Navigating Ambiguous Negativity: A Case Study of
Twitch.tv Live Chats

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Abstract

The popular gaming-oriented platform Twitch.tv, which offers video game fans an online space to interact by sharing and viewing gameplay and participating in live chats, is faced with the problem of online negativity alongside all of gaming culture. The content of live chat interaction has been explored on a larger scale, using rules from computer-mediated communication to classify behaviors such as spam and capital letters as negative. The current study used a nuanced qualitative look at particular user communities and the intersection between their descriptive and injunctive community norms and the use of ambiguous negativity, or interactions whose valence is not unanimously understood because communities have their own sets of meanings and rules that can be misunderstood by outsiders. Based on a study of systematic recordings of chats and streams of the *Dark Souls* game series, ambiguous negativity is prevalent and includes behaviors like cursing, game jargon, banter, spam and sarcasm. True negativity and hostility are rare, but they exist and manifest as usage of exclusionary language and banter gone too far. Despite its infrequency, clear negativity shapes the way people experience these communities. The role community members are to assume in responding or not responding to negativity is often not clearly defined by community norms.

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INTRODUCTION

The live streaming platform Twitch.tv enables online interaction between video game fans. Streamers are players who broadcast live videos of themselves playing games to the platform to reach audiences of gamers interested in watching others play. The platform launched in 2011 as a gaming-centered project by the earlier live-streaming startup Justin.tv (the latter was later dissolved) (Wilhelm, 2017). The service has gained immense popularity during recent years: by 2014, it reached fourth place in US peak internet traffic (after Netflix, Google, and Apple) with 1.8%, surpassing Hulu, Facebook, and Amazon (Conners & Breslau, 2014). It has since been acquired by Amazon for nearly a billion dollars (Welch, 2014) and as of August 2018 it had 140 million unique monthly viewers (Smith, 2018). The social component of the service allows viewers to follow and subscribe to certain content creators. Over time, influential channels with a large following have developed. These sizable audiences have been conceptualized as online communities by Blight (2016). The considerable and recently established popularity of the service coupled with the size and profitability of the gaming industry make exploring the interactions on this platform worthwhile.

Online user-generated content related to video games is not unique to Twitch.tv, but the live video and live chat aspects are recent additions to gamers' online interactions. In addition to the popularity of Twitch.tv, the way users interact on the platform offers an understudied place for academic exploration. From the perspective of video game studies, live streaming is interesting because it features games as the content, not as the medium where the interaction takes place. From a communication perspective, live streaming is noteworthy because of the interactions it fosters between streamers and viewers and among viewers. Following and subscribing behaviors allow for a sense of community (Blight, 2016), while live chats during streams enable an asymmetric but

nearly synchronous interaction which differs from most other platforms. Live streaming on other platforms and outside of a gaming context has also rarely been studied previously as it was only recently that fast and reliable internet connections became sufficiently widespread to make it feasible. This technological advance provides an opportunity to explore a type of interaction that is relatively new in general, not just to the gaming context.

One problem that has been facing the gaming industry and its associated fan communities recently is its reputation for negativity and the prevalence of toxicity in interactions within and outside of games (Moore, 2018). Toxicity includes behaviors that create an unpleasant environment for those involved. In interactions, this can be constituted by negative comments and insults. This problem also extends to Twitch.tv (Moore, 2018). Live streams on the platform are accompanied by live chats where viewers can engage the streamer and each other in real time. This is where social interactions happen, therefore studying live chats can help to explain how users behave and what viewers' positive or negative engagement actually looks like. This thesis will introduce the idea of ambiguous negativity, or interactions between the streamer and viewers or between viewers that could appear negative to outsiders due to the presence of traditional markers of negativity (such as spamming or swearing) but might not be hostile once the communication is interpreted in the context of the game. To understand ambiguous negativity, this thesis will consider the intersection of community norms and ambiguous negativity based on prior research that used the SIDE model to link group identification with the adoption of negative behaviors in computer-mediated communication (Chen & Wu, 2013) and on the fact that positive example setting was shown to be possible in Twitch.tv live chats by Seering, Kraut and Dabbish (2017). The study will focus on one series of games (i.e., *Dark Souls*) because from observation and popular sources (e.g., Stuart, 2013; Lack, 2018), it is clear that the communities of different games

and genres function in a variety of ways. As such, this thesis will employ a qualitative case study of live chat interactions on the platform to answer research questions about ambiguous negativity, as well as to gain a deeper understanding of how users interact with each other.

About Twitch.tv

On Twitch.tv, players can live stream their gameplay live for audiences to view. The site also has a social component – viewers can follow and subscribe to certain streamers. Over time, influential channels with a large following have developed. Channels usually have content that is available to everyone, as well as content exclusive to paid subscribers. When a user likes a particular channel, they can follow for free, or subscribe to financially support the channel. There are different tiers of subscription based on how much the user wants to give to the channel, and there are exclusive rewards such as special emoticons tied to the different subscription tiers (Gartenberg, 2017). Users can buy subscriptions for themselves or "gift" other users by buying

Figure 1: Basic Layout of a Twitch.tv livestream. Schematic by Recktenwald (2017).

subscriptions for them (Tran, 2017). In addition to subscription revenue, channels also sometimes use other third-party donation platforms to solicit funding, such as if they are doing a charity event.

Having an account or logging in is not required in order to view. When viewers enter the website, they can choose from the many channels that are currently live by browsing the top popular channels, browsing by the top popular games played, searching, or logging in and looking through whom they already follow. Once they choose a channel and start watching a livestream, the basic layout looks similar to Fig. 1. The website has a navigation pane on the left side. If not played in full screen, the video appears in the center and has approximately the same size as the default video view of a YouTube video. On the right side is the live chat where users can interact during the live stream. Viewers can also choose to hide the chat. Chat messages can include text as well as emoji, which are small digital images used to display emotions or ideas.

In addition to ordinary emoji, Twitch.tv live chats also have custom ones. There is a set of platform-specific ones, as well as ones specific to the channel. Many custom emoji involve funny faces made by the streamers. Fig. 2 shows an example of a *Dark Souls*-related channel's specific emoji on Twitch.tv. These are from one of the most popular channels that stream content from the *Dark Souls* series, Otzdarva, and are only available for subscribers to use. Some of them are based on the content creator's face, while others are references to the game (such as the last one on the first row). The video window itself is usually divided between the gameplay stream and the camera showing the streamer themselves, but the specific layout is up to the streamer. If they choose to show themselves (which they might not), they can have that window be larger or smaller, and they can choose where to locate it (e.g., top right, bottom left). Live streams cannot be paused and resumed later, but channels usually also have recorded videos from past streams that can be viewed. When they are not live, some channels choose to "host" other channels, which shows

OTZDARVA'S' CURRENT EMOTES
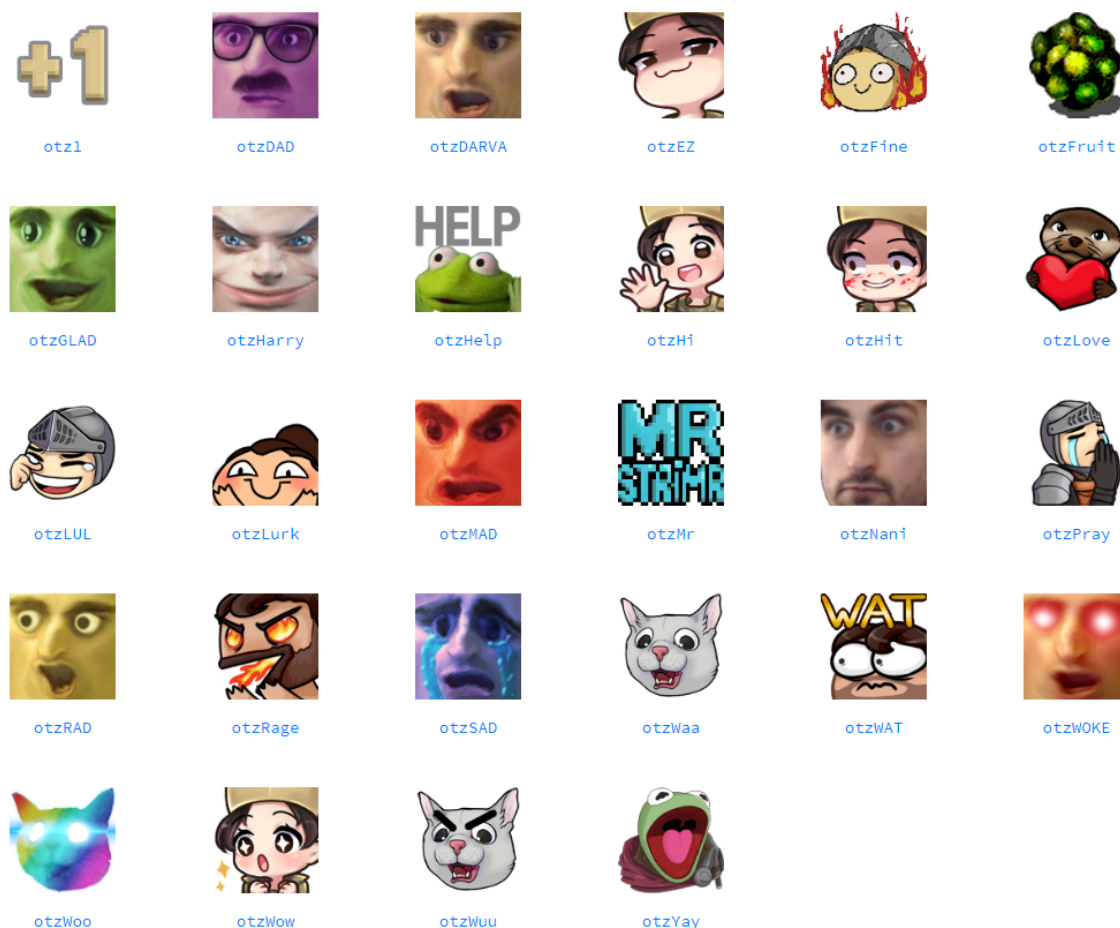
Figure 2: Example of channel-specific emotes by Otzdarva on Twitch.tv. Screenshot from TwitchMetrics (2019).

another channel which is currently live. Channels often host other channels by streamers they know or channels that are dedicated to the same game as the one they typically stream.

The live chat on current streams is where community interaction occurs. Streamers usually have a setup that allows them to both play and look at the live chat, so it is common for them to interact with or respond to some user comments from the chat in real time. In fact, the audience can often see the streamer's eyes shift back and forth from the game to the live chat as they verbally respond to their audience's messages. This is a form of nearly synchronous communication where viewers and streamers can respond to the gameplay and each other in the livestream.

A Short History of the Video Game Industry

Twitch.tv is one of the recent trends in an industry that goes back to the 1970s (Malliet &
de Meyer, 2005). The years 1958 – 1972 mark the prehistory of the video game industry – early
computer programs for playing were being developed, but there was no industry yet. Three things
contributed to the development of games: board games and other children's games, as well as early
pinball machines; the developments in computer technology; and the first program that resembled
a game, *Tennis for Two* in 1958. There are three people who can be credited with the invention of
video games: Steve Russel (with his 1962 *Spacewar* for university computers), Ralph Baer (with
his 1966 device that enabled connection to project onto a TV screen), and Nolan Bunshell (with
his 1970 *Computer Space*). The last one is seen as most important since it was the first that was
meant for an arcade (rather than for fun at university, or a living room) and had explicit commercial
intent.

The birth of the industry happened between 1973 and 1977 and encompassed arcades and
home consoles, and Atari (founded by Bunshell) dominated both. This was the first time
Americans massively became interested in video games (Malliet & de Meyer, 2005). *Pong* was a
hit in arcades. In terms of home consoles, the Magnavox Odyssey came first, but they still managed
to win by developing their *Home Pong*. At that time the first 'real' consoles were developed –
where games were recorded on changeable cartridges, rather than hardwired into the console –
RCA's Studio II and Fairchild's Channel F. The period was also defining in terms of new genres,
including ball and paddle games, shoot 'em ups, and platform games (Malliet & de Meyer, 2005).

The first industry crisis happened between 1978 and 1982 due to oversupply of consoles
and undersupply of games (Malliet & de Meyer, 2005). Atari was almost the sole survivor in the
US market. Soon enough, Japanese companies came into the US market, too – Taito with *Space*

Invaders (with new and improved elements) and Namco with *Pac-Man* (the first game to capture a female audience with its funny and nonviolent content) (Malliet & de Meyer, 2005). Nintendo, Universal and SEGA also entered the market with their climbing games (where players had to go up a series of vertical platforms). American companies reacted by trying to introduce innovations of their own. The period saw some content innovations as well – new genres such as racing games, adventure games, role-playing games and first-person shooters were introduced. In terms of technology, better home consoles were introduced (i.e., featuring color, better resolution), as well as some game-capable computers and the first handheld devices.

1983 – 1989 was the Nintendo era, because the company's dominance was hardly disputed (Malliet & de Meyer, 2005). 1983 – 1985 marked the industry's second crisis, and revenue fell 96% between 1982 and 1985 (Malliet & de Meyer, 2005). This time it was due to overproduction of games. Nintendo dominated the console market with their Famicom and then their NES – this increased demand for games compatible with the NES console, enabling Nintendo to get the best developers to work exclusively for them. Atari and SEGA tried to compete without much avail – Atari only managed to rehash some old arcade games, and SEGA had to settle for second place. Nintendo also dominated in handhelds with the GameBoy that became popular with *Tetris*. The advent of game computers also enabled the development of adventure (*King's Quest*) and strategy (*SimCity*, *Civilization*) games. Arcades were starting to decline, relying heavily on beat 'em ups like *Street Fighter* (Malliet & de Meyer, 2005).

1990 – 1999 Nintendo could no longer hold its top position alone. At the start of the 21st century, propelled by the success in the 90s, the gaming industry surpassed the movie industry in revenue for the first time (Malliet & de Meyer, 2005). Different companies were working on advanced home consoles, but Sony's Playstation (1994) was the one that ended up successful.

Arcades were declining further with their violent niche taken by PC action games and the new regulations on gambling (Malliet & de Meyer, 2005). More powerful computers were being built, and the 3D format finally took precedence. A lot of classics were created, including *Doom* in the first-person shooter (FPS) genre, *Diablo* and *Final Fantasy* in the role-playing game (RPG) genre, and *Warcraft* and *Command and Conquer* in the real-time strategy (RTS) genre.

Since 2000, the importance of social gameplay online has remained and increased, while gaming has migrated to inhabit a variety of platforms (Malliet & de Meyer, 2005). Personal computers and consoles have both continued to thrive, alongside mobile devices that gained significant prevalence. Newer technology that has been piloted and keeps developing includes virtual reality (wearable devices to allow players to use their bodies when interacting with games) and augmented reality (mobile-based applications that superimpose gameplay onto reality, usually using a tablet or smartphone camera).

History of Social Gaming and Spectatorship

Despite often being accused of promoting isolation or even anti-social behavior, there has been a lot of interaction and community formation in and around video games (Schiano, Nardi, Debeauvais, Ducheneaut, & Yee, 2011; Kocurek, 2016). Throughout its history, gaming has always had a social component, regardless of whether or not it was built into the games themselves. Even the program that is considered by many to be the first video game, *Tennis for Two* (1958), is a two-player game. Even without network connectivity, many early games allowed for more than one player, and high score systems in arcade consoles allowed for competition with numerous others. This is similar to the way other games and sports have always been watched and played together socially.

