French middle class, to the profession of journalism, to sport and leisure, Bourdieu sought to draw out these hidden elements through an approach he

termed **field analysis**. Field analysis consists of three primary elements. The first is habitus, which is a theoretical construct that is used to represent the taken-for granted and unquestioned behaviors that guide social activity. The second is capital, meaning differing types of power that are exchanged and leveraged to take actions in a social situation – as a common example, having money (or economic capital within Bourdieu's framework) allows one to buy a certain house, send one's child to a certain school, and engage with leisure activities of a certain type. People with less or more economic capital will have access to different homes, schools, and activities. Finally, the field is comprised of the interrelations of capital between individuals, groups, and the actions that they are permitted or restricted from doing within a particular delimited portion of society (Bourdieu & Wacquant, 1992; Ritzer, 2002; Swartz, 1997). Kirkpatrick (2013), in his application of Bourdieu to digital games, writes,

> "Entrants to the field of [digital gaming] do not learn its rules primarily through a conscious process of cognitive acquisition: you cannot study to become a gamer. Those who play acquire a *historically specific habitus* [emphasis in original text], meaning that they are disposed within their own bodies in such a way that picking up a controller, and rattling keys and twisting a mouse in the specific manner associated with playing computer games, are practices that are natural and obvious to them," (p. 82).

Kirkpatrick's quote outlines the major strength of field analysis as a theoretical framework for the study of game culture. Using field analysis as a

theoretical framework allows researchers to capture unspoken rules which often only

evince themselves in specific moments of practice, but are otherwise taken for

granted by the practitioners, paying specific attention to political issues of power and

equity (Webb, Schirato & Danaher, 2002). Methodologically, work informed by field

analysis takes on a number of key characteristics:

- **A concern with social power and species of capital**: Bourdieu develops a

  number of different species of capital that account for material practices (e.g.

  laboring for a living wage) and symbolic practices (e.g. cultural practices).

  Instead of the intellectual and cultural worlds being "representatives of

  objectivity, disinterestedness, purity, and creativity," (Swartz, 1997, p. 67)

  Bourdieu instead places these practices in relation to material economic

  interests such as class and labor. To accomplish his goal of uniting many

  practices under the umbrella of capital, Bourdieu develops a number of

  species of capital: material, cultural, social and symbolic, which all work

  together to determine the power that an actor has within a field. Power within

  a field is inherently social, and is positional to other actors within that field,

  with certain actors exercising domination over others due to their access to

  capital. Bourdieu and Wacquant (1992) write, "The sociology of knowledge

  or of cultural forms is … a political sociology, that is, a sociology of symbolic

  power. Indeed, the whole of Bourdieu's work may be interpreted as a

  materialist anthropology of the specific contribution that various forms of

  symbolic violence make to the reproduction and transformation of structures

  of domination," (pp. 14-15). Symbolic violence is used by Bourdieu to mean

domination that is exercised on the non-dominant by symbolic means (e.g. cultural production) rather than physical and material means. For example, the way that women are characterized in popular digital games is a form of symbolic violence that serves to deny similar rights and access as men within the field, leading to a denial of material capital as well (Crawford, 2012).

- **A mix of the objective and subjective**: Bourdieu was critical of a number of dualisms present in contemporary academic thought, primary among them the antagonism between objective and subjective approaches to understanding. Both the micro-level data (individual and small group experiences recorded through interviews and participant observation) and macro-level data (deriving theories from uncritical recording of behavior and statistical analysis) play a role in triangulating knowledge, and that "each side of the opposition offers important insights into social life but remains skewed if considered separately," (Swartz, 1997). In practice, both individual participant observations, and macro-level statistical observations are necessary to obtain a full picture of a field (Grenfell, 2008).

- **A reflexive methodological approach**: Reflexivity has a number of practical implications on research. The first, is that the researcher must realize how their background, and how their personal dispositions towards the topic influence their conceptualization of the topic, the chosen research question, and the methodological approach. These dispositions arise from the researcher's class background, their place within their field of study, and the practical motivations (e.g. tenure, funding, or academic achievement) that

drive their work. Bourdieu and Wacquant (1992) write of Bourdieu's reflexivity that its, "primary target is not the individual analyst but the social and intellectual unconscious embedded in analytic tools and operations; second it must be a collective enterprise rather than the burden of the lone academic; and third, it seeks not to assault but to buttress the epistemological security of sociology," (p. 36). Therefore, Bourdieu's call for reflexivity is largely an effort to acknowledge the role that the so-called scholarly gaze has in producing knowledge through research. Although it is acknowledged as impossible to eliminate entirely, Bourdieu asks for researchers to present it as much as possible to audiences who are evaluating their findings.

Crawford and Rutter (2007) argue that Bourdieu's frameworks regarding cultural production are usefully applied to digital gameplay and culture because of Bourdieu's emphasis on embodiment. Although we often fail to think of it as such, playing a digital game is a physical activity which requires precise movement from its player. These movements are deeply embedded in the habitus of play, and built through a grammar that exists in dialog with games over time. Without even knowing it, a player with a certain amount of experience will understand that dying in a game isn't permanent, that 'lives' represent an ability to retry a level, and that by press a right-shaped arrow on a plastic gamepad their avatar moves in the corresponding direction. Crawford and Rutter (2007) phrase it as, "part of being a successful player of a deathmatch in *Quake* [a class, fast-paced first person shooter] is not just a matter of being an accurate shot, but rather having a feeling for the game's development and different strategies that inform when to shoot and how to get into the right position to

61

do this," (p. 155). In other words, the player must have twitch reflexes (themselves developed through gameplay), but must also understand that they are playing a first person shooter of a generation where high mobility and collection of power-ups were part of the design schema, and therefore an understanding of game culture and history in general helps to give greater access to enjoyment and experience of specific instances of game interaction.

Crawford (2012) continues the above line of thought connecting Bourdieu's three species of capital to digital gameplay. The most obvious type, economic capital, relates to material wealth. Material wealth is necessary to play games, as they often exist on either expensive home consoles, or personal computers, and they also cost money themselves. Material wealth may also be earned from playing, as with e-sports players (e.g. Taylor, 2012). The second species of capital, symbolic (sometimes called social) capital, relates to the connections between people which generate opportunities for material wealth (e.g. job offers) as well as the prestige that is given to an actor within a field. Many of the ethnographies of play in previous research point explore the social capital that can be gained through gameplay, such as Taylor's (2009) findings about the deep sociality that occurs within game related communities. The third species of capital is cultural capital, meaning the knowledge and expertise that people exercise in regards to some aspect of culture. The cultural capital of digital games has been conceived of relatedly by Consalvo (2009) as gaming capital, and Dovey and Kennedy (2006) as Edge.

By incorporating multiple species of capital, Bourdieu is able to study relations within cultural production that are hidden by a strict concern with material

exchange. In Nichols' (2013) analysis, an important aspect that is drawn out of the game industry is the position that vital actors within the field (such as casual gamers, and workers in the plants that manufacture game consoles) take in relation to others. Although many games are developed for casual gamers, and the game industry would grind to a halt without low-paid labor in foreign countries that produces game hardware, most of the shaping forces (derived from high levels of symbolic and cultural capital) lies in a relatively small number of actors, namely self-identified hardcore gamers, and the heads of development houses. Regarding hardcore gamers,

> "the 'gamer' has accrued high levels of experience with a game or games and
> can parlay this into status within game communities. Similarly, they may use
> this experience to marginalize new gamers or to demonstrate their gaming
> superiority in play. In contrast, a truly casual gamer may be much less
> concerned with status and mastery, even eschewing participation in the larger
> subculture or looking down on inclusion within it. The gamer seeks to accrue
> these forms of capital with the unspoken objective of becoming directly
> implicated in the process of industrial production: an expert player whose
> voice is heard, a play tester, or even a designer. The casual gamer may not
> even admit to playing video games, let alone wanting to be a part of the design
> process," (Nichols, 2013, p. 44).

Globally, Nichols finds that "factory workers who make the consoles game players enjoy have been largely left out of the picture of our understanding of video games," instead there is an "emphasis on creative labor [that has] left these groups

marginalized, even as the industry's emphasis on sales in particular regions has pushed huge swathes of the world's population out of the discussion about what games are and what they might be," (p. 45). Nichols frames games studies as being generally myopic in its focus on power gamers and high level creative labor, offers Bourdieu's frameworks as a remediation. Nichols writes, "forcing the question of how play, appropriation and reappropriation of game meaning, and the construction of meaning might be channeled, obstructed, or marketed by an industrial system," (p. 46). Bourdieu's theories, as exemplified in Nichols' (2013) application of them, provide a useful framework for structuring my work methodologically, and giving me a grammar with which to approach my topic.

2.4.2 The Player Producer: Positioning Performed Play Within the Field of Digital Games

Game culture has long existed not only as the official texts of the digital games and marketing material of the games industry itself, but also in terms of fan produced artifacts, or what are often termed as 'paratexts' (Consalvo 2009). Although some fan-produced artifacts break from the perceived gamer identity outlined above, most recreate existing game culture tendencies and preferences (Kirkpatrick, 2013). Game paratexts are supported by the games industry itself – especially in terms of software modifications. Many PC games ship with mod tools (e.g. the *Elder Scrolls* series of role-playing games) or subsist in large part on fan-produced modifications (e.g. *Minecraft*) (Dovey & Kennedy, 2006; Duncan, 2013).

Consalvo (2009) finds that game paratexts went from being opposed to the industry (which saw paratexts as a potential threat to their intellectual property) to

64

supporting game paratexts as a way to drive engagement with franchises and properties. She focuses on a case study of GameFAQs.com, which is a site dedicated to collecting the work of amateur walkthrough writers. All aspects of GameFAQs are free to the reader, with the site drawing revenue from advertising. Relatedly, the FAQs themselves are freely created and submitted to the site by player-producers who receive compensation only through an incentive program that awards gift certificates for being the first user to submit a FAQ to the site for a new game. Consalvo notes in her study of producers that, "As one reads through a general FAQ, it becomes obvious how much time and attention the creators have put into those documents … Writers are spending countless hours producing such documents, all for no pay. What they do obtain, if the guide is good enough, is gaming capital and recognition," (p. 179). In the field of player-production for digital games, the reward is often the intangible gaming capital - a combination of Bourdieu's Symbolic and Cultural capitals specific to gaming.

By hosting the work of gamers and offering only a marginal gift certificate as incentive, GameFAQs created value to the order of 2.2 million dollars for its creator when it was sold to another company. Sean Duncan's (2013) work with regards to player ownership of produced texts finds that there is a great deal of conflict when the actions of the official aspect of game cultures (the developers and designers) act in ways that contradict the way that player-producers envision the game. Here, the power imbalances of the field come into clear relief from the utopian ideals of participatory culture. As above, the producers who create the value of GameFAQs are

mostly working for free, while the owner and developer of the site is able to translate that free labor into very real economic capital (Consalvo, 2009).

Moving beyond the para-textual production of fan creations, the act of gameplay is itself an act of labor and production, both at an individual level where the player must work to make meaning out of the game-system, and at the community level where players either provide community support for single players, or are in fact the game themselves as they provide the social system that makes massively-multiplayer games unique (Crawford, 2012; Calleja, 2011). Yee's (2014) work in MMORPGs shows that many players produce the value that is inherent to online gaming, and are not only unpaid in their efforts, but in fact pay money for the privilege of logging onto the game that wouldn't exist in a meaningful form without them. When players do attempt to capitalize off of their play by selling virtual goods garnered through gameplay, they are often reprimanded by strict end-user license agreements (EULAs).

Such is the case with so-called 'gold farmers' in World of Warcraft, who are often Chinese players leveraging the higher incomes of Western players in order to make money from the imbalanced multinational economy of the game. However, their marginal position in the game, and the as-designed competition for scarce resources, opens up gold farmers to racial harassment from other players. Yee (2014) notes, "Even in a fantasy world of ogres and elves, your presumed real-life nationality can matter a great deal. Being labeled a 'Chinese farmer' means you are fair game for systematic harassment and slaughter," (p. 85).

Taylor (2012), in her ethnographic study of e-sports, finds a

professionalization of the act of play that represents a larger "mainstreaming," (p.

242) of digital game culture. For the participants that she interviewed she found a mix

of pragmatic concerns (such as earning money through play) as well as an ideological

motivation that involves spreading their game of choice to the wider audience, which

represents more symbolic and cultural capital as it interfaces with the larger social

field. Players exist on a spectrum, with some inhabiting a so-called serious leisure

perspective (where they are dedicated amateurs), up to professionals, who pursue the

practice full-time.

In these examples - FAQ writers, gold farmers, and e-sport athletes – we can

see a number of driving forces that motivate players to pursue a version of a hobby

which is more serious, and more focused on economic outcomes. One motivator may

be a dedication to the hobby, and a desire to be seen as knowledgeable within the

field of digital games (Consalvo, 2009). Economic imbalances within the larger

socio-political field, which makes it possible to earn a living from playing a game,

also drive player production (Yee, 2014). In other instances, the possibility of large

pay-offs, which reward a skill first developed as a leisurely pursuit, lead to the

monetization of play (Taylor, 2012). In all cases, participants do more than play, but

also act as agents in complex socio-technical fields of cultural production (Crawford,

2012).

My topic of performing play occupies a number of similar properties to the

practices mentioned above. Performed play exists on websites that provide technical

systems to performers (such as hosting video, or facilitating community interaction).

Software is made by and for other performers to enable the act of play and exists within a range of pay and free options. Performed play often takes a form that mixes walkthrough (by showing off a game in a procedural fashion) while also taking on the aspects of game-centered art, much like machinima that uses the fiction of the gameplay to support a meta-narrative of the performance-player.

In a study of players posting recorded gameplay on YouTube, which I would classify as a type of performed play, Postigo (2014) finds that producers conceive of their product as "making gameplay," (p. 9). Postigo writes, "Play becomes a subjectively recognized creative process. Unlike the ludological understandings of play as bounded outside worldly considerations of time and consequence in a magic circle, the outcome of play weighs heavy in the minds of commentators. While 'flow'[meaning being lost in the act of play] is still experienced, it is in the context of a mindfulness that an eventual return to the moment will be necessary as part of a post-play production process," (p. 9).

The affordances offered by YouTube turn the raw material of play into a viewable commodity available to spectators are monetized through the structures of the website. Because of the premium placed on gameplay as a commodity, gameplay ability is highly prized among performance-players, relating to Dovey and Kennedy's (2006) concept of Edge, or Consalvo's (2007) gaming capital. Spectators respond to highly skilled and highly knowledgeable performers, which results in larger compensation from YouTube's advertising network. Therefore, from a Field Analysis perspective, the cultural capital of gameplay ability turns into economic capital through remuneration by YouTube.

A common sentiment among Postigo's participants was disenchantment with the practice after it had become a professional pursuit. Postigo (2014) writes, "It is important to keep in mind that this particular community's dynamics (economic and social) are tied to successful video games in the [*Call of Duty*] series. Some of the dynamics illustrated by this community may live or die by the continued success (or lack thereof) of that franchise," (p. 14). Here, Postigo highlights the way that performance-play exists as a field within the larger field of digital games in general. Performance-players construct game culture that then feeds back into game production, advertising the series to new players. The performance of play reinforces the dominant tastes and preferences of the industry. Therefore, in studying performance-play, I am also studying larger concerns of the whole field of gaming as a cultural industry, especially the way that tastes and values of gamer culture are reproduced in the official channels of production.

2.5 Conclusion: The Field of Performing Play

Field analysis provides a toolset to understand cultural production – specifically the power relations, exchanges of capital, and larger socio-political implications of fields that produce culture. Using these theoretical tools, researchers can explore the taken-for-granted, unseen ways that individuals produce, reproduce, and potentially change those fields of cultural production (Bourdieu & Wacquant, 1992; Ritzer, 2002). Game culture is one such domain, and field analysis has been applied in a preliminary sense to the industry side of game culture (Crawford, 2012; Nichols, 2009), however the question of who has access to game culture is still highly contested within the spaces of fan production (Sarkeesian & Cross, 2015) and that

contested nature has direct implications for the feedback between these fan spaces

and the industry itself (Anthropy, 2012). These issues of power and access are

especially important when one considers the powerful learning experiences that have

been found to exist within the informal affinity spaces of games (Gee & Hayes, 2012)

and research that indicates that power struggles within game culture are reproduced

within informal, social learning experiences (Duncan & Hayes, 2010; Pellicone &

Ahn, 2014 & 2015). I have synthesized the relationship described above into the

following graphical model,which serves as a representation of the field of game

culture,

Figure 3: A model of the field of game culture. Shapes represent elements derived
from the review above, and arrows represent relationships between those elements.
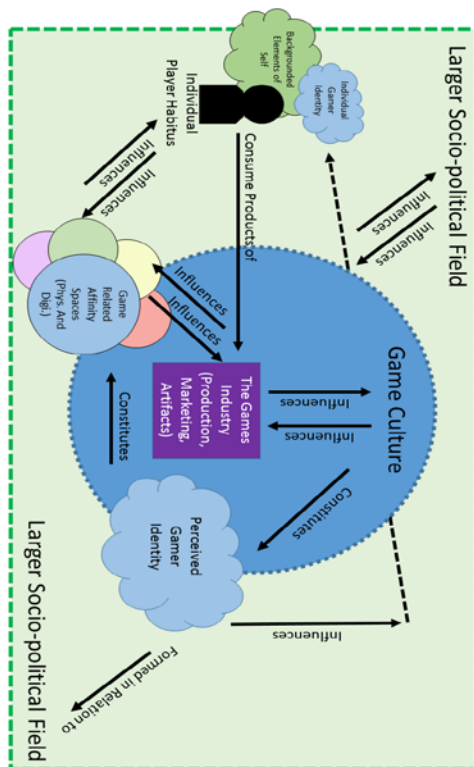
In the above model, the green square represents the larger socio-political field, which always provides a backdrop for the analysis of a more specific cultural field (Bourdieu & Wacquant, 1999; Swarz, 1998). The blue circle of game culture exists within that field, and provides both the audience, the talent, and the economy with which the game industry produces game products (Consalvo, 2012; Nichols, 2009) and is co-constructed in large part by a perceived gamer identity developed in response to industry products and advertising as well as the informal social spaces developed around those products and advertising (Kerr, 2011; Kirkpatrick, 2013). These social spaces help individual players to develop an individual habitus, or taken-for-granted approach to being player of games (Crawford, 2012), which is derived (in part) from the way that "gamer" as an identity is constructed in both game culture, and in the wider socio-political field, with individuals adopting, rejecting, or refiguring that identity on a person by person basis (Shaw, 2012). The development of habitus is a form of social learning, with individuals adopting gaming as a Discourse (Gee, 2003, 2007, 2012). Affinity Spaces are instrumental in the adoption of that Discourse, but these spaces are often contested due to the structuration of the industry, and the conflicts that arise with individual's backgrounded elements of themselves and the overriding nature of game culture (Consalvo, 2012; Duncan, 2012; Gray, 2012; Lammers, Curwood & Magnifico, 2012; Pellicone & Ahn, 2015).

As outlined in my introduction, understanding **performed** identity provides us with a useful analytic tool to understand the field as described in the graphic above. Specifically, within the context of Twitch, we have access to thousands of game

71

players who are presenting their gameplay for an audience, literally a performance of gameplay. My work takes on the following research questions which develop from my theoretical framework.

RQ1: How do streamers conceive of what they do when they perform gameplay? Understanding the conception of what skills, behaviors, and values go into performing play is a practical necessity in understanding deeper questions about the practice, but also provides information about the habitus of performing play.

RQ2: What practices are involved in becoming an avid and accepted streamer? This question relates to the capital that is necessary to participate successfully in streaming, and how streamers perceive what it means to be successful both in terms of praxis, and in terms of outcomes.

RQ3: How do individuals conceive of themselves as streamers, and how does this fit within their larger conception of games as a culture? This question considers individual habitus, and the way that the field of performing play is filtered through the history and experiences of people of differing backgrounds with different approaches to the practice of streaming.

RQ4: How do individuals, given their backgrounded identities and unique habitus towards the practice, move through the field of streaming as a cultural practice and how do they adopt, reject, and reconfigure traditional game culture in doing so? This question acts as a synthesis of RQs 1 through 3 – looking to combine understandings of streaming from a higher perspective (understanding it as a practice) with lower level perspectives (individual experiences within that practice) in

order to draw conclusions about the ways in which streaming is situated with the larger culture of digital games.

Chapter 3: Methodology

Since I am considering the topic of performing play through the lens of the group and the individual, I have designed two interrelated studies that focus on those respectively. The first study is based on RQ1 and RQ2, which relate to wider conceptions of the practice. To answer these questions I conducted a **grounded theory analysis** of an online forum space dedicated to discussing and workshopping streamer practice. Study 1 served as an introduction to the field for myself as a researcher, allowing me to build sensitizing concepts (Charmaz, 2014) and allowing me to develop a preliminary understanding of the terminology, practices, concerns, debates, and (in general) the everyday practical experience of being a streamer.

Building from my preliminary understandings in Study 1, I took an ethnographic approach to explore RQ3 – relating to the day-to-day experiences of streamers. Ethnography was chosen here, because it is an approach that is well suited to the task of understanding personal conceptions of a culture, and tracing those conceptions outward through the ways that individual actors move within that culture (Creswell, 2014). Specifically, I am adopting an approach known as **connective ethnography**, which is attuned to social practices conducted over networked spaces. Methodologically, connective ethnography is distinct from other ethnographic approaches in its focus on the "everydayness" and the "qualities of the quotidian" (Leander, 2008, p. 33) in behavior that is enacted in networked spaces.

RQ4 is answered in the synthesis of these two studies. Using the approach of synthesis through a multi-method design, I am creating a broader perspective of the entire field, fitting with a goal of understanding large-scale processes in field analysis (Ritzer, 2009). In my overall research design, I view streaming from a broad group level perspective in Study 1, and a more narrowed individual level perspective in Study 2. Combining these two studies through a multi-methods data analysis procedure (Creswell & Plano-Clark, 2007), I draw conclusions about what it means for individuals with differing backgrounds, goals, and approaches to the practice to move through the field of performing play on Twitch, and what designers of future game-related technologies can learn about the potential for change within game culture. I have included the table below as a visual depiction of my research design.

Table 3: Research design.

Research Question	Study	Level of Focus	Methodological Approach
RQ1: How do streamers conceive of what they do when they perform gameplay? **RQ2:** What practices are involved in becoming an avid and accepted streamer?	**Study 1**	A group of streamers within a shared affinity space.	Grounded Theory Analysis of Forum Posts
RQ3: How do individuals conceive of themselves as streamers, and how does this fit within	**Study 2**	Seven individual streamers selected for their differing backgrounds, approaches, and	Connective Ethnography

their larger conception of games as a culture?		perspectives on streaming	
RQ4: How do individuals, given their backgrounded identities and unique habitus towards the practice, move through the field of streaming as a cultural practice and how do they adopt, reject, and reconfigure traditional game culture in doing so?	**Multi Method Analysis**	Combining findings of Studies 1 and 2 by recognizing and expanding on common themes and ideas between the studies.	Synthesis Through Multi-Method Analysis

3.1 Study 1 Methodology: Grounded Theory Analysis of a Streaming Affinity Space

A primary mechanism through which habitus is developed and reproduced in game related practices are the affinity spaces that support gameplay (Gee, 2004 & 2007). Since habitus in gaming is understood as an embodied process (Kirkpatrick, 2013), the question of habitus acquisition is best understood by directly observing those spaces to understand their affordances, their content, and the way that individuals interact with those spaces in order to learn how to perform play for others (Postigo, 2014). Online sites of interaction provide many rich qualitative data types (Kozinets, 2010), and a grounded theory approach of analysis allows for a way to combine that rich qualitative data together into theory that is derived from the experiences, words, and actions of research participants (Glaser & Strauss, 2009).

Specifically, Charmaz's (2014) 'constructivist' approach to grounded theory was chosen from among many other grounded theory methodological toolkits. I chose

the constructivist approach because it views "knowing and learning as embedded in social life" (Charmaz, 2014, p. 14), and that approach fits with my desire to understand an online practice as a part of the lived reality of my participants.

For the grounded theory study, over the course of eight months, I collected, coded, and analyzed forum posts of a site called StreamPlus.com (SP.com from this point forward, with the full site name anonymized to protect participant identities), which is a social hub that is dedicated to "Being a one stop source for both gaming and live-streaming. We want to help streamers elevate their skills, knowledge, and enjoyment," (excerpt altered slightly to prevent direct searching to protect participant identities). SP.com targets both "novices and pros," and was discovered through a pilot study that I launched in summer of 2015 that included a preliminary analysis of several different social streaming sites.

3.1.1 Site Selection

SP.com fit several criteria as a rich online site of study,

1. Perspectives on the site vary from newcomer to veteran, and therefore the conversations on the site covered a wide range of topics relevant to the practice, and provided a wide range of possible perspectives on those topics (Charmaz, 2014; Kozinets, 2010). For example, in a thread about goals that streamers had for the New Year, there were people who had very modest goals (secure a steady following of 10 viewers) and people who had much more advanced goals (start to earn money as a streamer). That range of perspectives on the practice allowed me to understand the difference the myriad of ways that streaming is conceptualized.

2. Conversation is largely focused on the practice of streaming. Apart from that, the site viewed itself as a community, and often presented shared community values of streaming. The threads in StreamPlus presented a well-defined conversation that allowed me to view recurring issues from several different perspectives (Kozinets, 2010). For example, the question of what to do about burnout (the feeling of no longer having fun with gameplay, and feeling obligated to stream) came up often, and provided rich data about that phenomenon.

3. Conversation was also current to issues in the larger streaming ecosystem and gave a perspective of change over time for both those issues, and the praxis of individual participants (Charmaz, 2014; Kozinets, 2010). The threaded nature of the site allowed me to see personalities, controversies, and ideas develop across time, and therefore gain a temporal perspective on the conversation. As an example, a poster with the screenname DetroitLion talked about his early forays into streaming, his eventual dissatisfaction with the practice, and his decision to stop, providing me with data (across a number of threads) about what might cause a new streamer to drop out of the practice.

In addition to these qualities, SP.com fit well with Gee and Hayes' (2012) theoretical concept of a 'nurturing' affinity space, and was therefore largely welcoming of newcomers, and fostered a non-exclusionary attitude (as determined through a pilot study that considered several similar spaces). While future work might fruitfully compare nurturing and exclusionary spaces, for the purposes of this

research, I found it useful to collect data solely from a nurturing space due to the clearer presentation of the practice that it provided.

3.1.2 Data Collection

Threads were read in sequential order (to get a sense of time and change), inputted in the form of annotated field notes into the Atlas.TI qualitative analysis software, and then hand-coded. When there were related documents (e.g., a link to a YouTube video for critique, which was a common practice among participants) then the document was captured either as image or through textual description, and entered into the analytic document. Field notes from the researcher included aspects of the conversation that were important to understanding (e.g. posts that used the quotation feature of the forum software to reference other posts), as well as notes about important events and occurrences (e.g. if an author referenced something that someone had said in another thread). Altogether, I analyzed **240 threads**, spanning from **January to August of 2016**. In total, the data corpus represents **1,895 posts** (individual units that comprise a total thread) from **116** individual authors (with 32 being regulars on the forum – with 'regular' being a grounded term developed through repeated appearance in the **Author:** tag, used to place individual posters within the data).

3.1.3 Data Analysis

Constructivist grounded theory calls for the side-by-side collection and analysis of data (Charmaz, 2014). As I moved through the forum dataset, an evolving set of initial codes was developed that focused on the direct actions of the

78

participants. Using a constant comparative analysis method, I allowed for new codes to emerge as these new concepts also emerged in the data, while comparing those new ideas with the other descriptive and analytic codes that had developed previously (Charmaz, 2014; Creswell 2013). Alongside the dual, comparative process of collection and coding, I also wrote memos (roughly on a weekly basis, but also in response to especially rich occurrences on the forum) that acted as a sort of research diary, and served as a way to slowly construct theory about RQ1 and RQ2.

An example of the coding process comes from a code that emerged through analysis, "Presenting the Self" - as with most codes in this project, and as per constructivist approaches to Grounded Theory, the code is formed as an active, verb based representation of participant action. Presenting the Self related to the way that the personal self is presented both on camera in the stream, as well as the persona that a streamer adopts in relationship to their streaming practice. In two data snippets presented below (slightly modified to protect participant anonymity and prevent direct searching), I present the first occurrence of the code, which would be important for my eventual findings.

Table 4: Coding example of "Presenting the Self"

Snippet	Associated Codes
Andy2: *Trying to do anything on stream outside of what comes 'natural' is weird to me. If I'm thinking "INTERACT [with the audience] MORE!" then I'll just end up acting like an ass.*	Branding Stream; Defining skills of Practice; Presenting the Self
VGNerd quotes that post and responds: *I hear arguments about people being fake, and different on stream than you are in real life. I*	Branding Stream; Presenting the Self

think those arguments are BS. Doing a broadcast is like doing a job interview you have to be the best version of you that you can possibly be. In an interview you're selling yourself to a potential employer, and when you're broadcasting you're selling yourself to potential viewers.	

In the above example, both the codes "Branding Stream", and "Defining Skills of Practice" were early codes that developed in this phase of analysis. Those codes continued to emerge throughout the course of data analysis, but in the above excerpt, I developed a new (yet still related) concept of "Presenting the Self" as these two streamers were hashing out the difficulties and meanings of self-presentation being a vital aspect of building their brands, developing their communities, and being perceived in a certain way by the audience. "Presenting the Self" was a concept that had been germinating in memos before the point described here, but in thinking about the above exchange, I wrote to myself in a memo that accompanied this field note, "This is a pretty clear explication of the idea of naturality, just having fun, and not forcing stream numbers that comes up quite frequently in the discussion. It does seem almost paradoxical though." In a more detailed, later summative memo (that is, not attached to a particular thread, but encompassing approximately a week of collection and analysis), I expanded using the above example as a piece of data,

> "A common bit of advice that comes up with questions about game selection,
> and more generally about how to attract and retain an audience is the idea of
> being natural, being yourself, and the most important skill of streaming to
> have fun. Often the more senior members of SP.com will posit this as being

the sole skill (or at least the central skill) to a successful stream – simply having fun and being yourself. There's a little bit of a paradox here, as with [Streamer 1]'s reply, that there's a level of intentionality behind that advice, and even taking a very open, naturalistic attitude might cause a streamer to become aware of adopting that attitude, and choke up, or be less natural as a result. All of this ties into the Building Community code, and to a certain extent seems related to Branding Stream – it's sort of this idea that the streamer is developing a certain attitude towards play (branding) that attracts viewers and has them stay around as regulars."

Later in analysis, through the process of collection, coding, analysis, and memoing, these ideas would coalesce together into an important part of my findings, "Adopting a Gameplay Attitude". I will discuss that particular code in Chapter 4, but for the moment it serves as an example of my approach to constant comparative analysis in action.