The next step for social gaming was networked multiplayer, which developed and grew in the 1990s. Games began allowing players to connect over modem or cable and developed into large-scale online games that connected millions of players within the same virtual world. The social orientation of players of online multiplayer games has been described in similar terms to players of MUDs (multi-user domains, or early virtual worlds that were generally text-based). In his classification of approaches to playing MUDs, Bartle (1996) contrasts players with an orientation to the world itself and players with a social orientation towards other players. The application of this framework to online gaming shows how interacting with others has become increasingly significant. With the large-scale virtual worlds in MMORPGs (massively multiplayer online role-playing games, or virtual worlds inhabited by large numbers of players, such as *World of Warcraft*) that can inhabit millions of players simultaneously, the social aspect of gaming was no longer a side feature of gaming but a core component of it. When discussing such online games, Carr, Burn, Schott, and Buckingham (2003) identified "communal" motivation, which includes the "social, shared nature of the game," as a core motivation alongside the ludic (i.e., driven by game skill and competition) and representational (i.e., driven by narrative or role performance). To facilitate playing together socially, the usage of voice over internet protocol (VoIP) to talk continuously while gaming became an important part of playing together since the 2000[s]. It initially involved user-initiated interaction using software outside of the games themselves (Singh & Acharya, 2005). In response, many games gradually adapted to have built-in functionality to allow for that, and different kinds of specialized software made specifically for gamers have also been developed (e.g., DiscordApp.com, 2019, etc.). The use of VoIP and the industry's response also indicate how central the social aspect of gaming became and has continued to be since that time.

From the oldest arcade games to the complex communities in virtual worlds, gaming has always been social, which has prompted much research in anthropology, sociology, psychology, economics and cultural studies. There are different types of networks formed around video games: fan-initiated community building around gaming, in-game networking built into the game design, community events, and everyday community interaction online.

One type is the networking facilitated by games but initiated by fans. Some examples of community building here include getting together to play competitively, preserving and showing off gaming culture, and creating and getting involved in organizations. LAN parties are an example of such fan-initiated interaction. They originated during the 1990s when people started linking multiple computers together so several players can cooperate in games such as *Pathway of Darkness* (Chikhani, 2015). These have evolved instead of disappearing as people still enjoy getting together and showing off their hardware, especially in cases of custom-built PC owners. In this case, there is no industry-organized event or in-game interaction – gamers just get together, drawn in by their common passion.

Another type consists of games that have a built-in network component that requires or encourages playing socially. This occurs in large-scale games like MMORPGs, or in smaller-scale social network-based games like *FarmVille*. Both of these are examples of how social interaction is designed into the game, from group content and group-searching tools in MMORPG to leveraging Facebook contacts to gain in-game benefits.

Yet another type are events outside games. Even games that do not have designed social interactions can foster such community creation. There are fan communities surrounding games, such as classic video game tournaments, large-scale e-sports tournaments and community events such as conventions. A lot of conventions are community-centered and have grown over the years.

There are also industry-centered events like E3, where many new releases are announced each year (Kocurek, 2016).

Events like those are special interactions outside of games, but most of everyday interaction outside of games happens in places like forums (Kocurek, 2016). There are official forums managed by companies, as well as fan-maintained ones. Company involvement can vary on official forums. They choose to what extent to moderate the interaction in their own forums and whether or not to sponsor and endorse fan sites (Kocurek, 2016). The video game industry exhibits positive network effects – the more people in the network, the more valuable it is. Companies often invest in and nurture community building, and the benefits are twofold; they get more potential new consumers, but also increase the value of the network for existing players (Kocurek, 2016). Official forums and outlets are also a place for the community to directly interact with developers and to give feedback, which is often considered and appreciated.

Among the four options of gaming communities, the majority of Twitch.tv content fits into that final category of social interaction surrounding games. It is a platform where gamers can get together and interact on a daily basis, although it is also a platform where events and tournaments can be screened. Considering the popularity of e-sports events, the need for a major platform to support the live format mirrors the same need that exists with live sporting events. Twitch.tv also fulfils multiple social needs related to gaming. There has been a social component in the everyday spectatorship of games throughout its existence (Kocurek, 2016).

Recktenwald identifies four phases in the development of game spectatorship and its reflection in previous literature, two "offline" and two online (2018, p. 19). The first phase consisted of the arcades of the 1970s and 1980s, where the technologies of the time placed play in a public setting that enabled "social interaction in a shared environment" (Recktenwald, 2018,

p.21). The second phase of spectatorship happened in living rooms as game consoles rose to popularity and it was common for players to co-play and spectate each other in these more private spaces (Recktenwald, 2018). The third stage happened in the mid to late 1990^s and involved a transition from the local spectatorship of the previous stage, to local network play in cafes and LAN events, to the early origins of internet play (Recktenwald, 2018). The final phase features different forms of internet-based gaming content and spectatorship, including replay files (i.e., files generated by certain games that record gameplay sessions that can be viewed by other users who have the game), machinima (i.e., user-generated montages of game footage), let's play videos on YouTube (i.e., gameplay videos with player speech and commentary as the gameplay unfolds), user-driven emulated live streaming (i.e., done by combining several technologies together to create a live stream-like experience), and finally, to platforms that enabled actual live streaming (i.e., Twitch.tv's predecessor Justin.tv, and its transition to a gaming-centric platform) (Recktenwald, 2018).

Twitch.tv is part of the latest phase internet-based spectatorship and it also replicates some of the memories from the earlier stages online. According to former Twitch.tv data scientist Danny Hernandez (2016):

> [watching a Twitch.tv stream] provides the most authentic preview of a game you'll find on the internet. That's because it replicates the experience of watching your friend play from their couch. Is the hype real? Do you kind of want the controller? Should you buy this game right now? Contrast that with watching a two minute trailer loaded up with cut scenes (para. 3).

Twitch.tv combines all these needs in a unique development for the industry; it gives players the ability to spectate and to engage in in nearly real-time interactions, both for important events and for everyday gameplay.

Academic Study of Gaming

Scholars have been asking many different questions regarding video games. Some have tried to ontologically conceptualize games through our modern ideas of play, while others have focused on the artistic and design side. As a mass medium of entertainment, games have also been studied critically, and the players have been studied in terms of motivation, culture, and community. The study of games has grown considerably since the medium's creation. The first publications about games in the 1970s, were usually non-academic (Myers, 2016). Over the next decade, more detailed analyses came about, but they were still rare and often non-academic. Most topics specific to video games research originated in the 1980s – including literature reviews, discussion of games as learning tools, works on games as 'interactive fiction,' and studying the effects of video games. In the 1990s, research on 'video/computer/digital games' increased exponentially. The next surge in research happened around the time when game companies transitioned into multiplayer social games for online environments, including the release of *World of Warcraft* (Myers, 2016).

Myers (2016) classifies the current body of game studies research into three broad categories: (i) research focusing on the video games themselves, (ii) research focusing on the context, and (iii) research focusing on the players.

The first category that focuses on games themselves tries to make them easier to understand and/or build; they usually focus on one or more elements as critical to the functioning of games (Myers, 2016). They ask, what makes games engaging? Research in this category can also borrow

from other areas, including media theory, semiotics, literature, and film (Myers, 2016). These explorations ask how games resemble or differ from other media in their storytelling, whether storytelling should be central to them at all, and, if not, what is, and how should scholars make sense of them.

The second category focuses on the context, which includes critical and cultural studies perspectives. Myers (2016) places ethnographic and anthropological studies under this category, along with other studies within the 'virtual worlds' of games, such as virtual economies and cheating. These works study in-game communities, actions, interactions, as well as issues like representation. Additionally, this category has works that see games as consumer products, using a macro-sociological or social-psychological approach, and look at ethical and legal implications like privacy, ownership, copyright, etc. (Myers, 2016).

The third category that focuses on players is probably the largest (Myers, 2016). It contains research similar to that done for other types of media, including media effects and motivation. The effects perspective considers positive (i.e., prosocial) and negative (i.e., antisocial and potentially violent) effects. The motivation perspective gives players greater agency, examining why they choose to consume games from various theoretical perspectives, such as Uses and Gratifications theory (Myers, 2016). This domain of research is dominated by motivational analyses and effects-based studies, which use methodologies and assumptions from similar research related to other media. The gaming industry's cooperation is often required due to the proprietary nature of their products. For example, studies that link gameplay and demographics need data from the companies.

Academic Perspectives on Spectatorship

Due to the spectator-streamer format of Twitch.tv, additional perspectives are required beyond traditional video game scholarship. While games have been explored from different perspectives, spectatorship has not been a major one. Therefore, it is pertinent to explore the idea of audience and spectatorship as reflected in other fields. Trail, Fink, and Anderson (2003) found different motivations for sports spectatorship, including knowledge, escapism, aesthetics, achievement, drama, physical skills, family, and social motivations. In their discussion of *StarCraft II* spectatorship, Cheung and Huang (2011) compare the motivations of viewers, finding significant overlap. Melnick (1993) describes sports spectatorship as a social outlet where people can escape the loneliness of urban life. When exploring live streaming on Twitch.tv, there is be even more overlap with the social motivations of sports spectatorship, because the viewership is live. Twitch.tv viewers can be compared to the spectators of live sporting events, which Esbjörnsson Brown, Juhlin, Normark, Östergren, and Laurier (2006) describe as active, engaged, and valuing the richly social experience of spectatorship. Twitch.tv spectators can also be actively engaged and in social contact with each other and the streamer. Similarly, drawing on some of these works, Smith, Obrist, and Wright (2013) conclude that in video game live streaming across platforms there is an interplay between activity and passivity in the viewers' experiences, comparing the way viewers engage with streamers to interactive TV.

Online Communities and Gaming

Gaming communities share common features with other online communities, including in terms of the concerns over different forms of online negativity. The same is true for Twitch.tv. Crenshaw and Nardi (2014) used semi-structured interviews to examine players' practices surrounding naming their characters to reveal that people use names to "develop a persistent,

pragmatic identity to maintain social relationships across games and related sites, and to express their personalities by incorporating elements of popular culture, literary references, and aspects of their own personal histories" (n. pag.). In addition to other contributions, these findings suggest that members of gaming communities maintain social relationships with each other not only within games, but also between and outside of games. This supports the idea that we can extend the study of gaming communities to other contexts outside of games.

Viewers of live streams have been conceptualized as an online community by Blight (2016), who bases that classification on Porter's (2004) definition of an online community. Porter (2004) defines an online community as an aggregation of people whose interaction is based on a shared interest and is at least partially supported by technology. In the subsequent typology, Porter (2004) states that these communities can be established either by individuals or by an organization, and the relationship between the members can be anything from general social interaction, to professional, to commercial, government, or nonprofit. The definition is broad enough to cover the wide variety of online communities that exist and the only restricting factors are the shared interest and the involvement of technology. It follows that communities can be broader or more specialized, and each individual can be a member of multiple communities. In their semi-structured interview study of *World of Warcraft* players, O'Connor, Longman, White, and Obst (2015) showed that players of massively multiplayer online games can form an online sense of community, that they can have various layers of social identities related to their status as gamers, as players of a particular game, or as members of a particular guild, and that they can experience social support from within the game. A sense of community can also be experienced on the level of the entire game, which serves as common ground (O'Connor et al., 2015). It is possible to talk about broader communities of gamers on forums (DePass, 2019) and about communities of fans

of particular games (Lack, 2018; O'Connor et al., 2015) or content creators (Blight, 2016). It also does not matter whether the community was started by an organization, such as official game forums created and moderated by developer companies, or by individuals, such as fan communities on Reddit, because both fit Porter's (2004) definition and typology.

For that reason, viewers of a particular channel on Twitch.tv dedicated to a single game can be seen as a community due to their shared interest in that streamer's content and their interaction mediated by the Twitch.tv live chat. This does not contradict the existence of a broader community of fans of that game, or a gaming community at large. The definition fits all those contexts, including to a group as narrow as fans of a single channel. Thus, the definition of an online community used here allows for both a narrow definition (e.g., fans of a particular streamer) and a broad definition (e.g., fans of a game series). This thesis will primarily be studying online social interactions among the audience and streamer. The audience can be thought of both as members of the *Dark Souls* online community, and maybe members of the community of fans of a particular streamer as well.

To further solidify the different layers of online community present on Twitch.tv, the traditional ideas of sense of community and the expanded sense of virtual community can be applied to show how Twitch holds up. Additionally, the concept of social affordances can be used to demonstrate the features and affordances of the platform that make community possible.

Sense of Community

According to McMillan and Chavis (1986), the traditional sense of community has four dimensions, membership, influence, integration and fulfillment of needs, and shared emotional connection. In a dissertation study of sense of community, friendship and intimacy in their relationships to masculinity online and offline, Gibbons (2017) provided an expanded discussion

of the dimensions: membership includes a sense of belonging reinforced by boundaries, personal investment and a common symbol system; influence can go in either direction, both from individual to community and from community to individual; integration and fulfillment of needs is based on shared values; and shared emotional connection comes from identification and shared history. Blight (2016) applied McMillan and Chavis's (1986) conceptualization of sense of community to Twitch.tv, which suggests the relevance of the construct to the study of the platform.

In the development of a measure of Sense of Virtual Community (SoVC), Blanchard (2007) argues that a virtual community is related to the idea of in-person community but has some distinctive features that are sufficient to require a separate, more sensitive measure. Thus, sense of virtual community is defined as "members' feelings of membership, identity, belonging, and attachment to a group that interacts primarily through electronic communication" (Blanchard, 2007, p. 827). One of the more salient differences between SoVC and the traditional sense of community measure is the fact that virtual community members tend to perceive less influence over their community compared to members of in-person communities. This also makes sense when it comes to the application of the concept to Twitch.tv channel communities. Especially with larger channels with many chat participants, individual members are less likely to perceive that they have influence over the interaction on the community due to the sheer volume of messages. When considering Twitch.tv., membership is defined by boundaries and norms, and unique channel or subscriber-only emotes an example of a shared symbol system. People's discussions of their attitudes and similar experiences with the game, as well as their greetings that indicate their intention of continued interaction, suggest social integration. Shared emotional connection can also be seen in people's discussions of their shared experiences of previous moments on the channel and in their expression of shared emotion through cheering, for example.

Social Affordances

Bradner's (2001) concept of social affordances has been applied to gaming communities to show how a game's features and their modification can impact the social experience of a gaming community (Crenshaw & Nardi, 2016). Bardner's (2001) definition of social affordances, as cited in Crenshaw and Nardi (2016) and Türkay and Adinolf (2019) is as follows: "the relationship between the properties of an object and the social characteristics of a given group that enable particular kinds of interaction among members of that group." Studies such as Morschheuser, Riar, Hamari, and Maedche (2017) show how certain design features of a platform can shape affordances that enable stronger group identification and social norms. Its use can be broadened to gaming communities outside of the in-game environments themselves and applied to other platforms such as Twitch.tv. The social affordances of Twitch.tv would be those characteristics of the platform that enable the particular social interactions that can be observed on that platform. In their examination of the social features of Facebook games, Paavilainen, Alha, and Korhonen (2017) identify three categories of social affordances: presence, communication, and interaction. Presence is the most passive form of social affordance, and it involves perceiving social actors online. Communication covers exchanging messages in different forms, while interaction includes other actions beyond messaging (e.g., gifts). Türkay and Adinolf (2019) apply this classification when studying the social features of the online collectible card game Hearthstone. Just as with the broader concept of social affordances, this distinction can also be applied to Twitch.tv, as illustrated below.

Table 1: Social affordances of Twitch.tv. Based on Türkay and Adinolf (2019).

Social Affordance	Associated Features
Presence	Getting notified when a channel is live Viewing live video Viewing live chat Viewing "Watching Now" number Witnessing gameplay and interaction as they unfold
Communication	Participating in live chat @mentioning others in live chat Using emoji Channel-specific or subscriber-only emoji Publishing stream rules
Interaction	Subscription gifting Appointing moderators Chat moderation Banning Hosting and raiding

In a review and explanation of the different ways scholars have tried to apply presence to digital contexts, Lee redefines presence as "a psychological state in which virtual objects are experienced as actual objects in either sensory or nonsensory ways" (2004, p. 27). de Kort and Ijsselsteijn (2008) demonstrate that player experience is affected by social affordances, particularly those associated with local or mediated social presence. They state that social interaction can be as important as the content of the game. Gamers' experiences within games are socially situated and affected by whom that experience is shared with, which is an idea that can be extended to gamers' relationship with other members of their gaming community in contexts outside the games as well. According to de Kort and Ijsselsteijn (2008), "[s]ocially situated play is as much a function of the game as it is of where and with whom we play. Game interface characteristics, media richness, social context, and spatial layout have been discussed as properties that powerfully impact game interactions and associated experiences" (p. 18:8). This can help explain how

Twitch.tv streamers' experience is affected by being observed, but we could go beyond that and apply the same principles to socially situated spectatorship. If we replace 'play' and 'game' with 'spectatorship' and 'platform,' we can broaden the idea and apply it to the live streaming context: 'socially situated [spectatorship] is as much a function of the [platform] as it is of where [e.g. channel] and with whom [e.g. other viewers] we [spectate]. [Platform] interface characteristics, media richness, social context, and spatial layout have been discussed as properties that powerfully impact [platform] interactions and associated experiences.' The application of this idea helps to explain how and why viewers' experience is shaped by the channels that they watch. Their experience and identification as members of a community is not just about the game that they are fans of, but about the people that they share it with, both in-game and beyond the game, which includes the streamers whose gameplay they view and even the other viewers that watch and interact with them in real time over chat. In the particular context of Twitch.tv, the fact that streaming and chat happen in real time is the most salient feature that enables the affordance of presence. By watching a stream, viewers already know that what they are seeing on the stream and the messages they read in the chat happen right now, giving them the sense of witnessing events as they unfold. Even though the streamer and other chat participants are elsewhere, viewers know that they are tuned in to this same channel right now, wherever they may be. The features that enable this affordance include being able to see when a channel is live, seeing the live video and the live feed of messages that pop up as soon as they are sent, and seeing the current number of live viewers under the video.

Communication is the most straightforward category of social affordance: they "allow players to converse and exchange messages in various ways" (Türkay & Adinolf, 2019, p. 2). In Twitch.tv, features that facilitate these affordances include being able to participate in chat and to

@mention other viewers or the streamer so that they know they are talking to them specifically. In addition, streamers have the ability to publish rules on their channel page, and paid subscribers are able to broadcast their special status by participating in chat with their exclusive emoji and username badges. Streamers' ability to host the stream of another streamer and to invite their viewers to "raid" their chat is another form of interaction affordance that facilitates interaction between different streamers and their communities.

Within games, affordances of interaction are enabled by features that "provide means for player-to-player interactions. These range from competition or collaboration in gameplay to sending a player a friend requests or gifts" (Türkay & Adinolf, 2019, p. 2). While interaction on Twitch.tv is more limited than in some games, this category still applies, and one example includes gifting. In their semi-structured interview study of players of social games on Facebook, Donghee, Lampe, Wash, Ellison, and Vitak (2011) suggested that behaviors of reciprocity, gifting and helping others could help relationship maintenance and give people a sense of belonging to a larger group. While Twitch.tv live chats rarely involve solely one-on-one interactions and relationship maintenance, gifting behaviors are possible in situations such as when one subscriber gifts paid subscriptions to other viewers, which could function in the same way as a mechanism to strengthen the belonging to the larger group and to bond the community together. In addition, the platform also affords streamers the ability to appoint moderators, affording them in turn to moderate the chat and ban problematic users. These count as interactions because they go beyond communication and enable the assigning and monitoring of roles within the community.

Online Communities, Toxicity and Norms

The concept of toxicity, which has been applied to the gaming community at large, is very similar to the idea of flaming in computer-mediated communication. Flaming involves "offensive,

rude and abusive language" (Hwang, Lee, Kim, Zo, & Ciganek, 2016) and can include insults and threats, just like toxicity, which involves any such behaviors that create a hostile environment and make the community unwelcoming. Therefore, the findings related to flaming are also applicable to discussions of negativity and toxicity in gaming. Academic inquiry related to flaming dates back to the early days of computer-mediated communication, but researchers' understanding of it has shifted over time. Initially, the main approach was based on the fact that computer-mediated environments were less rich and offered less cues than face-to-face interaction, which supposedly gave people fewer social cues regarding how to behave, making them less bound to social norms, more uninhibited, and more likely to flame (Keisler & Sproull, 1992).

This idea did not hold up empirically, therefore researchers suggested an alternative, the Social Identity Model of Deindividuation Effects (SIDE): according to SIDE, it was not the anonymity that caused flaming, but the fact that in an environment with lower cues individual differences were less apparent, making social identity stronger (Postmes, Spears & Lea, 1998). Social identity has been conceptualized as community members having knowledge of the group they belong to and attaching value and emotional meaning to their membership (Suh & Wagner, 2013). Postmes, Spears, Sakhel, and de Groot (2001) did subsequent studies to test the SIDE model, showing that anonymity made members of groups with a salient social identity more likely to adopt group norms. This is relevant to an environment like Twitch.tv where, apart from the streamer who appears on camera, community members don't know each other's identities. Subsequent research has also confirmed that the heightened sense of social identity and group membership in a low-cue environment involves a stronger adherence to the specific norms of the group (Chen & Wu, 2013). In their study of cheating in online games, Chen and Wu (2013) show that some negative behaviors such as cheating can be considered part of group norms and their

adoption is affected by group identification. Therefore, there is definitely a strong relationship between social identity and easier adoption of group norms, and it might be possible for some negative behaviors to be seen as normative.

In their quantitative survey study, Suh and Wagner (2013) compared the prior anonymity and social identity approaches, while examining other contributing factors, such as personality characteristics. They divided online communities into two categories, utilitarian and hedonic: utilitarian communities are those concerned with things like information-seeking, while hedonic ones are focused on fun and pleasure and include gaming communities (Suh & Wagner, 2013). Consistently with prior research, they found that anonymity did not contribute to flaming, but social identity did (Suh & Wagner, 2013). However, they also found differences between the two types of online communities. The increase in flaming caused by social identity was significant for utilitarian communities, but not for hedonic ones (Suh & Wagner, 2013). This means that it is uncertain whether higher social identity and its associated adherence to group norms would make people in gaming communities more likely to act negatively. Another factor is the presence of managerial control, which serves the same purpose as moderation, specifically management of community rules and ability to review posts, send warnings, and withdraw memberships. Managerial control was also only effective in reducing flaming in utilitarian communities and not significant in hedonic ones (Suh & Wagner, 2013).

In the context of Twitch.tv, Seering et al. (2017) examined whether moderation, operationalized as banning users who post negative/problematic messages, was effective in regulating the community and fostering a more positive environment on Twitch.tv live chats. It was shown to be effective, at least in the short-run: banning problematic users discouraged users from posting similarly negative messages. This apparent contradiction between Suh and Wagner's

(2013) insignificant findings for the effectiveness of managerial control in hedonic communities and Seering et al.'s (2017) findings that claim moderation is effective might be due to the fact that the latter only looked at their short-term effectiveness. Whether effective in the long-term, moderation is one way in which the community attempts to police its norms and to foster interaction consistent with those norms.

Example setting is also an important aspect of the creation and adoption of social norms and, by extension, of the communication accompanying streams on Twitch.tv (Seering et al., 2017). Examples within the live chat itself could be considered a form of norm-building, but another important type of example-setting that needs to be considered is the example set by the streamer. As the content creator, they are the person around whom the online community forms, therefore it is reasonable to expect that their influence over the community and its norms could be significant. Previous research on flaming in more general online contexts has shown adherence to subjective norms as a significant predictor of flaming behavior (Hwang et al., 2016). Hwang et al. (2016) based their study on the social identity perspective of flaming discussed above: fewer cues make individual differences less visible, strengthening group membership, social identity, and adherence to group norms. According to Hwang et al. (2016), increased adherence to the subjective norms of such virtual communities can cause participants to learn negative behaviors. Chen and Wu (2013) demonstrate this effect in cases of cheating, but not chat toxicity. Furthermore, just as with chat moderation, the differences between different types of communities discovered by Suh and Wagner (2013) are also relevant: they found that social identity, which was shown to lead to adherence to group norms, did not have a significant effect on flaming in communities whose purpose was hedonic, such as gaming ones.

For Twitch.tv live chats, Seering et al. (2017) also examined example-setting, defined as the likelihood of subsequent comments to imitate the behavior of an earlier comment, and found it to be effective in regulating the community and fostering a more positive environment, at least in the short-run. Positive chat behaviors made it more likely for subsequent messages to show similar behaviors and the effect was stronger when the initial message came from users perceived as having more authority (Seering et al., 2017). It follows logically that the streamer, in their role as content creator and center of the community, would have the most authority. Therefore, participants in the live chat might imitate the example set by the streamer's utterances in the broadcast, positive or negative. Such an adoption of the streamer's example in an online environment where viewers are anonymous would be consistent with Postmes et al.'s (2001) assertion that social identity leads to higher adherence to group norms. Once again, this appears to contradict Suh and Wagner's (2013) findings with regard to the insignificant effect social identity had on flaming in hedonic communities, highlighting the importance of the research in this thesis. One possible explanation is that Seering et al.'s (2017) findings only pertain to short-term effectiveness. Another possibility is that positive example-setting in hedonic communities works by helping people adopt positive behaviors but might not work in the same way for negative behaviors. These findings demonstrate the need to do further research to examine whether normative behavior as a traditional predictor of flaming in online communities functions the same way in communities that are hedonic in purpose, such as those surrounding gaming.

Academic Study of Twitch.tv and Live Streaming

Research dedicated to live streaming on Twitch is still at a very early stage, but most of the current work falls into the motivation category (Chen & Lin, 2018; Hilvert-Bruce, Neill, Sjöblom, & Hamari, 2018; Hu, Zhang & Wang, 2017; Sjöblom, Törhönen, Hamari, & Macey, 2017). The

user side has been studied the most. Blight's (2016) dissertation uses the Uses and Gratifications perspective, adding the concepts of parasocial relationships, fandom, and sense of community. It shows that parasocial relationships and fandom mediate the relationship between gratifications and sense of community. Sjoblom and Hamari's (2016) questionnaire study also applied the Uses and Gratifications framework to Twitch.tv, examining five categories of needs met by watching: cognitive, affective, personal integrative, social integrative, and tension release. Information seeking, or cognitive, was positively associated with how long viewers watched and how many different streamers they watched. The time spent viewing was also affected by affective, social integrative and tension release motivations. Social integrative motivations most strongly predicted subscription behavior, which confirms the importance of social motivations for Twitch.tv users as suggested by other studies. Hu, Zhang, and Wang's (2017) study also explores why viewers watch and keep watching. The study applied Using Social Identity Theory and surveyed Chinese audiences on two popular platforms, Douyu TV and YY Live. They proposed a dual identification framework where viewers identified both with the streamer and with the audience group and found that both increased users' intention to keep watching. This study does not pertain to Twitch.tv directly, but it confirms that the findings of previous studies can be generalized to live streaming and confirming the importance of social motivations. Chen and Lin's (2018) survey study looks at what influences Taiwanese users' intentions to watch live streams on various sites, including social media and gaming platforms. They found that viewers enjoyed live streams because it made them happy and relieved stress, which is consistent with findings from Sjoblom and Hamari (2016). They were more likely to have a favorable impression if they liked the streamers: for female viewers, admiring the streamer was more important, but for male viewers, interaction with the streamer mattered more, supporting Hu et al. (2017). Hilvert-Bruce et al. (2018) also employs a

Uses and Gratifications perspective to explore viewers' motivations for watching video game live streams, and it examined six social motivations: social interaction, sense of community, meeting new people, entertainment, information seeking, and lack of external support in real life. The findings indicate that user motivations for viewing streams on Twitch were much more social when compared to traditional mass media, and the social motivation was even stronger for users who viewed smaller channels (i.e., under 500 viewers).

Overall, in the user category, researchers take a similar perspective to some of the player-focused research. There are no effects studies, but, as this is still the early stages of a new type of media, scholars are mostly trying to work through why people would watch others play. Scholarship consists of several studies that examine the motivations of viewers, usually from the perspective of Uses and Gratifications and a few other theories. The most common method is quantitative surveys. The findings include the expected needs (e.g., entertainment, tension release, information seeking) alongside social needs. This is true even when the scope of live streaming research was broadened beyond gaming. Live stream viewer studies fit the broad category of motivation and need satisfaction and confirm the importance of social motivations.

The content creator side has been explored less frequently. Zhao, Chen, Cheng, and Wang (2018) use self-determination theory to examine the motivations streamers have to continue broadcasting on the platform, showing that extrinsic motivations were slightly more important than intrinsic ones. The importance of extrinsic rewards shows that the feedback they get from their community in terms of chat engagement is probably important to content creators themselves, reinforcing the need to study it. Gandolfi (2016) created a classification of streams into three categories based on how streamers approach them: challenges, where streamers focused on conquering the game, exhibitions, where the focus is on performance as well as some interaction,

and exchanges, where social interaction and viewer input matter most. Scully-Blaker, Begy, Consalvo, and Ganzon's (2017) qualitative preliminary study explores the effect of audience presence form the streamer point of view. The study recruited people to engage in gameplay of the same game (which was new at the time) in two different settings: one was pairs playing together at a homelike setting ('couch co-op') and the other was streaming live on Twitch.tv. They observed different modes of play: 'playing along,' where the player was enjoying tandem gameplay, and 'playing for,' where the player was focused on entertaining the audience. In the couch situation, players engaged mostly in the former, while those who streamed on Twitch.tv (usually to 10 or fewer viewers) engaged in both. Scully-Blaker et al. (2017) suggest that the larger the audience, the more streamers will 'play for' instead of 'playing along:' "As a result, it seems, at some point in the cycle of gaining viewers by being entertaining and receptive to one's spectators (i.e. through practicing a form of tandem play), streamers possibly transition to an increasingly impersonal approach to their channel as the chat becomes larger and more unreadable" (p. 2034). These studies begin to explore the social interaction in Twitch.tv communities from the streamer's perspective.