After my initial round of data collection and analysis concluded, I worked with my advisor, Dr. June Ahn, to refine my findings into a journal article for Conference on Human Factors in Computing (CHI from this point forward) 2017 (Pellicone & Ahn, 2017). CHI is a leading conference dealing with the design, implementation, and usage of computational systems as they relate to human interaction. The CHI paper also served as a stage of data analysis, as June's outside perspective helped me to clarify my themes and findings for an outside audience. My personal observations and perspectives as a researcher were maintained, but the

process of putting this research into a conference paper through a workshopping process with June helped me to polish and reflect on my findings.

3.1.4 Validity

As the project progressed, certain high level categories began to emerge. Several main categories comprise my findings in Chapter 4, and they represent what might be termed theoretical saturation (Charmaz, 2014), or as Dey (1999) uses the term, "theoretical sufficiency" (p. 257). Theoretical sufficiency refers to the idea that the data collected and analyzed by the researcher has produced an internally consistent, and well supported claim to what is happening in the field. Dey adopts the term because of what he sees as the classical method of saturation, and the tools by which researchers arrive at that status, as forcing data into pre-conceived frameworks, which presents a given domain as foreclosed, or solved by the researcher. Theoretical sufficiency as a measure for validity fits with the larger study design of providing a first look into the practice, and not a final declamation. There is more work to be done with regards to streamed gameplay, but the top level codes and categories developed in this study represent a firmly developed encapsulation of my research questions, which (at the point where I had ceased data collection and analysis) had stopped generating new insights into those questions.

3.1.5 Ethical Considerations

This study was conducted under a program approved by the University of Maryland IRB office. An important ethical concern from my perspective as a researcher was to present my work openly to key figures in the SP.com community

(e.g. moderators and site owners) as well as to the community at large. Disclosing my research to the SP.com community was done in three ways,

1. First, I cleared my participation with moderators on the forum through a private message.

2. Secondly, given my preliminary experience in my pilot study, I recognized that the site had an "Introduction" sub-forum, which allowed users to present themselves to the community at large. I created a post in this sub-forum, introducing myself as a researcher, talking about the project, and presenting my plans to collect data while anonymizing user identities. I also provided channels to contact me through if anyone had any questions or concerns.

3. Lastly, I also posted a feedback thread in the general discussion forum (which is more heavily trafficked), with similar information to the above, and asking a few participatory questions to posters. Although there wasn't a heavy response to my post, it still served as a notification to site users about my intentions and processes.

A unique aspect of Internet research, however, is that being "in" an online Space does not mean that you are necessarily currently present. People may post to a site once, and then not return, while still leaving the digital artifact of their presence (Hine, 2000). Following from that, those people are participating in a site with a certain expectation of privacy – they are not expecting their ideas, thoughts, and words to be used beyond the boundaries of the forum in which they were posted (boyd, 2015). That led me to the methodological choice of anonymizing the identity

of the site itself, as well as making slight changes to the wording of excerpted phrases from the text of the conversation. My desire was to protect the expectations of the context in which these items were posted.

3.2 Study 2 Methodology: Connective Ethnography of Streamers

Study 1 presented me with a basic understanding of the practice of streaming, and attuned me towards the dispositions, terminology, and behaviors of streamers. It was guided by two intentionally open-ended and exploratory research questions with the goal of mapping out the practice. Study 2 built upon Study 1 by taking my burgeoning understanding, and applying that to the individual experiences of streamers.

A central consideration for choosing a methodology for this part of the project, is that my theoretical framework is based on the idea that gameplay is situated in the experience of day-to-day life (Crawford, 2012; Kirkpatrick, 2013; Thornham, 2011). The practice of performing play necessarily takes place across multiple layers of a person's life: they are bringing in identities formed through gameplay, their personal identity, and (typically) a view into their actual physical location by way of a reaction cam (Hamilton et al., 2014; Postigo, 2014; Walker, 2014). An important aspect of field analysis is the experiences of individuals within the field, especially in relation to how those individual experiences are shaped by the structures of power and flows of capital within the larger system of cultural production (Bourdieu & Wacquant, 1992; Grenfell, 2008; Ritzer & Goodman, 2007). Therefore, I chose Connective Ethnography as my approach to this study, due to its

focus on understanding how online behavior is exists within the ebb and flow of the day-to-day life of participants (Hine, 2015).

In connective ethnography, the researcher follows the participant through sites of interaction, comprised of both the everyday and online interaction (Hine, 2015). By drawing on data across several layers, the researcher is able to put online experience into context (Leander & McKim, 2003). Collecting data across multiple layers of interaction allows for the development of theory that ties distinct spheres of interaction together (Vittadini & Pasquali, 2014). The analytic power of connective ethnography comes from its ability to trace what is mainly expressed as online behavior across a number of contexts of the participant, understanding the ways that behavior evolves from and influences that participant's lived reality (Dirksen, Huizing & Smit., 2010). As an approach, connective ethnography is especially useful in tracing the learning and acquisition of new media practices and literacies, and especially those related to gameplay (Fields & Kaffai, 2009; Leander, 2008), due to the highly social nature of learning in game-based affinity spaces (King, 2010).

3.2.1 Participant Selection

A major concern of my theoretical framework is understanding how backgrounded elements of participants influence their ability to engage with, and produce, game culture (Consalvo, 2012; Pellicone & Ahn, 2015; Sarkeesian & Cross, 2015). How participation is mediated by backgrounded elements is especially important in terms of individuals who fall outside of the dominant identities within these spaces (Daniels & Lalone, 2012; Gray, 2012; Shaw, 2014). Therefore, I purposefully chose participants who self-identified in my screening survey as people

85

of color, women, and LGBTQ individuals. Drawing on my findings from Study 1, I also recognized that there were many different approaches to streaming in terms of goals, approaches, and genres. A person who is competitively streaming a fast-paced team first person shooter game like *Counter Strike* will have a markedly different stream than a person who is casually streaming an independently produced single player puzzle game like *Myst*. A primary goal of this study was to understand how different approaches and perspectives played into the streaming experience, so participants were selected factoring in their self-description of their stream as well.

Initially I planned on recruiting only local participants, but as my methodology changed reflexively over time to accommodate the lived reality of participants (Hine, 2015), I realized that co-location was not strictly necessary for participation. Thus, I expanded my participant base to people in other geographic locations. Due to the in-depth nature of data collection, I incentivized participation with a $60 gift card to an online storefront of the participant's choice. The incentive was both to make my study more appealing, and to fairly compensate participants for what would be a substantial time commitment. Over the winter of 2016 I advertised my study in the following venues:

- **In person.** I went to several classrooms and clubs at The University of Maryland (UMD) and gave brief pitches for my study using the flier attached as Appendix 1. As an example, I attended a club meeting for Terrapin Gamers (anonymized to protect participant identities), which is a monthly meet-up where UMD students bring consoles and games to a central location to play. These locations were chosen both for convenience (e.g. friends who were

currently teaching undergraduate classes) as well as purposefully (e.g. clubs related to games and gaming, and therefore likely to attract streamers).

- **Through print advertisements.** I printed and distributed approximately 100 print fliers around UMD and surrounding businesses. Given the nature of RQ3 and my desire to understand differing perspectives, I attempted to distribute fliers through as many diverse programs (e.g. the computer science building, the English department, the physical sciences) as possible.

- **Through word of mouth and personal connections.** Once fliers were out on campus people would tell friends and acquaintances who streamed about the study. That had a snowball effect on my recruitment, and eventually lead to several of my final participants. I also reached out to my personal social network with a description of the project, and met one of my key participants through a friend of a friend relationship.

- **Through online channels.** I targeted several Facebook groups, Reddit subgroups, and other social media channels with my advertisement. Although initially I had planned to only focus on local participants, my advertisements on online channels ended up spreading word of the study to geographically dispersed participants, and lead me to recruit two of my final participants.

I used an informal survey (described in Table 6) to screen and select participants along a number of criteria, presented in the table below. These criteria were developed partially from my theoretical framework, and partially from my experiences with Study 1.

Table 5: Selection criteria for connective ethnography participants.

Survey Question	Rationale and Selection Criteria
Name and Contact Information	Provided an easy way to reach out to participants once they had been selected.
Sex (Male, Female, Self-identify)	Sex and gender are interrelated aspects of gamer identity (Shaw, 2014), and often lead to conflicts in social spaces related to games (Anthropy, 2014; Consalvo, 2012; Sarkeesian & Cross, 2015).
What Race or Ethnicity do You Identify as? (open question)	Race is also an important intersection of the gamer identity (Daniels & Lalone, 2012), and is compounded by gender identities (Gray, 2012).
How Long Have You Been Streaming? (Less than a month, between 1 to 3 months, between 3 months and a year, longer than 1 year)	In Study 1, I observed that individuals tended to change and modify goals and approaches as they spent more time in the practice. Getting perspectives from new streamers and comparing them to veteran streamers seemed valuable, given that finding. Affinity space theory is also highly concerned with the differentiation between newbies and veterans in online social learning spaces (Gee, 2003).
What Service Do You Primarily Stream On? (open question)	In my pilot study, a group that I worked with streamed on another service to get past the perceived market saturation of Twitch. I had originally planned to focus on Twitch, in order to consider it as a field of cultural production (Crawford, 2012), but was open to expanding the study if necessary.
What is the URL for your Streaming Page? (open question)	As Hine (2000) notes, connective ethnography is marked by participant generated artifacts, in this case the page that the performer creates for their stream. Self-presentation is an important aspect of game culture, as well as a primary question of my research (Crawford, 2012; Papacharissi, 2012), and viewing the stream page helped me to form initial understandings of branding, game choice, and schedule.
Do You Have a Schedule for Streaming (Yes or No)	Consistent schedules were a recurring theme from Study 1 (see the next chapter for more detailed analysis). Understanding the schedule of a participant also helped me to know their disposition towards streaming.

How Often per Week Do You Stream? (once or less, between 1 to 2 times, 3 to 4 times, more frequently)	See above.
Have you Ever Received Monetary Compensation for Streaming? (Yes or No)	The ties in capital between economic capital, and other forms (e.g. cultural, social, and symbolic) are an important aspect of my research program (Bourdieu & Wacquant, 1992; Nichols, 2009). Therefore, I wanted to get streamers who both had and had not received money from streaming.
If Yes, then Please Describe this Briefly. (open question)	See above.
Please Describe Your Average Stream in Terms of Style, Game Choice, and Community. (open question)	These were all primary themes that emerged from Study 1 as differentiating streams. This question was aimed at getting many different types of streamers into this study.
Please Briefly Describe what Resources you use for Ideas about Streaming, and Technical help with Equipment, Layout, etc.	Activity in online gaming tends to involve a number of satellite spaces that all support activity, and which involve a flow of information between spaces (Curwood, Magnifico & Lammers, 2012; Pellicone & Ahn, 2015). Therefore, I created this question to understand how potential participants engaged with these spaces.

I selected seven participants, out of a total of 27 applicants, who contributed important perspectives to the above theoretical interests of the study. The number of participants was arrived at due to my own personal capabilities as a researcher, and also a feeling of theoretical saturation given the responses of participants, and my findings from Study 1. What one imagines in planning stage, and what actually occurs in the field are rarely perfect matches (Creswell, 2013), which means that while the above factors guided my choices, I also worked interpretively and flexibly

to match the aims of my research question with the participants who had expressed interest. I will outline these participants in full detail in Chapter 5, where I describe the findings of Study 2.

3.2.2 Data Collection

In a connective ethnography, the researcher strives to collect data both from the day-to-day experiences of individuals, as well as the pieces of digital data that they leave in their online interactions (Hine, 2015). Many connective ethnographies are structured with both an online and offline component – for example, Fields and Kafai (2009) used video recorded data of a gaming club at a school, and matched that data to the trace data (e.g. chatlogs) generated from the game.

Originally, that mixture of online and offline data was my goal with this study, and I had planned in-person observations of streaming alongside my other instruments. However, I realized in the early stages of the study that co-location was not an effective approach for two reasons. First, having a person watching over one's shoulder is not the natural experience of streaming, and in fact would be very uncomfortable for streamers. The data that I gathered about the in-person experience of streaming, would likely contaminate the naturalistic experience of streaming that I hoped to capture. Secondly, in my first interviews (scheduled before any observations took place), I realized that the day-to-day aspects of the streamer's life were already intrinsically part of the digital artifact – notably in the ways that everyday experiences are both discussed verbally on stream, as well as presented in terms of captured video data (e.g. a roommate coming on the reaction cam briefly to talk to the streamer). With these two realizations in mind, I reconfigured my initial plans for in-person

observations, and instead tuned my observations to capturing the everydayness and physical reality of streaming, while also writing my interview protocols to query participants directly about their everyday experiences. In the final study design, I collected data through five primary instruments:

- **Screening Survey:** This survey served as a way to introduce myself to my participants, and to select individuals who were theoretically interesting for my theoretical framework and research questions.

- **Introductory Interview:** The introductory interview served as my first look at my participants, and helped me to understand what to focus on in my observations. I have included a generic version of the introductory interview as Appendix 2, but it is worth noting that the actual form of the interview was semi-structured allowing for participants to diverge into interesting, and personally relevant digressions (Creswell, 2013), and also included questions drawn from the screening survey (e.g. for a streamer who mostly streamed horror themed games, I made sure to ask why they chose that particular genre). Interviews averaged around 40 minutes in length, and were conducted in person, as well as over voice technologies such as Skype and Discord.

- **Observations (between 2 and 3 for each participant):** Observations took the form of me entering a participant's stream as an audience member. In accordance with the values of participant observation in online spaces (Hine, 2015), I first asked the participant how they would like me to act (as a lurker and observer, or as a normal audience member), and all participants said that they would prefer me to be a normal audience member. Acting as a regular

91

audience member involved reacting to action on the screen, encouraging the streamer with difficult parts of the game, and engaging in conversation with other audience members. Likewise, I left it up to individual participants whether they wanted to introduce me as a researcher, with 4 out of the 7 participants opting to do so. Data collected from the observation portion of the study came in two forms. The first was detailed field notes for each observation, with each significant interaction in game, with the audience, and among audience members captured as a line of field notes. Alongside my fieldnotes, I captured screen images of the stream at important times for later analysis. I also captured some observations using Camtasia screen capture software, and some participants presented me with Video On Demand (VODs) of their previous streams that they felt were important for the project. Altogether I conducted 18 observations, each running at around two and a half hours in length, with corresponding field notes.

- **Informal Clarifying Conversations and Artifacts:** There were times when I was unsure of terminology, or needed clarification of an in-joke, or an event that happened on stream. I used email communication with the participants in these cases, entering these conversations into my corpus of data in the form of expanded fieldnotes. These informal exchanges captured both the text of the conversation, as well as situating notes about why I sent the email, and brief glosses of the event or idea I was trying to clarify. The social media presences of my participants also figured heavily into analysis, and links to these sites

were collected from participants in interviews, and analyzed as field notes in separate text documents through a similar approach as defined above.

- **Exit Interview:** These interviews were structured from both my observations, my ongoing data analysis (described below), and the initial introductory interviews of each participant. Whereas the introductory interviews all had generally the same format, the exit interviews were tailored specifically to each participant, along with common questions to each that developed from the theories that I had been developing in the analytic memoing process. These exit interviews were slightly shorter than the introductory interviews, but were conducted in a similar semi-formal fashion. They averaged 30 minutes in length.

All data were entered into Atlas.ti under a distinct project file for Study 2. I personally transcribed transcripts of interviews, using Express Scribe transcription software. Observation field notes were entered into Atlas.ti directly, and screen captured videos and images were saved in a password protected drive for later use in providing rich detail in data analysis and writing of findings. Field notes for outside social media sites were entered directly into Atlas.ti, along with accompanying screen captures for later rich description. Altogether data collection took place over two months: February and March of 2017.

3.2.3 Data Analysis

As with Study 1, I chose to apply constant comparative analysis to my connective ethnography. Data analysis varies between connective ethnographies, and is largely dependent upon the forms of data and the theoretical goals of the project, with a praxis inspired by grounded theory often being employed (Fields & Kafai, 2009; Hine, 2000; Hine, 2015 Leander & McKim, 2003). Employing a similar strategy to Study 1 gave consistency to two studies that are part of a larger, multi-method study (Creswell & Plano-Clark, 2006). However, since I collected different data, and structured the Study in order to answer a different research question, there were subtle differences in my approach to analysis with Study 2. Data were collected into the five different instruments listed above, and either imported natively, or transcribed to a simple text format in Atlas.ti. Unifying all data streams into a single piece of analytic software allowed me to apply consistent codes across data types. For example, this approach allowed me to highlight the code of "Interacting with the Audience," (meaning to read the chat, respond directly to an audience member, and present that response as part of stream) as a participant describes that action in an interview, connect that to a behavior contained in observation field notes, and pull out clarifying text from a question that I asked over email. In the example below, I consider a participant named Bailey and the way that they figured their stream as an extension and hub of a number of their social spaces, captured in the code "Spaces Interacting".

Bailey (the participant identifies as gender non-binary, so for pronouns I will be using "they/their/them") noted that they were a casual streamer in their survey results, and that they largely streamed for smaller groups. Their more modest goals

for their stream, was a reason that they were selected for the study, since I wanted to

balance out the perspective of streamers with both larger and smaller audiences.

Through both my experiences in Study 1, and the results of my initial survey, I

realized that the stream formats of my participants would take on many different

forms, and so description of their streams in their own words was a vital piece of data

to collect. I typically began interviews by asking participants to describe their history

with streaming, including what initially lead them to start streaming. In Bailey's

response to that question, they mentioned, "*You know like a lot of my friend[s]*

stream, it's just a way of being able to like - it's a way of being able to keep in contact

with everyone, and interacting in way that's more than just through text online. Or,

just like having fun and showing off a game that I really like."

I asked them to expand upon the idea of the stream as a social space, digging

deeper into the friendships that make up their audience, "*[Some] are friends that I've*

made online, and some of them I've met in person, some of them I haven't. Um, there's

definitely a very large internet presence on what I do and the people I interact with in

terms of my streaming." Bailey also referenced both Twitter and Discord (a voice-

chat platform that's heavily used for both socialization and online gameplay)

throughout the interview. In my memo after the interview, I noted that the

composition of their audience as being a theoretically interesting change from the

way that streamers tended to figure their audiences in my first study.

In my first observation with Bailey, the idea of overlapping friendships

appeared in my field notes. One of the audience members, BlueBerry (who Bailey has

also referred to by her real, first name, Louise – all audience member names are

pseudonyms) mentions that she had recently redone her avatar in a popular general discussion forum called Gaia Online. Bailey reads Louise's comment back from the chat window, laughs, and says, "*Gaia Online. I haven't been there in forever!*" Bailey then talks about how they have dressed their avatar on Gaia (avatar fashion is a major component of the forum software), and how Bailey planned to keep that outfit forever. The two then briefly discussed about other online social spaces. Bailey asked if Louise is familiar with Club Penguin (an online virtual world for younger children), and mentions her early history with a game called *Rune Scape* (a sort of low fidelity predecessor to *World of Warcraft*). In my initial coding of the above exchange, I used "Interacting with Audience" (due to the act of reading back a chat snippet, and then replying to it), "Presenting Past History With Games" and "Presenting Past History With Other Online Spaces" (due to the nature of the conversation), "Presenting D2D Life" (since Louise was a member of Bailey's physical circle of friends) and "Audience: Sharing History" (Audience: codes were used to represent actions taken by the viewers in chat). I also recognized similar interactions in other observations: for example, another participant, Mark, bringing in elements of the furry fandom, such as in-jokes, and occurrences in his shared social media circles with his audience.

The repetition of these codes allowed me to eventually develop a higher-level code of "Spaces Interacting", which came to refer to a more general trend across my data: streamers bringing in both real-life and online-based social circles to form the basis for their chat. I clarified that emerging code with my participants in continuing correspondences between observations, for example with Bailey I asked about the nature of some of the regulars I had observed in their chat, and they replied with,

"Louise, Janice, and Kevin are real-life friends of mine, while Gomez, Jorge,

and Jan I met online. I no longer meet with communities such as Deviant Art

or Gaia but instead through Tumblr, which is how I met Gomez, then met

Jorge and Jan as mutual friends through a discord server."

The informal email exchange was entered into my corpus of data, but also

helped me to build understanding about the nature and composition of Bailey's

audience. In the final interview the flow of data coalesced into the question of "*You*

seem really close with your friends who watch the stream. If you don't mind, could

you talk a little about your relationships with them?" Bailey then expanded on their

previous confirmation, and talked in more detail about how they knew each of their

regulars, and also provided further clarification about how various game related

fandoms had drawn these physical and online groups together to become the audience

for their stream – also giving links to Bailey's Tumblr, Twitter, and YouTube

channels, which further enriched the quality of data for this particular theme.

The larger finding of online and offline spaces interacting will be presented in

Chapter 5, but for the above example a point worth noting in terms of coding and

analysis was that there was a flow of information and analysis that was developed

across several layers of interaction. The initial survey and my experiences from Study

1 foregrounded issues to focus and draw out in my initial interviews. My initial

interviews allowed me to understand the history and general praxis of my

participants, and to understand important theoretical concepts to focus on for

observations. In my observations, I obtained a sense of the larger themes that I needed

to craft into questions for the final interviews, in order to check my emerging understanding against participant conceptions. These emerging codes were assembled into higher level codes, which were then cross-checked through brief clarifying correspondence with participants, and later in the final interviews. Along the way, I brought in outside resources, such as external social media links, to provide thick description for my participants' lived reality as streamers.

3.2.4 Validity

In connective ethnography, theoretical sufficiency and validity are met when major themes are not only theoretically strong and internally consistent, but those themes also present themselves with consistency across all layers of interaction with the participant (Dirksen, Huizing & Smit, 2010; Hine, 2015). I used a strategy of confirming major ideas from earlier data collection in the exit interviews, making sure to double check with participants that my phrasings of those ideas matched with their own conceptions. Applying both theoretical sufficiency, as well as confirming ideas directly with participants, allowed me to present findings that were backed up by the external reality of my experiences in the field.

3.2.5 Ethical Considerations

As with Study 1, this study was approved by UMD's Internal Review Board. All participant identities have been anonymized with names that fit both their self-identified gender and ethnicity. In the case of identifying external details (e.g. social media URLs or titles, searchable posts on social media, screen captures of streams that may be identifying) I have taken steps to protect participant identity by slightly altering the text or images of that data as the text is presented in my findings. Also, as

mentioned in the participant selection sub-section, I have compensated each of my participants with a $60 gift card to an online storefront of their choice. Data collection for this project required a significant time and effort commitment on their behalf, and I felt it fair to show my appreciation for that. The $60 amount was arrived at as it was approximately the cost of a new game, and therefore an incentive that would be both useful and relevant to the participants.

3.3 Multi-method Synthesis Between Studies

What I have presented above are two different studies, with different approaches to data collection, analysis, and internal validity. The studies also take place at different levels of focus within the practice: Study 1 is focused on group level interaction, and Study 2 is focused on the experiences of individual streamers. The decision to vary focus was motivated by the multi-level mode of understanding inherent in field analysis as a theoretical toolkit (Grenfell, 2008).

Mixed methods are defined differently depending on the scholar and the field, with some perspectives requiring a mixture between complete study and supplemental studies, and others holding that two complete studies must be used (Charmaz, 2014). For the purposes of this research, both studies are complete in and of themselves, and were written as independently publishable. Increasingly, within the domain of mixed methods research, studies that incorporate two qualitative methods are recognized as mixed methods approaches (Morse, 2010). Others (e.g. Creswell, 2015) argue that mixed methods must necessarily incorporate contrasting qualitative and quantitative data. Therefore, I understand that the structure that constitutes a mixed method study

is a tension within the field, and is unlikely to be resolved with my dissertation project.

My projects have a number of characteristics that Morse (2010) defines in her explication of qualitative-qualitative mixed methods approaches, with studies that will "best enable the research question to be answered, more fully or more comprehensively (with broader scope or increased depth) therefore making the research richer and more useful, or to obtain another perspective, using a different data type (such as observational data to conduct a core project that uses interviews), or to obtain data from a different level of analysis or abstraction … to provide information that may have been inaccessible or unavailable when using one method alone or to answer a subquestion that cannot be answered within the core component (and therefore moves the research program along)," (p. 484).

The grounded theory approach of Study 1 is necessary for understanding streaming as a practice at a group level. The connective ethnography of Study 2 is necessary for understanding streaming from individual perspectives that would not be feasible within the grounded theory study. Both studies require different data types, and would not fit well into the same analytic unit (Charmaz, 2014; Hine, 2015). My theoretical framework calls for the integration of multiple perspectives in order to understand the field (Bourdieu & Wacquant, 1992; Grenfell, 2009). My final research question, RQ4, is only understood with perspectives from both studies, and therefore necessitates a synthetic approach between the two studies.

Although I recognize that it is not unproblematic from either author's perspective, I will use Creswell's (2015) diagramming method for describing my

analytic procedure in this sub-section, as that method provides a useful visual

grammar for understanding the flow of data across the project, and Morse's (2003,

2010) notation schema for describing my project in text.

3.3.1 Multi-Method Study Design

My study follows an exploratory sequential design. Study 1 was conducted

prior to Study 2. The research design of Study 1 started with open ended research

questions, which were designed with the intent of developing sensitizing concepts

regarding the practice of streaming,

RQ1: How do streamers conceive of what they do when they perform

gameplay?

RQ2: What practices are involved in becoming an avid and accepted

streamer?

Answering these questions involved collecting data from the grounded theory

analysis of an online forum site dedicated to the discussion of streaming, and the

development of a model (presented in the next chapter) which describes the

behaviors, the goals, and the metrics of streaming effectively. The grounded theory

study was intentionally conducted at the group level of analysis (the SP.com forum)

in order to capture conversational data related to streaming as veteran and newbie

participants trade information, socialize, and workshop best practices. Study 2

incorporated these findings, changing perspectives from the group to the individual,

RQ3: How do individuals conceive of themselves as streamers, and how does this fit within their larger conception of games as a culture?

From a practical perspective, being fluent in the basics of the practice was necessary to developing later, deeper understandings of streaming. When my ethnographic participants talk about OBS (Open Broadcast Software), overlays, reaction cams, and partnership, being able to understand those terms and probe deeper than surface level clarifying questions is vital to getting at the day-to-day experience of the practice (Hine, 2015). From a theoretical perspective, the crafting of data collection instruments that were informed by the larger field is important, allowing me to ask questions that are relevant to the lived reality of streaming as a practice (Kozinets, 2010). Study 2 also provided a different perspective on the field, which wouldn't have been obtainable from my previous grounded theory approach in SP.com (Morse, 2010).

Therefore, there was a flow of information from one study to the next: the first study was open and exploratory, the next study focused on a particular set of experiences framed within the findings of the first study, and my final analysis combines both studies into a research question designed as a synthesis between the two,

RQ4: How do individuals, given their backgrounded identities and unique habitus towards the practice, move through the field of streaming

as a cultural practice and how do they adopt, reject, and reconfigure

traditional game culture in doing so?

In the graphic below, squares represent data collection, triangle represent data sources, circles represent data analysis. Since both studies used constant comparative analysis, with data being collected and analyzed simultaneous, the shared analytic method is represented with an overlap between the collection and analysis objects. The arrows between objects represent the flow of data from one study to the next.

Figure 4: Multi-Method Analysis Diagram
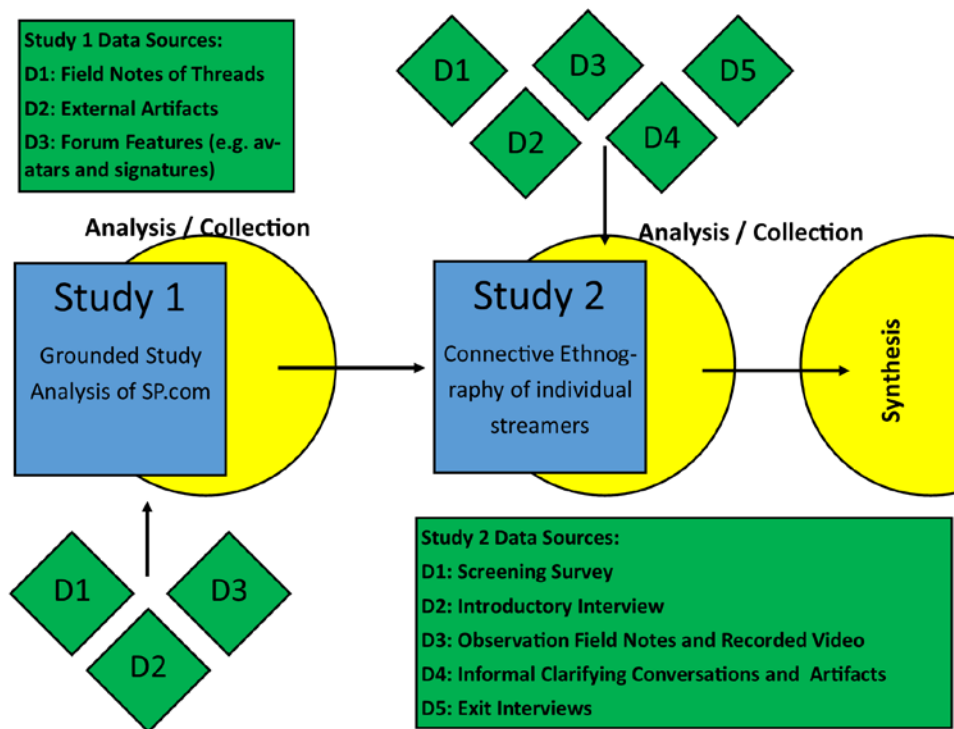
In the next two chapters I report on the findings from Study 1 and Study 2, concluding each chapter with a brief conclusion that draws out the importance of those findings. In Chapter 6, I tie all of my findings together, along with the

conclusions reached through those findings, and present a set of meta-level findings

guided by RQ4.

Chapter 4: "Games are supposed to be fun!" A Grounded Theory Analysis of Performing Play

My analysis of SP.com found that the practice of performing play was typically conceived of across three major themes of activity: **assembling technology**, **building community**, and **adopting a gameplay attitude**. These top-level codes emerged as saturated categories in terms of how participants on the forum both described their own practice, and how they framed advice to other participants. These activities are interrelated, and exist within a network of **feedback loops**, with activity in one behavior necessarily relating to activity in others. Participants were also frequently concerned with the metrics of their stream, which existed as both **quantified metrics** (meaning numerically defined statistics presented by the Twitch platform) as well as **intangible metrics** (meaning rewards and experiences of performing play that were not directly recorded). Within that set of practices, and guided by both types of metrics, performers presented a variety of **goals and desires** as they performed play for their audiences.