The content of the Twitch.tv interactions themselves has barely been explored, which highlights the importance of studying live chats. Sjöblom et al. (2017) compare the needs satisfied by different games and different types of content. The findings indicate that it isn't the game or genre that determines what needs can be satisfied by the stream (e.g., people do not watch first-person shooter games for affective motivations). Instead, the structure and type of content are more important (e.g., people watch review videos for information seeking independent of genre). While the Sjöblom et al. (2017) study did focus on content, it only explored content created by the streamers themselves. In the one of the few extant studies of the content of live-chat messages on Twitch.tv, Seering et al. (2017) explore whether moderation and example-setting were effective in

regulating the community and fostering a more positive environment. Both were shown to be effective, at least in the short-run. That study, however, employed a more large-scale perspective, which necessitated a more straightforward classification of negativity. Apart from Seering et al.'s (2017) work, the viewer-generated content on live chats accompanying streams has barely been explored, therefore the current study of their content is an expansion of academic knowledge in this area. The idea of focusing on the content is also supported by Recktenwald (2017) who claimed that Twitch.tv chat transcripts are worthy of study.

This Project's Research Focus

It is valuable to fill the research gap in user-generated content by examining how viewers interact in the live chat of a platform. The current study engaged this question by examining what negative behaviors look like and whether all behaviors that appear to be negative are actually toxic. Cook, Schaafsma, and Antheunis (2017) used qualitative interviews with self-reported trolls in online gaming to get at people's motivations to behave negatively, uncovering motivations such as personal enjoyment, revenge, and thrill-seeking. Beyond these personal motivations, the content of these messages also needs to be examined in order to understand what constitutes negative behavior. The research that focuses on flaming specifically in gaming communities has sometimes focused on describing what toxic language looks like (Kwak & Blackburn, 2015) and testing out automated ways to detect toxicity (Blackburn & Kwak, 2014; Murnion, Buchanan, Smales, & Russell, 2018; Thompson, Leung, Blair, & Taboada, 2017). Kwak and Blackburn's (2015) linguistic analysis comparing in-game chat patterns of toxic and regular players in the game *League of Legends*, for instance, show pronounced differences where regular players more commonly use words and phrases that inform, whereas toxic players more commonly use swear words and insult others. Seering et al.'s (2017) Twitch.tv live chat analysis discussed above used

spam as the basis of defining anti-social messages, which were operationalized as messages that contain many emotes, capital letters or symbols. Neutral messages for them were those that ended in "?" and positive messages were those that contained singular smiling emoji. While such approaches are helpful for large-scale analysis, when it comes to specific interactions and individual messages, hostility is more nuanced than just spam and curse words. In their analysis, Seering et al. (2017) mentioned that the attitude towards spam differs between communities as in some such behaviors might be desirable and "in some cases it can even be compared to the type of cheering that happens at sporting events" (p. 114). Similar conclusions appeared in Karhulahti's (2016) close analysis of a yearlong series of observations of a single Twitch.tv streamer. Karhulahti (2016) studied pranking and trolling performances and concluded that while such behavior is traditionally construed as negative, there can be social systems and situations where such behaviors are encouraged, and that these behaviors "can be considered extensions of our natural play instinct" (p. 11). Karhulahti states that Twitch.tv is a favorable environment for the development of such "alternative social systems," which makes increasingly difficult for the parties involved (i.e., streamers, audiences, moderators) to determine what constitutes ethical behavior (p. 11). This thesis will argue that not all spam, swearing or trolling is hostile, and the line between acceptable banter and insults can be blurry. Therefore, a fine-grain understanding of toxicity and hostility requires taking the context and community norms into consideration.

In order to figure out how communities make sense of negativity within the context of their norms, this study looked at one particular set of communities on Twitch.tv (a detailed justification can be found in the following section) and delved into those live chat messages that fit into the category of ambiguous negativity. 'Ambiguous negativity' comprises all those interactions whose meaning and valence is not unanimously interpretable, usually because community members have

their own set of meanings and rules as to what is acceptable, and those can be misunderstood or misinterpreted by outsiders. Examples include messages that might be interpreted as negative by a large-scale analysis because they contain spam or curse words but are actually tolerated and not seen as hostile by the respective community where the interaction takes place. The overarching question that guided the study is as follows:

> ***RQ1:*** *What are the norms of discourse in Twitch.tv live streams and*
>
> *accompanying live chats related to games from the* Dark Souls
>
> *series?*

When taking a closer look at these norms, they can be separated into descriptive (i.e., what behaviors are performed and perceived) and injunctive (i.e., what behaviors are regulated, approved and disapproved). This distinction can allow for a more detailed look at how these communities behave around content that could be identified as negative. The following questions can be applied to the injunctive norms of the communities:

> ***RQ 2:*** *What are the supported discourse practices that fit into the*
>
> *category of 'ambiguous negativity'?*
>
> ***RQ 3:*** *How do participants express disapproval for non-supported*
>
> *discourse practices (e.g., calling others out, reporting,*
>
> *moderation)?*

The following question can be applied to the descriptive norms of these communities:

> ***RQ 4:*** *Which practices that fit into the category of 'ambiguous*
>
> *negativity' might be easily misunderstood by outsiders (e.g.,*
>
> *acceptable practices interpreted negatively, or unacceptable*
>
> *practices interpreted positively)?*

Justification for the Game and the Focal Community

This still sought to explain and classify ambiguous negativity as it occurs in the communities of fans of a single series of games (i.e., *Dark Souls)*. This was necessary because while there are many communities of fans of different games and the different fandoms would have vastly different interests, shared knowledge and norms. Thus, studying them all comprehensively enough to do a comparative analysis would be beyond the scope of this thesis. The *Dark Souls* series of role-playing games is a suitable option because it has an active community, it provides variability of content structure, and it is a good option for studying potential negativity due to its difficulty and its importance to the gaming industry as a whole. Limiting the sample to one game series sought to eliminate the effects of the differences between the fan communities of different games and game genres, which is crucial when studying norms specific to certain communities. At the same time, it is appropriate to combine multiple games in the case of the *Dark Souls* series because they share not only genre, players and jargon, but also content creators and viewers.

The choice of a popular game assured that enough people would be watching streams. The viewership on Twitch.tv is dynamic as new releases gain popularity, so it is important to pick games that have been consistently popular for a few years in order to assume that it has a community that is both established and active. If a game is chosen solely based on popularity during the data collection period, it could turn out to be a game that was played a lot surrounding its release, but then dropped off, which would mean that its popularity and the size of the communities viewing it would change rapidly, creating sampling issues. Additionally, the game series is well regarded by the gaming community. For the latest installment in this game series, 90% of *Dark Souls III*'s 67,424 Steam reviews are positive, which classifies as "very positive"

feedback (Steam, 2019). The game series is well-known and has been well-viewed for a few years. Therefore, it was reasonable to assume based on the above information that there would be enough streams to study.

In addition, the *Dark Souls* series is appropriate for studying negativity due to the controversial ways in which people respond to its difficulty and to the special status it holds to gaming as a whole. The series is known for its high level of difficulty, which can make it intimidating. The core fanbase of the series has even been accused of elitism and toxicity for their treatment of new or inexperienced players who struggle with aspects of the game (Worrall, 2016). Such behavior usually happens outside of the game due to the fact that the *Dark Souls* series offer limited in-game options for interaction with other players. It can usually be seen online when the games are being discussed and people can ask for advice, including the comment sections of the various wikis dedicated to the series and in Steam community forums. Steam is perhaps the most popular platform for distribution and purchase of online games, and its features include discussion forums where users can interact. The debate goes back and forth (Kain, 2016), which makes the *Dark Souls* series ideal for studying ambiguous negativity.

Although not mainstream in terms of the number of players, the series is well-known and iconic, and hold a special place in gaming as a whole (Dahlen, 2018). There has been much discussion as to what makes the series good (Houghton, 2014; Houghton, 2015) and what gives it this iconic status. A lot of that discussion revolves around a series of specific game design choices that make it unique, including among other features the level of challenge that requires persistence of players; the level design that enables players to explore an interconnected world that loops back to the center point; the unique approach to multiplayer where, for the most part, everyone is on their own, but there are ways for players to help or hurt each other through invasions or to give

each other hints through messages; the unique mode of story delivery where there is a deep and rich story to be found, but it isn't delivered to the player if they don't go looking for it (Riser, 2016). Ever since the first installment of the series, these choices have given the *Dark Souls* series such a unique look-and-feel that it inspired other developers and spawned many homages and imitations (Cladwell, 2017). The influence was so powerful that the games that tried to replicate some of these iconic features were often called "souls-like" (Caldwell, 2017). It wouldn't be a stretch to call the series, and especially its first installment that pioneered that style, "genre-defining." Sometimes, a game becomes so unique and recognizable that it creates a genre of games that use the same features or style. One of the earliest examples is the "roguelike" genre used to describe many games that have features such as dungeon exploration and permanent death, taking after the 1980 game *Rogue* (McHugh, 2018). Byrd (2016) cites other examples, stating how some genres spawned by iconic games carry the name of the original game and others do not:

> In the early 90s, if you were so brazen as to release a game that was played from a first-person-perspective and required players to shoot various enemies with a plethora of weapons while vague rock chords trumpeted your actions, your game was called "*Doom-like*." Today, we call them first-person shooters. In early 2000s, if you released a large, open game where you could accept missions from various inhabitants while otherwise being able to play as you wished, then you were likely called a "Grand Theft Auto rip-off." Today, we call those sandbox or open-world games (para. 1-2).

Today, gaming websites casually use the term "souls-like" for games of that style made by the original developer and other developers, even coming up with ranking lists of games of that category (Prescott, 2019), and you can filter the Steam store to look for games of the "souls-like"

tag (Steam, 2019). The fact that the category of "souls-like" games is so easily recognizable and ubiquitously used to describe other games is testament to the influence the series has had on gaming as a whole.

With regard to content structure, the *Dark Souls* series is a good choice because it provides variability in play. Smith et al. (2013) distinguish between several types of content on Twitch.tv, including e-sports, which feature professional gamers; speedrunning, where streamers compete on how quickly they can complete a game following specific rules; and 'let's play,' a less competitive, more entertainment-oriented playthrough by non-professional gamers. Speedrunning is common mostly in streams of single-player games and corresponds most closely to Gandolfi's (2016) stream category of challenge that is focused on the streamer's mastery of the game. The 'let's play' format is not as common among competitive games. Another category should be added that includes competitive or ranked play: it is an extension of Smith et al.'s (2013) e-sports category that includes non-professionals and is common among online multiplayer games. *Dark Souls* content on Twitch.tv includes both speedrunning and competitive play. Because of the games' difficulty, they are popular choices for the speedrunning structure where streamers challenge themselves on how quickly they can complete an entire game. The games' online multiplayer systems allow players to play against each other, which has made them popular for competitive streamers that show themselves fighting other players. Having a variety of content structures is good for the study because if instead a game with only one predominant type of stream was chosen, it would have the limitation of not being applicable to other types. For streams of the *Dark Souls* series, the study sought to get examples of both single-player and competitive content to make the findings more generalizable.

***Dark Souls* on Twitch.tv**

The *Dark Souls* communities surrounding streaming channels on Twitch.tv in particular represent a unique space to be studied. Since most of the viewers are also players of the game series, the people involved in the interaction were probably the same, but the interaction on this platform was different both from the interaction in the game and from the interaction related to the game series in other online platforms, such as the Steam community forums or the wikis discussed above.

The interaction here will differ from that in the game due to the restrictiveness of player-to-player communication in the *Dark Souls* series. As mentioned earlier, within the games themselves, the majority of the experience is single-player, and during that time the only clues players have from the existence of other players are messages, which are composed from a limited set of game-determined words or phrases and can be placed in virtual locations in the game's world. For the multiplayer component, players can help or harm each other via the invasion mechanic, where in certain areas a player may "invade" or be "summoned" to the world of another player, either to attack or to assist them. Even when that happens, interaction between players is limited as there is no voice chat or text chat. The only cues players have to go on are the behavior of other players' avatars in the game, which includes a limited range of animations such as "wave," "point," "joy", etc.

The interaction also differs from other *Dark Souls*-related discussions online. The community forums on Steam and comments under wikis are the locations where, as discussed above, negativity and elitism can be seen in the form of hostility and arrogance towards new and inexperienced players who may struggle with the game. Users on Twitch.tv may be aware of that and may even joke about it (e.g., using the phrase "Git Gud," which suggests that any struggles

within the game can be solved by simply being better and trying harder). However, those streams and live chats also involve honest and personal discussions of people's experiences in the game sparked by the streamers' own gameplay (and often their own struggles). It allows people to share their frustrations with progressing through the games, to talk about the parts they struggled with, and to normalize these experiences by seeing how common they are. While in some other places such experiences might be disregarded, met with hostility or with objective in-game advice, here people can connect with each other by talking about the difficulty of overcoming those challenges.

In addition to the platform-specific differences from in-game and other online interaction, Twitch.tv also allows people to get together with those like them. *Dark Souls* fans are a slightly niche group. As the games get older and older, the number of players declines between the initial days when novelty and popularity bring larger groups of players and the later days when there is a dedicated, but not as large player base. This is especially true for the older installments from the series, where the in-game worlds are not as populous as they were when the games were newly released. Therefore, Twitch.tv offers additional appeal as a place where these people can talk about these games they like even when they are not as heavily played anymore, whether it is to reminisce about the positive aspects or to share the aspects that were challenging or frustrating.

The social affordances of Twitch.tv, that were classified in Table 1 using Türkay and Adinolf's (2019) example enable and shape this unique interaction.

Author's Background

This thesis involved a qualitative exploration of community norms in a relatively niche community, thus some level of insider understanding was required in order to make sense of and interpret these highly context-specific interactions and the jargon, norms, and references involved. In addition to my knowledge as a researcher, I had to draw on my experiences as a fan to execute

this project. What made me qualified for such an undertaking were my experiences with video games, my experiences watching games and gaming content, and specifically my experiences playing the *Dark Souls* games, and my experiences watching *Dark Souls*-related content and being part of the fan community.

I was actually a latecomer to *Dark Souls*, joining the fandom only after the third installment in the series. The fame and reputation of the series for difficulty preceded it and I was unsure whether I was up to the task. I joined first by watching, and after getting captivated by the games I gathered the courage to play myself. So far, I have played approximately 150 hours in the three games combined, with the most played installment for me being *Dark Souls III*, followed by the remastered version of the original *Dark Souls*. This is less than many of the series' most dedicated fans, whose playtimes often range in the multiple hundreds for each installment separately. My experience was enough to give me substantial knowledge about the games, especially when taken in combination with my experience as a viewer and community member.

For the *Dark Souls* games, my viewing experience is extensive. I have watched others play *Dark Souls* games upwards of 200 hours in-person alone, which includes time observing my partner and getting together with friends to play. I have also enjoyed all manner of *Dark Souls* content online. On YouTube, I've seen many styles of *Dark Souls*-related videos, including fun facts, reviews, tutorials, boss rankings, player-versus-player fights, speedrun clips, story videos, and others. My viewing time for *Dark Souls* content for YouTube alone is easily in the hundreds of hours. On Twitch, the content types I have seen are not as varied as they tend to be focused on gameplay rather than the other YouTube-appropriate types, like story. I've watched speedruns, no-hit runs, and player-versus-player fights, for probably 100 hours for this game series only. In addition to hanging out on YouTube and Twitch, I've also experienced the *Dark Souls* fandom via

wikis and guides, fan art, and merchandise. When I was conducting the pilot study, I already knew most of the content creators I recorded because I was familiar with their content either from Twitch or from both Twitch and YouTube. This is testament to the fact that I am well acquainted with the fan community of the series. I was able to understand their jargon and references. I was also aware of some non-*Dark Souls*-related things they commonly discussed, mainly other souls-like games from the same developer (e.g., *Bloodborne* and the newly released *Sekiro: Shadows Die Twice*) and from other developers (e.g., *Nioh*, *Hollow Knight*, and others).