In the following chapter, I begin by presenting the major themes above, describing each in turn and providing key evidence from data about those themes, and then detailing the feedback loops that exist between the themes. I then discuss the role that metrics play in informing and guiding practice, and how streamer goals and desires are situated within the practice. I tie these major themes together into a graphical model, presented in section 4.5. I end with the following conclusions given my description of the practice,

- Performers often experience tension between metrics that are considered valuable as community standards (e.g. cultivating a dedicated viewer base and having fun as a streamer), and metrics that are hardcoded into the platform and displayed prominently (e.g. viewership numbers). These are inherently different forms of capital within the field of streaming on Twitch, and often exist within opposition to one another.

- Performance of play is largely about being able to put forward a fun, carefree, and unique persona as a player of games. However, I also find that doing so can be hampered by persistent harassment and toxic behavior, as well as the burden of day-to-day management of one's community. Effective moderation is often tied to having community members that one can trust, which new streamers often lack as they are starting out, and which may disproportionately affect streamers from backgrounds that are typically marginalized in game culture. The structural inequity caused by the nature of moderation on a Twitch channel leads to differing experiences in the field of cultural production (from frictionless, to active harassment) depending on the individual's background.

As a note, an earlier write-up of this study was presented at the CHI 2017 (Pellicone & Ahn, 2017). My findings in this section were shaped by my collaboration with my advisor, Dr. June Ahn, on that paper. Although in large part the top-level themes and findings were a result of my own data analysis, June helped me to rethink these themes, turn back to my data for answers, and present findings relevant to the field of HCI in addition to answering the research questions of the

106

larger dissertation project. I present my findings in the singular for this dissertation, but June was instrumental in helping me to develop and think through those findings. I have three further notes in terms of presenting data from this study:

- I use gendered pronouns either used by participants to describe themselves, or evident in their user profiles. When a preferred pronoun is unknown I use "they/their/them".

- Excerpts often contain a great deal of specialist jargon. I used non-italicized bracketed statements to try and explain jargon to my audience where necessary.

- Italicized bracketed text in excerpts is used to truncate passages for readability and coherence while still indicating that the general idea contained in the bracketed text was part of the original text of the passage.

4.1 Assembling Technology

A large portion of the discussion in my data corpus is devoted to the technical skills necessary to put together a channel that not only worked properly, but also had a level of professionalism and polish. The passages coded with the "assembling technology" category tended to focus on three different elements of a stream: the hardware, the software, and graphic design. I created the table below to give examples of these three areas of technology,

Table 6: Examples of data coded with "Assembling Technology"

Element	Examples	Coded Passage
Hardware	• Web Cameras for capturing reaction cam data, • Microphones for capturing high fidelity audio, • Computer systems capable of the high load task of gaming and streaming simultaneously, • Capture cards for streaming from consoles or handhelds, • Staging equipment for setting the scene, e.g. greenscreens and lighting, • The physical positioning of the technological and staging elements together.	From a thread titled "Green Screens, yea or nay?" from author TracerOne, *"What's your take on it? I love the look of a good GS. One of my fave channels, PeachyPrincess, uses a green sheet over a curtain rod with some simple desk lamps pointed upward to get the effect (and 99% of the time it looks great).* *I would love it, but due to space restrictions, I can't set one up without knocking it all over the moment I wheel my chair back.* *Would this damage my channel in the future? I like to believe that my stream looks OK (I have my cam housed in a little box in line with the current Portal theme I have), but I also believe that Twitch is migrating to more professional production values.* *Thoughts? Is it worth shifting my work space around (which is possible) to knock up a small GS, or should I just stick with my cam box?"* In the above passage, the author talked about the practical implications of a certain type of hardware, how their channel is currently physically assembled, and voices concerns over how this element of their stream positions them in relation to the larger Twitch ecosystem.
Software	• Broadcast software for combining data sources into stream artifact, • Scripts to enhance the functionality of the stream and make it more dynamic • Chat-bots to handle	The following exchange comes from a thread titled "Picking the right bot" where user Dead Weight asked, "*Recently I've really only had Nightbot* [The NameBot formulation is common to bot software. Bots are software agents that use a fake Twitch account to interact with chat in

	automated processes of community moderation in chat, • Post-production software to improve image or sound quality.	various ways as if they were a viewer in the audience – usually their purpose is to serve as an automated moderator] *to remind people to vote on games or follow my stream. The more I watch other streamers I see bots advertising, tracking viewer data, or just introducing their regulars to the chat.* *After doing some research I've found bots like Ankhbot and Deepbot, and was just curious as to which everyone recommended?* *I want to start doing more for my viewers as I've got a pretty active follower base right now and it would be cool to have more interaction.*" User DoubleJJ (who is generally more active in the forum, and often presents as having a good deal of experience as a streamer) replied, "*Ankhbot does almost everything you mention … I have yet to find something I needed done that wasn't covered by Ankhbot.*" In the above exchange, a participant who has seen a variety of choices for chatbot software posted a thread for advice from others with more experience in that area. That participant described their channel in terms of their audience, and their desire to give more services and interaction through a bot. A more senior streamer on the site was able to present expertise about which software, Ankhbot, would provide what the original poster is looking for.
Graphic Design	• Images for the body of the stream page, like header, avatar, and informational panels, • Graphical overlays that are mixed on top of gameplay through	In a thread titled "Advice for a beginner," a poster said that they are frustrated with their channel's slow growth, and presents a general query for help (threads expressing frustration over lack of growth is a common genre in the data). One reply from a user named SayWhat distinguished between streaming for fun and

	broadcast software, • Custom emoticons and icons for chat, • Static images used as a placeholder for when a streamer is not active, or is switching games mid-stream.	streaming for growth, with a key piece of advice for growth streaming being, *"If you don't have a cam that's fine but keep in mind over thousands of StarCraft streamers won't have graphics or a cam, so their thumbnails are gonna look EXACTLY like yours. First impression is very important so you wanna make that visual pop. An overlay or something small even. Just something that is different."* Here SayWhat was presenting the importance of having a visual appeal and uniqueness to the channel - part of which are overlay and channel graphics, as well as a reaction cam. He mentioned a structural element of how Twitch displays streams, which is to thumbnail a stream as a preview for users browsing a game category.

A theoretical category that emerged often on posts tagged with the Assembling Technology code was a related code of "Differentiating Practice". Differentiating Practice described a common occurrence where performers shared characteristics that distinguished professional-level streaming from less polished productions. As in the first example, TracerOne is interested in the practical matters of producing a nice-looking stream, but she expressed anxiety over how her stream stacks up (that is, is differentiated) from other streams. As another example, in a thread discussing whether giveaways are a good approach to attaining regular viewers through raffles, a well-respected regular and site moderator named Mojo2 replied,

"*Discoverability is nothing without retention* [discoverability in this case

meaning the ability of users to find your stream]. *Before running [a raffle],*

make sure you're happy with where your stream is at. Make sure your audio

and video are on point and you're on top of your game as a caster."

Here, the technical capacity of a stream is positioned as a means of retaining viewership. Being "on point," technically is a way for streamers to cultivate dedicated viewers through the audial and visual quality of their stream. Thus, facility and skill in using technology, piecing together many disparate elements into a single artifact, and showing one's skill via the design of one's stream emerged as an important aspect of habitus in broader streamer culture. The blending of cultural capital (presenting a stream that is designed according to current tastes), symbolic capital (retaining viewership through those design considerations), and technical ability calls to mind Dovey and Kenendy's (2006) concept of Technicity in game cultures, where technical capacity is blended into the tastes and dispositions of the gamer identity.

4.2 Building Community

In addition to the skills and practice necessary to stream on a technical level, the social skills of cultivating, managing, and curating one's chat were also a frequent element of discussion in SP.com. In my coding, several practices emerged as important in building community and increasing viewership. Although building community often **leads** to increased viewership, the strategies of building community aren't necessarily synonymous with increased viewership. A community value within SP.com was that a strong, cohesive, and fun community is more important to a successful stream than simply having a lot of viewers. The value of playing for fun

will be drawn out more fully in subsequent sections, but is important to foreground for this section.

Among the skills associated with Building Community, regulars suggested to newcomers that "networking" - that is, purposefully viewing and participating in other streams in order to make friends and establish connections - was a core way to build community. An example of networking comes from a thread titled, "Should you help others during your stream" A user named GamingNDL talked about a problem he is having: viewers on his chat who ask him for advice in his stream, and then leave for their own streams after getting an answer. Another poster, Lisalimone replied with,

> "*I always try to help if I can. Especially when it comes to questions about streaming. Once I stopped with the attitude that I have to compete with everyone else on Twitch streaming has become more fun for me. Therefore I do not see a reason not to help my followers. Maybe they will give you a nice shoutout one day that will help you back. You never know.*"

Lisa is positing that helping other streamers is more than just a friendly practice, it also feeds into the attitude that one has as a streamer, and may be reciprocated down the line. In this passage, there is more than just straight-forward advice on practice, but also a question of disposition and values. Not being competitive, and acting friendly towards others is not only smart from a networking perspective, but also makes streaming a more enjoyable activity. That sentiment has echoes of Taylor's (2012) work with eSports, and Postigo's (2014) study of commentator culture on YouTube, where chasing after status in a professionalize

112

domain of leisure leads participants to enjoy those domains less over time. Lisa, in the above passage, is presenting a strategy to maintain the 'fun' in streaming.

Another strategy commonly associated with "Building Community" was branding - meaning keeping imagery, naming conventions, and behavior consistent from stream to stream. Branding comes up prominently in a thread started by MiceCrafter, who started a thread called "Advice for Newbs",

> "*Hello wonderful folks of SP.com. I have recently made the decision to really try to get into streaming. That being said I wanted to have some awesome channel art like I see a lot of you have and since I do not have the money to pay one of you lovely gamers* [a feature on SP.com is a labor exchange market, sometimes used for graphic design] *I was going to try it myself. BUT, I am totally new at it. I have no idea what I am doing and frankly it is a little scary. Mostly the idea of failure is what has me stopped in my tracks. So I was wondering if you fine people could give a girl some tips on what you look for or try to design when it come to channel art.*"

The conversation quickly turned to branding, with several posters giving single line advice about the importance of having consistency between one's header, avatar, and panel graphics. People also offered practical advice about the free graphic design software Gimp (free software is often appealing to SP.com members, due to the large cost of hardware and games). The user Mr. Baum also recommended Gimp, but provided further practical advice about branding as well,

> "*That said, programs are actually the least of your concerns. If you just want some simple channel art (not branding or anything that defines you as a*

streamer) there's TONS for free on Google. And with regards to branding and

personalizing, you can use GIMP for stuff like adding your details and social

media info to generic panel graphics and overlays. As far as coming up with a

logo, well, Lisalimone [referencing an earlier post in the thread] *is correct,*

you need the idea before anything else. Nothing will look good until you have

a solid idea of the identity you want to create for yourself on Twitch. Right

now might not be a good time for that, maybe you're still hashing things out.

Maybe right now is perfect, you know exactly what you're looking for."

The above passage exemplifies an important aspect of branding. Branding was often used as more than just consistency of design and name, but also as a synecdoche for one's identity and praxis as a streamer. Branding is channel art, but is **also** the attitude that one takes towards games, game choice, and modes of audience interaction. One's brand may be summarized graphically as a logo or as panel art, but the brand is all a part of a larger streaming praxis. Identity will be discussed in the next section, but the concept is worth bringing in briefly for this discussion. A related code that often accompanied branding, was "Spaces Interacting". The importance of social media spaces affiliated with the stream was often positioned as a way to effectively advertise one's stream and network among other gamers. In the image below from DoubleJJ's signature (edited to protect identifying information of the participant), one can see DoubleJJ makes an effort to standardize these spaces as a single streaming brand,

Figure 5: DoubleJJ's signature showcasing multiple social media spaces.
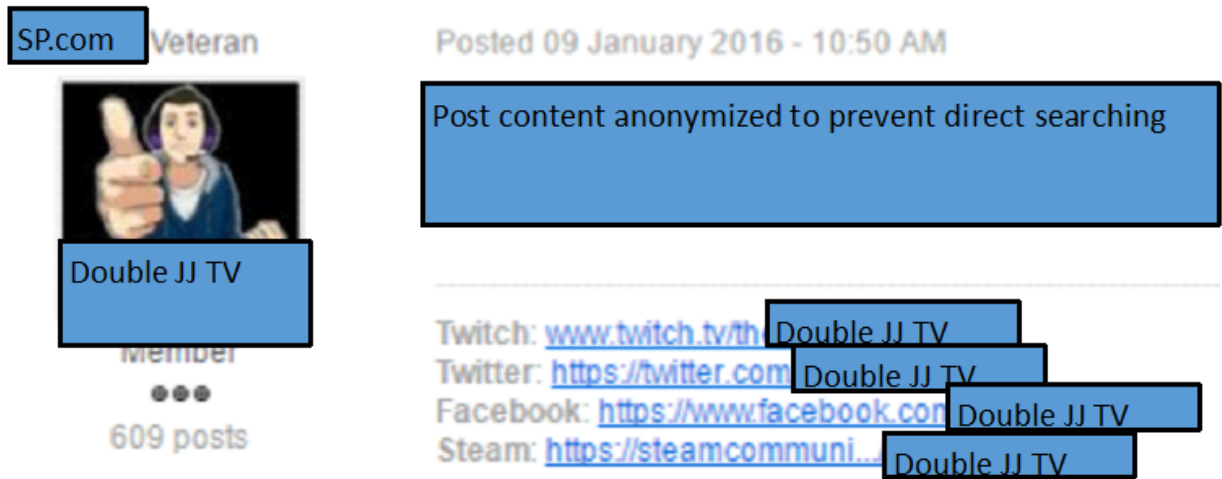
In another conversation, Mojo2 gave the following advice about social media spaces in a thread from a poster who is frustrated with their growth and looking to expand,

> "*Effective use of YouTube, activity on gaming parts of Reddit, social media, and even flat out advertising via facebook, twitter and reddit ads are all possible avenues. Though I'd save straight up advertising for later on when you're starting to really build a community and have a decent viewerbase. Mobilize your viewers, get them tweeting and passing on recommendations via word of mouth. Step up your meme game. It sounds stupid, but getting people to make silly memes of you on social media can be some of the best advertising.*"

Mojo2 brings in an important element of both Branding and Spaces Interacting, which is the idea of gaming related spaces and other platforms that transmit game culture act as important aspects of a streamer's larger praxis.

The final prominent strategy of Building Community is fairly simple and

straightforward, but often regarded as one of the most important: maintaining a

schedule. A schedule refers to regular times over the course of the week when a

streamer will broadcast. Schedules are often featured as an aspect of the stream page

itself, typically as one of the information panels below the video portion of the page.

In the stream goals thread, scheduling comes up with regularity as a goal from the

lists that various posters are contributing, "*Start showing up on time again. / Stream

more consistently / Keep to my schedule / Be more consistent overall, start the

stream on time* [excerpts from various participants in that thread, chosen at random by

use of the "Scheduling" code]." Being consistent and allowing viewers to plan around

your stream is a desirable, but fairly difficult aspect of streaming habitus. Mojo2 in

one of his frequent help posts for new streamers put the importance of scheduling as

such,

> "*Also, having a schedule or system that is clear and easy for a viewer to
>
> understand helps a lot. Not just times you'll be streaming but also which
>
> games. Being predictable makes it easier for people to follow you and ensure
>
> they can be in attendance.*"

However, a code related to scheduling is "Burning Out", referring to the lack of joy

that comes from plugging away at streaming - especially when growth is limited. In a

new streamer advice thread, the poster Nick phrased burnout in the following terms,

"*Most important advice is to not burn yourself out. Set an hourly amount of streaming

to do each day and stick to it unless you have said otherwise to your audience.*" An

example of burning out and frustration is especially prominent in a thread started by

the relatively new user Thanos, who was disappointed in his lack of growth as a streamer (as mentioned earlier, threads expressing frustration are a common genre in the data). He wrote,

> "*Just kind of voicing my frustrations, and you all are so kind and understanding. I'm having a tough time as of late. I've developed my stream and finally gotten to a point where I feel like I can consider myself 'professional' in terms of art, presentation, equipment etc etc. and even still am dumping money into improving those things, such as sound.*"

Here, Thanos talks about the "art, presentation, equipment," being professional, relating back to the code of "Differentiating Practice." He continued,

> "*I've revamped my art and scenes to be cleaner. I've been engaging when there's someone to be engaging with, but I don't feel like I'm getting anywhere. I LOVE doing this stuff but it's getting harder to justify to myself (and my wife) why I spend so much time and money on this when I get maybe 3-6 viewers and no new faces.*"

Another user, Chucklefish, replied, commiserating with Thanos' woes on streaming,

> "*The streamer grind is a grind unlike anything I've run into even in the most hardcore of MMO's. The stream god requires many a sacrifice along the way. That's probably why many streamers burn out or give up after a few weeks, or months. With the current massive state of twitch, and the ability for anyone to stream on their consoles it's even more difficult. But, I see this as a journey of a life time. It's a chance to work towards my dream of becoming a*

professional entertainment and gaming personality. And you too my friend,

will be able to do this. We're all in it together, let's DO THIS."

Chucklefish, as is the norm in SP.com is very supportive, kind, informative, and positive, but they also recognized that successful streaming requires "sacrifices" to the "stream god" - time, money, and effort. Chucklefish attributes the effort required to stream to the sheer size of Twitch, and the massive saturation that has occurred in the streaming ecosystem. Building a community is tough, but ultimately a primary path to success as a streamer.

All three strategies described above - Networking, Branding, Spaces Interacting, and Scheduling - play into the larger theoretical category of Building Community, which is typically viewed in relation to accruing various forms of capital on Twitch. Increased community leads to increased viewership which in turn has a chance to turn into potential revenues from streaming. However, more veteran SP.com streamers also helped novices to understand that building community was more than just increasing viewership - there was also a deeper, symbolic capital at stake. A prime example comes up in a thread where participants were discussing how to engage in a genre of streaming where the performer frequently switches games and genres from stream to stream called **Variety Casting**. Mojo2 advised to stick with one genre for a while, and then move to variety casting, saying,

> "*Once you build up a community of a dozen or so regulars who are always*
>
> *there regardless of the game you'll be in a good position where moving game*

to game isn't so bad because those regulars help to give you more visibility in

[the category you are currently playing]."

In the above excerpt, Mojo presented the idea of a stream's community being

a regular group of viewers who come back consistently, and was therefore

communicating a hidden benefit - or a form of capital - that arises if one dedicates

time and resources to building a community of regulars: a dedication to the streamer

as a person, and a patience for experimenting with a variety of games. Beyond

viewership numbers, the presence of regular viewers will give a streamer a leg up

with more initial visibility in new categories of games, where it can often be difficult

to attract new viewers.

Interestingly, through the data, the actual skill of gameplay itself is

downplayed, drawing a distinction between the similar genre of eSports (Taylor,

2012). Instead soft skills such as building community are largely what directs success

with streaming, slowly unlocking benefits accrued from the cultural capital of

dedicated and consistent viewership. As the analysis progressed, I found that while

gameplay skill was not particularly important for channel success (outside of

channels operating on high level competitive play), instead the **attitude or**

disposition that a performer took towards gameplay was a central aspect of

successful streaming habitus.

4.3 Adopting a Gameplay Attitude

A common question among new streamers was the question of what game

they should play for their audience. Often new streamers tried to stream a game that

was highly represented by other, more established streamers, and would have hundreds if not thousands of concurrent broadcasts during peak hours - the popular strategy game *League of Legends*, for example. In threads answering questions about game choice, a code that frequently emerged was the larger theme of "Adopting a Gameplay Attitude". As an example, a new poster to the forum posted a thread where they asked for advice, and talked about their lack of success in streaming *Counter Strike: Go* (one of the most popular games on Twitch). They mentioned their frustration with their lagging viewership, and asked for general advice in increasing viewer numbers. A longer reply, written by a senior member of the board VGNerd (who is notable in being a partnered Twitch streamer), contained the following advice,

> "*Your mindset before hitting that 'stream' button is important. You're about to sit down and play a game, that's always something that should be positive... games are supposed to be fun! If there's ever a day when there's too much going on and you just can't get into your stream, don't feel that you need to broadcast just because your schedule dictates that you should.*"

More important than simply producing a stream because one feels obligated, is the attitude that one brings to the performance: "*games are supposed to be fun!*" The above encapsulates what emerged as a primary concept of my streaming practice model: that the main skill inherent in streaming is adopting a fun, casual, naturalistic attitude towards gameplay. Mojo2 had a related perspective on the idea of having fun, which was posted in a different discussion about increasing viewer interactivity,

"If you're enjoying the game, people will want to be a part of that. They will want to interact with you without any prompting (although encouraging that interaction is certainly helpful). If you're new to streaming and you've just started up your channel for the day to zero viewers, you need to keep a positive mindset. You're playing a game! You should be having fun! If you're not having fun when that first viewer stops by, why would they want to stay?"

The idea of presenting one's stream as fun and enjoyable ties into the previous category of "Building Community" in the way that the performer's self-presentation as a gamer is related to building a strong community of viewers in their chat. Participants often hash out what makes for a good stream in terms of persona and self-presentation, which is often captured under the code "Negotiating Values". For example, in the thread mentioned above - Thanos voicing his concern with his growth - a regular user named Farmboy gave a quick encouraging post, telling him to continue streaming despite his frustrations, *"If you truly love doing it 3 viewers or 300 shouldn't matter. (but yes I know it does in the back of your mind)."* That quotation raises a central tension in the data: fun is important, metrics don't matter, but ignoring the viewer count is difficult. Practical advice is often to simply hide the viewer count from sight. A regular poster named Nick said as much in a thread asking how to maintain a positive voice when one is broadcasting to an empty audience,

"As you work on [growing your audience], a tip I see often here on SP is to hide your viewer count, and imagine you have 1000 lurkers in the audience. This will help you develop that 'Live' persona. It's not about being fake, it's

just playing for an audience, wearing your personality on your sleeve, and

cranking that energy up a bit."

The above advice is echoed throughout the data. There is an important distinction between **adopting a gameplay persona** and **being fake**. Nick calls the attitude one should adopt as a streamer a "live persona" in his post, which equates with "cranking that energy up a bit", or magnifying elements of the self that already exist. However, with so much of the self going into a stream, the failure to attract an audience is made more personal. Regardless of attitude, streaming is a practice that is about having an audience watching one's performance, with audience being captured in both tangible (e.g. viewership numbers) and intangible (e.g. positive feelings of fun and enjoyment) metrics.

4.4 Feedback Loops, and The Practice as a Whole

Assembling Technology, Building Community, Adopting a Gameplay Persona, and are interrelated with one another. For example, as shown in the section on Building Community, the poster Mr. Baum highlights that a streamer should be Assembling Technology (designing the look and feel of their channel) after they have established an identity (Adopted a Gamer Persona). Through analysis I found that a streamer's channel required a complex development of the persona, the technical skills to create a professional looking channel, and ability as a community manager to attract a dedicated viewership. A major product of analysis was the model below, which serves as an important analytic tool to understand and capture the **process** of how the above codes, categories and themes interact (Charmaz, 2014).

122

Figure 6: A graphical model of streaming practice.

The Practice of Performing Play

Determines

Partnership ⟵

(Quantified Metrics)

Followers	Total Views	Average Concurrent Views

Stream Metrics

Fun	Community Strength	Self Satisfaction

(Intangible Metrics)

Moderates and Interacts with

Constitutes

| The Individual Streamer | + | Gameplay Attitude / Game Choice | = | On-Screen Self |

Gameplay

The Channel

Hardware

Software

Graphic Design

Community

Interactions in Twitch Ecosystem

Branding

Networking

Outside Spaces

Scheduling

Burning Out...

Day to Day Life

Assembles Technology to Create

Builds Community Through

Feeds Back Into

The above model uses boxes to represent different elements of streamer praxis, with the practice existing overall in the day-to-day life of the streamer. Streamers adopt a gameplay persona to interact with their community, which they seek to build out through a variety of means. They present a channel, where their gameplay is a central aspect, through assembling a number of distinct pieces of technology, all informed by their gameplay persona. All the while, the individual is cognizant of their stream metrics (which will be discussed in the next section), feeding back into their choices and strategy in the other domains of praxis. Given dissatisfaction with both the tangible and intangible metrics of the stream, the streamer may continue, change their approach, or they may burn out and stop streaming. The model I have presented is not a **complete** model by any means, nor is

it representative of all streaming praxis (as will be discussed in the next chapter), but it does provide a firm basis from which to consider further investigation of performing play. In the next two sections, I will conclude by highlighting two major tensions that were evident among SP.com members as they strove to put the above model into action.

4.5 Quantified and Intangible Metrics: The Goals and Desires of Performance

Common among all threads in my dataset was the code "Setting Goals". This code was generally used to describe passages where participants set benchmarks and metrics to measure their success - as well as their desires for their stream. The design of Twitch features several quantified metrics that were mentioned within this code: the number of current viewers on a stream (e.g. viewers currently watching a stream and in chat), over-all viewers (e.g. the total number of times that a channel has been viewed over its lifetime), and follows (e.g. a type of subscription that allows users to be notified when a performer is live).

The numbers mentioned above are all visible to the performer from their stream "Dashboard", and are key in eventually qualifying for **partnership** with Twitch. Partnership is an economic relationship between a streamer and the Twitch platform that allows the streamer to generate steady revenue from their performances. Partnership was often posited as an ultimate, end-goal for participants, even if it was also positioned as difficult and out of reach. Growing regular viewership is a key aspect of gaining partnership, so many posts asked for advice on how to improve their

124

quantitative metrics found in the Twitch platform. For example, in the following post, a new user posed a question about how to get more consistent viewer counts,

> "*Hello all! I've been streaming for almost two years now but have recently kicked things into high gear lately: more frequent streams, better gear, just an overall better experience for the viewer* [this sentence was coded as "Differentiating Stream" and provides a good example of that category of data]. *The problem is that being a variety caster it's hard for me to maintain a steady audience … I'm proud of the small community I have and if it stays the way it is right now, I'd be okay with it. However, I do strive for bigger things and do wish for a larger community.*"

In response to the above post , Farmboy replied with the following, questioning the premise of the original poster's query,

> "*There are many other goals you could set [apart from viewership] that would have more meaning. 'Trying to complete Dark Souls* [a niche game frequently positioned as fairly difficult] *without dying!'; 'Trying to complete the entire (Franchise Name) series!', or even 'Trying to win GTA V* [a popular game series that centers on vehicular crime] *races while drunk!' all of those are much more interesting goals that would entice me to watch a channel over 'Trying to reach XX followers!*"

The above exchange is coded with "Negotiating Values of Practice", and represents an approach that is differentiating between striving to hit a certain quantified metric of streaming ("*Trying to reach XX followers!*") and other goals

related to enjoying and experiencing gameplay in an unique fashion ("*Trying to win GTA V races while drunk!*"). Here we can observe a definite friction between the metrics that Twitch displays for a user, and the goals that are foregrounded in the discussion of the practice on SP.com as core values of the performed gameplay on Twitch. As mentioned earlier, the advice to ignore viewership numbers leads to the physical practice of hiding one's view count from sight. In a thread where a new participant relayed that they have been choked up by a "view bomb" (meaning a sudden influx of viewers, often from being promoted by a more popular streamer), The author, Subz, posted,

> "*Honestly hiding the view count altogether helps in a big way. That way you have no choice but to act normal in event of a view bomb ;) it's crazy how getting too focused on the number can affect you mentally as a streamer, so just nip that in the bud and focus on being yourself.*"

That passage calls back to the earlier discussion of presenting a real, fun, and natural self to the audience as a desirable streaming persona, and also highlights the friction between succeeding as a streamer (e.g. quantified metrics of viewership) and doing so in a way that is enjoyable (e.g. intangible metrics of fun and joy). Streaming, and especially so on Twitch, was positioned as being highly competitive, and even with a shared value in the forum of being naturalistic, fun, and unconcerned with numbers, most participants still appeared very cognizant of the quantified metrics of the system.

Talk of metrics generally also coincided with talk about goals. One of the most heavily trafficked threads in the dataset was called "Streaming Goals for the

New Year". It was posted in January (towards the start of my data collection range) but continued to have activity for several months - well into March. An interesting aspect of this thread was that posters freely mixed both the quantified metrics presented by the platform alongside the intangible values characterized by fun in performance, uniqueness of persona, and strength of community. As an example, the regular poster Octoclock presented the following list (slashes represent line breaks),

> "*complete all elder scrolls games / complete all final fantasy games / continue expanding and finding ways to give back to the community / 1,000 followers / partnership? whatever :kappa emoticon:* [used to express light-hearted sarcasm on Twitch]"

Here, the poster is presenting a number of goals: gameplay goals (e.g. completing two different game series on stream), a goal relating to their viewership (1,000 followers), a goal of giving back to the SP.com community, as well as a sarcastic intonation of partnership. Partnership is often framed in a sarcastic light, both within the Goals thread, and in the larger dataset. Partnership is viewed as being highly prized - being a partner means being able to pursue streaming as a career instead of a hobby. However, partnership is also extremely exclusive and difficult. For example, further down in the New Year's thread, another regular wrote, "*Get partnered! / Ok, but seriously...*" others are less sarcastic, but still skeptical, "*[Goal Three] Get partnered. It is very unlikely, but it would be a dream come true to get partnered and make this something I could live off of.*"

In Twitch's (2017) own help document for partnership they describe the process of becoming partnered as such, "... *we are looking for broadcasters that have*

127

large viewership and have built up a strong subcommunity of their own. These

broadcasters engage their audience, produce amazing content, and find ways to stand

out from the crowd … you should look to produce the best content you possibly can

for your audience. As your skills as a broadcaster and entertainer improve, we hope

that your audience will grow too." Alongside that advice about the content and

quality of stream, Twitch presents a fairly firm average concurrent viewership

requirement of 500 viewers on a regular basis. In my experience with SP.com,

participants would be ecstatic to draw a tenth of that in a single stream. In the official

structuration of Twitch's partnership mechanism, we can also view the same tension

between tangible and intangible measurements of quality.