METHOD

Preliminary Observations

To establish the necessity and viability of this thesis, preliminary observations and personal experiences as a fan pointed to the existence of ambiguous negativity in the live chats accompanying Twitch.tv live streams. These observations found that a lot of the negativity that is usually attributed to online gaming communities is not clear cut. Taking a large-scale, rule-based approach could potentially misclassify non-hostile comments as negative based on behaviors such as spam, which Seering et al., 2017 consider an antisocial live chat behavior, usage of curse words, banter, or game jargon. Spamming, for instance, is typically considered negative in online communication. However, in certain streams and e-sports events, chat participants spam particular emotes and are encouraged to do so in support. Therefore, classifying those instances as negative is inaccurate. At times, chat participants were seen copying a message and pasting it multiple times in order to keep it visible. One instance of this was observed in Alkaizerx's *Dark Souls III* stream on Feb 13, 2019. One chat participant wrote a gameplay tip for the streamer and it got copied and pasted in the chat multiple times. This seems like a case of spam, but upon closer inspection it is not so clear-cut because in a populous chat messages pop up very quickly and older messages

scroll out of view, so this behavior could simply be a way to get one's point across (though it is also possible that the chat participants might be making fun of the fact that the streamer did not know this). Using curse words, both by the content creator and by the chat participants, is similarly misleading, because they are often simply instances of expressive language that indicates frustration or excitement, rather than a toxic or hostile remark. Jargon related to the game is hard to recognize for outsiders, so it could also be misclassified as negative, especially if it contains negative words. Friendly banter is difficult to distinguish from actual hostility. All of these ambiguous cases demonstrate the need for a more fine-grain approach to analyzing which behaviors amount to clear-cut negativity and which ones are ambiguous or misinterpreted.

Sampling

The population of this study is live chat messages on Twitch.tv video game live streams. The unit of analysis is the individual message. Systematic sampling was be used when selecting the channels to be studied: every session the channels that fulfill the sampling criteria was be ranked based on the number of current viewers and the top channel by a unique content creator was be selected. The sampling criteria include posting content in English, posting public content, and posting content related to the *Dark Souls* series. With regard to language, English is a prevalent language for the platform, and choosing a single language simplified analysis. With regard to public content, it was important to select only the streams that are visible to the public, not only to paid subscribers, to control for possible variations in the interaction because of that.

The study recorded descriptive information about each video recording in the form of attribute codes, which included the following information: the username of the content creator, the game they are streaming, the date and local time of the recording, the viewership expressed as

current viewers and total stream views, and other notes such as the sex of the streamer, the type of stream, and preliminary notes about the negativity encountered.

Procedures

The data was collected between February 15th, 2019 to March 21st, 2019. Popular streaming and viewing times were used in order to get a more representative experience. TwitchStats (TwitchStats.net, Accessed Feb 15, 2019) listed 16:00 EST (15:00 CST where the study was conducted) as the time when streamer and viewer traffic is highest, but TwitchTracker (TwitchTracker.com, Accessed Feb 15, 2019) shows growing figures for later into the afternoon and evening as well. Despite the lack of consensus, Twitch.tv streamers and viewers are most active during the afternoon and evening hours because that is when young adults and adults are typically no longer at school or work. In accordance with that, the recordings taken ranged between 15:05 CST and 18:45 CST.

For each video, the top viewed unique stream currently on Twitch.tv that fulfilled the criteria of *Dark Souls* content and English language was selected. For the sake of variability, in cases when the top viewed stream has the same content creator as one of the previously recorded videos, the next most frequently viewed stream was selected. During data collection, two of the content creators were recorded twice each, because at the time of the second recording the only other streams of *Dark Souls* content that had at least 100 viewers were from non-English speakers. Each recording was 10 minutes on longer, but only a 10-minute-long segment was used from each, which featured the stream in theater mode, which shows it side by side with the live chat as it occurs. The live chat was copied into a separate file.

The descriptive properties detailed above were recorded for each video. Overall, 22 videos were recorded from 20 unique streamers. The main streamers were male in 20 of the videos and

female in the other two. Two videos featured male guests (on video or voice chat), while 4 featured female guests. The current viewers of the streams during the recordings ranged from 84 to 14,619, whereas the total stream views of the recorded channels ranged from 199,020 to 33,256,349. The distribution of the recordings among the games from the series ended up being evenly proportioned, with 8 recordings featuring content from *Dark Souls,* 6 recordings featuring content from *Dark Souls II,* and 8 recordings featuring content from *Dark Souls III.* See Appendix 1 for a detailed breakdown of the descriptive information for each recording.

Coding and Analysis

Coding and analysis were done in three stages: selection, coding, and analysis. The initial selection stage involved selecting ambiguous negativity excerpts from the video recordings. Ambiguous negativity was operationally defined as any segment of streamer speech or live chat interaction that contains traditional markers of negativity (e.g., swearing), traditional markers of online negativity (e.g., spamming, writing in all caps), is potentially hurtful to the audience or a subset of it, or looks potentially hostile based on surface-level insider understanding of the games and community (i.e., phrases that do not seem negative, but have been used sarcastically or negatively within gaming). Individual messages and sequences of multiple messages containing potential ambiguous negativity were selected for analysis based on the judgment of the researcher. Segments of potential ambiguous negativity were identified and transcribed with consideration of some of Recktenwald's (2017) suggestions, including time stamp and stream information for the segment, chat messages listed alongside de-identified participants, streamer utterings in the video, and relevant in-game or on-camera events. To avoid bias in this step, broader and less selective criteria were used so as not to miss any situations that might contain ambiguous negativity – any

instances of curse words, spamming, and negative words were selected. Once selected from the videos, these segments were transcribed and used for the next stage.

During the coding stage, the selected excerpts of ambiguous negativity were studied more closely. The situations were described by the researcher in the form of notes, categorized and tagged using exploratory coding. The context was taken into account through notes using the researcher's gaming background. Additional research into the background of certain channels was done in effort to fill in some gaps in context. Broadly, when making a judgment for true negativity (vs. only ambiguous negativity and misunderstanding), true negativity was operationalized as speech or chat that is hostile or hurtful towards the intended recipient (e.g., being mean or rude) or towards the direct or implicit audiences (e.g., negative statements or stereotypes about certain social groups, regardless of whether they are present in the chat or not), while the rest (e.g., light-hearted teasing, joking, swearing as frustration towards one's own performance, using curse words expressively in a positive statement) was not considered true negativity. The tagging process was iterative. Some of the pre-anticipated behaviors (e.g., spam, curse words) were immediately tagged, whereas others only became apparent after moving on through the data and seeing the behavior occur again. In those cases, a tag was created after the examples were initially described and was added to all the previous examples where it was featured.

The analysis stage was done in three layers. Tagging did not stop before the start of the analysis stage. As analysis progressed and trends became more visible, tags were sometimes added or modified. The first layer of analysis involved those behaviors that would be most easily apparent to newcomers or a data-driven quantitative approach (e.g., spam). The second layer looked at the dialogic and relational behaviors, such as banter and trolling. The third layer tried to get at the root

of ambiguous negativity by looking at the meta-discourse, the topics people talked about, and the issues and sore points that emerged from those.

During the analysis stage, published rule sets by the streamers that appear on their channel pages were considered, as they were presumed to add insight to the norms being studied during the analysis. The rule sets appeared on nine of the featured channels. Each channel page was visited, and the rule sets (when available) were copied and studied as a group to identify trends, which are presented in the analysis section. While these cannot be used to gauge descriptive norms as they are not part of the conversation, they do frame conversations about any topic including norms and provide a basis for identifying injunctive norms.

When calculating frequencies as part of the analysis, frequencies reported correspond to the proportion of ambiguous negativity examples in which the particular behavior was featured. They do not represent frequencies of those behaviors in live chats overall because all the solicited examples were ones with ambiguous negativity. They also do not represent the volume of messages related to each behavior because some behaviors (e.g., spam, cursing) were featured in a lot more utterances in each example when compared to others. The relationships between the frequencies can still give a rough idea of how common the different behaviors are relative to all identified cases of ambiguous negativity. When looking deeper into each category of behavior to see how many of the associated examples were negative, only the negativity pertaining to that category is considered. For example, if an example from a category is long and features negativity in a part not related to the category, it was not counted toward the proportion of negativity in that category.

RESULTS

Analysis Layer 1

This section of the analysis will focus on the ambiguous negativity that would be most readily identifiable by a large-scale quantitative approach and that have been addressed the most frequently in past research. The presence of cursing, spam, and capital letters as forms of ambiguous negativity was be analyzed, as was their relationship to community norms and their potential to contribute to a hostile environment.

Category 1.1: Spamming and Cheering

Instances of repeated sending of the same emotes or textual phrases in the recordings were tagged as spam. 15% (28 out of 189) of examples of ambiguous negativity featured some form of spam, with 25% of that (7 examples) featuring textual spam and 82% (23 examples) featuring emote spam. Since the examples are usually conversations or exchanges that are long enough to capture context, this does not correspond to the number of spammy messages in total, just to the number of exchanges that had it. Thus, the number of individual spam messages far exceeded 170. Out of all these examples, only one featured someone calling out spamming and it was a fellow chat user. No follow-up punitive action was observed. Therefore, during this study, injunctive community norms against spam were not observed. In fact, it seems that spamming was a normal or encouraged behavior. All but 4 (86%) of the examples featuring spam were not negative or hostile, and 10 of them (36%) were definitely supportive, such as when cheering the streamer on or supporting them in case of a negative in-game event (see Example 1 below for supportive spam). The remainder usually consisted of laughter or other emotes to express emotion responding to the stream or chat content.

Example 1 below features a streamer was playing *Dark Souls II* while answering questions from his chat. The segment has multiple examples of spam (highlighted below), which is often seen when the audience cheers players on, typically in response to in-game events. As with any case of spam, this can be misinterpreted as a negative behavior, but in this case it was not. Specifically, one of the users asked the streamer whether his parents supported his occupation. He told a personal story of his deceased mother's support. The response was a flood of overwhelmingly positive and supportive messages, as well as users spamming positive emojis such as cute faces and hearts. Some of it continued even after this segment.

Example 1: Supportive emote spam

<blockquote>

User 1: do your parents support you with your new jobe?
User 2: https://clips.twitch.tv/BoldRudeGalagoTriHard
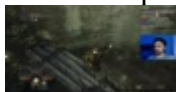
Whoops
Clipped by [User 2]
User 3: What's Terry's deal?
User 4: YA BOI
User 5: Who's Terry? Lmao
User 6: WHAT
User 7: Always a busy man, is terry
User 8: what the hel
User 9: TERREH
//Player character moves through the level.
Streamer: "Do your parents support you with your new job?" Uhm, my mom never got to see it 'cause she passed away a few years back, but…
User 10: otz are you going to play skyrim ultra special remastered mega edition when it comes out?
Streamer: … my dad is supportive. He didn't quite understand what I do but he knows I work on something.
User 11: TERRY best waifu
//Player character presses button on the floor of an elevator and descends.
Streamer: "Otz are you going to play Skyrim ultra special remastered mega edition when it comes out?" [User 10], probably off stream. Yeah, of course.
User 12:
User 5: PepeHands I'm sorry for your loss

</blockquote>

User 13: FeelsBadMan
User 14: PepeHands
User 15: oh no...
User 16: GiveThump
Streamer: "Sorry for your loss," … it's alright. I'm thinking… she was a very supportive woman.
User 17: my condolences
User 2: tery is the crazy soldier

User 18:
User 19: @otzdarva are you determined to get as far as you can or maybe you could stream dbd/HK
//Player character shoots at a nearby enemy with a bow. The enemy takes damage, but rushes towards a player character and gets within melee range.
Streamer: I'm thinking that she would be pretty proud. In fact… oh shit, this guy's fast!
//Player character kills the enemy.
User 20: F
User 21: what is your job ? full time streamer ?
Streamer: I have a picture… like a screencap…
User 22: RIP Otz mom 😭
Streamer: … like, she didn't know how to use screencap, so she took a picture of the screen. Like, a literal picture of the screen when my channel had 3,000 subscribers.
User 7: When terry's around, there's good luck abound
User 23: 😢
User 20: Is this loss
Streamer: 3,000 subscribers on YouTube. That's, like, nothing, right.
User 24: How much do you think equipping your weapons in the opposite hand would screw up this run?
User 16: She would be very proud Otz!
Streamer: She took a picture of it, and she bragged about it.
User 25: aww that's cute
User 18: That is so precious!
Streamer: Cause she was so proud that I had 3,000 subs. Yeah, yeah.
User 2: Awwwww
User 26: @Otzdarva ur not allowed to use summons just wondering
User 5: that's so cute omg
User 10: awwww
Streamer: I think she would appreciate it.
User 27: That's really nice
User 28: !uptime
Nightbot: 6 hours 19 minutes 34 seconds
User 29: She would for sure be proud
User 1: 💜 💜 💜 💜 💜
User 15: that is so awesome

//Player character enters a fog gate to fight a boss.
Streamer: Yeah, I still have… I still have the picture somewhere.
User 30: Aww that's super sweet
Streamer: I'll show you guys later.
User 2: 🐻❤️🐻❤️🐻❤️🐻❤️
User 19: 😥
User 31: Otz will you play dark souls 2 2 when it comes out?
User 32: 😢
User 33: cute
User 34: 😥💜
User 35: 😢
User 36: 😺😺😺😺😺😺😺

Example 2 below is of a stream that got "raided" by another streamer's viewers. Apart from showcasing spam, it also illustrates another interesting chat behavior, "raiding." This usually happens in a stream when another streamer hosts it and sends their viewers over. Viewers would indicate their presence by spamming the chat (see textual and emote spam highlighted in the example below). Usually, raids are friendly and give other streamers visibility and potential new viewers, but sometimes they can troll them. In this case, it seems that they spammed to indicate their presence. The pace of the chat here got noticeably faster when the 'raiders' came and had a lot more spam, as there was virtually no spam before that point. It dropped off afterwards, which means they likely left.

Example 2: Textual and emote spam

//Player's character progresses through an area and fights some enemies on a narrow pass.

Fremily is raiding with a party of 104.
Fremily: 🧔 Hello 🧔 This is a Raid 🧔
User 1: 🧔 Hello 🧔 This is a Raid 🧔

User 2: how about Samoa Joe getting his first WWE title in 4 years of employment

User 3: 🥷🥷🥷🥷🥷🥷🥷🥷🥷🥷🥷🥷🥷🥷🥷🥷

User 4: 😮

User 5: you' been raided

User 6: Rick Flair is going to be here March 15th!!!! Meet and greet.
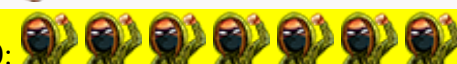
User 7: 😮

Streamer: Fremily, welcome to the Fremily raid! How are you doing, what are you playing?

User 8: 🐦🐦🐦

User 1: 🥷🥷🥷🥷🥷🥷🥷🥷🥷

User 9: 🐵

User 10: 🥷🥷🥷🥷🥷🥷🥷🥷

Streamer: [Indiscernible], careful! Don't fall off the edge!

//Player's character falls off the edge.

Streamer: Noooo!

User 11: 🐦🐦🐦🐦🐦🐦🐦🐦🐦🐦

User 12: wc 🔍

User 8: 😬

User 13: 💆💆💆💆💆💆

Streamer: I was distracted by the incredible raiding there…

User 14: then Woken hardy happened and fucked everything

User 4: ⚠️ blame the raid

User 7: welcome raiders.

User 15: 🥷 Spam FEEESH FishMoley 🥷 Spam FEEESH FishMoley 🥷 Spam FEEESH FishMoley 🥷 Spam FEEESH FishMoley 🥷 Spam FEEESH FishMoley 🥷 Spam FEEESH FishMoley 🥷 Spam FEEESH FishMoley 🥷 Spam FEEESH FishMoley 🥷 Spam FEEESH FishMoley 🥷 Spam FEEESH FishMoley

User 16: 😐

User 17: 😠

User 9: Just in time for some 🤦

User 18: get outta here demons! >
Streamer: … and the demons got me.
User 1: Hello This is a Raid

Another related chat behavior was observed during the study. When multiple users sent the same or similar messages and emotes related to an on-stream event, the example was tagged as cheer/group emotion. This wouldn't be flagged as spam because it is not an individual participant that posted the repetitive content. Still, it appeared in similar situations: of the 16 examples where the behavior was featured (8% of total examples), 6 were supportive of the streamer, 1 was potentially negative, and the rest were usually emotes expressing emotions relevant to the current events in the stream or chat. None of these were called out as negative.

Example 3 below features an expression of group emotion. This happened during a first-time playthrough where the streamer was experiencing the game for the first time. The streamer died attempting to defeat a boss in *Dark Souls* and the chat reacted. It was mostly an expression of group emotion with mild emote spam wherein users were reacting to the death of the streamer's character. The "YOU DIED" messages are not mean spirited, they are a reference to the way the game indicates death, with huge capital letters on the screen when it happens. The messages and puns related to "Poo" reference the streamer's username. The "oof" messages respond to the streamer, who reacted with a verbal "oof" when he died. These comments are mostly supportive with banter elements and no hostility.

Example 3: Expressing group emotion

//Player's character dies to the Taurus Demon boss fight.
User 1: YOU DIED
User 2:
User 3: F
User 4:

User 5: dodging on point
User 6: that was great
User 7: @grandpoobear you're part of the red bull family..... Do you join any shred masters contests?
User 8: Ooof
User 9: oh
User 10: damn that twist!

User 11: 🐶
User 12: half way
User 13: 😵😵😫😫
User 14: YOU DIED
User 15: Fatality
User 16: sniped ya
User 9: shit
User 17: close!

User 18: 🚀🚀🚀
User 19: big ooooffff
User 20: that went surprisingly well

User 21: 🏃🏃🏃
User 22: winnable
User 23: I was just about to say that Poo is good at video games
User 24: Death counter? 😃

User 25: 👑👑
POO GRESS POO GRESS
User 26: f

User 3: 🦈 YOU DIED

User 27: 😩😩😩😩

User 28: 😿
YOU
User 29: DIED
User 30: Honorable fight!

User 31: 😵😵
User 32: that wasnt so bad
User 33: i see, he's gettin' better

User 34: REKT REKT REKT

User 35: 😐
User 36: WELCOME TO DARKSOULS

User 37: 🎮
User 38: ooofff indeeed

User 39: not bad for 2h

User 40: Chopping knees is 100% best strat! 🪦
User 14: Death counter?
User 41: !uptime
User 42: awesome shot man, you rocked it for no having no heals left.
Nightbot: 4 hours 10 minutes 15 seconds
User 42: @[User 24] 12 so far
User 44: first real try went dece
User 45: Almost

User 9: 🏆

User 46: shhhh baby is asleep

User 47: 🐱 won't be long

User 48: 🗿 😠

User 49: 👹👹👹👹👹👹👹👹

Overall, spamming and cheering are more normative than anti-normative in the observed streams. There was only one channel whose rules prohibit spamming, and even that channel was not fully spam-free. Except for that isolated rule, there weren't any injunctive norms explicitly prohibiting or requiring it. Based on the descriptive norms of what was practiced, these behaviors seemed common and acceptable, with emotes being the most frequent expression. Whether through singular emotes or emote spam, it seems to be normative to react to on-stream events with appropriate emotes. The most frequent situations where this happened were using sad emotes or supportive emotes (e.g., hearts) at negative in-game events, or expressing laughter at funny situations. Contrary to established conceptions of spam from traditional computer-mediated communication, spamming is overwhelmingly non-hostile and not negative.

Category 1.2: Cursing, Profanity, and Exclusionary Language

Examples that featured usage of curse words or themes associated with profanity, by the streamer or chat participants, were tagged as cursing/profanity. This category was the single most common type of ambiguous negativity throughout the study, with 74% (140 out of 189) of

examples exhibiting it to some degree, totaling hundreds of individual messages and utterances. None of these instances were called out, which suggests the lack of injunctive norms against cursing. Only one of the stream rule sets had a rule against this, and it only referred to 'aggressive' swearing, which probably means other directed and hostile. It is likely that the rule would not apply to the most common way curse words are used in chats. On the flip side, its prevalence suggests that the descriptive norms accept or favor cursing. There was a single message mentioning something about how the streamer was trying hard not to curse, but that seemed to be more the exception than the rule since it was an isolated case that happened as part of a charity stream, which might have different expectations than a typical stream due to reaching a wider public. The majority of the examples with cursing expressed frustration at the game or certain in-game events, or on the flip side simply used curse words to express positive emotions (e.g., 'fucking amazing'). Intentional hostility was virtually non-existent.

Example 4 below showcases the way cursing is often used expressively. In this situation, it indicated positive emptions in the highlighted messages. The streamer and other members of the audience thank User 1 for the gifted subscriptions using words and many emotes with similar meanings: lots of hearts, surprised emotes, and "pog", which is usually used to express excitement or surprise at in-game achievement.

Example 4: Expressive non-hostile cursing

> *//Streamer uses menu. On-screen notification that [User 1] has gifted 5 subscriptions to members of the channel. This means [User 1] has paid for them, but 5 other users get to use them.*
> **Streamer: [User 1]… he's so fucking nice, he doesn't want anyone to be left with like a bad aftertaste.**
> User 2: [User 1] [emote]
>
> User 3:
> User 4: pog
> User 5: poggers

User 6: wait what happened?
User 7: Oh boy sub gifts
User 8: lol
User 9: [User 1] Pog

User 10: @[User 1] 🦦❤️🦦❤️🦦❤️🦦❤️🦦❤️🦦❤️
User 1: awesome dude!!

User 11: 😮
User 12: what a legend
User 13: Pog MISS ME
User 14: Did he got git ?
User 15: wow [User 1] good man
User 16: [emote with heart] [emote with heart] [emote with heart]
User 17: sub hypeeee

User 18: 🦦❤️
User 19: Not F

User 20: WOW 🐸🐸🐸🐸
Streamer: ==**And even though we lost everything in that tournament he is that still… he's so fucking nice.**== **Thank you for gifting subs, man. Appreciate it**.

There are particular words and phrases that create a hostile and unwelcoming environment regardless of the intent of the person using them. For that reason, a separate category called *exclusionary language* was created to encompass particular derogatory language or curse words that create a hostile environment regardless of how the person intends them. There were 35 instances of this across 30 sampled 10-minute streams, which is infrequent compared to the overall volume of words exchanged during interaction and the overall volume of cursing recorded. Although those 30 examples occur in 16% of all sampled streams, this not an accurate representation of the proportion of ambiguous negativity that features this behavior. Each example of exclusionary language is embedded in a longer segment of interaction in order to capture context. In the case of exclusionary language, a single word was enough to get a message and interaction flagged. However, for the other coding categories, flagged examples usually feature multiple – even dozens – of instances of the behavior in question (e.g., spamming, cursing).

Overall, these messages were not overtly hateful, but they involved mocking certain accents, sexist comments, and uses of derivatives of the word "cuck," which foster a negative environment.

Example 5 below is one example featuring exclusionary language in the highlighted messages. "Nemz" refers to the streamer and comes from the abbreviation of his username, while "greek" most likely refers to another content creator. This was very early on in the recording, so part of the context is missing. It's not clear where User 6's remark is directed, so it might be directly hostile, or just harmful in general. Again, the argument here is the use of that word, even if the intent is not hostile, results in a hostile environment by being exclusionary. Based on what User 5 said in context, and based on the streamer's lack of reaction, User 7's remark might be banter, but banter that uses exclusionary language nonetheless. Whether sarcastically or not, the user is using the word to imply weakness is indicative of toxic masculinity and creates an unwelcoming environment.

Example 5: Exclusionary language

> *//Player's character is fighting a boss that rides a flying creature and lands to attack.*
> User 1: and by big boys they mean greek
> User 2: lol
> User 3: [emote]
> User 4: i think that only works if you are actually a mid boy [User 8]. When you are a nobody it doesn't give anything [emote]
> User 5: Nemz is the most savage streamer i have come across on twitch
> User 6: retarded oof
> User 7: That nemz guy is a complete cucklord
> **Streamer: "And big boys they mean Greek" – that's a bit of an understatement there, mate.**
> User 8: [User 4] [emote]

Based on an examination of those situations, it seems that while there aren't explicit injunctive norms against such behavior, it is not favored by the descriptive norms. While the

sample did not see these behaviors getting called out, there actually are rules against exclusionary language and behavior in some of the channel rule sets. Of the 9 rule sets, 5 had such rules. The sample also reflected the fact that these norms seemed to differ across streams, as the majority of the examples came from only two recordings (including Example 5). One of these recordings was a blind playthrough where a significant part of chat participants were fans of the *Dark Souls* games, but the content creator himself was a first-timer. This means it is questionable whether the findings from there can be generalized to other *Dark Souls* communities, but even if they can be, it would still support the conclusion that norms differ by streamer. Outside of these two recordings, messages featuring exclusionary language were either ignored or had to do with accents. The fact that the accent utterances had more engagement is understandable, since despite being stereotypical most people wouldn't consider them as hostile. The remainder (e.g., inappropriate jokes, other exclusionary messages) were infrequent overall.

Category 1.3: Yelling and Writing in All Caps

Messages that had content written in all capital letters were tagged as yelling/all caps. This has been yet another traditional way to distinguish negative behavior in computer-mediated communication. It was featured in 13% (24 of 189) of examples, and none of these were called out. There were two that could have potentially indicated negativity.

Example 6 above showcases some positive usage of all caps writing to indicate excitement. The fact that multiple people keep saying "TERRY" in all capitals would fit directly into a large-scale classification of negativity, but here it is not the case. It appears that this particular enemy might can sometimes become bugged and exhibit this strange behavior, such as running without attacking, which the streamer has discovered over many replays of the game. He and his viewers have even come up with a name for that enemy, Terry. They are genuinely excited to see this bug

occur, as is also evident in the streamer's tone of voice. The capital letters and repetitive expression

of "Terry" are not truly negative but seem to be accepted and encouraged. The yelling is definitely

excited, not hostile.

Example 6: Writing in all caps, positive

> *//Player character shoots at an enemy with a bow.*
> **Streamer: Is that a wild Terry? Are we gonna be blessed today?**
>
> User 1: do you live near girona?
> User 1: ah, thanks
> **Streamer: I think we might just be blessed.**
> *//An enemy appears in the far corner of the visible area and runs towards the*
> *player character.*
> **Streamer: Oh my God, it's Terry.**
>
> User 2: TERRY
> User 3: TERRY!?
> User 4: @Otzdarva Did you get hit? i missed it
> **Streamer: Terry? How are you, brother?**
> User 5: HELL YEAH
>
> User 6: TERRY
> User 7: T E R R Y
> User 8: TERRY !
>
> User 9: Terry
> *//Enemy keeps running, passing by the player character without attacking.*
> **Streamer: Oh, you're busy?**
> User 10: he got hit ????? noooooooooo
>
> User 11: GO TO YOUR ROOM TERRY
> User 12: ITS TERRYYYY
> **Streamer: That's OK.**

Example 7 below is one of the few potentially negative instances of using all capital letters.

Because this channel isn't a long-term *Dark Souls*-dedicated channel that I know well, the streamer

himself stated this was only his second playthrough of *Dark Souls II*, and I also don't know

anything about wrestling, it's hard for me to assess this exchange. It could be sarcasm and banter,

or these people could be seriously upset. At any rate, though, even if this is genuine negativity, it

is not negative because of being written in all capital letters. Rather, the intention itself could be negative, while the fact that it is written this way amplifies the emotion it already holds.

Example 7: Writing in all caps, potentially negative

> *//Player's character progresses through an area.*
> **Streamer: The Rock is the most overrated wrestler. The Rock had a great [indiscernible] and he was good on the [indiscernible], obviously he's got charisma, good [indiscernible]… terrible wrestler.**
> User 1: WHAT
> User 1: UNSUBBED
> **Streamer: Terrible wrestler, The Rock. Oh My God.**
> User 2: pffftttt
> **Streamer: Terrible finisher, terrible move set, horrific overseller… not a fan of The Rock.**
> User 3: Spam, you break my heart!
> User 4: ????

Examples of this behavior usually conveyed excitement or emphasis, not negativity. None of them were called out. There were 2 rule sets that mentioned the use of caps lock, but they both referred to its excessive, rather than occasional, use. The lack of policing behaviors indicates a lack of injunctive norms against this behavior. The fact that it is usually not hostile, coupled with its infrequency, makes it a neutral but uncommon behavior according to descriptive norms.

Analysis Layer 2

This section of the analysis will focus on the dialogic ambiguous negativity that emerges in the way participants relate to each other and only becomes apparent with context. The first layer of analysis focused on what the conversation looked like isolated from interaction, so this layer looks at the relationships among individuals. The presence of banter, sarcasm, trolling and game-related references as forms of ambiguous negativity, and its relationship to community norms and their potential to contribute to a hostile environment are explored below. The frequencies reported below correspond to the proportion of ambiguous negativity examples in which the particular

behavior was featured, which, as before, does not correspond to the frequency of the behaviors in live chat interaction as a whole or even as a portion of total words in the segment, but does suggest trends in their relative prevalence in these communities when any form of ambiguous negativity is identified. When going through this layer of analysis, there was significant overlap between the categories due to the fact that many messages simply represented multiple categories at the same time, such as using irony or sarcasm in remarks that seem rough but constitute banter, or sarcastic remarks that require game-related knowledge to be understood. This does not invalidate the categories as it wouldn't make sense to merge them. Rather, it is simply the case that while these are distinct behaviors that are worth examining separately, but sometimes occur simultaneously in particular messages.

Category 2.1: Banter

Teasing or rough remarks that playfully make fun of others but are ultimately friendly or well-meaning were tagged as banter in the analysis. 22% of all examples of ambiguous negativity (42 out of 189) featured behavior that was interpreted as banter. 16 of those instances (73%) featured questionable behavior that could also be interpreted as negativity. The issue is not whether banter can be negative (banter is ultimately friendly and not negative by definition), but rather that it is hard to distinguish between banter and remarks that are truly mean. It is often difficult or maybe impossible from an outsider's perspective to discern whether these remarks are intended as negative or not – even more difficult than discerning sarcasm. However, this strengthens the reasoning for having banter as a category for ambiguous negativity; it is hard to distinguish banter from being mean, thus it is easy to mistake real banter for negativity.