The need to be naturalistic, fun, and entertaining (while still growing one's

audience) is difficult. Relating back to the code of Burning Out, a somewhat regular

poster named DetroitLions posted a goodbye thread in March, after being present in

the dataset since January. They wrote,

> "*I started to feel like a slave to my stream, even when I played what I wanted*
>
> *… That burden to turn on your channel cause if you didn't you'd be an*
>
> *asshole to your audience cause who else will entertain them? Honestly*
>
> *thousands of other channels probably could…*"

Data such as the excerpts above lead to a major tension in the praxis of

performing play: **tangible metrics foreground behavior and attitudes to increase**

numbers, intangible metrics stress a fun and carefree approach that ignores the

hard numbers of the technological system. The tension between these two forms of

measuring success is echoed in Twitch's (2017) own support documentation, and the tension between the two forms of metrics often leads to frustration among participants on SP.com

4.6 Inequity in Community Moderation

Even though Twitch is often positioned as being more supportive and less toxic than wider game culture, participants often shared their own experiences with toxic behavior as they performed play. Experiencing trolling and harassment makes sense, given the performer's dual role as both a player and as a community manager. Discussions often took the form of workshopping how to deal with trolls and hecklers in the stream chat, and were therefore coded as "Handling Toxicity". An example comes from a thread posted by a relatively new user named Jaker, titled, "What rules do you use for your channel?", which was part of a series of earlier threads where the same poster discussed being a new streamer, asking questions about several other Twitch best practices. He opened with the following,

> "*I don't mind people trash talking me in chat. Some people come just to harass me. Which is fine since i'm good with comebacks and i don't care if someone says stuff to me. People tell me i'm fat, and i can only agree with them. I am sorta fat i guess. Why would i care. It seems to be entertaining for my viewers whenever someone comes to the channel to trash talk me and i then just continue to destroy them. So i don't want a rule not allowing this stuff.*"

Jaker then asked what other SP.com members have on their own channels in terms of textual representations of rules. There were several replies that agree with one another: generally, the other posters agree that they don't use one of their panels for rules, but they do enforce a general standard of common decency. Farmboy, for example, agreed with the original poster, and expands,

> "*None. I grew up 'on the net.' What is shocking to a troll is child's play to me. Still, if you are killing the vibe and OTHERS in chat might be offended I will ban. If you don't know how to behave there is nothing lost if you get kicked*"

A regular user, Pixelated, brought in another element to the conversation: having a moderator staff that can deal with trolls,

> "*I don't have a list. When there's backseat gaming I just tell them to stop. Spoilers* [chat participants who reveal important game details intentionally to ruin the flow of a storyline] *get purged from chat. Trolls are usually pretty bad at trolling nowadays so I usually just mess with them. Anyone who outright tries to 'offend' me and call me names is like the absolute laziest and not worth the breath. Those are the ones the mods get to have fun with and timeout.*"

Another regular user, Octoclock, agreed with Pixelated's reply, quoted it, and added on,

> "*I had a rules panel at first, then I realized that Trolls don't care because…. Well, they're trolls. Common sense goes a long way and my chat regulars*

inform me when someone acts out and I don't see it. I also have good mods

who don't really put up with BS either."

There are also several one-line responses that mention the use of moderators as a buffer against having to deal with petty trolling, such as name-calling and insults. One of the last posts in the thread is from Krankle (an infrequent poster) who added, "*If you focus on building a community of like-minded people, then you won't have to worry about rules,*" tying the code of Building Community into the discussion. A common theme worth noting the above responses, and which appears frequently across the dataset with regards to trolling, is the idea of having a thick skin, being used to harassment, and simply ignoring abuse as being common and effective strategies. Being a gamer, and having experience with the pseudonymous social spaces of games are often positioned as helping one develop the knack for either heckling back, or ignoring trolls, echoes the dispositions of pseudonymous game-related spaces from several studies in my theoretical framework (e.g. Auerbach, 2012; Dovey & Kennedy, 2006; Kirkpatrick, 2013).

Apart from direct harassment and trolling, another common topic of discussion involves jealousy over other users who have gotten their viewership in a way that is seen as being illegitimate: using either bots or programs to create false viewers (called botting). A participant named Dariusness, who was a beginning streamer and often posted threads asking for advice, raised the topic of botting in a thread titled, "How do you know if someone is buying followers?" He writes,

> "*So this person I follow, no names for now, because idk if it's botting or not,*
>
> *but it baffles how someone new to streaming could get 40 followers in a*

matter of a few hours not even streaming at the time. This was just something

I've noticed and wonder if you guys think it's follower purchases. If it's legit

good for him honestly."

After some back and forth discussion about whether or not the described behavior

was indeed botting, most users agreed that it was, and also expressed frustration with

the practice of botting. VGNerd added to the discussion, calling to mind earlier value

statements about streaming to have fun, and not being competitive,

> "*There is nothing, absolutely nothing, that any streamer can do that will have*
>
> *a negative impact on your channel. The best way to discourage botting is*
>
> *simply not to watch that channel. Live your life. Do your own streams, watch*
>
> *other channels you enjoy. I've encountered several streamers who think that*
>
> *cheating their numbers will get them somewhere; believe me, it will not. One*
>
> *person in particular now has over 300,000 'followers' and regularly gets*
>
> *1,000 to 3,000 'viewers' per broadcast. Twitch would be jumping at the*
>
> *opportunity to partner them… if those views were legitimate. All you'd need to*
>
> *do is go to that channel and see that, out of those '3000 viewers' only 30 or so*
>
> *people are active in chat.*"

Mojo2 quoted VGNerd's post in agreement, adding on,

> "*Yes. Exactly. I've said similar in other threads. When it comes to botting*
>
> *the only people benefiting are the bot owners. Visibility is only part of a very*
>
> *complicated formula that determines if a streamer sees meaningful growth.*
>
> *Someone can cheat themselves up to 200 viewers and several thousand*

followers, but if they have the personality of a rock or a choppy stream it

won't mean a thing. Bots do nothing for retention. People may find the

stream easier, they might drop a follow but are they going to stick around...

especially when it becomes evident they're obviously botting?"

Both Mojo and Nerd agree: first that worrying about another viewer's

numbers is a waste of effort, but also that the core skills that comprise the practice are

what really drives "meaningful growth". However, as described in the exchange

above, the quantified metrics of Twitch drive both jealousy and cheating practices.

Apart from the obviously fraudulent practice of botting, participants also

occasionally express displeasure with (otherwise) legitimate streamers who they see

as performing in a way that does not fit with their own values of what makes a

worthwhile stream. An example comes up in a thread titled "What do you DISLIKE

about Streamers?" by a semi-regular poster named RetroGamer. They wrote,

"*I recently posted a topic 'What Makes you Like a Channel' to give the new*

streamer some ideas about what the audience is looking for when they watch

your channel. I'd like to hear your opinions about what dislikes you have

about streamers. What are some things in a channel that flat out repels you

from it?"

SP.com is generally a positive and supportive place, the "Dislikes" thread gets

a lot of replies from regulars critiquing the praxis of other streamers - often in terms

of ways that are viewed as illegitimate, or cheap ways of gaining viewership. To

provide context, the above thread was posted several months after the Twitch decency

standards (mentioned in Chapter 1) had gone into effect. Many of the respondents to the thread colloquially mentioned "boob streamers" as a frequent complaint - meaning a female streamer who is perceived as using their physical appearance to attract an audience. KhajiitKendall expanded on the sentiment of using physical attractiveness to gain viewership as being illegitimate,

> "[item 5 in their list] *Boobstreamers / gamer girls. I make a very clear distinction between 'gamer girls' and female gamers. Female gamers are just that: gamers are also female. 'Gamer girls' are girls who use games to get attention, and have absolutely no passion for gaming as a whole. And if I want to see boobs, there's better live streaming websites (and better looking women) where they show a whole lot more than just lame cleavage.*"

Khajiit's post is 'empty quoted' (meaning a post that consists of only a quotation, often used to symbolize support) several times, and the original poster (Retro) called out the above passage specifically as being accurate and insightful. Another regular, RollTide, agreed, and expanded upon the ideas being tossed around in the thread,

> "*Generally I just dislike boobstreamers, and bad attitude often comes as a part of that. I may be picky about this, but when I see a caster with some moderate success: they've just earned a sub-button or X amount of followers and they change, for example making their chat sub-only* [meaning only subscribers can participate in chat - essentially a way to require subscription, and thereby drive viewership]*, or they're really eager to push their donor button* [donations are a non-partnership way of making money through direct

contributions on a site like PayPal]. *Generally sudden monetisation I dislike,*

and especially when it becomes the streamers priority, rather than

entertaining their audience. It comes back to the attitude as people have

mentioned … If they don't show interest in their viewers or treat them as a

money source rather than as a person/friend."

Tide's expansion upon the themes previously raised in the "Dislikes" thread point to the ways that metrics (subscriber numbers) help to fuel other, value-based elements of habitus. The subtext to the "Dislikes" thread is the idea that earning success in streaming through a way not directly related to good streaming praxis is fake, cheating, and against the larger values of having fun while playing. Both of these themes in the data point towards instances where the generally positive, and easy-going nature of the Twitch user base breaks down: trolling, exclusion, and toxic attitudes towards other streamers with praxis viewed as illegitimate. My data on trolling and harassment expands on a primary tension that arose from my data, **the inequity of community moderation.** Two important aspects of performing play are building a strong a supportive group of dedicated viewers, and developing and presenting a unique persona as a gamer. While streamers work hard to acquire these skills, tastes, and other expressions of habitus, building viewership can be difficult if one is facing persistent trolling or harassment, as is often the case in game-related social spaces for underrepresented groups (Alexander, 2015; Vitak, 2017). Moderating a stream against the threat of trolling can sometimes be mediated through technology (e.g. chat bots,), but often is most effectively handled by having a community acting as moderators and social filters against such attacks. The

community, apart from acting as moderators, also bolster a streamer's desire to continue performing given other setbacks, such as limited growth. These aspects of the practice suggest that vulnerable populations who are not traditionally welcomed in broader game culture may lack the social and cultural forms of capital that tend to bolster performers against hurtful behavior. A participant is coming into performing play from the larger field of game culture, and performing play is intrinsically about putting one's (typically) backgrounded self forward as a player, therefore participants from underrepresented backgrounds will potentially experience difficulty stemming from the community-based nature of moderation. Although there was not direct evidence of that inequality in the data from StreamPlus, findings from Gray's (2017) work on people of color on Twitch indicates that one's intersectional identity mediates both the treatment that one receives from viewers, as well as viewership numbers as a whole.

4.7 Conclusions

Through a grounded theory analysis of a space dedicated to streaming, I observed the way that streamers worked to develop the necessary skills and dispositions within the three domains outlined above. In the SP.com social space, more senior performers often guided newer streamers through their questions, problems, and frustrations, and offered advice to focus on intangible aspects of the practice, such as having fun, hanging out with friends, and presenting a free and easy going version of their self as a gamer. The "fun" attitude was positioned as especially important, given the highly competitive nature of the Twitch ecosystem.

136

Turning back to my theoretical framework of field analysis, we can think of the processes described above in terms of habitus, capital, and field. Performers are often trying to maximize and blend varying forms of capital together: cultural capital (being recognized as a popular streamer through steady audience metrics), symbolic capital (being able to help out fellow streamers with advice and word-of-mouth advertising, as well as commanding respect within the Twitch ecosystem), and economic capital (being paid as a Twitch partner). In a system where these relations of capital are made explicit through metrics that are quantified and displayed on a leaderboard-like system (channels are often ranked and sorted by viewership) it can be frustrating for new streamers to try and gain power within the field.

The specific habitus that is passed along by SP.com tends to focus, instead, on softer forms of capital such as the social capital of having a tightknit community, and the personal enjoyment that comes from gameplay. In addition, the capital to run a stream takes time to build, and a large benefit of the social and cultural capital of a strong community is the ability to fend off harassment with community moderators. Individuals who are most targeted for trolling, such as women and other minorities underrepresented by the game industry (Gray, 2012), may also be those who have the least capital within these systems, and are therefore unable to field a team of moderators. That tension creates an inherent inequity in access to streaming as a platform for performing play.

By studying the way that a group of performers discusses streaming, I have provided a rich description of the process by which game culture is created, reproduced, and also modified through performing play. Using this study as a

springboard, I take my findings from the group level of focus, and drill down deeper,

looking at the experiences of 7 individual streamers through connective ethnography.

These experiences confirm, complicate, and contradict what I have describe above,

and provide another view on the practice of streaming.

Chapter 5: Seven Views of Performing Play: A Connective Ethnography

My findings in this chapter are divided into 4 major themes, which evolved through a process of constant comparative analysis using the informal survey, introductory interviews, stream observation field notes and recordings, informal clarifying correspondence, external artifacts (e.g. supporting social media sites), and exit interviews.

The first finding is **Stream Histories: Presenting the Self as a Player of Games.** Each participant in the study approached streaming for purposes uniquely informed by their history as a player of games. Data about Stream Histories tended to be coded under, "Presenting History With Games", "Presenting History With Streaming", as well as the audience related code, "Audience: Presenting History With Streamer", along with two codes relating to game culture, "Referencing Game Culture" and "Audience: Referencing Game Culture", that related to data where the culture of games was referenced, discussed, and negotiated. Alongside a direct question in the introductory interview specifically related to understanding how the participant started streaming, these codes also arose naturally in the performance on stream, and in the interactions that the streamer had with their chat. Together, data coded with the above categories allowed me to form the larger and more comprehensive theme of **Stream Histories**.

Building from the individual stream histories, I used my final interviews to check the growing theories that developed through my analysis process regarding my

participants as streamers, and also to understand how these individuals see themselves as part of game culture. It is notable that each participant figures themselves as a "gamer" (some choosing to reject that label entirely) in different ways, so therefore I use the terminology **Player of Games** here purposefully, since these identities incorporate the perceived gamer identity to varying degrees.

My second primary theme is **Blended Streams: Merging Spaces, Communities, and Identities.** All of my participants brought together audience members, ideas, and identities from other spaces: both in day-to-day life, such as work and school, as well as in networked spaces, such as fandoms and online communities. **Blended Streams** is drawn from the codes "Referencing IRL Social Spaces", "Presenting History With Other Online Spaces", and "Spaces Interacting". These spaces, communities, and identities often derived directly from the histories discussed in the theme above. Connective Ethnography was especially useful in picking up on the blended nature of the stream as an online space due to its attenuation towards multiple layers of interaction. In my final interview protocol I created questions that allowed me to directly ask about the composition of a participant's stream audience, and allowed me to check the notes that had emerged from my field note data. When possible, I also secured permission from most of my participants to incorporate the related spaces of their online activity (e.g. blogs, Twitter accounts, YouTube channels) into my corpus of data.

"I think it's pretty much that's just how we are": Performing (or not) the Self on Stream. The grounded quote for the category of performing the self comes from a participant named Jeff, who worked as part of a three-person team of

140

streamers. On the stream, Jeff and two of his friends from college played social, party oriented games while riffing on the action on screen, and interacting with their audience. The quote above comes from his introductory interview, where he describes the comical, sarcastic interplay between the three of them, and the way that attitude translates well when amplified for the stream. To varying degrees, each of my other participants expressed a similar sentiment: not only a commitment to presenting a true version of their self on stream, but also an aversion to ideas of fake-ness and artificiality. Many of the moment-to-moment codes in my field observation data contributed towards the category of **Performing**, including "Interacting with the Audience", "Interacting with Co-Streamer" (where that applied), and "Playing the Game". Through observations, I observed the style of each of my participants, including their general dispositions towards gameplay on stream, as well as their relationship with the regulars in their audience.

The Day-To-Day of Streaming. A group of codes that surfaced very frequently in the data were those that related to the interaction of streaming with day-to-day life: "Presenting Lived Experience", "Referencing D2D life", as well as the related audience code of "Audience: Referencing D2D life", "Identifying with Larger Cultures" (meaning cultures beyond game-related ones), "Interacting with Larger Socio-political field" (referring to discussions that touched on ideas of politics outside of gaming) "Scheduling Obstacles", and "Negotiating Material Reality of Streaming" (relating to the technical and economic aspects of the practice). These codes came up frequently in the data – in fact there were no observations where my participants were not directly referencing and talking about their **daily lives on stream**. In interviews,

141

the concept of the day-to-day often came up as the idea of streaming being an activity

which had to be negotiated with the available time, money, and effort that was left

over from other commitments of the streamers, such as work and school. The

everyday quality of streaming isn't simply an incidental part of the stream format, but

rather is intrinsically a piece of what draws both the audience and the streamer to the

performance.

I conclude the chapter by drawing across the four findings above in order to

reposition streaming as an aspect of the larger field of game culture.

5.1 Stream Histories: Presenting the Self as a Player of Games

By design, my participants come from seven very different backgrounds in

terms of their genders, ethnicities, relationships to games, approaches to streaming,

and goals as a streamer. To begin, I will present each participant in these terms, as

well as giving a brief description of the general atmosphere and content of their

streams, in order to set the stage for later findings.

5.1.1 Amy (Stream Handle, GeeTea).

Amy is a Korean American college student in her Junior year of college, who

has been streaming for several years. She first got into streaming through social

connections that she had made in the game *Counter Strike: Global Offensive*

(abbreviated as *CS:GO*). Her friends from CS:GO thought that she would make a

good streamer, and she slowly started to learn more about streaming. Initially, her

computer wasn't powerful enough to stream,

> "*Although with the set-up I had I couldn't stream at that moment* [Junior year
>
> of high school]. *I was on a laptop without an upgraded processor or graphics*

card, and not enough CPU power to run the game and stream at the same time. So, during the summer going into my senior year, I spent a lot of money on a new set-up."

After building a new computer that was capable of both running *CS:GO* and streaming, Amy began with a very basic channel, and slowly built it into one of the more intricately designed channels out of my seven participants. Amy's model in streaming came from watching other *CS:GO* competitive streamers, and indeed Counter Strike is essentially the singular game that she plays on stream with only some variation. Amy described her choice of *Counter Strike* as her primary game, saying, "*CS:GO is still the main game that I prefer to play outside of other games. I think Counter Strike has been more consistent with me because I'm REALLY picky about the games that I played … I usually only play Counter Strike because it's the only game that I genuinely like, and can play for several hours straight.*"

Amy's stream features several technological elements mentioned in the previous chapter: a reaction camera, an overlay (which displayed recent followers and donations), a chatbot that acted as a moderator, as well as a large number of informational panels (ranging from chat rules to follower goals to social media links). In terms of graphic design, there is consistent branding on her page, featuring the same shade of blue in all of her graphics. Amy has also set up a few of the more advanced user scripts in her stream (called Twitch Alerts). For example, one script plays a short, humorous video clip of a corgi dancing in reaction to receiving a follower.

However, Amy does not keep a regular schedule for her stream. In our final interview, she mentioned a regular schedule as a goal for her stream in the future, but her commitments to school keep her from streaming as much as she'd like: "*If I'm in school, I try my best to stream once or twice a week for maybe 1 to 3 hours … If I'm on break, I'll most likely stream from 3 to 5 times per week for, [laughs] too many hours.*" Due to conflicts with other activities, Amy tends to stream late at night after she has met the obligations of her schoolwork and extra-curricular activities.

On stream, Amy is very friendly and easy going. She draws a regular crowd of around 10 viewers, with 5 of those viewers being regulars in her channel. In describing her attitude on screen, she said, "*I guess bubbly. I giggle a lot when I play, and people are always commenting on that. And, I guess, the attitude is just being really happy, enjoyable, and friendly over all. Because, when you stream that's kinda' what you want to give off so that people stay.*" Amy is highly interactive with her audience, and will take breaks between gameplay to read the chat, and reply to any new comments from her chat.

In addition to her own voice, Amy joins her stream with a Discord voice chat running in the background, which is populated by a few of her regular team-mates who play *Counter Strike* with her. The teammate who shows up the most in my data is named Ken, and he served as a sort of informal co-streamer with Amy, due to his running commentary on the matches, and his occasional interaction with the chat itself.

Amy's screenname, GeeTea, is consistent across all of the spaces that are affiliated with her stream, including her account on Counter Strike: Global Offensive

(which holds a persistent ranking given performance in matches). In chat, and on voice, everyone refers to her as "GeeTea" instead of her given name. Altogether I collected 3 observations with Amy, one of which was recorded, as well as a number of satellite social media sites that relate to her activity as a streamer.

5.1.2 Timothy (Stream Handle, Horatio42)

Timothy is a white, male, college senior. Timothy got into streaming fairly recently because he purchased a PlayStation 4 console, and found that it came with streaming and video recording software pre-installed, called "PS Share". At first he would use the "Share" feature to record videos to Facebook to capture glitches, or funny moments in gameplay to share with his friends. However, upon realizing that the console also worked with Twitch, he was inspired to create an account and start streaming through the console. Although Timothy began streaming only within the past year, he had previously recorded and produced YouTube videos for his friends in order to show off games that he was interested in. In our introductory interview he mentioned his time on YouTube, and I asked him to expand on his past experience. He said,

> "*So, I did YouTube in high school, for about 2 or 3 years. Even then it wasn't like a regular thing – I would put school projects on there, sometimes I'd put, like, games on there. That's what I would do before Twitch – would be to record games and put them on YouTube to show my friends.*"

As with many of the other streamers in the project, Timothy's limited computational resources were a major deciding factor in not adopting streaming sooner in his life,

and a reason he has focused mainly on the PS4 (which has built-in, guaranteed

processing specifications) as his streaming platform of choice.

Timothy's technological set-up for his stream is one of the sparsest among all

of the participants in the study. His channel graphics are presented in a low resolution

style, typically known as "MS Paint" in online communities – referring to the free,

and perceived as low quality, graphical editing software bundled with all versions of

the Windows operating system. Timothy employs no overlays, no chatbots, and no

reaction cam. In the introductory interview Timothy revealed that the look of the

channels is intentionally low quality, and is playing on an in-joke that evolved from

Timothy's days as a YouTuber. However, Timothy does make an exception for a high

quality microphone, "*because poor sound quality does bug me*," as he put it.

Timothy's stream is also technologically unique in the way that he interacts with chat.

Many streamers will have two screens in their chat set-up: one for gameplay, and one

for chat management. The PS4 streaming software that Timothy is using comes with

a text-to-voice converter that reads the text of chat, converts it to a robotic voice, and

then reads it aloud to Timothy so that he can respond to it.

Like Amy, Timothy also does not keep a regular schedule for his stream due

to the pressures of school work. He mentions that at the start of the semester, when

data collection took place, he had hoped to keep a regular schedule, "*Wednesday,*

Friday, Saturday… but that's already gotten messed up with exams and everything,"

indicating that (also like Amy) the conflicting responsibilities of school and work

keep him from streaming more regularly. Timothy largely plays single player games,

although he will occasionally branch out to online multiplayer genres. As a reference

146

for his style he cites the popular variety streamer named BroTeam, a channel with a very informal, humor based approach to a wide variety of genres. That humor-based style is evident in Timothy's gameplay as well, as there were several recurring jokes that cropped up over my observations of him. Timothy's selection of game choice is guided first by his own interest in the game, and secondarily if the game fits well with the streamed format of play, he put the selection process thusly,

"*Usually, it's definitely games that I'm interested in. That's like the first rule. The second rule is the game has to have enough action. I don't do really well if there's large down periods. I tried to stream the new Final Fantasy game* [a Japanese Role-Playing Game, or JRPG]*, but there's like huge stretches where nothing's happening. I can't do that. Some people can – they can talk about stuff, but I'm more about reaction.*"

Timothy's audience tended to be small, and fairly personal. In both streams that I observed of his, the maximum number of viewers was 5, and more frequently numbered around 2. There was a regular in his chat, however (who went by the screen name Doubleducks), who is a friend of Timothy's from high school. Timothy's interactions with his audience tended to be funny, informal, and friendly. Humor is a large aspect of Timothy's on-screen attitude, and also evident in my observation field notes. Altogether I collected 2 observations from Timothy. He did not have any satellite social media sites to share, however.

5.1.3 Jeff (Stream Handle, CubHouse)

Jeff is a member of a team of streamers, all white men in their late 20s, who self-identify as gay. Their stream is purposefully targeted at LGBTQ audiences on

147

Twitch, and they categorize their channel with the LGBTQ tag in Twitch's

communities feature (communities are a way of classifying a stream beyond the game

being played – another example would be 'retro game' or 'adventure game', as well

as cultural markers such as LGBTQ). Whereas Amy's co-streamers were connected

digitally via a shared voice chat, Jeff and his friends all occupy the same physical

space for their streams – a house that they rent together in a Midwestern city in the

United States. Jeff's first foray into streaming was as part of his team, with their

channel nicknamed The CubHouse. He described their shared interest in steaming as

such,

> "*Me and one of my roommates have been big video game fans pretty much our*
>
> *entire lives ... We pretty much would just play games together and you know*
>
> *provide commentary to each other to make each other laugh, and sort of like*
>
> *developed a habit for playing video games and making each other laugh and*
>
> *ended up meeting a bunch of friends in the town that we moved to who would*
>
> *come and play video games with us. We'd sort of do the same thing with them.*
>
> *And, you know, a few people mentioned that other people stream games*
>
> *online, you guys could do exactly what you're doing now but stream it to*
>
> *people and probably find an audience for it.*"

Over time, and with constant tuning of their layout and on-screen presence,

Jeff and his friends have developed a fairly popular stream – around 20 viewers on

average, with 8 to 12 of those being regulars who are there for most broadcasts. In

terms of technical set-up, CubHouse is fairly well developed. The team employs

custom graphics for every aspect of the channel, have a chatbot programmed

specifically for their content, and also use several scripts to recognize and call out

followers and subscribers. With three to four people on stream, they are able to

dedicate one of their stream members to following, reading aloud, and responding to

the chat – a job that Jeff typically undertook during my observations.

The CubHouse streams regularly on Fridays and Saturdays with their entire

crew, but recently started doing individual streams with each member of the core

group on Mondays, Tuesdays, and Wednesdays (as a way of letting the individual

team members play games they were interested in, but couldn't fit into the main

stream). For the main, group streams the style of play, and tone of audience

interaction for their streams tends to be very playful, humorous, and light-hearted.

The four will often play party games with a focus on social interaction among

players, with Jeff mentioning the *Mario Party* series as an example. These games

have competition at their core, but are random and silly enough that they don't inspire

a competitive attitude among the streamers. When asked about their game choice, Jeff

said,

> "*Our main thing is we want it to be FUN. We like played games like Mario*
>
> *Kart* [a racing game set in the Mario universe which is heavily focused on
>
> competition and skill] *a few times, but those games aren't that fun to watch in*
>
> *our opinion, because unless you're really, really good, it's just the same thing*
>
> *over and over. So it's like, what's entertaining - what can we make*
>
> *entertaining with our personalities. So that's like the biggest thing we're*
>
> *focusing on right now for the weekends … the biggest things we look for are*
>
> *like four player party games where we can trade off with each other.*"

In my experience, 'trading off each other' here meant riffing on what is happening in the game, as well as in real life. The audience gets into the spirit of riffing as well – and during my observations with Jeff and his crew I noticed that there were a number of recurring in-jokes among audience members. During the streams I observed, The CubHouse was playing a game based on the *America's Next Top Model* TV franchise, released for the Nintendo Wii in 2010. Jeff and his friends had gone to a used game store with the express purpose of finding a game that they deemed as "terrible" in order to produce interesting and funny content for the stream. *America's Next Top Model* was a title that they purchased, and upon playing the game, they realized it was deeper than they expected in terms of mechanical complexity. Their audience reacted very positively to the game, and so they started a weekly series on Saturdays to play through the game, with gameplay following a similar structure to American reality television, where contestants compete in skill-based games, and are voted off on a weekly basis. I joined roughly halfway through their play through of the game, and at that point there were numerous recurring jokes about characters they hated, the ironically dystopian nature of the game (set on a massive television set called "Model Island"), and the frequent bizarre and low quality animations and art assets that populated the game-space. Altogether I collected 3 observations with Jeff and his crew, with two of those being recorded. I was also given access to the supporting social media spaces for the stream. While I incidentally collected data about Jeff's co-streamers, Jeff was the main focus of the research, and he cleared his involvement in the study with his friends before

participating himself. Therefore, data presented about Jeff is necessarily his own perspective on what is a team effort, and should be read as such.

    5.1.4 Amare (Stream Handle, MarePlaysGames).

    Amare is an African American man in his thirties, who has been streaming for a number of years, with his channel becoming more prominent in his life within the past two years. Amare first came to streaming as a way to extend his existing online presence as a media creator across a number of other projects, namely a science blog and a gaming podcast. In his introductory interview, Amare said, "*I was getting a lot of attention on those two fronts, so I saw streaming as another way to interact with people who were already following pieces of content that I already did, which is fun.*" Amare's blog and podcast relate to STEM topics and gaming topics (respectively) from the perspective of people of color, with an attitude towards promoting diversity and equality in both fields. Often, his stream interacts with these two ventures, and serves as a cross promotion. For example, for Martin Luther King weekend, Amare ran a three day fundraiser through his channel that donated its proceeds to a charity for foster children, and was created in partnership with his fellow podcast hosts.

    Currently, Amare streams intermittently on the weekdays. He has recently left a more regular job to focus on a few different entrepreneurial businesses: his media channels (mentioned above), as well as a tutoring service in mathematics and physics. The change in lifestyle has freed up his days, "*I now do a full time math and physics tutoring service, which tends to be mostly in the evening, so now I do a lot of my gaming during the day. So a lot of my streaming has changed to be in the early morning, or in the afternoon.*"

However, that flexible schedule also makes it difficult for Amare to set aside firm times for regular streams, due to the on-demand nature of tutoring (e.g. a last minute session to prep for an exam). Amare lists a more regular schedule as one of his eventual goals for the stream. Amare's channel features a reaction cam, as well as an onscreen chat log. His panels feature links to his gaming related projects, as well as information about the most recent charity event that he had run in January. Amare said that he goes for a minimal design on his stream in order to let the game speak for itself, "*I'm not trying to mask any UI elements. [The layout] sometimes changes based on the game.*" He takes a similar approach his on-screen persona,

> "*So I do commentary, but it's not like I'm narrating a basketball game, you know? I'm not talking about everything, I'm only talking about something if something interesting happens. That is a different approach from a lot of streamers, because there are some where they are like radio commentators in baseball games, who talk about every single thing that they're doing, kinda' what they're thinking … I'm a lot more chill.*"

Possibly as a feature of his shifting schedule, Amare's streams were on the lower side of viewership among my participants, fluctuating from 2 to 5 in my observations. However, his charity events (which he passed along a YouTube playlist of for my data collection), tended to get much larger numbers, due to the fact that they are linked with the audience of his other media projects. Amare did recognize his viewership in his exit interview, and said that growing the stream was a long-term project for him, with a regular schedule being a first goal. Altogether I collected two observations with Amare, and also watched his pre-recorded YouTube capture of his

152

Martin Luther King Weekend charity stream, which was entered as field note data into my analysis.

5.1.5 James (Stream Handle, LokiDK).

James is a Chinese American college student who has been streaming for around 3 years. Unique among my participants, James (nearly exclusively) streams a digital version of the traditional board game *Go*. He first got into streaming because of an article on a *Go* fan site about players who stream and commentate their games. James realized that streaming *Go* was something he wanted to try on his own, and so he started informally streaming, later adding a webcam, a better quality microphone, and moving from intermittent streaming to a very tight streaming schedule. James' streaming is in large part dictated by not only his school and work schedule, but also Internet connectivity. At home, when he's not on campus, his Internet connection isn't very strong, meaning that connectivity issues produce a lower quality experience for his audience, as the stream is more likely to disconnect and buffer. He expanded upon the issue of Internet connectivity in his introductory interview,

> "*At home I don't stream as much because my Internet at home is a little shaky.*
> *I'm streaming on a laptop right now, which isn't very powerful, so I'm*
> *streaming at home I get a lot of FPS* [frames per second, or smoothness of
> video] *pops and stuff. When I'm at school during the semester, recently I've*
> *been doing Tuesdays and Thursdays in the evening … There was a time*
> *during the first few years where I was kind of on and off, but as of starting this*
> *past fall semester it's been more constant.*"

The format for James' streams is centered on competitive play. He is often picking up matches on a popular online Go platform, with the overall goal of improving his *dan* ranking – which is a system used in Go to indicate a master level of skill with the game in comparison to other players (and is higher than similar *kyu* ranking, used for students of the game). As an example of the use of streaming as a way to improve his dan from one of my observations, James titled his stream as "The climb to 7 dan resumes anew!" meaning that James was looking to advance from his current ranking of 6 dan.

Over the course of observations, a routine practice for James was to commentate on the moves that he was contemplating, higher level strategies, and possible alternatives. His chat would also feedback in to these decisions, and offer advice. James would play through games, with his emotional state often reflecting his standing in the match (although he never let himself become too visibly upset – even in losses). After each match James used the replay feature of the Go software to decompose and analyze his gameplay, taking audience feedback, and (since he is often a higher dan than his observers) providing game information, general lessons, and strategy considerations as he did so. Although less common, James would also do 'puzzles' as well, which are specifically designed situations on the Go board against an AI opponent, with clear solutions, that are meant to teach core strategy of the game.

James' stream has a fairly intricate level of design. In addition to the gameplay capture of the board (which takes up roughly half the screen), his overlay features a reaction camera that is trained on his face, links to several of his social

media presences, a screen capture of the scoreboard for the match, and a music player that shows the title and artist of the song that is currently playing, and which runs throughout most of his broadcast. In terms of hardware, James streams from his laptop, and keeps a second monitor trained on the chat window, allowing him to read chat commentary without having to take focus away from the game on his laptop screen. James mentioned that the design of his stream has improved over time to its current, fairly advanced state,

> "*At the very beginning … it was a lot less colorful, and it was more plain. Eventually I redesigned it. I Googled some other popular streamers and then I looked at what they did, and then came up with my own thing. I mostly tried to look at how things were spaced – if I had empty space, I filled it up with something.*"

James' audience was fairly steady through all of my observations: about 12 to 20 viewers at a time, with around 5 regulars. James mentioned that *Go* is a fairly uncommon game to be streamed on Twitch, which he felt gave him an advantage for attracting random viewership. Partially, James' audience is derived from people he knows in real life, notably the *Go* Club at his University. The *Go* community is also fairly tight knit, and James frequents in-person meet-ups, called conferences, for *Go* players – so he also knows some of his audience through those venues. However, for the most part, James' audience is composed of people who wander in from Twitch. James attributed some of his viewership to his own advertising efforts, but also added "*I don't know exactly how they find [my stream].*" Altogether I collected 2

observations with James. James also allowed me to access the social media presences of his stream for analysis.

5.1.6 Mark (Stream Handle, cakeybread).

Mark is a white, male college student. He also identifies as gay, and is an avid member of the Furry fandom, which centers on anthropomorphized animals with human personalities and characteristics (e.g. http://FurryFandom.info). In the informal survey, under the section regarding information sources for streaming, Mark wrote, "*A few of my friends in the furry fandom are semi-professional streamers, so I get a lot of advice from them,*" indicating an intersection between his interest in streaming, and his interest in furry fandom (these intersecting interests will be expanded upon in the next sub-section).

Mark has been streaming intermittently for a number of years, starting when he was in High School, "*It was like really casual, on and off. I would just play some games and my friends would occasionally come by and watch. Sometimes I wouldn't even have anyone watching at all, I would just do it.*" As Twitch became more popular, and Mark moved to college, he began to watch more streams as a member of the audience, but was held back from streaming regularly himself because of the low quality of his computer hardware, "*I got more interested in the platform, but at first I couldn't really stream a lot, because my laptop setup wasn't that good ... [I couldn't] play a game and stream at the same time, you really only do one or the other, and even then [laughs] it couldn't do either one very well in the first place.*" However, within the last year Mark was able to purchase a laptop specifically designed for gaming, "*I started streaming more frequently, like recently... like, this year. Well, not*

156

this year, but at the start of last year, but I have been doing it on and off and have a

lot of experience with it even if I haven't been directly streaming [myself]."

Mark's stream format is what might be thought of as 'variety streaming' from the previous chapter. He typically plays games that he is interested in, and will switch games frequently throughout the course of the broadcast. As an example, in one night Mark switched between a narrative centered interactive fiction game (called *Night in the Woods*), a fast-paced action game (called *Death Road to Canada*), and a casually paced farming simulation (called *Stardew Valley*) over the course of roughly 3 hours. He described his game selection process as such,

> "*It's really almost entirely up to personal preference. If there's more than one game that I want to play, I'll ask friends about it, or I'll ask Twitter for help. People who want to watch me stream are my friends more than anything else, so they'll come, and I'll ask them, 'Hey, I've got these games and I don't know what to play, what do you think would be good?' … For the most part I usually pick myself, and decide and think about it on my own.*"

Mark's stream has a modest level of design, although he doesn't employ either a reaction cam, or any sort of overlay. Notably, both his avatar and his header image are of his character within the furry fandom (sometimes called a 'fursona'), and were both custom art images created for him by another artist. The fursona character that Mark adapts, named Ceran, is consistent across Mark's social media presences, and is also how his viewers address him directly in the chat.

Mark's viewership tended to average around 5 to 10 viewers, with most of them being regulars in his chat. In talking about his audience, Mark described interaction as such,

"*Because [the stream audience] is so small, my audience tends to get really involved. Like, in the past couple streams that I've done, I've had a bunch of people just commenting on the game, or like laughing at what's going on, or making jokes for me to see, and I'm commenting on them.*"

That description fit my own field notes of Mark's streams, although I would add to his description that Mark incorporates a great deal of detail about his day-to-day life, alongside the gaming related chatter. Altogether I collected 2 observations with Mark. Mark gave me access to social media spaces related to his stream for analysis, as well.

5.1.7 Bailey (Stream Handle, Baileyz).

Bailey is a white college student, who identifies as gender non-binary (as mentioned in the introduction, I will be using they/their/them as pronouns to refer to Bailey). They have streamed intermittently for a number of years, and currently do not have a firmly established schedule. They became interested in streaming through their own consumption of both streamed and pre-recorded performed gameplay. Bailey mentions the famous streamer Joel, from the team of streamers known as Vinesauce (a variety streaming group who often take a sarcastic and humorous approach to their performance), saying, "*From the streamers I watch, I usually only watch people who are particularly charming, or just entertaining, in a way*," in defining their personal taste in streamers. After watching a number of streams, Bailey

decided to try it personally, saying "*I thought it would just be a lot of fun to show my friends, 'Hey, look what I can do!'*" Bailey's streaming isn't limited to games, as they also stream their artwork on a drawing centric streaming site called Picarto.

Bailey's streams tend to be very informal, and focus largely on social interaction with a number of friends that they have from both their day-to-day life, and also their online life in fandoms. Much like Mark, Bailey's choice of games tends to be very much based on their personal taste in games: from recommendations from friends, to getting automated recommendations from Steam (an online game storefront popular with people who play games on personal computers). During our introductory interview, Bailey told me that they had mostly been streaming horror games (games that are developed with common horror movie tropes, usually designed to surprise or scare the player). However for both all of their streamed observations, they instead played faster paced first person shooters: the very popular team-based multiplayer game *Overwatch*, as well as the cooperative first person shooter role playing game *Borderlands 2*. I asked them about their game choice in our closing interview, and they said that these games were simply what they were interested in at the time. For the *Borderlands* streams, Bailey was partnered with their friend from real life, Louise – mentioned previously in the methodology chapter – who played alongside of Bailey, and also shared the audio of the stream via in-game voice chat.

Bailey's streams tended to be on the smaller side for the sample of streamers in my study, averaging around 2 to 5 viewers. Uniquely for Bailey, nearly all of their viewers were regulars, and also connected to their life (either in day-to-day

interactions at school and work, or through shared online spaces independent of

Twitch). Bailey described their viewership in the following terms,

> "*Yeah, I have a few friends from real life who watch, and a couple of online*
>
> *friends who watch as well. Occasionally I'll post links to my stream on my*
>
> *blog, and a few of my [blog] followers might watch, but not that often.*"

I asked Bailey to expand on that statement in terms of moderation, and whether or not

they use their regulars as chat moderators. They replied with, "*Um, no, I don't feel*

like I'm really popular enough to need a moderator. A couple of my friends have been

moderators before, but I haven't regularly started streaming enough to need them."

> Bailey streams on a flexible schedule, largely dependent on what the rest of

their day-to-day life has been liked for the week:

> "*Usually, since school has recently started, I kinda' started doing streaming*
>
> *as a reward for myself, if I get enough work done during the week. I stream*
>
> *stuff, and show my friends what I'm doing, and it's just like a nice stress*
>
> *reliever.*"

However, unlike in my findings regarding scheduling in the habitus of streamers on

StreamPlus, Bailey wasn't actively trying to grow their audience. I asked if they had

any goals for the stream, and they said,

> "*Not really. I mostly do this for fun. It would be nice, maybe, - it's not*
>
> *something I think about - but if I were to get more followers, I could do*
>
> *charity streams or something like that, but only if I have a guaranteed number*
>
> *of people watching.*"

160

In terms of design, Bailey's stream also fit with their casual, and not overly serious approach to the rest of the practice of streaming. They had a consistent color scheme across their avatar and header, however did not have any other informational panels on their channel page. Similarly, their gameplay was front and center, with no accompanying layouts or overlays. I asked Bailey about that choice, and they said,

> *"Yeah, I just sort of got started. I know a lot of people like to do overlays, where, um, you can watch the chat on the screen, so that I can see it in synch, and other people like to do face cam as well. I feel like it's too cluttered."*

Altogether I collected 2 observations from Bailey, and one recorded stream. They also gave me access to their stream related social media sites for data collection.

5.1.8 The Self as a Player, Gamer and Streamer

As an organization, Twitch positions itself primarily as a platform for gaming, and the culture of games. The self-description that Twitch applies to itself in the first paragraph of its "About" page (https://www.twitch.tv/p/about) reads, "Twitch is the world's leading social video platform and community for gamers, video game culture, and the creative arts. Each day, close to 10 million visitors gather to watch and talk about video games with more than 2 million streamers," (Twitch, 2017). Recent efforts within the past 2 years have expanded Twitch's focus – first with the launch of the 'creative' category in 2015, which allowed for the performance of non-game related forms of creativity, and then with 'IRL' which allowed for discussion shows not centrally focused on active gameplay in 2016. However, the masthead for the site remains "Social Video for Gamers" (Twitch, 2017).

The gamer identity is not one that is easily adopted by all people who play digital games (Shaw, 2012 & 2014), and is a label that is heavily burdened by repeated efforts to exclude non-dominant perspectives from participation within the field of game culture (Sarkeesian & Cross, 2015) despite the fact that digital gameplay is becoming less niche and more common across all sectors of society (Juul, 2010). As shown above, the pathway that lead each of my participants towards streaming on Twitch was through a love of games. The love of game presented itself in my introductory interviews, and also in each of my observations, as the streamers would present a detailed and rich knowledge with the mechanics, history, and culture of the games they played.

For example, one of Mark's streams focused on a collection of obscure handheld games he was running from emulation software on his computer. An emulator is a piece of software that works to reproduce a console or handheld, allowing its user to play digital copies of game software without owning the physical device. In the previous observation, Mark mentioned that he was learning Japanese as part of his coursework in college, and was developing an intermediate familiarity with the language. A large aspect of the emulation stream was Mark acting as a translator with Japanese language games – for example, the first game he played was a Japanese version of a *Pokemon* game, where Mark was providing a line by line translation of the text. Partway through the *Pokemon* stream, one of his regular audience members, named Helix Cat, gave an offhand mention of an obscure game called *Boktai*, relating it to a conversation that Mark had started earlier about games that other people generally don't know about. *Boktai* was a game that I am unfamiliar

with, and I asked for clarification. Helix answers first, saying, "*Hideo Kojima* [a

Japanese auteur game designer famous for the Metal Gear franchise] *made a game*

where you blast zombies with a gun powered by real sunlight." Mark read the

exchange above in chat, and expanded, saying, "*Yeah, Boktai is super weird. I*

actually have a copy on this computer if you guys want to see it later." After about 20

minutes Mark got bored with translating the *Pokemon* game, and loaded up *Boktai* for

his audience. He then took on an informative role as performer, going over the history

of the game, optimal strategies, and commentating on the general weirdness of Hideo

Kojima's games. Helix, myself, and several of his other viewers joined in on that

conversation, giving Mark material to bounce off of, with all of us engaging in a

discussion that was fairly heavily steeped in gaming: the technology (emulators),

artifacts (obscure games), and short-hand (the idea of Hideo Kojima being a 'weird'

game designer being taken as a given) of that particular culture.

The prevalence of game culture in my field notes, as shown above, as well as

my theoretical framework, and the forwarding of game culture in Twitch's official

design lead me to develop two core, recurring questions that were present across all

seven of my exit interviews (a sample interview protocol is attached as Appendix 3):

1. **Do you think of yourself as a gamer?**

2. **Can you describe your history with games?**

For all seven participants, there were differing levels of adopting the identity

of being a gamer, with some rejecting that identity entirely. For example, Bailey

recognized that games were a large aspect of their life, but also direct in their refusal

of the gamer identity, while understanding the seeming strangeness of both elements

of their personality being true,

> "*Uh, it's weird, because I've pretty much been playing video games all of my*
>
> *life, since I can remember. One of the first games I ever remember playing*
>
> *was Pokemon. But I was always sort of hesitant - uncomfortable, with calling*
>
> *myself a gamer, because I don't take it as seriously as other people do. I*
>
> *dunno'... there's just something about the label that I don't like. Maybe it's like*
>
> *the stigma that it gives? Um, like people who call themselves gamers think*
>
> *that they're so much better than everyone else because, I dunno'... for*
>
> *whatever reason. It's kind of annoying. I guess technically I am, but I don't*
>
> *like to call myself that. It's kind of weird.*"

Others, like Timothy, accepted the idea of being a gamer easily, and also connected

that to a history of playing games,

> "[Confidently] *Yeah. Yeah, for sure. [*Me: So what about your history with
>
> playing games?*] Uh, yeah. So when I was younger, my parents didn't actually*
>
> *allow video games in the house. That kinda made me want to play them more,*
>
> *in a way. I was constantly going to a friend's house, or going to the arcade,*
>
> *which was nearby, and playing games at those places. But then, when we*
>
> *moved from California, I got my first game console. Around 10. I started*
>
> *playing games non-stop, basically.*"

Timothy and Bailey, both in their life-long history of playing and loving games, and

in the way that they used game streaming as an extension of their real-life social

spaces, were not dissimilar, however both viewed their participation in game culture very differently.

For many participants, the question of history with games had an intrinsically social element, with nearly every participant describing a gaming history that started at a young age, often as a child of four or five. Amy's history with gaming started a bit later, but is a strong example of the highly social nature of these narratives,

"*I got Steam in high school, in freshman year, just because a friend introduced me to steam. through that he also introduced me to DOTA 2* [an acronym for a strategy game called *Defense of the Ancients,* usually pronounced phonetically as the acronym – dough-tah]*, because him and a bunch of my other guy friends were playing that, and he was like 'oh you should try it out.' So I played DOTA 2 with them in my freshman year of high school, and I didn't really like the game in particular, and the only reason I did play it was because my guy friends were really into it. So I was like 'ok, I'll give this a couple more tries with them.' … When I got into Counter Strike, I was in my junior year, when a different friend mentioned 'oh, I think you'd be good at Counter Strike - I think you'd like it.' Playing CS* [the acronym for Counter Strike, sometimes used as shorthand in conversation] *was very difficult, I was very, very bad at the beginning, and he was a top rank at the time, so he would go through the process of teaching me about the game, and what I needed to know about it. It just grew on you. It's a very fun, interactive game. Playing with him as well kind of perked up my emotions about the game, and finding different people and playing with them as well really got*

me hooked on the game. And even now, it's a love and hate relationship with

CS, but I still really enjoy it."

As described above, that social element is a major factor in Amy's stream as well. The friendship connections that originally drew her to both digital gaming, and to *Counter Strike* in particular are similar to the friendship connections that drive her participation in her stream, and the recurring group of other *Counter Strike* players that are featured in voice chat on her stream.

In the streams that I watched, and the conversations that I had with my participants, the idea of social connections merging in stream was a powerful and recurring theme, as with Amy's *Counter Strike* streams that emerged from her history as a gamer, and her extension of that history into performing play on stream. My findings with StreamPlus largely posited the Building Community aspect of streaming as an activity enacted through pseudonymous online spaces. While that was certainly sometimes the case in the Connective Ethnography, observation of my participants revealed that the seven streamers each brought in elements of identities, social networks, and communities from their identities, personal histories, and day-to-day lives. Indeed, for my participants, streams emerged as social interactions that blend elements from many aspects of their lives.

5.2 Blended Streams: Merging Spaces, Communities, and Identities

A practical consideration in researching seven different streamers was that those streamers have seven entirely different audiences, and each audience has its own distinct personalities, history, and sub-culture. In a memo to myself early in the data collection process, I noted as such with regards to Bailey's stream,

"*Bailey seems to be really close to the people in their stream. Their audience seems to draw largely from a social circle of other related spaces - specifically their art and anime fandom on sites like Deviant Art. Their interactions in stream draw on a lot of these common in-jokes and shared history,*"

followed by a list of regular names that I had recorded in my first stream observation field notes. Therefore, the process of understanding the individual perspectives of my streamers was one of not only recording and investigating their personal behaviors, ideas, and histories, but also those of their audience: the unique in-jokes, perspectives, and common knowledge that made up the rapidly shifting conversation in each observation's chat.

5.2.1 Seven Streamers and Seven Communities

Common across all seven streamers was the fact that their streams were largely composed of connections made in the communities of real life spaces, other online spaces that are tied to a major part of their identity. Briefly, the following table outlines the spaces, communities, and identities that each streamer drew from for their audience:

Table 7: A description of each streamer's audience composition

Streamer	Audience Composition
Amy	Amy's audience is drawn largely from fellow *Counter Strike* players that she has encountered in the game, as well as *Counter Strike* fans who have found her by chance. Amy's stream is a bit more complicated than several others in the study, since she makes use of both the textual chat on her Twitch page, as well as her own Discord server that plays a double role as the means of communication for her in-game team of players. Amy is also part of the Counter Strike eSports team at her University, and occasionally will stream as a part of her participation on that team, thereby mixing real

	life, and online social connections. Amy described her regulars in the following terms,
	"*Well, they've been watching my stream for a while, so probably back from last year there are a couple that have been watching me close to a year. When they first started watching me I was friendly with them, and they would keep coming back to my stream whenever I came on, they would come on early, or stay in chat until the very end, so my regulars that I've had have been watching for probably over six months at least. And people come back to see me the most, and who talk in chat, and I get along with, I do give them mod* [e.g. moderator privileges] *in my stream, but I've been trying to limit myself on that because I've been getting more mods than viewers, haha.*"
	In terms of regulars in her gaming group, one of her most important in-game friendships (both in her own terms, and also in terms of his presence in the data) is a fellow player named Ken. Ken and Amy have exchanged several other pieces of contact information, and regularly communicate outside of both the stream and the game,
	"*Like I mentioned Ken, we got closer since we first met. Like we talk about personal issues and whatnot. So, we did actually exchange phone numbers with each other, and we'll just text each other about school, or CS:GO stuff. I know that in the future I was planning on going to a CS:GO Major* [a term for a major tournament, which often also serves as a social gathering for players] *with some of the people from my stream, which includes Ken, a few of my mods, some people from our university as well.*"
	Therefore, Amy's viewership comes from others who have a similar level of competitive interest in *Counter Strike*, from both gameplay, browsing Twitch, and her own involvement in real-life *Counter Strike* social spaces.
Timothy	Timothy's audience, while small, is composed primarily of friends of his from high school, and secondarily friends of theirs from other gaming related spaces. Timothy mentioned in an interview that the relationship of watching him play games while hanging out is a replication of similar social relationships that the group had while they were physically co-located in high school, "*[My regulars] are my friends from high school. They used to come over a lot, and whenever I'd*

	get a new game, they'd come over and watch me play that game. And we all went to different schools, but Twitch has let us do that with newer games. They always show up and give me a hard time."
Jeff	The audience for the CubHouse is drawn entirely from other online LGBTQ communities, although occasionally real life acquaintances that the team knows will stop by in the chat, and are also present on camera in the background while the team is streaming. Jeff attributed many of their regulars to a heavy social media push using hashtags that are prevalent in the gay gaming community, "*I think that our biggest push that like brought regulars in was through Tumblr. Which is one of the things that Brent* [one of the main team members of the CubHouse] *runs. I've never had a Tumblr, and I don't necessarily understand how it works very much, but he has a lot of followers on there, but he made Tumblr for our stream, and he would use - I don't know what they're called on there - but basically hashtags that like people would search. But he would use a bunch of big hashtags on Tumblr, and that would get a bunch of people from other Tumblrs to see the posts I guess, and then it would bring people in to the stream. Like some of our first regulars, when they first came in, we would ask where they found us, and they would say 'they saw it on Tumblr when they were looking at various LGBT hashtags', and ours would pop up and they would come in.*" An example of that advertising can be seen on their Tumblr page (which Jeff gave me permission to use as data in the study). Brent has posted a screenshot of the stream, with a note about the upcoming finale of the CubHouse's *America's Next Top Model* stream, with hashtags such as #CUBHOUSE, #GAY GAMING, and #GAYMERX (GaymerX is a movement and convention to increase visibility of gay identity in digital game culture). There is a similarly arrayed Twitter presence (which Jeff runs) as well, that also makes use of gay gamer related hashtags. While data collection for the connective ethnography was occurring, Twitch implemented a new feature known as 'communities'. Previously, streamers could only tag their streams in the Twitch database by which game they were playing. Communities gives a second level of tagging, and in the case of the CubHouse allows them to classify their stream

169

	as part of the LGBTQ community. Jeff mentioned Twitch communities as another way that the stream advertised itself to the gay viewership on Twitch, "*But after we streamed [with the LGBT tag] a few times, I went into the LGBT community to see, and it's just like a list of everyone who's streaming under that. So, like, boom. Anybody who's looking for other LGBT streams, or gay-friendly streams would obviously click that, and then feel like they have a better chance of connecting with that type of people. So that totally helps. And we've had a few people say that they came in because they were just looking through that community.*" An example of the above surfaced in one of my observations with Jeff. A user named Fivestar entered the chat, lurked for a bit, and then wrote "*i noticed u guys are in the LGBT community and it made me feel accepted :D.*" Jeff read that comment aloud to the other streamers, and then responded with, "*Oh yeah, welcome Fivestar, we are all super gay.*" Fivestar then hosted (meaning to replicate the CubHouse stream on their own channel, sharing viewership) the stream, prompting an automated script recognition from the channel, and a verbal recognition of thanks from Jeff. Therefore, the CubHouse viewership is drawn in large part from active advertising and positioning of the stream within other online LGBTQ gaming spaces.
Amare	Amare's stream wasn't heavily populated in either of my observations, however in the charity stream recording that he linked me to (as well as a few other VODs available on his channel), it is obvious that he does have a substantial audience for his performance on stream under the right conditions. Amare attributed the large amount of variance in his audience to inconsistency in his streaming schedule, and highlighted being more consistent as a goal for his stream. Therefore, it is difficult to talk directly about audience composition here, but instead useful to discuss the composition of his gaming social circle in his other media ventures, such as his podcast, which serves as a useful proxy of the potential audience for his stream, even if that was not observed directly in my data. Amare auto-hosts a number of streamers on his channel, many

of whom are people of color. I asked about how he selects auto-hosts for his stream, and he said,

"*I have a group of people that I've gotten through the podcast who are fans of our show, or just people that I've met at different conventions, or that people I've met through the gaming industry that I know also stream. Um, I basically utilize the auto-hosting functionality of Twitch so that if I'm not streaming and they are, then I can stream one of them. So it's just way for us to all to support each other, and make sure that our audiences intersect when they need to.*"

Amare's podcast, which is focused on representation of people of color in gaming, is heavily connected to his efforts with his stream. The team of people that he works on the podcast with also work together to produce charity streams, such as the Martin Luther King Weekend one that he linked me to for my data collection. I asked him about the process of putting these charity streams together, and Amare described a process several months in the making: deciding on a charity, on a theme, on a schedule, and on branding and promotion strategies. Once the initial details are settled on, it becomes a priority to recruit fellow streamers, since charity events tend to be many hours, if not days long, and require more energy than a single streamer might be able to provide. Amare expanded on the recruitment process,

"*Once we get things a little more settled with the charity, that's when we start to recruit other people to join our team. So we reach out to our personal networks first, and we also make a general social media push as well, for people that we might not know, but people who might be fans of the show. So that all gets refined in the months leading up to it.*"

Therefore, the pool of fellow streamers that Amare recruits comes from a well-developed social network of both social and business contacts obtained as part of Amare's other media ventures. Amare's podcast, and its regular listeners, also functions as a social network, along with connections that Amare has made in the industry,

"*Oh man, [I've met the people in my auto-hosting group] just from networking over the years. I've gone to different video game conferences, and events, and I've spoken at events and that kind of stuff. Like most industries, the people of color who are involved have to seek each other out and get to know each*

	other. Um, so like just over the years I've developed this clique of folks get to the next level. Most recently I think I've met most people through the podcast, and that podcast has been getting great traction, and great guests, and I would say that we're pretty much the premier gaming podcast for people of color. Through that I've met a bunch of different folks, and some of them do become part of this group.” Therefore, Amare's social network on Twitch is largely composed of contacts made through his other roles as an activist and advocate for people of color in gaming, and as a media personality and producer.
James	James' position as a highly ranked *Go* player, and his high level of activity in both the online and offline social spaces of the game comprise the viewership on his channel. As an example, James will occasionally post help articles on the sub-Reddit for *Go*, and will connect his stream to these artifacts, *"If I post something like a help video, or a guide for books, or something like that, then at the bottom I'll post a links stream and all that,"* but, similarly to advice given on StreamPlus, James avoids directly advertising, *"Or in conversation, I'll be like 'oh, hey, I stream too,' But, I don't really like to do a whole lot of advertising, because I feel like it gets kind of scammy. I know that when other people do that I get a little annoyed.”* James takes on a role as a mentor and facilitator in physical *Go* communities as well, with his efforts to create *Go* communities being evident from an early age, *"So, I started playing when I was 12, in middle school. I actually started playing after reading a [go comic] in middle school, and started playing. And after that, I continued playing. I went to some local clubs, and maybe half a year after that I went to some local tournaments, and then I got involved in the online Go community. Going into high school - I made a club at my high school, and then started doing some other online go communities - like an online go organization that organizes tournaments and things like that. Then, I continued going to tournaments. Now- I started streaming when I was in college, and then I became one of the youth coordinators for the American Go association, so for that I've pretty much been organizing several tournaments for youth in the US. So when I came here I joined the [university] club, and we play in the collegiate league, pretty much against*

	other Universities in North America. So I pretty much manage the day-to-day things for that region. So, recently we got a grant for the national Go center in DC, and that's going to be opening next month. So I'm on the board for that too." In that snippet of conversation, James moved fluidly back and forth between his work both online and offline with *Go* community organizing. He sees his play on stream as being an extension of that organizing, as well as being a way for him to force himself to practice what can be an exhausting and mentally demanding game (I will touch on ideas of exhaustion more fully in the final sub-section), by making it more enjoyable through social interaction, "*[Streaming is] basically a way to encourage myself to play more games. That's kind of something that I need to keep myself fresh, when I go to competitions and stuff. So - Go is a very tiring game to play, very mentally straining, so a lot of times I'll do something else, watch a movie or something, instead of practicing. So this is a good way to encourage myself to play more.*" James' model for the stream comes from an educational show broadcast in China, which has a similar goal of teaching *Go* skills to newer players, "*So, in China - I'm not sure if it's just a TV show, or if it's also online - but there's a place called WEITI TV, so on their site they have a bunch of videos, and one of the most popular is this professional who does self-commentary on his games. By now he has over 700. So he records it and then moves it to his website. I watched that for a while, and thought that those were really educational. So I guess I kind of took [the stream format] from that.*" Therefore, James' stream evolves from a general model in the wider *Go* community, and is an extension of James' identity as an organizer and advocate of the game.
Mark	As mentioned in Mark's stream history above, he identifies openly on his stream as a member of the Furry fandom. The Furry fandom plays a large role in Mark's stream, although it is not a central focus. As an example, while Mark was playing *Stardew Valley* on stream, he was doing so with a modification that turned all of the non-player characters in the game into anthropomorphized animals, while also giving his

character the same name as his Fursona, Ceran. As Mark is loading up the game, reconfiguring the stream to show the game's title (he had switched from a different game, and had to manually make the change in OBS), and making smalltalk with his audience, he remembers that the Furry mod is installed, and said, "*[The mod] might be surprising to his normal audience,*" A regular in chat, Omlette Wizard says, "*Wait, is that actually surprising to your regular audience?*" drawing several laughs from both Mark and the rest of chat. In other observations similar brief asides about the fandom come up, e.g. jokes about occurrences that have happened on Twitter.