One situation that involved banter can be seen in Example 8 below. The names squallia and @squillakilla both refer to the main streamer. His oversized coffee mug shown on the video

prompted a long, off-topic conversation about measurement units in different countries. The participants in the conversation exchanged banter and sarcastic remarks related to measurement systems, such as "How much is 1.5 litres in football pints?" It seems to be a friendly, joking conversation. For some user remarks this is questionable, specifically using the word 'merican'/'murican', which can be considered exclusionary even though it is a dominant culture that is being mocked. Still, most participants do not use exclusionary language in this segment, and they engage in friendly banter with the streamer and each other. The back-and-forth banter continued even beyond this excerpt. This offers a good example of banter in a friendly situation; the streamer is being teased for the size of the mug and for his usage of liters, so he responds both to the questions (e.g., by actually looking up the size equivalence in each system) and to the jokes (e.g., the pool scenario and the joking mispronunciation of the word liters as 'litrez'). It can be reasonably assumed that these people are joking around since the choice of what measurement system to use is beyond the control of any of them and since after exchanging these remarks, they go back to being friendly. For instance, after having called liters "strange unit of measure," one of the participants clarifies: "Yeah, I wish we had the same units as the rest of the world, or vice versa. don't really care which way."

Example 8: Banter

> User 1: wow
> User 1: hold he fuck on
> User 1: wait
> User 1: waitwaitwait
> *// Player character teleports home.*
> **Streamer: It's OK. I'm sure we have to send the thing down there.**
> **Guest: I forgot about that, it's my fault.**
> User 2: 1.5 ltr mug...... smh
> **Streamer: It's OK.**
> **Guest: … and then go back?**
> **Streamer: Yup.**
> User 1: how big is the mug

// Player character gets back into the world and resumes going through the level.
Streamer: "Miyazaki the true villain." … 1.5 liter… yeah.
Guest: A lotta water.
Streamer: I don't have to refill it as much.
User 3: Exactly... that's a big mug
User 1: squill
Streamer: So yeah.
User 2: you can fry chicken in that
Streamer: It's good. I mean, like, if you have a child that wants to swim on a hot day, like, I could just, like, open it up and we could have a children's swimming pool.
User 1: where you from ?

User 2:
User 3: I NEEEEED IITTTT
Guest: Portable swimming pool.
Streamer: A portable chair and a … weapon.
Guest: You…
Streamer: … all at the same time.
Guest: I almost ran into that.
User 4: I've got a half a liter glass, it's pretty great
User 5: liters? I need to convert this strange unit of measure
Streamer: You could just swing… spin around with it in your hand and just knock people out.
Guest: Almost like a little bucket.
Streamer: You've got a half liter glass, it's pretty great? Wow.
// Player character gets on an elevator and steps on button, which makes the elevator go up.
Guest: Wait. Wait! Oh my god. No. No, we'll just go back down.
Streamer: Yeah.
// Elevator reaches the top. Player character gets on an elevator and steps on button, which makes the elevator go down.
User 6: child sized: roughly the size if you liquified a child
Streamer: "Liters? I need to convert this strange unit of measure." I can see what it is in ounces.
Guest: Does it say in gallons or ounces?
Streamer: It says ounces in the bottom.
// Player character resumes going through the level.
User 1: squill used liter
User 3: @[User 5] "Strange" said the guy who meassures Volume in football fields
User 7: @[User 5] thats what im thinking every time i hear american units hahaha
Streamer: Uhm… 52 ounces.
User 1: wait
User 8: i want a god damn liter of cola
Streamer: I can't do the conversion in my head. I use 'litrez'
Guest: 'Litrez'

Streamer: 'Litrez' Which is the, uhm…
Guest: I don't know how many gallons are in a… or, ounces are in a gallon.
Streamer: What, you just didn't come prepared or something like that?
Guest: I didn't study, OK?
Streamer: It's on the test.
User 3: What did you say these mugs are called?
Streamer: Smarten up.
User 9: use metric units, god damn it
Streamer: "I want a liter of cola"? I used to… I remember when I was a kid, uhm… me and my friend would literally just get two liters and we'd… we'd finish them in the course of, like, maybe not that day, but, like, from that night till the next morning…
// Player character rests next to bonfire. Players stop playing and talk for a bit.
Guest: Really?
Streamer: …drink it for, like, breakfast and stuff like that. Carrying over from, like… it would just be so gross.
Guest: Ugh, and it's warm…
User 4: Metric is love, metric is life
User 1: im so confuzed
User 5: Yeah, I wish we had the same units as the rest of the world, or vice versa. don't really care which way
User 10: squilla says its some kind of battle royale squilla thinking end this fucking relationship @squillakilla
Streamer: Yeah. It's disgusting.
Guest: Ew.
Streamer: And we would just, like… we would only live on snacks and 2-liters.
User 7: @[User 9] well litres is kilos basically
User 1: is squilla not merican ?
Guest: Oh boy.
Streamer: It was, like, the worst.
User 4: I made the worst mistake, I ate corn flakes with sprite once
// Players pick up controller again, but don't start playing.
Guest: Alright, let's do this.
Streamer: Probably lost, like, five years of life.
User 3: @[User 5] No, metric is best
User 8: ew lol
Guest: There you go.
Streamer: Am I not 'merican'? No, I'm not.

Example 9 below showcases one of the situations where it is impossible to tell whether the

banter is offensive. This situation comes from a "blind playthrough," a stream type that was often

encountered during the study. In a blind playthrough, the streamer attempts a game for the first

time and the chat watches them struggle with it, the goal being to avoid spoilers and advice. In a lot of these streams, it seemed that streamers were not previously fans of the *Dark Souls* games, but audience members were. User 2 sounds sarcastic because the message comes just as the viewers are commenting on the fact that the streamer just found the way to progress through the area, something that would be easy for someone familiar with the *Dark Souls* games. "Pog" is usually used to express excitement or surprise at in-game achievement, but it could be ironic. The "200IQ gamer" phrase might be a reference to a very old gaming meme, where a *League of Legends* player talks about having 200 IQ before accomplishing something difficult in the game (Know Your Meme, 2019). The phrase was subsequently used both to commend and to ironically make fun of players (Know Your Meme, 2019). Being some kind of running joke in the gaming community overall makes it less likely to be intended as mean. Yet, using the phrase ironically itself seems to be mean spirited, or a put-down. It's not possible to tell whether User 2 is mocking the streamer or just providing some banter and joking around. This could also be an example of misunderstanding negativity in the opposite direction, where the statement seems neutral to an outsider, but a gamer would know the fact that the player is struggling with the level, understanding the irony and the implications.

Example 9: Impossible to tell banter from offense

> *// Player's character finds the way to something difficult to get to the first time.*
> *It's a corridor the access to which requires the player to break a bridge and use*
> *the remnants as a ladder to descend down.*
> User 1: he did it Pog
> User 2: 200IQ gamer Pog
> User 3: yeaaaaaah
> User 4: Pog

There were two instances of responses to such behaviors that might represent calling out the behavior, further banter, or joking. In Example 10 below, the streamer is doing a speedrun and

the users are critiquing his gameplay. He's not currently doing anything of consequence, so it seems the commentary is related to his overall performance so far. This was the start of the recording, so more context wasn't available for analysis, but it seems like the streamer's performance this run was not ideal. Out of context, it might seem like User 1 and 2 are being mean to the streamer, but that's unlikely considering the streamer's friendly response. He replies with humor and doesn't mind the criticism. Also, critiquing isn't out of place in speedrunning because speerdunners have to try repeatedly in order to become really fast, so it's possible for them to make mistakes and for those mistakes to be commented on. Still, it seems as if User 3 thinks that User 2 goes too far and calls them out, but there's no significant follow-up, so the entire excerpt seems like more banter. This was one of those examples where the response seems like calling out, but just continues the banter, and everything is friendly and acceptable.

Example 10: Banter and calling out

> User 1: ==it was a good run except for the parts that weren't==
> User 2: ==so the whole run==
> User 2: birbThinking
> **Streamer: Yeah, that's what I always say.**
> User 3: ==that's toxic==
> **Streamer: Except for the parts where it was bad, it was pretty good.**
> User 2: a little

Based in the infrequency of these responses and the fact that some of them are not serious, it seems there aren't injunctive norms against banter. In terms of descriptive norms, banter is frequent enough to say that it is normative.

Category 2.2: Irony and Sarcasm

Messages that feature irony in either lighthearted or bitter remarks were tagged as irony/sarcasm. 13% of all examples of ambiguous negativity (25 out of 189) featured behavior that

was interpreted as banter. 5 of those instances (20%) featured questionable behavior that could be interpreted as negativity.

Example 11 below is one of those situations where irony was used in a friendly way. It was from a charity stream with huge viewership. The speedrunner shows up as a sole content creator in one of the other recordings, which makes him known by the community. There are also commentators. This is a donation segment where the commentators read some of the messages that community members have attached to their charity donations to the speedrunner. People are commenting on the speedrunner's performance. The donation message "Git Gud" is a key saying in any community centered around the *Dark Souls* games and it stands for "get good," and people often use it towards players who complain about the game series' difficulty. In this case, the phrase is used in a humorous way; the speedrunner is already well known in the community, and as commentators point out, he has been doing fine. As the commentators discuss the speedrunner's performance, they also use irony: Covetous Demon is actually known as an easy boss. Both the donation message and the commentator's comment use irony in a way that could be interpreted as negative from the outside, but are actually friendly.

Example 11: Irony, friendly

> *//Player's character has recently gotten to a bonfire (checkpoint) and runs through area.*
> **Speedrunner: We're just running to the next bonfire. Get a donation if you'd like.**
> **Commentator: We have Anonymous with $5 saying "Git Gud." I think you're good.**
> User 1: YARE YARE DAZE AYAYA
> User 2: AYAYA
> **Commentator 2: I mean, he's only died once so far and it was on purpose.**
> User 3: so many weeb emotes [emote]
> User 4: [emote] [emote]
> User 5: Weebs in [anime face emote] [gun emote]
> User 6: get it dist!!! you're a champ
> User 7: git gud [emote]

User 8: [emote] [emote] [emote]
Speedrunner: Yeah. Definitely.
User 9: anon…
User 10: AYAYA
User 11: LuL
User 12: <mark>Git Gud</mark>

User 13:

User 14:
Commentator 2: <mark>Even the hardest boss in the game, Covetous Demon, couldn't get him.</mark>
//Player's character reaches and lights a bonfire.

On the flip side, Example 12 below illustrates the darker uses of irony in sarcasm. The situation features rather dark humor. The background information needed to understand it is that the Firekeeper, a female non-player character that is instrumental to progressing in the game, can be attacked and killed, but is made to respawn without becoming hostile so players can keep moving on if they make a mistake. The streamer, a first-time player, has killed the Firekeeper by accident, but finds out that she apologizes to the player-character despite being the one attacked by them, and that she also comes back afterwards. The guests are commenting on the situation. Though they were being sarcastic and pointing out how ridiculous that reaction from the Firekeeper is, the female guest's reaction to Guest 2's joke sounded like she might be uncomfortable, and the other participants in the voice chat laughed it off a bit awkwardly. This segment was tagged as possibly truly negative. Even if not intended negatively, if something makes others uncomfortable, it might be creating a less welcoming environment. That is why Guest 2's remark in this example was one of the few demonstrating the use of sarcasm as negativity.

Example 12: Sarcasm, dark

// Player's character is back to the Firekeeper after her respawn.
Guest 1: <mark>She apologized dying to you, man.</mark>
Streamer: <mark>She should.</mark>

> **<mark>Guest 2: That's the commitment I need from my girlfriend.</mark>**
> **Guest 3 (female): Hmmm.**
> **Guest 1: Interesting.**
> **Streamer: Yeah, very interesting.**
> User 1: truly best dark souls waifu

While there were cases where it was difficult to discern, it was overall easier to tell friendly irony from sarcasm when compared to banter. This behavior was never called out, probably because the use of irony itself isn't something negative, and so few of these examples could be seen as truly mean. As such, there are no injunctive norms against the use of irony or sarcasm. The descriptive norms that were observed based on the prevalence of these instances suggest that these seem like neutral behaviors. They are not discouraged but are not very common either.

Category 2.3: Trolling

Messages or pranks intended to provoke or incite were tagged as trolling. 7% of all examples of ambiguous negativity (14 out of 189) featured behavior that was interpreted as trolling, which was surprisingly uncommon based on what one would intuitively expect from anonymous online interaction. Of those instances, 5 cases (36%) featured questionable behavior that could be interpreted as negativity.

Example 13 below is one example that appears to contain trolling. This conversation about (allegedly) masturbating while watching a stream is truly hard to interpret in terms of intent. In terms of its negativity, it probably was not intended as hostile to anyone, though it might turn people away, seem unwelcoming by grossing people out, or even seemingly tolerate sexual harassment. It is unclear to what extent these people are joking around, trolling, engaging in banter, or trying to see who can sound the most absurd. The most likely interpretation seems to be trolling where the trolls rely on the assumption that their behavior wouldn't be read as harassment because the remarks are exchanged between (presumably) male audience members and a male streamer.

From the user who sent the donation and message, sending these remarks is most likely an intentional provocation, knowing the streamer is more likely to have to address a donation message – it is seen as polite for streamers to respond to and thank users who support them with donations. The users who pick it up and continue it by saying things like "i am right now," "you can't stop me," "we dont? i thought we must," etc., to the streamer's "I mean… you didn't have to masturbate to the stream. Really" seem to be continuing the trolling and also possibly engaging in banter to see who would get grossed out and chicken out of the conversation. In addition, User 19's message seems clever because it's a sarcastic jab at the same line that would be delivered to victim-blame women. It is easy to understand from the context since the streamer is male and dressed appropriately, though it is still uncertain whether it is an appropriate issue to joke about without creating an unwelcoming environment. If one were to just read the words, it would be hard to distinguish from the mindset it is mocking, as with any sarcasm, so the interpretation would be even more negative. This also illustrates the overlap between the dialogic categories of ambiguous negativity. Whether any of these messages are read as negative or not, they definitely constitute trolling due to their intentionally scandalous or provocative nature.

Example 13: Trolling

> *//Player's character moves through the area. Streamer seems to be reading from prior chat messages or donation messages from before the start of the recording.*
> **Streamer: "[Indiscernible] after 26 months, 23 months of jerking it to this pretty hot mug." Thanks, man. I mean… you didn't have to masturbate to the stream. Really.**
> User 1: we dont?
> User 2: [emote] pretty mug
> User 3: @The_Happy_Hob yes he did. i made him
> User 4: You know, I've always hated that particular part. I'm glad it's not just me.
> User 5: @The_Happy_Hob I wanna know how big your house is
> User 6: every day?
> User 7: i am right now 🙄
> User 8: tuned in first word i heard was masturbate

User 9: brb clips
User 6: monkaS
Streamer: But if that's adding a whole new dimension of entertainment then…
User 10: oh?
User 11: i never was doing that [name]
User 12: daily
User 13: nice
User 14: you can't stop me
User 15: Tehzwen [emote]
User 16: hob's gonna pull a DSP? Pog
User 17: @[User] Saw that right after I said it haha clutch!
User 18: Yo
User 19: Yeah but look at the way you're dressed. You're just askin for it
User 6: @[User] i LOATHE it
User 20: only the mod was, [name]
User 21: we dont? i thought we must
User 22: 🙂
Streamer: … you gotta……you gotta take that as a positive.