I asked about the intersection of the fandom with his stream in Mark's exit interview, and Mark put it as such, "*So some of [my regulars] are into games like I am. Some are into JRPGs. Um, others are like [real life] friends, and -I think I mentioned this like when I filled out the google form- I'm in the furry subgroup, so I hang out with them, and so that's where a lot of people come from. But some other people tend to come from other places, but the general majority of them are from that one,*" he had a few seconds before mentioned advertising the stream on his Twitter, so I asked him about that, and he says, "*Yes, I am absurdly active on Twitter. I have like over a thousand followers, and tend to Tweet daily.*"

Mark gave me access to his Twitter as a data source, and Mark's description fits with my own notes about that space. Mark is heavily active, with daily tweets, most of which relate to the Furry fandom: for example, discussions with others in the fandom, expressing excitement about upcoming conventions, as well as mixtures of both Furry and gaming culture. His Twitter channel becomes an advertising venue, and thus source of viewership,

"*Yeah, I do [advertise] actually. I usually put out a link on Twitter usually before I start, about five minute before, and then I bring it up when I'm officially live, and then I usually - if it's not going to interrupt the stream - I'll advertise mid-stream sometimes. Um, but I only do it on Twitter, and sometimes I do it on Discord on some of my friends' channels.*"

In addition to the Furry fandom, and a general love of digital games, Mark is also highly active in a competitive gaming scene known as *Puyo Puyo Tetris*, often shortened to simply

	Puyo. Puyo is a competitive puzzle game, based on the classic game of *Tetris*. Mark has several *Puyo* channels on auto-host, and participates heavily in the *Puyo* social scene online. One observation with Mark involved him playing in a *Puyo* tournament, which was streamed by another account, although auto-hosted on his channel. I asked Mark about the gaming related social spaces that he is a part of, and he said, *"Um, yeah. I do Twitter. I do discord. Puyo - the English speaking fandom for Puyo is pretty much located on Twitter and Discord. My friends have small gaming groups that I hang out in. Um, and I hang out in those groups. I would definitely say it's mostly Twitter and Discord."* Therefore, Mark's audience is drawn from his real life, from his involvement in Furry fandom, and also from his interest in competitive *Puyo* gameplay.
Bailey	Bailey's streams that I observed tended to be comprised of two different social groups: the first was their network of real-life friends, many of whom had been in their life since high school, if not earlier. As mentioned in the introduction, one of the primary audience members (and later co-streamers) was named Louise, or BlueBerry by her screen name as a chat participant. However, in Bailey's second stream a group of chatters from an online fandom space was present in chat, and interacted freely with her real-life social network. Bailey described the composition of their audience as such, *"[Blueberry is] The person I played with on my second and third stream, and she's a really good friend of mine named Louise, and other people in the stream such as Kevin and Janice I've also known since high school. A few of the other people, such as Jan, Jorge and Gomez, I've met online. And, it's interesting, because I met Gomez through a fandom. Which is from an indie game, called Lisa the Painful. He was working on a side-project for the game, and I said I can probably help with the artwork. So he made a Discord server, with a bunch of other people, and we just sort of became friends from there. And I sort of met Jorge and Jan through him as mutual friends, and we've been getting along pretty well."* An example of the interaction between the real life social

space (friends from high school) and the digital social space (friends from the indie game fandom) came through in the second observation, in the following exchange: Jan had been in chat for most of the stream, but hadn't said much. About an hour in, he reintroduced himself, and during a lull in the gameplay, Bailey greeted him again, saying, "*Hi Jan, how are you?*" Jan replies with, "*I'm fine… how about you?*" Bailey replies on voice with, "*It's been a hard week, so I'm glad I'm streaming.*" Prompting an "*Awwww!*" from Louise, who was also on the voice chat for the channel. Bailey then gets back to paying attention to the game (a fast-paced shooter called *Borderlands 2*).

Bailey and Louise were fighting an especially challenging enemy in the game, and had died several times attempting to defeat it. They persisted, and finally, with everyone in the chat cheering them on, the two defeated the monster. However, due to the mechanics of the game, Louise wasn't able to pick up the items that the monster has dropped as a reward. Chat commiserated, with Bailey bringing in an in-joke from their shared history, "*This is like the ride home from McDonalds when they wouldn't let you buy the Kid's Meal for the toy.*" Janice picked up that thread, riffing, "*That is some ***! This is America! I want my toy!*" Bailey read that to Louise, and they both laughed. Bailey offered to give Louise a free item from their own inventory as a consolation, which they compared to, "*That's like going to the dollar store to get a toy.*" Jan chimed into conversation, bringing in an element of his own experience as a Swedish person, "*we don't even have the dollar store in sweden :^(.*" That then lead into a general stream of conversation that moved from dollar stores, to thrift stores, to liquor stores, to the friends telling Jan about a funny story relating to going to a liquor store in Halloween costumes to pick up alcohol for a party. The entire conversation took place alongside the game being played by Bailey and Louise, and the chat making occasional remarks on the gameplay.

As mentioned above, Bailey doesn't think of their self as a gamer, however they are heavily involved in a number of fandoms (similarly to Mark's involvement with Furry fandom). They expanded upon their fandom in their exit interview,

"*I don't know if you know what fandoms are, but they're like little Internet communities centered around, like, you know video games, or TV shows, or movies. And, I guess I'm sort of*

176

<table>
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<td>in certain fandoms. It's basically a community where I talk about games such as Borderlands, or Breath of the Wild, or Silent Hill and games like that. And just sort of exchange ideas and opinions and things like that about what we like about them, how they can be better, or other certain aspects."

I asked if they maintained a consistent identity between these fandoms, which tended to be enacted largely on Tumblr and Twitter, and Bailey agreed that they did. A similar name is also the identity that they use for their Twitch stream: Baileyz. They gave me access to these spaces for data collection, and there is a rich mixture of cultural interests: their own drawings, video game humor, more general Internet humor, and a certain sort of silly and ironic approach to these topics that is also present in their stream.

Therefore, Bailey's stream is a space that blends both their history in various online fandoms (including those for games), as well as their real-life history with life-long friends from school.</td>
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5.2.2 Importing Community: Blending Spaces in Streaming

In all of the examples above, the stream serves as a space where communities are hosted. For Jeff and the CubHouse that is a dedicated group of gay gamers, for Amare he wants to reach out to people who are passionate about equal representation in gaming spaces, for Timothy the stream is a small and intimate group of friends from high school, and so on. Although these are all vastly different communities, there is a common thread among them, which is that they have been assembled from the stuff of the day-to-day lives and experiences of their hosts. A stream is, arguably, an affinity space, being a social space that is created for the ostensible pursuit of a shared interest in a game. However, contrary to the initial theories of affinity spaces (Gee, 2003) and more in line with later research about the inherent sociality of

affinity spaces (Lammers, 2012), all seven of the streams above have a rich and fluid mixture between game-based, and socially focused chatter.

In my previous study I advanced a category of stream praxis that I framed as 'building community'. Indeed, the very phrase came up tacitly in several of the interviews, and directly in Amy's statement of the goals for her stream,

"*My goal is definitely just to continue **building up my community**, my follower base. Just because it's kind of the biggest reason why I started streaming was because I wanted to have my own community, and I really liked chatting with people while I streamed, and they also just share similar interests with me.*"

However, I would argue that what I observed across these seven different streams is more than building community (although there are elements of that concept), but also **importing community** from other locations. In doing so, these streamers are also opening up these communities to further cross-pollination and blending. In Bailey's case, it means an opportunity for her friends from digital spaces devoted to fandom to interact with her friends from the physical spaces of school and work. In James' case, it means drawing from several different online *Go* communities, as well as some members of the physical affinity space of the *Go* club, and the random Twitch viewers who simply wish to watch someone play *Go* and happen to be online at that time.

I would like to be clear that the idea of online and offline relationships is somewhat artificial – all of our networked sociality is as real as our face-to-face sociality, even if it is mediated in a different way (boyd, 2015). However, the idea of

178

online and offline was one that was also held forth by my participants, with the addition that they didn't seem to place too much importance on the distinction. Often, online acquaintances would be met later in "real life", as Mark described in response to a question about the composition of his audience,

"*[Some are from school, others are] friends that I've made online, and some of them I've met in person, some of them I haven't. Um, there's definitely a very large internet presence on what I do and the people I interact with in terms of my streaming. Um, actually, one of my streams that I did a while back I had a friend of mine who lives in Boston come down, and we did a stream together, like they brought down a microphone so that we could do like actual good recording because all I have is a headset. Um, you know, we had a really good interaction, and we had a really good time. It was good stuff, that I really enjoy out of my streams.*"

Jeff, and the other streamers at the CubHouse, make very effective use of the idea of importing community by using the affordances of hash-tag based networked spaces (Twitter and Tumblr) to bring other gay gamers into their stream. In our exit interview, I asked Jeff about his experiences as an openly gay gamer in spaces outside of the CubHouse stream, he replied with,

"*I am surprised with how little flack we've gotten. I don't know if it's because Twitch is geared towards younger people, and younger people tend not to care? But I was expecting... like the, the cynical side of me was expecting that when we started streaming we'd have to be worrying about people coming in and giving us shit on the regular. And that we'd probably have a lot of people*

that we'd have to ban now and then. But it's been overwhelmingly not that. I

think it's been like 1 or 2 people ever who have come on and tried to make fun

of us for being gay. I'm very surprised that's the case. I think that Twitch, as a

company, enjoys the diversity of its streamers, and with communities and stuff

like that, it seems like it's supportive."

However, in contrast, Amare shared that he had personally experienced

harassment as a black person on Twitch, and that his black, female friends who

stream have an especially difficult time in moderating their chat,

"*Twitch, like Twitter, has a lot of harassment on it. Specifically directed*

towards people who are not white cis males. If you get on and you're a

woman, there's all this trash about how you look. If you're not cis, it's all

about being gay and that stuff. If you're a person of color - and worse, if you

intersect all of those things, then you get it from all angles. I don't feel like

Twitch does enough on its end. There are algorithms out there, and they could

have mods on their end, to make sure that stuff doesn't get through. There's no

reason why those people should be able to get onto my stream and call me the

n-word. It's just something that they should be able to prevent. And I don't

think they put the energy into that because, like Twitter, those trolls are still

active users of the system. While I love the tech behind Twitch, and I love to

use it, I think the service really fails in the key way of the broader adoption

it."

I asked him to expand on that, regarding how prevalent his experience with

harassment was, and he replied,

"I think it's very prevalent. Not as much, any more, on my stream. I mean, I still get it, but it's decreased, but all of my female friends who stream say it's still bad - it's just bad I mean people can't control themselves, and because they're anonymous they feel like they can say whatever they want about her appearance, or what she might have done to get on Twitch … Like, there are so many things that women specifically face that they tell me about all of the time that I don't specifically see on my streams."

That idea, specifically that women streamers must be gaining advantage simply through their femininity, relates back to the findings in the previous chapter, where even the extremely supportive and inclusive affinity space of StreamPlus still had members openly expressing those same ideas without much community push-back. Amy's experiences also supported Amare's with regards to being a woman streamer on Twitch. In her exit interview she relayed the importance of having trusted moderators in her channel,

"I'm not honestly not that worried about people who cause disturbances in my chat, just because I'm so used to it myself, haha. I usually have always a mod in my channel nowadays so that they can regulate it. I know that, in the past - the people who have bothered me the most were in the very beginning of my stream, because I didn't know how to handle it. Or I would have to get out of the game myself, just to remove them from the chat. But even so, there are some really pesky people who will keep trying to troll you or bother you by private messaging you."

Here, Amy relates that a strategy she has adapted over time is to develop a thick skin, and to employ community moderation. However, she also mentions that when she was first starting out, and had to moderate her own channel, self moderation made the early stages of streaming difficult. The topic of harassment came up in the interview because of several experiences I had witnessed during her observations. In her first observation Amy was playing casually with her regular team – winning some matches, and losing others. After about an hour, a stranger came into chat, introduced himself (Amy said hello back), and then eventually started asking her age. Amy joked "I'm a 12 year old boy with a wig and a voice changer," however, the stranger continued to pester her about her age, her location, and whether or not she was single. He then began to post to chat in Turkish, and when translated was making sexually charged comments about Amy's appearance. Finally, he switched back to making those comments in English, prompting one of Amy's moderators to finally say, "*she's taken my dood,*" and remove the user from chat. Unfortunately, what was described above was not an isolated incident among my observations. Despite the harassment described above, Amy has persisted as a streamer, and remained overall positive about her experience on Twitch. It was a way for her to reach out to a community of gamers who are similarly passionate about a game she loves.

So, while the idea of mixing communities can be very generative and enjoyable, there are also dangers, and these dangers (as Amare insightfully points out) are intersectional to the race, gender, and orientation of the individual streamer. The intersectionality of streaming evident in my data supports earlier work by Kishonna Gray (2017), who's own discourse analysis of social spaces related to Twitch finds

182

similar elements of discrimination and harassment of users who fall across several

intersecting identities that are devalued by the hegemonic white, male, cis identity of

game culture. Gray, who also applies a theoretical framework of Bourdieusian

cultural production, writes,

> "*Twitching, as a form of cultural production, creates the opportunity to blur*
>
> *the boundaries of restricted production within [the gaming] community. Black*
>
> *Twitchers may not be allowed access to the spaces and industries controlled*
>
> *by their White counterparts, but they are not silent, nor are they passive*
>
> *bystanders consuming White, hegemonic masculine ideology. Black Twitchers*
>
> *act as agents of social change regardless of their intent.*" (2017, p. 366).

I agree wholeheartedly with Gray's analysis, and will address the idea of

change within game culture more directly in the following chapter. However, for the

moment, it is useful to acknowledge that Twitch is, perhaps uniquely, situated as

being a place where marginalized players of games are able to import their own

communities, identities, and ways of playing, and build a larger community around

themselves.

5.3 "I think it's pretty much that's just how we are": Performing (or not) the Self on Stream.

In the previous section, I described streams that are often a blending not only

of communities and spaces, but also identities. For example, Mark's dual status as an

RPG enthusiast, a student of the Japanese language, and a member of the Furry

fandom presents a distinctly unique artifact in the form of his stream. Bailey's history

with their high school friends, alongside their active involvement in a number of

game fandoms creates a specific mixture between two different social circles. Amare's lifelong activism for people of color within gaming draws together a number of his personal contacts through a number of spaces, and creates a specific expression in the charity streams that he organizes and designs. Relating back to my introductory chapter, all of these examples (and those of the streamers I didn't mention) constitute a performance of the self: especially in the sense of social performance (Butler, 2006; Goffman, 1959; Papacharissi, 2011). However, my use of the term 'performance' in my work is not meant to imply fake-ness, disingenuousness, or artifice. Mark, after his exit interview, made clear to me that his streams were not performances, which was an idea that had emerged in our conversation as part of the interview. I agreed with him, and explained in similar terms to the above, that I was viewing performance as an expression of the self, instead of as a misdirection. However, the distinction between realness and fakeness in the self on the stream was a recurring idea in my interviews – especially with regards to the way that my participants approached their attitude on stream.

The grounded quote in the title of this sub-section comes from my introductory interview with Jeff. As a core part of my introductory interviews (see Appendix 2) I asked what sort of attitude or persona participants approached their streams with. In response to that question, Jeff mentioned that humor and social interaction among the streamers was important, and elaborated,

> "*So like if we're playing a four hour game of Mario Party and Mike steals all of my stars and I get last place, like we can play up the fact that we're pissed, and make like fun of each other for it, but it's not actually anything to take*

seriously - like the chat totally gets off on us fucking each other over in these

games, and we know that, so like we try to make it like – I dunno', we try to

ham up the emotions a little bit, and since we're drinking we tend to overreact,

but we never ever take anything seriously, and the chat knows that. I don't

think there's ever been someone who got upset over something in stream,

because the gameplay isn't the number one thing we're focused on. The

gameplay is just the second part."

I asked him to expand on that, asking if he thought their presentation on stream matched their off-stream personas. He agreed, saying,

"*I think it's pretty much that's just how we are, and that's why the stream is*

successful. That was just always going to be our outlook on this: something

we didn't take seriously, something that, number one, had to be fun for us. And

if we could build a community, then we'd do it. I think that since our

personalities are naturally laid back and comical, I think that's what drew

people to the stream."

That quotation calls to mind one of the central values of praxis from StreamPlus: adopting a naturalistic attitude towards gameplay, and having legitimate fun with the stream. Every other participant in the study replied in a similar fashion: the way that they behave on stream (although in some cases magnified) was seen as an expression of their true self.

Amare, in talking about how his stream interacts with his day-to-day life, mentions the preparation that he does for his broadcast. He highlighted the mental aspect, saying,

185

"… as I said before it's kind of a performance, and there are times where I don't want to care about how I look, or how I sound, or if I'm paying attention to the chat. So, at those times, I won't stream. I think for some people they're more... they're just always on that, so they don't have to prepare, because that's just part of their natural way of being, whereas I'm a lot more introverted, so I have to like make a decision, where I'm like "Ok! I'm going to be entertaining and extroverted for this period of time!" and like charge up for it. So, like, that's kind of the preparation that I do for it, and like you know, if I'm not feeling it, I just don't do it, because if it's forced I feel like it just comes off as bad."

Later in the interview, he mentioned that his persona tends to be laid back, relaxed, and not super focused on constant commentary, or off the wall behavior. I asked what inspired his choice, and he laughed, saying,

"I would say more that I looked at other streamers and saw what I didn't want … Because most of the most popular streamers tend to be super goofy, or they're super professional. I didn't feel like either one of those was true to me – true to me as a person."

Similarly, Timothy sees himself as quiet and reserved in real-life, and takes on a more outgoing version of himself as a performer. However that self still incorporates key elements of his identity,

"I'm a little bit quiet and socially anxious, when I'm in the real world or whatever - that's also part of the reason I don't like the facecam, but when I'm streaming it's kind of like, I can let myself go a little bit, it doesn't really

matter what I look like or what I'm wearing or whatever, I can just tell jokes. I

also have like that username, so they don't know me as Timothy, they know me

as Horatio … I try to be funny. I like to think that I'm always funny, but I don't

know that's true or not. But I like to tell jokes."

In other examples, Amy describes herself as "*bubbly.*" Bailey says that they try to be

themselves, adding, "*I try to go into games with like an optimistic attitude.*" Mark

says, "*What you see is what you get with me more or less,*" and James, as mentioned

in the previous section, has adopted a similar stance to a popular instructional

television show in China, but clarifies that his on-screen presence is "*more or less*

myself."

For some streamers the broadcast is an opportunity to explore an aspect of

their self that isn't readily apparent in day-to-day life, for others their on-screen self is

purely an extension of what they see as their core identity. However, consistent across

all of these perspectives, is the idea that the person on the screen is largely consistent,

and an extension of, the person behind the joystick or the keyboard. Streaming, for

my participants, isn't a particularly spectacular, nor even remarkable aspect of their

lives. Instead, it is a simple, (usually) pleasurable quotidian experience that allows

them to be themselves among a community of friends.

5.4 The Day to Day of Streaming

Streaming, tends to be a domestic activity. Although research on gaming often

tends to erase that particular aspect, we are always playing in some space: on a

subway car between stops, or waiting in line at the DMV, but usually in the comfort

of our homes (Harvey, 2015; Thornham, 2011). As part of my informal follow-up

questions, I asked my participants if they would be willing to share images of their streaming set-up. Not all did, but the responses I received place streaming within a domestic space. Below is an example of several of those streaming set-ups,

Figure 7: Samples of streaming set-ups from participants, from top left to bottom right, Jeff, Amy, Jeff again, and Bailey
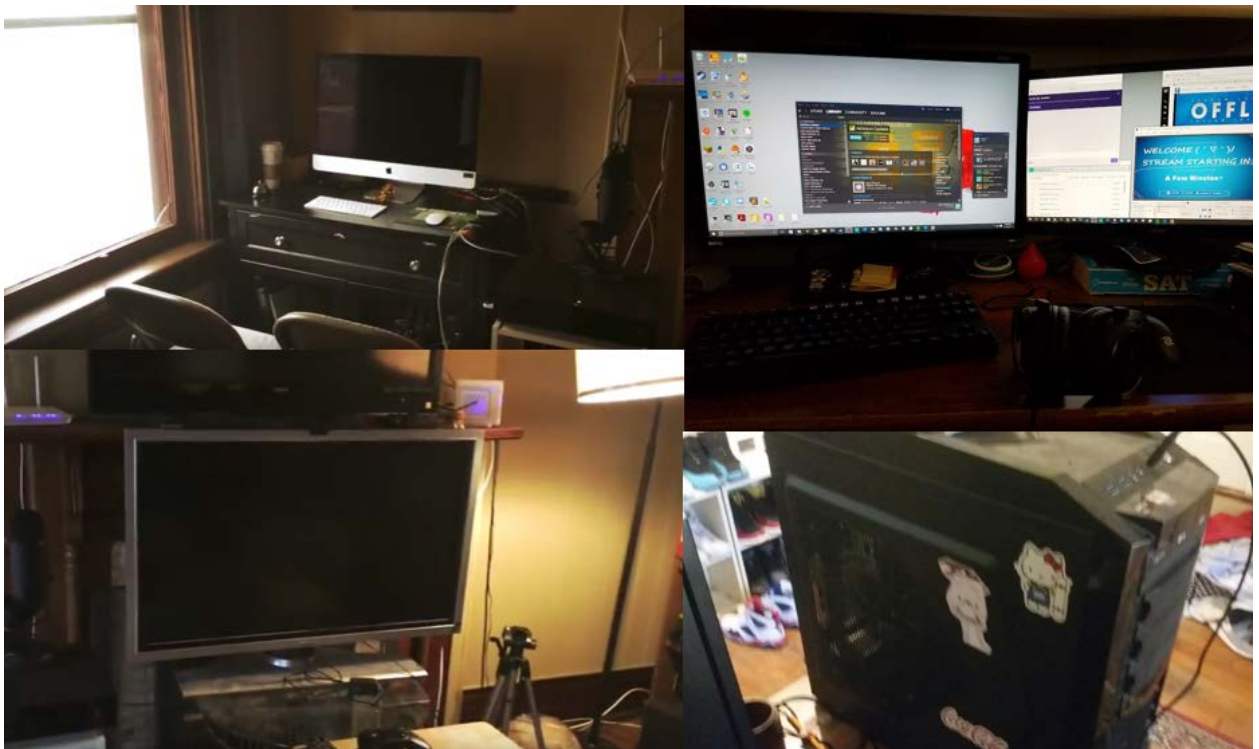
Even when a reaction camera wasn't giving a glimpse into the domestic environment of participants, they themselves were sharing the details of their lives. Sometimes these were major expressions of their deeply held identity, as with the example of Mark's family in the introduction, but for the most part it was simple, small, and commonplace. This sub-section examines those minor details, and the way that streaming functions as an aspect of the day-to-day lives of my participants.

5.4.1 Getting Tilted and Getting Tired

In Jasper Juul's (2013) book *The Art of Failure*, he presents an argument that games, by nature of having win conditions as an intrinsic element of the form, are in large part about designing and managing the experience of failure in players. He writes, "While games provide a space in which we can experiment with failure, we should always grant ourselves one important right: the right to be genuinely frustrated when failing." (2013, p. 31). In watching my participants stream, I also saw them occasionally fail, and subsequently, become frustrated.

Being frustrated was present most apparently in the field notes of James' and Amy's observations, both of whom streamed ranked competitive games, but was also present in the more casual single player experiences of my other participants. A strong example is contained in one of Timothy's single player sessions. Timothy started one evening's session playing a game called *Bloodborne*, which is an action adventure game that has a reputation for being extremely difficult. Importantly for the vignette described here, *Bloodborne* also has a mixture of single player, cooperative single player, and competitive multi-player game modes. The player must be connected to the Playstation's networking service (called PSPlus) in order for these game modes to work. When connected, players may call in help for particularly difficult portions of the game (referred to as summoning), but calling for help also leaves them open to being "invaded" by an adversarial player online, who has the ability to attack and kill their character.

As I joined his stream, Timothy had recently started, and was in the middle of an especially difficult part of the game, roughly at the mid-point of the plot,

containing several difficult enemies, as well as one of the more notoriously difficult bosses of the game, named Rom. As he was playing he was narrating his actions, and his trepidations with the area of the game that he was in. Timothy mentioned, "*This is about where I stopped playing last time*," indicating that he was picking up the game after an extended absence.

As he advanced through the grounds of the abandoned university where the level takes place, he talked nervously, talk to the game (for example saying, "*No, no, no,*" as a large fly-like enemy grappled his character), while also talking with his chat. In chat there were two other active participants, Doubleducks (Timothy's friend from high school), and a friend of Doubleducks' named Geddon, as well as a 5 lurkers who did not participate in chat. After about 20 minutes of progressing through the level, Timothy became stuck on a mid-boss (a challenging enemy that is a part of the level, but that is not as powerful or important to the game's story as a boss). He died several times, and became more vocally frustrated over voice. Doubleducks offers help in chat, saying, "*ok so the key to this fight is [a specific weapon].*" Timothy reads that back, follows the advice, and still dies. Doubleducks comments that Timothy should use the cooperative features of the game for help. Timothy replies, saying that he doesn't want to be invaded, and Doubleducks replies, "*Why am I friends with ninnies like you. this game has been out for nearly three years, no one is going to get you,*" referring to the idea that Timothy's anxiety about being attacked by another player was unfounded.

After a great deal of struggle, Timothy advanced to the boss, Rom, a gigantic spider-like creature, and was preparing to fight it. Doubleducks continued to offer

190

advice in the chat, and I mentioned that Rom is one of my favorite parts of the game

(I had played *Bloodborne* several times prior to the stream described here, and was

relatively familiar with the game). Doubleducks uses an @ mention towards me in

chat, saying, "*I don't care if this isn't my stream you need to get out if you're going to

say stuff like that ... rom is no fun ... he is opposite fun,*" once again foregrounding the

perceived difficulty of the boss. Timothy decides that he is ready, and attempts to

defeat the boss. However, as his first attempt at the fight progresses, he is struggling

with the mechanics of the fight, Doubleducks comments on his difficulties, saying,

"*God you're like a housewife standing on a chair while the spider is already dead

under her*," referring to Timothy's cautious approach, and Geddon comments as it is

clear Timothy is about to lose "*welp you're about to get [crude sexual reference].*"

Timothy does indeed die, and then attempts the fight several times with similar

results.

As he attempts the fight, he becomes more vocally frustrated. Before he had

been replying sarcastically to Doubleducks' banter, but on his final attempt he sounds

frustrated. Finally he says, "*Sheesh. I'm not having fun anymore.*" Double

commiserates, saying, "*Everyone hates this boss.*" Timothy then quits out of the

game, returning to its introductory screen, saying, "*I think I'm going to switch games

is what I'm going to do. I'm going to rage quit. I invoke the ancient rite of Rage Quit.*"

'Rage quitting' refers to when a player is so angry at the game that they stop playing

suddenly. Although Timothy is being funny with his usage of the term here (referring

to it sarcastically as an 'ancient rite'), there was evident frustration in his experience

on the stream through his voice, and his commentary.

In Timothy's case, the frustration of play was directed towards a PVE (that is, player versus engine) experience. However, in competitive PVP (that is, player versus player) games, there is a similar idea of being "on tilt", which came through in both Amy's and James' streams. Tilt comes from a similar concept in poker, where a string of losses begins to have a mental effect on the player, and impinges on their ability to play well in subsequent games. As an example, Amy's first stream that I observed was jokingly titled, "GeeTea gets Tilted," making light of her expectations to not play well on that stream. Amy's personality on stream was generally very positive. However she understandably reacted to poor play. *Counter Strike* has a ranking system (not dissimilar from *Go*) which factors in one's wins and losses, and matches you with players of similar skill. In Amy's second stream, her team was performing especially badly (in the exit interview she said that the poor performance was due to a lack of communication among the team). After a string of losses, Amy sounded notably upset over the voice chat, and said, "*I'm doing one more and then I've got to get off.*" Her regular teammate, Ken, said, "*I'm doing one more and then I'm killing myself,*" causing the others in voice chat to laugh. Amy said, "*Leeeeet's not.*" As a side note, it is clear that Ken was never seriously contemplating self-harm – rather, the sort of overstatement shown above is fairly common in highly competitive game cultures. However, the team continued to not win, and they began to critique each other over voice. Amy said, "*I am soooo tilted right now,*" after another loss, and mentions that she only wanted to play for one more match. After a poor performance in that match, she said, "*This game is honestly pissing me off,*" in a tone of voice that is much angrier than I've heard her use before, even in similar situations.

The feeling of being on a losing streak in understandably exacerbated by the fact that the game is ranked. James, in an observation where he started the night with a loss against a lower ranked player, commented to the chat in between matches, "*I can lose one game and still be ok,*" referring to his overall goal of advancing in dan ranking. Throughout the match he had become more and more upset with his level of play, holding his face in his hands and narrating his dissatisfaction with his performance in the game. The stream then talked about goals that they had, with a viewer (named foghorn) saying that they wanted to win at least two games in a row. James replied to foghorn's comment saying, "*Before I graduate in May I will definitely be 8 Dan* [8 is the breaking point between James' current rank and the next tier of player]. *I will make it happen. Definitely.*" Foghorn replies with, "*i think my goal is easier :kappa:.*" James then set out to find another match, sighing heavily and thinking about his overall strategy in the last game: "*I think I need to go back to really simple openings* [openings are first moves in a game that set up later strategy]. *I need to research the left side of that opening a little more,*" adding, "*I'm just a little bit tilted. Just a little bit. I just need to calm down and play well. That's the key.*"

Amy mentioned the idea of mood in her introductory interview, saying, "*But I actually do get into bad moods sometimes when I'm playing CS, and the game isn't going well. So, I try not to do that, but it happens sometimes.*" She expanded upon that in her exit interview,

> "*I know one of my streams in particular, it was frustrating because I wasn't performing as well as I wanted to, and there wasn't good communication on the team - small things like that. I think, sometimes my emotions get the better*

of me, and that makes the overall stream... not the best that it could be. So, that's just something I need to focus on - don't worry about so much about the game."

In all of these cases, frustration is a natural part of gameplay. Games are, by their design, frustrating, with the idea that the frustration of play provides an impetus to improve and persevere (Gee, 2007; Juul, 2013). Not playing to one's standards, or simply playing a game that has ceased to be fun and is instead infuriating, would normally be an instance to switch to another game, or to stop for the night. However, when performing play for an audience, there is a certain expectation to continue playing. In competitive games the tension between fun and performance becomes clearer. One aspect of performance for my participants was managing their natural feelings of frustration with their presence on the screen. Often times, in the study of games, the physical self of the player can be erased by the digital nature of video gameplay (Dovey & Kennedy, 2006). However performing play is an act of labor, beyond even what we might consider the 'work' of gameplay (Calleja, 2011; Postigo, 2014). In addition to feelings of frustration, exhaustion was also a common emotion across my participants.

Timothy raised the idea of exhaustion in his exit interview, where I asked participants to expand on anything they thought might have been missing from the conversation. He asked me if I had noticed other streamers being exhausted after performing on stream, saying, "*I was curious, because, like [streaming is] tiring! That's something that's surprising to me is how tired I was after like an hour of constant commentary. Even with like my throat and stuff. Like I used to have beer*

while I was streaming, but I had to switch to water, because it was like better at

rehydrating." After Timothy's comment, I realized that exhaustion was indeed an

aspect that I had observed in my data collection. For example, at the end of Mark's

first stream, as he was approaching his stopping point for the night, he said, "*After*

this [part of the game] is over I'm going to stop streaming. I'm getting a liiiiitle tired,

and I sort of just want to chill. I've been talking about video games for four hours,

after all." For others, the stream itself wasn't necessarily exhausting, but the

scheduling of the stream was often difficult, especially in squaring that schedule with

other responsibilities, as Amy said,

> "*I think sometimes having a schedule is tiring, for me, just because I don't like*
>
> *sticking to a schedule. I like streaming when I want to stream. I will never be*
>
> *like every Thursday at 9 pm I'll be totally up to streaming. I'm really not*
>
> *consistent with that. My mood changes throughout the day, I won't have time*
>
> *at certain days, being consistent makes me more likely to stream more, but I*
>
> *feel like having a schedule is the most tiring part of the stream - just to be*
>
> *consistent with your viewers.*"

Similarly, Jeff brought up the idea that there is a conflict between having fun with the

stream, the way that formalizing the planning process into an activity more closely

resembling work would make him less want to continue as a streamer. The conflict of

fun and work came up when I asked him about future goals that the team had for The

CubHouse after they finished their run of *America's Next Top Model*, "*We just talk*

about it whenever we're all hanging out and stuff … As soon as it starts seeming like

work, it will probably stop being fun."

5.4.2 Gaming as an Everyday Act

A common metaphor that my participants used to describe streaming is the idea of hanging out on a couch with their audience, and playing together. Someone who has ever played digital games in a domestic environment is likely familiar with that idea: simply being in the same room, passing a controller back and forth, watching gameplay and also talking about other things. I mention my own similar experience in the introduction, as my brother and I played through *Final Fantasy Tactics* together during the summer. Mark, in his introductory interview described the feeling of, "*It's a lot of interaction, like they're really watching me. It's like backseat gaming.*" In Bailey's streams the backseat gaming went a step further – they brought their friend Louise into their second stream to play side-by-side while their mutual friends, Janice and Kevin, shared the experience, making in-jokes drawn from their lives together. An example comes early in the second observation, as a character in the game is talking about a grumpy but loveable pet bird. Bailey joked to Louise, "*Hey, it's like Janice's cat*," causing Louise to laugh out loud, and Janice to type "*omg, lol*" into the chat. Later, Janice typed into chat, "*BAIL, VALERIE IS HERE ...SHE HEARD YOUR VOICES*," with Valerie being Janice's cat. Bailey and Louise both talked about Valerie and take turns saying her name on stream, Bailey laughs and says "*Haha, Tony must think I'm so weird.*"

In other instances, my participants ate on stream, talked about their planned meals, or got up to make food. In one of James' streams he talked about how he hadn not had a chance to eat since lunch, and got up to go to his kitchen for food, he came back, showed off the yogurt he is eating, and said, "*I'm eating some Greek yogurt.*

Chobani. It was on sale at Costco this weekend." Or, in Amare's second stream, as he

was playing *The Legend of Zelda: Breath of the Wild*, got to a point where he was

temporarily stumped by a puzzle, said, "*Ok, time for another coffee,*" and then spent a

few seconds making coffee at the machine behind his streaming set-up.

Discussions of the day-to-day are frequent, and are woven naturally alongside

game commentary. For example: Bailey talked a bit about an anime club that they

have recently joined at their University that they hope to use to meet some new

friends. Mark discussed how he was nervous about his performance on a recent take-

home test for his Japanese language class and the chat reassured him that he had done

well. Amy excitedly described a planned trip to California as her chat gave her

recommendations for food to try out while she was there.

In The CubHouse, the personal lives of the team, outside of gaming, were a

central part of the ongoing conversation. In one example Jeff had gotten a haircut, and

the regulars in chat commentated on it, lightly ribbing him because of how short it

currently was. Their audience (and the audiences across stream) also frequently

brought their lives into the chat. For example, in the second observation with Jeff, one

of their regulars MommaPlayer showed up briefly to say, "*Hey guys. Just popping in*

to say that I probably will miss most of today's stream because I have a doctor's

appointment." Jeff relayed that to the other members of the team, and each of them

said they were sorry that she wouldn't be there, and they hoped she felt better. Many

of the other members of the chat also give her support. Jeff described the everyday

social dynamics of his stream as such,

"It's kinda... I don't want to say taken over [our daily lives], but it's definitely been the biggest thing that we have going on socially, just because now a lot of our friends are aware of it, so we bring in guest stars on the weekends to play with us, and we have like a lot of friends now who are begging to come over when we stream because they have such a good time when we do it. And, because our stream is pretty much a social stream, which is based on like making friends in the chat who repeatedly come back and support what we're doing, um, that's a really big part of it."

Two of the codes that capture the snippets excerpted above are "Referencing D2D [day to day] Life," and the associated Audience: code of "Audience: Referencing D2D Life." Taken together, these are the second most common type of data in my corpus, second after the descriptive code of "Playing the Game," used to notate theoretically interesting moments of gameplay from the stream. The prevalence of the "D2D" in my data collection, and its commonality across streamers of all types and backgrounds, indicates that streaming for my participants isn't separated by strict delineation between play and normalcy, as previous theories on play might have it (e.g. Caillois, 2002 & Huizinga, 2014), but rather positioning streamed gameplay as a tightly integrated aspect of day-to-day life.

5.5 Reintegrating Game Culture: "I'm sick of videos where grown men mess with kids over voice."

The grounded quotation in the title comes from Bailey's first observation. They had been talking about their experiences in drawing communities previously in the stream, and after a short lull in the conversation, they bring up what are

commonly referred to as "cringe videos" with the quote above. A cringe video is a part of game culture where people will record videos of themselves harassing and trolling other players, with the goal of instigating a "melt down" in their target, which is then edited with insulting graphics alongside the gameplay video that caused the melt down. Young children, often in spaces of play related to *Minecraft* are frequently the target for cringe videos, since they tend to give more dramatic reactions to toxic behavior. Other genres of these videos involve taking amateur production related to video games out of context – e.g. fan fiction – and putting together montages of 'cringey' content, with mocking commentary overlaid by the video's author. In terms of exclusionary toxicity, cringe media is certainly gaming culture at its very worst. Bailey goes on to talk about their similar experience in digital art spaces, but also talked about how sick they are of cringe videos that they've seen related to gaming, adding, "*Pro-tip, don't harass kids online.*" Similar comments that are resistive to the perceived toxicity of game culture came up in discussing the games played as well. For example, while Mark was playing an interactive fiction game called *Night in the Woods*, his chat ripped into the derogatory term "walking simulator" that is often applied to games such as *Night in the Woods* in wider game culture, mocking the machismo that's attached to the attitude of story-based games being lesser than action-based games. Similarly, political aspects from the larger socio-political field came to the fore frequently, as when a member of audience of The CubHouse entered chat and said, "*Where is Maevin* [a chat regular]*, I need to talk to him about the Mike Pence AOL email scandal,*" or a recurring joke in the same channel about a red hat that the player character model wore being a Make America

199

Great Again ball cap. In both cases, the performers and their audiences had

discussions that drew from larger ideological and political positions that they held in

the wider socio-political field. Bailey expressed a disdain for dominant expressions of

toxic masculinity by relaying a narrative of her own experiences with that

masculinity, and Jeff's audience made light of anti LGBTQ politicians by bringing in

elements of the game being played on the screen.

Given a lifelong experience with text-based social spaces devoted to gaming,

as I mention in my introduction, I was surprised to see not only the openness with

which my participants were expressing identities that are commonly not accepted

within game culture (for example, being openly gay, or openly feminine), but the

degree to which their everyday lives were played out within the space of their

streams. The space of the stream can be thought of as an affinity space, however,

streams as affinity spaces are remarkably different from the idea as first advanced by

Gee (2004), largely in the way that the streams of my participants forward the

personality, the identity, and the real-life community of the streamer. Some streamers

certainly do come into conflict with toxic elements of game culture: Amare mentions

his own difficulties, and the difficulties of his friends in moderating against

harassment, and Amy has endured low-level harassment throughout her career as a

streamer because of her gender. However, for the most part, performing play seems to

allow for a level of self-expression not typically enjoyed in game-related social

spaces – e.g. racial identities (Gray, 2012 & 2017), gender identities (Consalvo,

2012), and sexual identities (Sundén & Sveningsson, 2012). A recurring question in

my exit interviews was whether or not my participants interacted with other online

social spaces related to games. To varying degrees they mostly all did, although many expressed reservations with what might be thought of as typical affinity spaces: text-based forums and social hubs dedicated to gaming. Jeff expanded upon that hesitancy in his exit interview,

"*I feel like the online gaming community is kind of toxic at times, haha. Like, I go on Reddit a lot, and the Reddit gaming community is very like Sony and Microsoft centered, [and] there's a lot of like competitiveness, and like, trying to prove what the best console is, and you get a lot kids who think they're edgy and are very anti-Nintendo* [Jeff has played Nintendo consoles for most of his life, and tends to play those games in his solo streams], … *I dunno, it's just very competitive, which I guess is the nature of gaming too. Like, instead of a cooperative there's multiple consoles that offer different experiences for everybody based on what they like. Instead of that the general idea, it's always like, no this console is the best and the other one sucks. I don't really do much social gaming community stuff other than Twitch, like if you ever go to the YouTube comments for anything gaming related it's like the WORST … like, I'll read YouTube comments and get angry and I'll be like 'what am I doing.' So I have to force myself not to read them.*"

To close my exit interviews I asked my participants to think about what they might change about Twitch if they had the ability. For the most part, people were happy with how Twitch worked. A common refrain (this quote coming from Amy) was a sentiment along the lines of, "*I think I like Twitch the way it is right now. I have no personal bad experiences with the platform.*" However, participants seemed to

often separate the **technical** capabilities of the platform (e.g. bitrate, video quality, features, ease of use) with the **social** design of the platform. Amare, potentially due to his bad experiences with harassment, was more direct, however, saying,

> "*One [thing I would change] is to make the cover page represent the diversity of the industry. One thing that we talked about, time and time again, in our circle, is that they rarely have people that are not white straight men on the front page. So I think that if they want to have Twitch represent gamers, like they got to make sure that page is diversified. Because, those people get so many hits because they're on the front page. ... I also think that they need to go harder on harassment. There's a lot of harassment in Twitch chat, as there in any anonymous stuff, but I feel like they don't do enough to really stamp down on it. Those are the two main things.*"

Jeff presented another angle to Twitch's community moderation: opaque rules about acceptable behavior. The idea of community standards came up frequently across data collection – often as a joke, where the streamer would make an off-color reference, and their chat would laughingly warn them that they might be banned for violating decency regulations. In discussing their community, Jeff mentioned fellow streamers named Janet and the Giant who had been regulars on their chat until they were banned. I asked him to expand on that story, and he explained,

> "*[Janet and the Giant] were like a messier version of us. It was like, uh, a girl and a gay guy, and they would like stream together, and they were down in Texas - so like accents, and really big personalities, and they would always be drinking on stream. We drink on stream too, but they would get sometimes*"

annihilated while they were playing games. So, apparently, they had gotten

like a few warning bans, like 24 hour bans. One night they got too drunk, and

instead of playing games they were just like dancing around, and uh, like... the

guy took his shirt off, and she was drinking out of a wine box on camera, and

they got reported, and their channel was shut down for like, bodily harm or

whatever."

In the 'What would you do to improve Twitch?' portion of the interview Jeff

expanded further,

"*I think they're a little ban happy. I guess that's my issue. Our friends that just*

got banned, it's weird - I think they should be more clear on what is and isn't

allowed. Because what Janet and the Giant got banned for, like yeah, from

what I heard, it wasn't great content. They were like wasted and being

ridiculous. But Twitch's whole thing was that they just banned them under a

general rule being broken of 'bodily harm'. [Janet and the Giant] appealed

that case, and Twitch never responded to that. We've heard from other people,

that people have gotten their lifetime bans seemingly out of nowhere. But

Janet and the Giant, the reason they had gotten permanently banned was that

they had gotten three bans already, and they were telling us that the things

they got banned for there were like... incredibly trivial stuff. Like, they were

saying that they were talking about things that were really sexually explicit,

but like weren't actually doing anything, but that time when they got banned

[permanently], I can't remember what Twitch framed it as, but it didn't really

make any sense. And, so, their whole thing that they were talking about is that

Twitch has a lot of really huge streamers that they're partnered with, and a lot of them sort of delve into that territory too, and Twitch doesn't do anything because they have 100s of thousands of viewers, and they're partnered. But if Janet and the Giant start doing more risqué stuff, and someone reports them, then they get banned."

Amy, in her interview, relayed a similar experience: someone had 'follow-botted' her (follow-botting means to use hundreds of fake accounts to follow a targeted streamer, flagging them for fraud in Twitch's automated system, triggering a ban). Amy was banned for several days, through no fault of her own, because someone had wanted to harass her. Amy then had to send several reports to Twitch administration, and it took a "*very, very long time to remove [the follow-bots]*," during which she could not stream.

As I mentioned in the previous study, and as shown by Amy and Amare in the above study, community moderation has many flaws, and privileges streamers who already have a strong following over those who are just starting out. In addition to that, as the above vignettes show, Twitch's official moderation systems are opaque, and heavily favor established streamers. Decency reporting is also frequently a community based activity. Someone can flag a stream as being indecent simply because they do not like the streamer personally. In Amy's case the moderation was automatic (triggered by a sudden change in followership), but took almost no effort on the part of the harasser, and a great deal of effort on Amy's part to prove that her account was legitimate. The experiences described above suggest that Twitch's moderation, while certainly well intentioned, favors existing, toxic configurations of

game culture. I will discuss ideas of moderation and community management more fully in the conclusions chapter.

Regardless of problems stemming from moderation, all of my participants found streaming to be a joyful, pleasurable experience. In their streams I saw a truly unique version of game culture: one that is highly personal, deeply rooted in the day-to-day, and built from communities and identities that are not often well represented in that culture. Game culture in text-based affinity spaces tend to be pseudonymous, bringing with it the unfortunate conceptions of edge and toxicity that we have unfortunately grown to expect where the label 'gamer' is applied (Auerbach, 2012; Consalvo, 2012; Dovey & Kennedy, 2006; Gray 2012; Sarkeesian & Cross, 2015). My participants resist that culture, however, with many of them refusing to even adopt to the descriptor of 'gamer' (Shaw, 2012). Although these elements are certainly present on Twitch (Gray, 2017), performing play *as a practice* holds the possibility to introduce new ideas of what it means to perform game culture in online spaces, and potentially to start a process of refiguring game culture entirely. To conclude I will bring the findings of both of my studies together, and use them to return to my theoretical framework in order to understand what it means to perform play as an act of cultural production.

Chapter 6: Conclusion

Given a group perspective of streaming derived through the study of an affinity space related to streaming, and the individual perspectives of seven unique streamers, I will now integrate these views of streaming together to build a larger model of what it means to perform play on Twitch.tv. As part of the following section, I will also consider how my overall findings fit into the larger culture of digital games. To begin, it is useful to understand how Twitch currently positions itself within that culture. Twitch describes their platform in the following terms,

Figure 8: Twitch marketing statistics (TwitchAdvertising.tv, 2017)

75% OF TWITCH USERS ARE MALE WITH 73% IN THE AGE BETWEEN 18-49	TWITCH REACHES HALF OF MILLENIAL MALES IN AMERICA	NEARLY HALF OF TWITCH USERS SPEND 20+ HOURS A WEEK ON TWITCH

These statistics are presented to give a sense of impact and reach, promising that by advertising through Twitch, companies can reach a highly desirable demographic: gamers. On the same site, Twitch frames advertising buys on the platform in the following way, "Gamers are social. Video is their language. Twitch is their platform. Reach and resonate with the most influential gamers on the planet," (TwitchAdvertising, 2017).

Streams often function as informal advertisements for games, and game companies will organize targeted give-aways of access keys to performers at all levels of popularity to publicize their products. An access key is a serial number that allows a player to download and install game software. By distributing access keys to streamers (both the high level celebrity streamers, as well as streamers at the lower end of the spectrum), game companies effectively receive free, affinity-based advertising for their products. In addition to software, the game industry has reacted to the rising popularity of performed gameplay by designing aspects of their hardware and software to interface directly with streaming platforms. All three of the major home consoles on the market currently (the PlayStation 4, XBOX One, and Nintendo Switch) feature direct streaming options, allowing players to perform gameplay without the need of a capture card (hardware that intercepts and captures the video signal from another source to be displayed on stream). Games that are extremely popular in the e-sports domain often have features created specifically to facilitate a streamed, or performed, experience. For example, *League of Legends* features spectator modes, which are purpose-designed for the broadcast of matches. One of the most popular games on Twitch currently, *Player Unknown's Battlegrounds*, was

developed with streamers acting as beta-testers, and arguably with streaming as a guiding philosophy of gameplay mechanics. An example comes from an interview with a popular streamer (Chris Ball) of the game from the digital game news site *Polygon*. Ball's streaming of the game is framed in the following way,

> "*Ball says that he's not receiving any compensation for playing the game, other than the free Steam key that got him into the beta. Last night his squadmate, who goes by the Twitch handle 'summit1g,' was the most-watched Battlegrounds player on Twitch with more than 30,000 following along. Ball's own channel was closer to 4,000, and with a game as exciting as Battlegrounds he's confident he can get that number much higher. 'Battlegrounds fills that need perfectly,' Ball said, 'and will be my main game for the foreseeable future, so long as the devs keep doing the quick updates for bug/balance fixes and great communication,'*" (Hall, 2017).

Moving away from competitive gameplay, there are also social games that are designed with Twitch integration in mind to help streamers play with their audience. An example comes from the *Jackbox* series of games, which are light-hearted party games with adult oriented humor (like popular tabletop games such as *Pictionary*, *Taboo*, or *Wits and Wagers*). In the *Jackbox* series of games, streamers run the main instance of the game that is being played, and the audience can join as fellow players through their mobile phones, or through a web application. The *Jackbox* website indeed features a "streaming guide" on their site, with instructions for getting a version of the game up and running on one's broadcast. JackBoxGames describes

stream integration as such, *"The Jackbox Party Pack 3 is packed with a ton of features specifically designed for streamers,"* (JackBoxGames, 2017). Indeed, in my second study Jeff mentioned that the *Jackbox* games were among those played frequently on the party game streams of The CubHouse for the very reason that their audience could engage directly with the streaming team. A recent release, called *Streamline*, takes the idea of audience integration even further, by basing fast-paced third person racing gameplay around direct involvement with one's audience (e.g. betting on matches, or changing game rules). The game's page on the Steam storefront (http://store.steampowered.com/app/252850/Streamline/) describes gameplay as such,

> *"Streamline has been designed and built from the ground up to be perfect for streaming. Broadcasters can easily make parties to play with their communities while stream viewers can bet on players, change the rules of the game in real-time, compete in mini-games, and more to become (in)famous on the stream, all by using Streamote.tv, a unique website integrated on desktop, mobile, or tablet. Streamline is the perfect game for Sub Sundays* [a common Twitch practice of streaming on Sundays with the goal of increasing subscriptions, and offering subscriber only content]*, Follower Fridays* [similar to Sub Sundays, but for followers]*, or just playing together with your friends.*"

As performed gameplay is increasingly important as an outlet of game culture, the cultural capital wielded by streamers also becomes a means of accessing official channels of production within the wider industry and field. Amare pointed towards

the effect of cultural capital in his exit interview, mentioning that streaming metrics were increasingly used by gaming conventions as a way of gauging whether to grant press passes for events such as *The Game Developer Conference* and *Penny Arcade Expo* (two major, yearly gaming conferences).

> "*Every time we apply for media badges* [press level access to large gaming events and conferences] *and that kind of stuff, the first thing they always ask us is about video stats. Like the first thing they ask us is about YouTube, and then Twitch. So we know that - we've been able to secure stuff pretty easily now, like for E3* [Electronic Entertainment Expo], *and we go to GDC* [The Game Developer's Conference], *but we know that might not always be the case. Like depending on how things go in the future, so like we're just trying to make sure that we're secure in having everything we need to survive. Unless you're coming from one of the major sites, like IGN, or Gamespot, that you have like an audience, basically. So you usually have to give them the Google analytics on your site, or like your podcast downloads to show that you have enough audience to validate yourself as a member of the media. And, like what's happened is in the past two years we didn't get asked that much about video, but last year and this year they definitely asked more and more about it. We know that in order to secure ourselves for the future, we need to be tight on the video side. So this is part of that. ... Yeah, yeah man, that's where it's going ... a lot of attention is switching to video.*"

What the above comment suggests is that performing play is changing how games are played. Over the past four years Twitch, and its competitors, such as Beam and YouTube Gaming, have seen impressive growth, not only in terms of viewership, but also in terms of influence – what we might think of as a mixture of economic, cultural, and symbolic capital within the field of digital games. Performed gameplay also has its own field of power and capital: in the way that a new poster to StreamPlus turns to the advice and guidance of more senior members as they hope to gain partnership. In this conclusion chapter, I will synthesize both of my studies, returning to the fourth research question developed from my theoretical framework,

How do individuals, given their backgrounded identities and unique habitus towards the practice, move through the field of streaming as a cultural practice and how do they adopt, reject, and reconfigure traditional game culture in doing so?

6.1 Synthesizing Studies 1 and 2

The difference in perspective between my grounded theory and connective ethnography studies was an intentional aspect of the multi-method design of my dissertation. My findings within the delimited affinity space of the StreamPlus website provides a view of a specific approach to streaming, although one that is borne out and verified in the further examination of the practice through my ethnography. For example, the idea of "building community" comes up directly from the words and actions of my participants. Although not elaborated on in detail in Chapter 5, participants also broke down the technical aspects of their stream into categories like those discussed in the "Assembling Technology" sub-section.

"Adopting a Gameplay Persona" was an idea that was embraced to varying degrees by my participants, but similar cultural values such as being true to one's self on stream, avoiding direct advertising of the stream, and playing primarily for fun instead of profit were all echoed within my ethnographic data. Notably, both studies also uncover similar issues of community moderation having significant weaknesses against trolling and harassment, with the individual experiences of several streamers giving context to what it means to perform play as a person from a background that is typically marginalized by the wider, perceived culture of "gamers".

However, there are also major differences between the findings of the two studies. All of my participants in the Connective Ethnography tended to approach the idea of "Building Community" as a way of importing of audiences from a variety of other spaces, communities, and identities. Although most of the streamers were open to the idea of attracting strangers as audience members, none of them sought out a generalized audience from Twitch. The participants who most actively "networked" (to use terminology from Study 1), did so with fairly specific target audiences in mind: *Counter Strike* players in Amy's case, *Go* players in James' case, people from the LBTQ Twitch community in Jeff's case, and people interested in equity in gaming in Amare's case. Mark, Bailey, and Timothy were far less interested in generating viewership from strangers, and used their streams instead as a replication of existing social networks, with nearly all their regulars being members of those networks. The idea of "importing community" supports previous work by Gray (2012, 2017) who figures game related spaces, including Twitch, as often serving as environments that are designed to insulate and incubate communities that are not well represented in

wider gaming culture. The way that sociality was carried out in the chats of my participants also fits with Hamilton et al.'s (2014) conception of chat communities as "third spaces", which is similar to my findings in Study 1, however necessarily different due to the ways that my Study 2 participants composed their audiences.

Similarly, the idea of the "gameplay persona" was complicated by the findings of my connective ethnography. Participants adopted the idea of putting on a persona for the stream to varying degrees. For Timothy, the stream was an opportunity to try out an attitude much more outgoing than what he would typically use in the day-to-day. For Bailey, there was no real difference between how they perceived their on-screen self, and that same version of their personality in other areas of their life. Therefore, the performance aspect of streaming is malleable, and often directed by the goals and attitudes of the streamer. The idea of malleability was present in the StreamPlus data (a common piece of advice was to "be yourself"), but it showed up much more clearly when considering seven perspectives chosen specifically for difference. Common across both studies was the idea of streaming being a part of day-to-day life that is interwoven with one's job, domestic life, and economic position. The streamers in Study 2 reported feelings that mirrored those discussed in the "Burning Out" section of Study 1: streaming is a demanding activity, and efforts to cultivate and maintain an audience (e.g. scheduling) can rob a pleasurable activity of its fun. However, within both studies, participants also describe the great joy that comes from playing games socially – a unique opportunity afforded by performing play. The table below represents the six major themes from Study 1, and places those themes within the context of my findings from Study 2.

*Table 8: Study 1 themes in context of Study 2's findings.*

Themes from Study 1	Themes in Context of Study 2
Assembling Technology – Bringing together the software, hardware, and design elements of a stream in order to present a cohesive media artifact.	Participants in study 2 reported very similar experiences with assembling technology to the users of StreamPlus. The composition of assembled technology was often driven by the needs of the stream. For example, Timothy had very little in the way of specialized equipment, or graphic design for his channel, since he was largely using it as a space to interact with existing friend groups. By contrast, Jeff and the Cub House had specialized technology (multiple cameras and capture cards), graphics, and software employed for the more communal nature of their performance.
Building Community – Developing an audience through interaction with other groups and communities on Twitch, and in related online social spaces.	Whereas most subjects in Study 1, on SteamPlus, were seeking a generalized audience from Twitch, most of my participants from Study 2 were more interested in creating spaces for pre-existing communities of friends, or related gaming affinity spaces (e.g. Gamers of Color in Amare's case).
Gameplay Persona – Cultivating and presenting an unique approach to gameplay that is performed on the stream. In the case of StreamPlus, an emphasis is put on being natural and fun for audience members.	As described in section 5.3, most of my streamers adopted a perspective similar to that of StreamPlus: a persona that is either the same as, or a magnified version of their 'real' self. However, among the seven perspectives, there was a great deal of variation between how my participants saw themselves as performers.
Feedback Loops – Performance on stream is informed by day-to-day life, and feeds back into one's conception of one's self in the everyday context.	As described in section 5.4, my individual participants experienced streaming as an intrinsically day-to-day act: feeling frustrated with gameplay, using streaming as a way to relieve stress from work and school, and making

	friends through streaming who later became part of the their real-life sociality.
Quantified and Intangible Metrics – There is a tension between the metrics that are quantified by the Twitch system (e.g. viewership metrics), and the metrics that are posited as being more generative of positive experiences, such as fun, strength of community, and personal enjoyment.	All seven of the streamers in my study were below the level of professional or professionally aspirant attitude of practice often evinced in StreamPlus. Some streamers who maintained higher audience numbers, such as Jeff and The Cubhouse, expressed hesitancy of treating the stream as something too much "like work", thinking that would rob the practice of its fun.
Inequity in Community Moderation – Since moderation is handled largely through one's community, people who may already be marginalized in the larger culture of digital games may have difficulty mediating against the effects of trolling and harassment on Twitch.	Although most participants did not experience problems with harassment through their performance, others (namely Amare and Amy) reported persistent harassment tied to their race and gender. Amy, for example, had many problems with harassment until she was able to recruit a regular viewership who was able to act as moderators for her channel, reinforcing the findings from Study 1.

With the above in mind, I present a modified version of Figure 6 (A graphical model of streaming practice), which incorporates the findings from Study 2

Figure 9: Modified graphical model of streaming practice, synthesizing studies 1 and 2
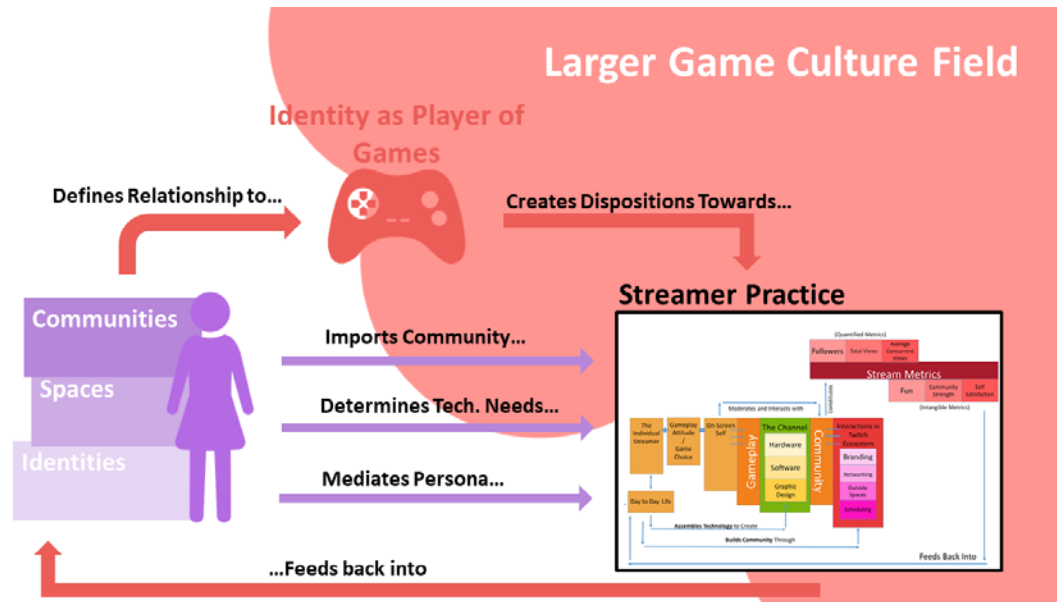
In the model presented above, the individual aspects of the streamer, which were shown to be vitally important to their overall approach towards streaming, directly influence otherwise common approaches to performing play: assembling technology, building community, and adopting a gameplay persona. The approach towards the stream is further mediated by the individual's conception of themselves as a player of games (which may or may not involve a self-perception as a "gamer"). Through that perception of the self, the stream is then positioned in a relational way to the rest of game culture, and specifically within Twitch through the direct quantification of viewership metrics. Using the model above, and the findings which generated it, I will now turn back to the four primary aspects of my theoretical framework: performance, game culture, situated learning in affinity spaces, and Field Analysis.

In the above model, the performative aspect of streaming isn't simply the gameplay, nor the interaction of the streamer with the audience, but rather the entire designed experience of the stream. Streamers make choices for nearly every element of a stream, with an aim to create an experience for their audience. However, streams are more than media artifacts: the community is constituted of the social elements of chat, which makes streams into **socio-technical systems**. Previous work relating to spectator experiences in stream often point towards the communal feeling of the chat being one of the primary draws of viewing performed play (Cheung & Huang, 2011; Hamilton, Garretson & Kerne, 2014).

The presence of the chat, and the back-and-forth interaction that streamers typically have with their audience, is what gives streaming its "live" characteristic. Indeed, one could choose to watch a VOD recording of a popular stream (even including recorded chat interactions in some instances), but not have the same experience of interaction with both the streamer, and with their fellow audience members. Therefore, the performative aspects of a broadcast help to distinguish it from other, similar genres of pre-recorded and performed gameplay, such as a YouTube Let's Play video. However, it is worth questioning the nature of the "live-ness" of streamed gameplay.

Philip Auslander's (2008) work on performance in an age of digitized media suggests that live performance (as a whole) is marginalized and colonized by recorded and broadcast technologies. Auslander's argument advances a concept of **Mediatization**, meaning the ways that traditional performance forms (e.g. Theater)

are changed and refigured with technology that allows for both recording and communication at a distance. In his concluding chapter, Auslander writes, "The relationship between the live and mediatized is volatile and subject to significant change over time, as is the definition of liveness itself. If the cultural prestige of live performance were to increase in the future, a kind of back-and-forth exchange among different cultural forms might well occur," (Auslander, 2008, p.187).

Auslander (ibid) gives an example of his analysis in the form of the gramophone and the radio: prior to the radio there wouldn't be a question of liveness between hearing music in a concert hall versus hearing it on a recording. However, the radio allows broadcast at a distance (or, through a medium, hence mediatization), which effectively strips the contextual clues of format from a production, meaning that live performance is less meaningful as an unique experience when the audience is comparing and contrasting those live performances to the presence of mediatized entertainment. Therefore, mediatization has an impact on the seemingly separate experience of live performance. Cameron & Carroll (2009) consider the liveness of games, specifically within the context of Machinima (e.g. the creation of filmic narratives using the outputs and software of digital games). Through an investigation of Machinima practices, they find that the liveness of these performances shifts depending on the nature of the artifact, but with the naturally performative nature of gameplay creating a new category of the concept from the older media forms that Auslander (2008) was considering (e.g. film, radio, television).

I build on Cameron and Carroll's (2009) analysis by suggesting that live streaming once again changes the "live" nature of gameplay. The primary source of

liveness, as described above, comes from the interactivity of chat. In terms of raw gameplay capture, streamers often take several mediatized (that is, derived from previous broadcast media) metaphors to their play. An example from Study 2 is James' modeling of his performance on a popular *Go* related Chinese television program. However, the presence of the audience, and their interaction with the streamer, is often forwarded as a primary way that Twitch is different. Although Twitch is still indebted to televisual forms of media, the improvisational nature of live performance presented by a chat / streamer interaction gives performed play a new character of liveness not currently well studied or understood in either performance or games studies.

6.3 Game Culture: "The End of Gamers" and New Possibilities in Imported Spaces

My findings within the domain of performing play on Twitch indicate the possibility of change within the larger field of game culture. I was surprised by the degree to which my ethnographic participants both rejected and modified the moniker of "gamer". All of them, from a detached standpoint, were avid players of games. However, the weight that the term "gamer" carries in game culture (and extending out into the larger socio-political field) swayed many participants away from active identification as such, or directed them towards a heavily modified and personal adaptation of the term. Instead of generic game cultures, my ethnographic participants instead imported identities to embellish their streams with a sort of 'game culture plus' approach: 'game culture plus LGBTQ interests,' 'game culture plus furry fandom', 'game culture plus POC perspectives', and so forth. Participants who took on more direct identification as gamers, also brought in their own personal identities

(such as Timothy's use of the stream as a space to connect with friends), or identities heavily mediated by *specific* game cultures, such as *Counter Strike* in Amy's case, or *Go* in James'. Across both studies, performed play was an intrinsically everyday activity.

As I will expand on in section 6.5, the tastes of the "gamer" (such as that identity exists) constitute what we might argue is a habitus, or a network of dispositions that guide behavior, and has further hardened into a "doxa", meaning a taken-for-granted and sanctioned approach to the field of game culture (Bourdieu, 1993). Golding (2015) argues that the idea of the "gamer" as an exclusionary identity is one that is not well supported by the lived reality of players of games, and therefore calls for an "end of the gamer". Kishonna Gray's work (2012 & 2017) makes a similar point, but taking on the perspective of intersectional identities of race, gender, and sexuality. She argues that despite persistent harassment, people of color (and especially women of color) will continue to play games, and will often do so by banding together into social support groups that resist the gamer identity (Gray, 2012) and that carve out spaces of their own instead of engaging with toxic sociality in more traditional game-based networked spaces (Gray, 2017).

The "End of the Gamer" has stakes beyond the identity that players of games assign to their praxis. For example, Ian Bogost (2011) presents an argument for considering digital games as a medium, which can be put to any number of uses. Bogost states his perspective on gaming as, "I suggest we imagine the videogame as a medium with valid uses across the spectrum [of human activity], from art to tools and everything in between," (2011, p. 7). Essentially Bogost is arguing for consideration

of games as a form of expression and entertainment that is not necessarily defined by an apart-ness from everyday life, as we might find in Huizinga (2014). Bogost (2011) concludes his argument by saying, "Soon gamers will be the anomaly. If we're very fortunate, they'll disappear altogether. Instead we'll just find people, ordinary people of all sorts. And sometimes those people will play videogames. And it won't be a big deal, at all," (p. 154). In my research, I have found that streaming presents a wide-scale force of change in the culture of digital games – largely in the way that streaming serves as a way for underrepresented groups to forge unique and novel group identities as players of games through the social space of the stream. Viewed from the perspective of bringing in new perspectives and identities, performed gameplay has the potential to serve as a force that will change the ways that gaming is viewed as both a practice, and as an identifying act.

6.4 Situated Learning: Reconsidering the Affinity Space

The concept of the affinity space has changed massively since Gee (2004) first introduced space-focused literacy research to correct against what he saw as an incorrect application of the term 'community' in networked instances of situated learning (DeVane, 2010). Researchers have usefully expanded the concept, largely through the consideration of these spaces as social hangouts (Lammers, 2012), spaces that allow official producers and amateur hobbyists to contest the meanings of games (Duncan, 2012), by analyzing the ways that spaces are stitched together (Lammers, 2011), and by understanding the ways in which backgrounded elements of the self come to the fore in ways not originally anticipated by early affinity space theory (Pellicone & Ahn, 2014 & 2015).

In my first study, I considered a typical form of an early affinity space: a text based forum (Lammers, Curwood & Magnifico, 2012). StreamPlus is, in many ways, an ideal affinity space. It has moderators and leaders, but does not have a firm hierarchy (e.g. new members are openly welcomed and free to both ask questions as well as contribute knowledge). The community is welcoming to new members, and does not treat them as inherently lesser than more senior members. Knowledge is shared freely, and aren't barriers or gatekeepers to what a new member might want to learn. As per Gee and Hayes' (2012) reconsideration of affinity spaces as being either exclusionary or nurturing, StreamPlus falls firmly on the side of nurturing. However, StreamPlus is not a monolithic entity, and despite many positive aspects, still allows (and arguably fosters) discussion that is at its heart exclusionary (see section 4.6). Although not referencing StreamPlus directly, many of my ethnographic participants expressed distrust in these classical, text based affinity spaces as sources of sociality and information. Jeff, for example, mentioned his use of the Twitch sub-Reddit as an information source, while still being wary of venturing into the more general gaming sub-Reddits as a way of socializing with other players of games.

An aspect of my ethnographic study that was surprising was just how little traditional affinity spaces served as information sources for my participants. Instead, critical decisions regarding the design and construction of the stream as a technical artifact ("assembling technology" to use terminology from Study 1), often came from the predictable and quotidian source of "googling it", or modeling elements from other streamers that they followed and admired. All the same, the socio-technical artifacts of **the channels themselves** serve as affinity spaces – but, as mentioned

above, a "space plus" with some other identity feeding into what the 'affinity' of the space truly is. Lammers, Curwood and Magnifico in 2012, in their explication of affinity space properties, write,

> "The notion that affinity spaces develop primarily in pursuit of a 'common endeavour' (Gee, 2004) is still salient. This is an important consideration for an affinity space researcher to consider because it requires attention to the ways that geographic boundaries are superseded. Because the common endeavour, **and not other social factors,** [emphasis mine] brings participants together in affinity spaces, adults and youth often engage in these spaces together in collaborative relationships."

From my data, I argue precisely the opposite: in many cases, these "other social factors" are indeed **the organizing principle** of the space! Jeff's stream is perhaps the best example of that organizing principle in effect. Although there is a community of regulars on The CubHouse, there is still an open and fluid membership of people who come into the stream simply because is the stream is a space that is aligned, and therefore has an affinity, with LGBTQ gaming. People in the space, with the stream content as a focus of discussion, are discussing something that is (in fact) one of those backgrounded "social factors" that is downplayed by Gee in 2004, and yet again by Lammers et al. in 2012. Although the additional affinity of LGBTQ identity isn't the sort of issue that is directly tied to learning (as the concept of an 'affinity' is often framed in the games and learning literature, e.g. new media fan production), there are many important elements of situated learning to consider in

these modern interpretations of affinity spaces. The streams in my study all constitute affinity spaces, and that the personal and everyday nature of these streams complicate our previous theories regarding the form and function of affinity spaces as theoretical constructs for interrogating situated learning.

6.5 Field Analysis: Cultural Production through Performing Play

Bourdieu's work on cultural production was focused largely on the domains of French literature, theater, and visual arts: specifically the way that those domains were produced as physical and political objects, the positions of artists and writers both within their respective fields and the larger socio-political field of power, and (importantly for my analysis) the way that change occurred in those fields over time. He writes that cultural production "distinguishes itself from the production of the most common objects in that it must produce not only the object in its materiality, but also the value of this object, that is, the recognition of artistic legitimacy," (Bourdieu, 1993, p. 164).

What is at stake when individuals produce artifacts (such as streams) within game culture is indeed a similar sort of legitimacy: one that has been described in detail in section 6.3 above. The cultural identity of the "gamer" carries with it a certain prescription of behaviors and tastes, or 'doxa' as Bourdieu would have it. The gamer doxa then defines other large aspects of the field: which games make money, the form and function of social spaces related to games, and in fact which games are even able to be produced in the first place (Consalvo, 2012). Through analysis, one can understand an individual's position within the field of game culture, and make a

relational statement of how they are dominant or dominated by others with power in that field (Nichols, 2013).

Performed play takes place in a sub-field of game culture, on platforms such as Twitch and YouTube, which have their own unique interpretations of the elements that comprise a field: habitus and capital. A strength of Field Analysis as a theoretical approach is that it considers the materiality of how culture is produced. For Bourdieu (1993), that meant an analysis of the schools, museums, journals, critical reporting, and economic venues (e.g. galleries, theaters, and bookshops) of the literary and visual arts. For my work, the approach means understanding the spaces, technologies, tools, and artifacts of performed play.

Through both of my studies, I have considered these material aspects, and placed the practice of performing play into the context of seven streamers from different backgrounds, and with different gaming habitus (that is, their disposition towards digital games as a cultural field). Bourdieu's theoretical framework fits extremely well with the practice of streaming, and provides a powerful means to understand how game culture is produced, reproduced, and potentially changed. To start, I would consider Bourdieu's classical species of capital as being represented within performed play in the following manner

Table 9: Forms of capital in performed play.

Capital Type (Derived from Bourdieu, 1993; Bourdieu & Wacquant, 1992; Ritzer, 2009; Webb et al., 2003)	Expression in Performed Play
Economic – material wealth and goods derived from, or inputted to the field	**Tips –** Tips are direct compensation from one's audience, gathered through a third party site, such as Paypal. Some streamers also sell merchandise, which functions in a similar way. **Subscription** – A more formalized version of tips, which confers certain benefits on the subscriber. Not available to all streamers. **Partnership** – As in Study 1 partnership is a highly desirable outcome of streaming, where one shares in advertising revenues with Twitch. **Assembled Technology –** High quality stream artifacts are seen to need an expensive outlay of both hardware and software. Due to the cost of technology, exterior material factors have a determining effect on access to streaming technology (and, hence, stream quality). **Sponsorships and Giveaways** – Game companies, both hardware and software, have made a common practice of giving items to streamers (e.g. highly visible hardware such as headphones, or more commonly access keys to games) in order to received personal advertisement on a stream. Streamers will also use these items as a "give away" to their audience, as a way to promote new followers.
Cultural – The tastes, skills, and cultural knowledge that give advantage within a field.	**"Assembling Technology" skills –** These are the skills and knowledge related to the category from Study 1 of Assembling Technology. Assembling technology involves configuring hardware and software, graphic design, audio and visual production, and programming custom-built software such as bots. Early findings from both studies suggest that these skills are often shared among streamers in networks of labor, and it is uncommon for a single performer to possess every skill necessary to put together a stream. **Forms of Gaming Capital –** Drawing from Consalvo's (2009) term, gaming captial refers to a combined ability with gameplay (e.g. the reflexes and knowledge necessary to succeed at a specific genre) combined with the tastes and values of the "gamer" identity. Related ideas from the literature

	are also Kirkpatrick's (2014) reading of the concept of gameplay, and Dovey and Kennedy's (2006) concept of edge. **Viewership Metrics –** I argue that viewership metrics (e.g. total views, average concurrent viewership, followers) can be viewed directly as a form of cultural capital. **"Consecration" by the Platform** – Bourdieu (1993) uses consecration as a way of depicting the relationship between actors within a field who have chosen them as being officially sanctioned as legitimate, and given access due to that relationship. Consecration happens on Twitch in the way that the platform features certain performers on its front page, thereby driving further cultural capital to their streams.
Social – The benefits that one is able to derive from one's connections within one's social network.	**Community –** I differentiate community from cultural capital. One may have an extremely strong community of five regulars (e.g. Bailey's stream), which is markedly different from having 1,000 concurrent viewers with no sense of community (e.g. Cheung and Huang, 2011). Community has a later, delayed benefit of providing the labor of moderators for a stream, which is used to protect against trolling and harassment. **Hosting Networks** – Hosting is a practice that is made concrete in the social network of Twitch itself, with hosting allowing users to share audiences among themselves.
Symbolic – Less tangible forms of recognition within a field, that do not impart direct material benefit, but may be parlayed into other forms of access or power.	**Fun / Enjoyment –** As in Study 1, with the values of StreamPlus highlighting having fun on stream as being preferable to focusing on the hard metrics (e.g. cultural capital) of viewership. Fun and enjoyment convey no particular benefits outside of their own value, but have the intangible and delayed benefit of creating a stream persona that is more enjoyable to the viewer, and therefore more able to attract later cultural (and potentially economic) capital.

A notable diversion from the forms of capital listed above, and Bourdieu's

applications of those terms comes in the idea of 'legitimacy'. In Bourdieu's (1993)

analysis of cultural production in the fields of visual arts and literature, there was an

inverted relationship between legitimacy in the wider socio-political field (e.g.

appreciation by the bourgeoisie and working classes), and within the field itself (e.g.

appreciation by fellow artists and cultural critics, or art for art's sake). An example of that inversion would be that an experimental film-maker like David Lynch is extremely well regarded by fellow film-makers, but his movies make very little money at the box office. It is not clear if such an inverted relationship exists within the field of performed play, but my initial analysis suggests that such a relationship does not: frequently the most viewed streams are games that are also heavily represented as an aspect of the gamer identity (e.g. League of Legends has both high legitimacy as a game, and also high values of cultural capital within the Twitch field). In Bourdieu's (1993) analysis, these struggles of legitimacy also formed the structure of cultural artifacts – for example, a new literary style coming into vogue because its form directly opposed the dispositions and values of popular media (for example experimental theater). I do believe that that Bourdieu's analysis of legitimacy maps to my own work. One can see a direct line between legitimacy being derived from adoption of the gamer identity, and frequent scandals within the field of performed play, for example, PewDiePie's being fired by Disney because of his edgy onscreen persona (Romano, 2017). PewDiePie's behavior is not surprising if one is familiar with the toxic elements of game culture (e.g. Auerbach, 2012), and could be construed as being structured directly by that culture's legitimacy in the field of performed play.

The above paints a fairly structural, static, and pre-determined picture of game culture specifically, and cultural production generally. The structuralist nature of Field Analysis is a common critique of the approach (Ritzer, 2009). However, Bourdieu (1993) does allow for change within these systems:

228

"When the newcomers are not disposed to enter the cycle of simple

reproduction ... but bring with them dispositions and position-takings which

clash with the prevailing norms of production and the expectations of the

field, they cannot succeed without the help of external changes. These may be

political breaks, such as revolutionary crises ... or deep-seated changes in the

audience of consumers who, because of their affinity with the new producers,

ensure the success of their products," (pp. 57 -58).

My data indicates that we are seeing such a struggle take place, and that Twitch may

be a force that allows for those who fall outside the "gamer" identity to take greater

legitimacy in the practice of playing games. The "external change" in that case is the

vastly different nature of performed play. Performed play, in its day-to-day qualities,

its ability to import communities, and in the very nature of the practice as putting the

personal identity of the performer forward, may be a platform by which marginalized

populations gain greater legitimacy within the field of game culture, and demystify

the practice of playing games.

6.6 Limitations

The work presented here has emerged from an epistemological stance that

prioritizes qualitative understandings of performed play as a practice. I have chosen a

grounded, constructivist, qualitative stance primarily because it enabled me to

develop sensitizing concepts about a topic that is currently not well understood within

the academic literature (Charmaz, 2014; Walker, 2014). However, attendant with my

approach, are several key limitations.

6.6.1 Limited Perspectives: Spaces, Participants, and Platforms

For my grounded theory approach in Study 1, I chose StreamPlus for a number of reasons, primarily the generally positive and supportive atmosphere of the space. However, not all affinity spaces have that same atmosphere, and there may be major differences between how streaming is conceptualized into a group habitus in a space that is more conflicted, exclusionary, and toxic (Gee & Hayes, 2012).

Similarly, although my ethnographic participants in Study 2 were selected to represent a wide range of perspectives in the field of performed play, they do not represent anywhere near the breadth of experiences within the practice. Notably absent were streamers who approached streaming from a more quantified perspective, with goals to increase their viewership over time and obtain partnership. I am also missing the viewpoint of streamers who have obtained partnership, and are part of the legitimized culture of Twitch.

Finally, I have focused on Twitch intentionally, since it is the largest streaming platform, and therefore provides the clearest view of the practice. However, my definition of performed play could also be extended to any other competing streaming platform (e.g. Beam, or DiscoMelee), or other genres of participation, such as pre-recorded gameplay on YouTube (e.g. Postigo, 2014). I would argue that the field of these platforms would be different than the field of Twitch, and could usefully uncover new dimensions and nuances to what I have described in this dissertation. Streaming of not just games, but many other aspects of life (e.g. Bailey streaming their artwork on Picarto) also has a great deal to add to the conversation of live performance. For example, how does the culture of the online art world interface with live-streamed painting? Future work may also apply an approach similar to my

230

own to consider how streaming in other domains functions as a form of cultural production.

6.6.2 Overdetermination of Theory

Most grounded theory approaches call for the researcher to step into their participant observation with as little theory as possible (Charmaz, 2014; Glaser & Strauss, 2009). I recognize that my work presented here is informed heavily by theory: performance, game culture, situated learning, and field analysis. I therefore accept that my work isn't as pure in approach as it may have otherwise been. However, I agree with Bourdieu's (Bourdieu & Wacquant, 1992) idea of reflexivity in social science research: coming to research as a completely blank slate is difficult, and the very structure of the academy requires that we be familiar with pre-existing theories and conceptions.

I have attempted to be reflexive and open about the theory that guided my work, and my own unique perspective (as an active participant in other fields of game culture) that has informed the findings of this dissertation. I have also applied a rigorous methodology of constant comparative analysis (Charmaz, 2014) to my work. The purpose of that methodological stance is to ensure that my findings are grounded from the words, actions, and ideas of my participants, although they may also be informed by my own theoretical predispositions.

6.6.3 Lack of a Whole Field Perspective

Typically field analysis is accompanied by some form of statistical analysis, which is often employed in order to understand how actors within a field are positioned in relation to one another. As an example, in *Distinction* (1984), Bourdieu

uses correspondence analysis across two major surveys of taste and class in French society conducted a year or two previously to the primary research of the book. In doing so, Bourdieu traces the ways in which cultural tastes and the habitus of the working class are used in order for higher classes of society to exert their dominance, and keep those lower classes from profitable positions within society (such as job opportunities, and education). For reasons of time and resources, I have not approached the field in a quantitative fashion, however have tried to understand issues of relationships and positionality through how I have crafted my research questions and data collection instruments.

6.7 Directions for Future Work

Drawing from my conclusions and limitations, I offer three primary directions for future work,

1. **Exploring performativity.** My conceptions of performativity were largely drawn from the socio-technical origins of that term (e.g. boyd, 2015; Butler, 2009; Papacharissi, 2011), with regards to how the self is presented and performed in networked spaces. Theatrical performance studies, such as Auslander's (2008) concepts of mediatization and liveness, have a great deal to add to the understanding of performed play. Expanding future ethnographic work to consider streamers who are more consciously performing for their audience than my seven focal participants might be one route taken to understand streaming from that perspective.

2. **Distinguishing between spaces.** Both the space chosen for my grounded theory analysis, StreamPlus, as well as the channels of my seven streamers

were all inclusive, positive, and nurturing. However, research suggests that such conditions are not the norm in other streaming-related affinity spaces (Gray, 2017). By expanding the focus to other affinity spaces, we might be able to capture a broader perspective on how practice is differentiated by participation within these spaces.

3. **Understanding a broader perspective of the field.** Through a survey of streamers, we might be able to understand the ways that forms of capital are distributed within the field. A broader understanding would allow for a clearer contextualization of the findings presented across my two studies.

6.8 Conclusions and Final Thoughts

At its heart, my work is motivated by the idea that game culture can be, and should be, changed to be more inclusive. As I began this project nearly 2 years ago, I felt that inclusivity meant making more people into gamers, and drawing more people into the culture of games. Through my work in designing, implementing, and analyzing the research contained in the above dissertation, I have come to realize that the actual process of change in game culture may come not so much from integrating new demographics of people into existing structures of power and access, but rather in completely changing the culture that gives rise to those structures. Through the perspectives of my participants, I have seen that streaming holds the potential to disrupt these existing power structures. By bringing the personal, and the day-to-day into the domain of game culture, the practice of performed play is also bringing in new ideas, and new ways of playing socially. These ways of playing mirror my own powerful, formative experiences of social gameplay with my brother in the summer

before middle school, as described in the introduction. Changing the power structure of game culture opens up new careers, new informal educational opportunities, and new identities for players of all backgrounds. It also opens up new possibilities for games as a form of expression. Along with new perspectives comes new stories, new experiences, and new genres of play. Bogost (2011) refers to the process as "demystification", but through my experiences with this project I have come to instead think of it as expansion. Expanding the realm of play brings with it new possibilities for all of us who love play and games.

6.8.1 The Stakes of Performing Play

Every day millions of people are living their lives through games: the act of play itself, the learning that occurs in gameplay, and the socialization that games provide to players. Play is a cultural activity (Dovey & Kennedy, 2006), and throughout history it has taken on a number of meanings and valences. In popular media, digital games are either a corrupting, destructive force, or they are the way towards a new and better society (Wright et al., 2010). In my experience, and in the work that I've conducted, the truth is more complicated. Games have fantastic shaping power as a pathway towards learning and understanding. However, the social spaces that surround gaming also have an inherently toxic and exclusionary in nature. What my work posits is that the nature of digital gameplay is not static. As researchers, designers, and players we can change the cultural meaning of games. In fact, players are way ahead of us in regards to changing gaming: my participants are all shaping game culture in their own ways, without much regard to what games studies academics have to say about it. For example, Amare's concern for social

234

justice and broadening opportunities for gamers of color brings to the fore issues of equity in digital gameplay, and provides a central focus (his charity streams) for other like-minded players to gather. Jeff and the CubHouse draw on several existing LGBTQ gaming communities, and give both a social space, and visibility to those communities – providing not only fun and entertainment, but also social support for other gay gamers. Even at smaller scales, Bailey's highly personalized gameplay provides a positive experience for their audience that reflects their values against the toxic masculinity of 'cringe culture', and Amy's experiences as a female player in a male dominated game are visible for others who might find themselves in a similar situation.

By examining an emerging aspect of digital game culture which serves as an intersection of gameplay, online behavior, and the day-to-day life of participants I have sought to better understand relations of power within game culture, and how we might restructure these relations as academics and game designers. The benefits of doing so lie not only in play, but also in education and access to next generation careers in an overwhelmingly technological society. As more and more of our society becomes mediated by networked technologies, the power to shape and form these technologies will equate to real, actionable power within the larger socio-political field, and a lack of diversity will have obvious and deleterious effects on our society as a whole. As an example from a previous era, consider the following:

In HVAC engineering (I urge the reader to stick with me here) the model that was used for optimum body mass was that of the engineering teams tasked with designing the systems – overwhelming male, middle aged, and wearing full business

suits. Therefore, for decades, the temperatures that office buildings have been set to (a standard developed by these early, homogenous teams) has been far colder than many modern workers require for their body types. If you've ever wondered why you're shivering in the middle of summer, you can thank the baked-in, systemic sexism that has gone unquestioned and unnoticed for many years, due to the early sexism and exclusion of the engineering profession. If these early teams had been more diverse – if people with other types of bodies had been able to speak up, and challenged the perceived wisdom – then we may have saved many years of discomfort, energy waste, and lost productivity (Kingma & van Marken Lichtenbelt, 2015).

In the tech industry today, software engineers will be deciding similar unquestioned, taken-for-granted aspects of our day-to-day lives. They will be coding the algorithms that allow us to connect socially, designing the security that keeps our devices safe, and creating tools that allow us to interact with our environments. However, the people who are doing these important tasks are overwhelmingly male, middle class, and white (Margolis, 2008). The skills, opportunities, and mentoring for acquiring the skills to become a part of the tech world are often lacking in primary education, and once women come into these high tech domains (in late high school, or early college) they may not have the same informal education of their male counterparts: counterparts who have gotten an informal education by way of the social spaces that surround digital games (Fullerton, 2008; Barton et al., 2012). However, as described above, the spaces that support the valuable informal learning of digital gaming are exclusionary, elitist, and most importantly, toxic to outsiders (Pellicone & Ahn, 2015).

In a recent keynote for the 2017 Game Developer Conference, Raph Koster (one of the founders of the MMORPG genre) gave a talk that was directed not just at game designers, but designers of all social, networked technologies. Koster's (2017) argument is that many of the problems that are being experienced with the growth of social networks (e.g. toxicity, harassment, and exclusionary behavior) are problems that game designers have been dealing with for many years. Facebook's trouble with "fake news", and Twitter's persistent culture of doxing and death threats aren't new, and the solutions that both platforms have applied to mitigate these issues have been shown in the past to work poorly, if at all. Koster focuses more specifically on social spaces that are moving towards virtual reality (VR), citing a number of high profile incidents in newly developed VR platforms, where female users have been sexually assaulted by abusive users (e.g. Wong, 2016). Koster's argument is largely that developers have a role beyond creating technology: they are effectively the leaders of large communities of people, and are "on the hook" for abusive behavior.

Nascent research into VR harassment shows that abusive behavior, and especially gendered assaults, are distressingly widespread. Preliminary ethnographic work reports that harassment is both prevalent, and highly visible in VR spaces (Shriram & Schwartz, 2017), with abusive behavior taking on greater importance due to the highly immersive nature of VR (Spanlang et al., 2014). One of the most prominent stories of harassment, coming from Jordan Belamire's (2016) experiences in the VR game QuiVR (Wong, 2016), resulted in the company implementing tools to allow users to delete offending users from their world (Valentine, 2016). Cy Wise (2017), a studio director for a leading VR production company, experienced similar

harassment in their own game. In a Twitter thread discussing the incident, they write

the following,

Figure 10: Twitter thread discussing VR harassment, taken from

https://twitter.com/cyceratops/status/855962845242109952

Wise (2017) provides a valuable personal perspective that echoes Kingma and van Marken Lichtenbelt (2015) findings about HVAC standards: so long as we have a homogenous perspective designing our online societies, we are eliding and ignoring the problems that can never be fully experienced by that homogenous perspective. Wise, as a developer of VR technology, is able to bring their perspective into making the process of "widespread adoption," more pleasurable for **all users**, not just those who conform to the doxa of the dominant faction. However, as Koster (2017) points out, the design of equitable systems is something that may need to move beyond technical solutions, and requires designers to think socially in addition to technologically.

Above, I've used VR as an example of the importance of expanding game culture – we can only design inclusive experiences if we have a wide diversity of perspectives at the table. Much like VR, performed play brings the self into gameplay, adding to the sociality and immersiveness of our previous conceptualizations of digital game affinity spaces. Through the analytic toolkit of Field Analysis, I have argued that performed play gives us a new way to consider how game culture may change in the future. The core skills that I have outlined in Study 1: assembling technology, building community, and adopting a gameplay persona are all elements that go towards building a socio-technical space dedicated to gameplay. The perspectives in Study 2 show that through these community spaces, identities and ideas not well represented in game culture previously have been given an opportunity to flourish. As is often the case in networked technology, the amateurs

are outpacing the experts. I end with a provocation to designers: through further study

of performed play, we have the ability to change the very structure of game culture,

and to make that culture more welcoming, more inclusive, and infinitely more

exciting and enjoyable for everyone involved.

Appendix 1: Recruitment Flier

(Note: The design of this flier was intended to be simple, eye catching, and directly lay out expectations for participation in the study. Data submitted by people who were not selected as participants was not used in the analysis of this project, since those individuals were not covered under an IRB consent agreement. The Twitch logo was foregrounded as a way to help focus the project on Twitch as a specific field of cultural production, and also as a way to piggyback on Twitch's branding as a synecdoche for streaming more generally)

Do you stream on...

You may be eligible to participate in a study of people who stream video games online. We are looking for up to ten streamers for interviews and observations about their streaming. Selected participants will receive **$60** in compensation. You can take a survey at,

http://bit.ly/UMDStreamingStudy

Or you can contact us at,

umdstreamingstudy@gmail.com

To see if you qualify.

http://bit.ly/ UMDStreamingStudy umdstreamingstudy@ gmail.com   http://bit.ly/ UMDStreamingStudy umdstreamingstudy@ gmail.com   http://bit.ly/ UMDStreamingStudy umdstreamingstudy@ gmail.com   http://bit.ly/ UMDStreamingStudy umdstreamingstudy@ gmail.com   http://bit.ly/ UMDStreamingStudy umdstreamingstudy@ gmail.com

Appendix 2: Core Introductory Interview Protocol

(Note: This is a generic template. Specific protocols were developed for each participant based on their responses to the initial survey. The semi-formal format also allowed for the conversation to handle interesting diversions and gave room to clarify about specific elements of the discussion. Primary questions are bolded. Prompts for me to expand are italicized with a bracket next to them)

Can you describe how you started streaming?
>Expand with further history, depending on how long they've been streaming for.

What's your typical streaming schedule like on a weekly basis?
>Expand with details about set-up, how this interacts with other obligations

Can you describe the process by which you get new ideas for your stream in terms of design, or format?
>E.g. graphics, moderation, bots, etc.

How do you decide what to play? How does this fit with what you play outside of your stream?
>Expand by describing rationale behind this choice

Can you describe your typical stream in terms of format?
>*Expand with details about game choice, length, etc.*

What sort of attitude do you usually adopt to gameplay - e.g. hanging out, competitive, informative.
>What inspires or informs that choice?

Can you describe your typical audience for your stream? How do you interact with them?
>Expand with questions about moderation, and behavior for building and retaining an audience

What is your technical set-up for your stream? How did you decide on, and make choices for this set-up?

What are your goals for your stream?

How would you describe Twitch as a whole?
>Do you view Twitch as a community, and if so, then what type of community is it?

Have you ever had any negative experiences with streaming? If so, then what were they like?

If someone was looking to get into streaming, what advice would you give them as they're starting out?

Is there anything that you wanted to add based on what we talked about, or that might have been missing from my questions?

Appendix 3: Sample Exit Interview Protocol

(Note: I didn't include all seven of my exit interviews, but the protocol below has the core questions that were present in each, as well as a sample of a question developed specifically for Jeff)

Can you describe your chat regulars?
> For example, I noticed MommaPlayer in your chat quite a bit. Could you talk a bit about her?
> How do you think your regulars found out about you?

Can you describe yourself as a gamer? What is your history with games?

Do you use any other social media related to games?
> *If so, then can you describe it?*
> Can you link me to any presences you have on other spaces related to your stream?

How is streaming a part of your daily life?

Do you see your stream changing at all in the future?
> *For participants in school: how do you see your stream changing when you have more free time?*

If you had the power to change Twitch in some way, what would you do?

SAMPLE CUSTOM QUESTION: I know that you guys openly identify as gay on stream. What has your experience been like as an openly gay streamer on Twitch?

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