Two of the instances resembled a particular type of trolling I had encountered previously in my personal experience as a Twitch.tv viewer, "copypasta." Copypasta are annoying and/or nonsensical segments of text that users would sometimes spam in Twitch chats with the purpose of trolling. In my prior experience, trolling in general and copypasta in particular are much more common on chats with a large volume of participants. *Dark Souls* games are a bit more niche, as illustrated in the lower volume of participants in many of the recordings in this study (see Appendix 1 for stream statistics).

Example 14 below is the most similar to copypasta-type of trolling in the sample. There was nothing in the context of the game/chat to warrant what User 1's message is saying. It resembles a copypasta because it is an annoying segment of text and the use of this particular emote supports that conclusion. Depending on the situation, it could be funny banter or it could be negative spam. Here, it was unwarranted and got deleted later (it showed up in the video, but by the time messages were copied as text, it was replaced by "<message deleted>"), which supports

the interpretation that it was negative. This deletion looks like norm policing by moderators. User 2's message confirms that because it was sent before the deletion and comments on the moderators' inaction. What differentiates it from copypasta was the fact that it failed to 'take off' and be re-pasted in chat countless times. This was due to either the fact that the chat was less populous, or to the moderator intervention, which happened multiple times during this recording, or both. At any rate, this is definitely an example of trolling as negativity.

Example 14: Trolling, copypasta

> *// Player's character continues through the area.*
> User 1: Hey there pork chop you're looking extra bloated today, have you been hitting the gin and red meat again? This stuff is high in acid dood it could bring back your foot problems
> ***unrelated messages***
> User 2: mods are asleep

These statistics and my previous experience inform my interpretation of the low prevalence of trolling as shaped in part by the lower chat participant numbers. In terms of descriptive norms, this behavior is not practiced often. In terms of injunctive norms, the behavior was not called out, but it is hard to draw a definitive conclusion from so few instances. The rule sets would suggest the opposite. Of the 9 channels that had published rule sets, one had a general rule against trolling, one had a rule against copypasta in particular, and five had rules against unapproved or unsolicited links, which can also be used to troll. It is possible that the behavior is acceptable in some of the other channels that don't feature such rules, but it is also possible that the behavior is simply too infrequent to be seen as problematic but would be discouraged or punished if it happened more.

Category 2.4: Game-related knowledge/jargon

Messages that contain references or jokes that require background knowledge of the games or their jargon in order to be understood correctly were tagged as game-related knowledge/jargon.

11% of all examples of ambiguous negativity (21 out of 189) featured behavior that was interpreted as requiring game-related knowledge. None of these instances were called out or interpreted as containing true negativity. The reason this was classified as a category of ambiguous negativity was the fact that some game jargon phrases (e.g., "fat roll") could be interpreted as negative when taken out of context. Even though there is no negativity involved, these messages are ambiguous to outsiders. In terms of descriptive norms, using jargon and insider references is widely practiced.

In Example 15 below, User 2 is referring to the streamer's name. This stream is also a first playthrough for this streamer, so it follows similar rules to the other blind playthroughs, similar to Example 9 above. User 1 is referring to seeing the streamer back away from the Black Knight, a powerful enemy. It takes game-related knowledge to know that they are not just mocking him; this enemy is known to be tough, especially for the low-level area he is in, so these messages represent fun and banter, rather than mocking. Furthermore, "monkaS" is a scared emote that failed to render as a picture, which also supports the idea the audience knows the enemy is tough.

Example 15: Game-related knowledge

> *//Player's character goes into a dead-end corridor, sees a Black Knight, and turns around, backing up to fight other enemies (he said something about not wanting them to attack him from behind).*
> User 1: 1 look
> User 2: brave sir poo
>
> User 3: 😀
> User 4: L o llll
> User 5: monkaS
> User 1: and noped the fuck out
> User 2: the tale
>
> User 6: 😀
>
> User 7: 😀
>
> User 8: 😀
> User 2: [emote]

User 9:

User 10:
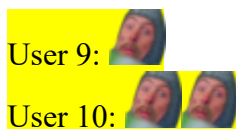
The frequency of this behavior seems low because only those instances that could be interpreted negatively were tagged, and there were many more references to game knowledge and jargon that were not tagged as they were not confusing. In terms of injunctive norms, there are no norms against this behavior. This is probably because using game references is supported, while the references that can be misread negatively are only confusing to outsiders unfamiliar with the games, so they are not problematic to the community as most participants understand them.

Analysis Layer 3

This section of the analysis will focus on the meta-discourse of the observed Twitch.tv live chats. The first layer of analysis looked at what the interaction looked like and the second layer looked at how the interactants related to each other. This third layer looked at what they are talking about, where the ambiguous negativity is coming from and where or at whom it is directed, what it is about, and whether that is defined by or specific to the fact that these communities are centered around the *Dark Souls* games. Specifically, this layer explored the way the current game and other games in the series are talked about; the way other content creators on Twitch.tv are talked about; the way channel rules and norms are being talked about; the way other games and current events are being discussed; miscellaneous negativity; the usage of homosexual innuendos; the use of discourses of health and disability; and the references to gender and sexism. The latter three were included in this layer because they merited a more in-depth discussion than the purpose of the previous layers would have allowed. In Layer 1, they were classified simply as exclusionary language without considering whom they exclude and why that matters beyond just classifying something as insulting or not; while in Layer 2 they were described in terms of what they imply

about the relationships between the participants as individuals without noting the larger issues they might imply about the groups that are frequently on the receiving end of negativity in these and other instances of online discourse.

Category 3.1: Current game and game series

Since the medium involves watching gameplay live, it makes sense for the majority of the conversations to be centered around the game being played in the stream. 53% (101 of 189) of the recorded examples of ambiguous negativity contained discussions pertaining to the game. An additional 5% (4 more examples) referred to games from the *Dark Souls* series that were not the game currently being played. These conversations included commenting on the streamer's gameplay, discussing the design and features of the games, and sharing memories from playing the game and series. Gameplay commentary and critique comprised 23% (44 out of 189) of total examples.

One ordinary such situation is Example 16 below. "Barb" is the way others refer to this streamer, abbreviated from his username. As indicated by the quotations, User 4 is impersonating what the enemies would be saying. The message responds to the gameplay and in-game events; it is humorous and was prompted by the ramp rising.

Example 16: Gameplay commentary

> *// Player's character walks into a room with some enemies on a ramp. As soon as that happens, the ramp rises up, pulling the enemies farther away.*
> User 1: lul
> User 2: Cya
> **Streamer laughs.**
> User 3: go upstars
> User 4: "Oh Shit it's BARB, let's get the heck outta here

Of the examples containing momentary and critique, there were only 9% (4) with behavior that might classify as true negativity. In example 17 below, there is some non-hostile use of cursing

by the streamer, who happens to be female, in response to a user question. The question was about the streamer's unusual setup. She was playing the game using a dance pad instead of a controller, and so her camera shows her full-body, instead of just the face-cam, which is more typical. User 2's message is something easily read as hostile or sexist, which is why it is one of the few examples in this category that classifies as true negativity.

Example 17: Gameplay commentary with negativity

> *//Player's character is summoned as a helping phantom and is heading towards a boss fight.*
> User 1: how is it possible to play with a dance mat?
> ***unrelated messages***
> **Streamer: "How is it possible?" It's just a pain in the ass, I don't know.**
> User 2: @[User 1] if u hot enough the world helps u

It is reasonable to conclude that talking about the current game and the game series as a whole is a normative behavior supported by descriptive norms and not rejected by injunctive norms.

Category 3.2: Other content creators

Other streamers was another topic of conversation. They were talked about in 10% (19 out of 189) of examples. It seemed that different streamers and their audiences often knew each other. Example 18 below shows an excerpt of a chat where another streamer (Naro) is being talked about. Based on the immediate context and the larger context of the entire recording, the users and the streamer are being friendly here.

Example 18: Talking about other streamers

> User 1: I wish the runners could see chat MingLow
> *//Player's character runs into a room.*
> **Streamer: Every time someone in chat calls Naro "cute," take a drink.**
> *//Streamer uses menu to swap the player character's equipment. Player's character enters a fog gate to engage a boss fight.*
> User 2: We would die [emote]
> **Streamer: "I wish the runners could see chat…" I don't.**

User 3: welp guess i'm dead cirSnap
User 4: shit im drunk
User 5: [emote] spam

Streamers participated in the live chats and discussions of other streamers. One of the streamers who did a first-time playthrough also had his chat visited by an established *Dark Souls* streamer. In Example 18 below, Nemz is another streamer (and a known member of the community whose stream also got recorded in the study) who is visiting the current stream's live chat. Users have noticed his presence and are asking him about the upcoming game *Sekiro: Shadows Die Twice*, a title by the same developers that made the *Dark Souls* series and rumored to have similar gameplay features. His reply refers to the fact that some famous streamers often get early access to game in order to create even more hype. Based on the researcher's prior experience with these communities, other games by the same developers, as well as other games with similar features, are frequently of interest and get discussed.

Example 19: Visiting another streamer's chat

//Player's character is moving through an area as streamer is trying to figure out something about the mod he's using.
User 2: nemz 🙂 why dont u play sekiro
User 2: 😎
User 3: 🦎
User 4: 🧑
User 5: 👵
User 6: omg nemzGa what an emote
Streamer: Yeah Nemz, when are you gonna play Sekiro?
User 7: The devil actually speaks to me
Nemz38: I will play it on release
Streamer: Alright. Well, this sucks.

Out of these cross-references, 16% (3 examples) were with behaviors that might be considered negative, and all of them featured a single content creator whose sampled stream also

stuck out for the presence of exclusionary language to a greater degree than others. In Example 19 below, "Nemz" refers to the streamer and comes from his username, while "idubbz" and "greak" most likely refer to two other streamers. There are different types of negativity in this segment including exclusionary language, which was discussed in Layer 1. Some parts will be unpacked more later, but this section will focus on the treatment of other streamers only. This was at the start of the recording, so part of the context is missing. If "Greek" is indeed that other content creator, some of these remarks appear to be mocking him or trolling, even though it might be banter. The other content creator mentioned, idubbz, does not get mocked directly. In fan communities, "ship" is when two personalities or characters are paired together romantically, such as in fan fiction, which does not reflect reality. Read in context, this means User 11's joke is a homosexual innuendo joke (as idubbbz is another male content creator). Though it is not clear whether there is negativity implied there, there is no explicit negativity.

Example 20: Talking about other streamers, with negativity

> *//Player's character is fighting a boss that rides a flying creature and lands to attack.*
> User 1: <mark>and by big boys they mean greek</mark>
> User 2: lol
>
> User 3:
> User 4: i think that only works if you are actually a mid boy [User 8]. When you are a nobody it doesn't give anything [emote]
> User 5: Nemz is the most savage streamer i have come across on twitch
> User 6: <mark>retarded</mark> oof
> User 7: That nemz guy is a complete <mark>cucklord</mark>
> **Streamer: "And big boys they mean Greek" – that's a bit of an understatement there, mate**.
>
> User 8: [User 4]
> *//Player's character defeats the flying rider and gets a cutscene, which the streamer skips. The player's character proceeds to the next phase of the boss fight, where the flying creature is already gone and the rider is fighting on foot.*
> User 9: the edge kill
> User 10: <mark>Greek is not a big boy, he's a big MAN.</mark>
> **Streamer: [Laughs]. Yikes, [User 4]…**

> User 11: nemz and idubbz would be a good ship
> **Streamer: … I'm banning you in a minute unless you say sorry and subscribe to me.**
> User 4: sorry
> User 12: greek is a big blob

The chat visits and cross-references support the idea of the existence of a larger *Dark Souls* community on Twitch.tv in addition to the communities centered around specific streamers. It seems that with few exceptions that community is generally supportive. The niche nature of the *Dark Souls* community might contribute to this by encouraging streamers (and their respective audiences) to be more aware of and supportive towards one another, rather than undermining each other. Just as streamers visit other streamers' chats, it is likely that individual users might view the content of multiple different streamers as well. Another contributing factor might be the fact that streamers do not compete with each other directly in-game in most of these situations. Most of the recordings are strictly single-player challenges. From my experience with streams featuring multiplayer outside the study, streamers would either play against random players that get matched against them, or sometimes play with each other in a friendly manner (e.g., friendly challenges or doing a run together).

Category 3.3: Rules and norms

Rules and norms were rarely a topic of direct discussion in the recorded examples of ambiguous negativity. Norms were talked about or referred to in only 3% (6 out of 198) of examples. When it comes to enforcing norms, only 5% (9 out of 198) of examples featured someone getting called out or norms being otherwise visibly policed. It is possible that there was more moderation than what was coded if there was further moderator intervention that was not captured in text.

Example 21 below was part of a very large and populous chat from a charity speedrunning event, which is why segments were removed. The messages were not related to adjacent messages or the game events. User 1's message seems to refer to one of the donation comments earlier in the recording where the donator mentioned regretting being unable to attend the event. The user seems to question the donator's feelings and might be trolling. The sentiment is ambiguous as the user is currently watching and commenting on "some nerd speedrunning games," as User 2 points out as they call out the previous user. The 3 messages respond to each other with some banter.

Example 21: Calling out

> User 1: why would anyone want to go see some nerd speedrunning games?
> ROFL
> ***unrelated messages***
> User 2: Anyone? Not anyone, we are all nerds. So we have just nerds watching
> other nerds.
> ***unrelated messages***
> User 3: Why would anyone take guy named [User 1] seriously lmfao.

The most salient type of discussed and enforced norms were those associated with blind playthroughs. As mentioned earlier, a significant proportion of the recordings consisted of streamers trying a game from the *Dark Souls* series for the first time and trying to have a "blind" run without getting spoilers or advice from the chat. 25% (47 out of 189) of all recorded examples came from blind or first-time playthroughs. This is not troubling for a game series of somewhat niche popularity. This may have also be an artifact of the sampling method employed. To try to get a variety of content creators, the top viewed stream that wasn't previously recorded was sampled. Thus, once the top content creators that are long-term players of the franchise were recorded in the earlier sessions, other popular streams, such as newcomers attempting the games "blind", were recorded. Interestingly, it seemed that even though the streamers in those instances were not prior fans of the *Dark Souls* series, as they are attempting a game for the first time, users

in the chat were, judging by their knowledge and the need to re-iterate and enforce chat norms of not sharing game knowledge with the streamers. This allowed the study to get a direct experience of the way fans of the *Dark Souls* series treat newcomers, something their reputation suggests they are not good at.

Example 22 below comes from one such blind playthrough. User 3 and User 5 are reinforcing the rules of the stream. Because it's a blind playthrough, User 1's question has to be called out because it might give the streamer hints or spoil the surprise. In this case, the surprise they are referring to is mimic and trap chests, a staple trap of the *Dark Souls* series, where there are objects that look like treasure chests, but when the player tries to open them, they turn into monsters or reveal concealed traps. The players are not being hostile here when they hush User 1, they are just protecting the rules. We see User 6 actually answered the question privately.

Example 22: Calling out, blind playthrough

> *// Player's character keeps moving through Sen's Fortress.*
> User 1: has Miki found any trapped chests yet?
> User 2: not to backseat, just a tip
> User 3: @[User 1] shhh lol
> User 4: @[User] no youre fine, i was just gonna say I framing is weird in these games, its like the first half of the roll is I frames and then the second half your vulnerable
> User 5: @[User 1] shhhhhhh
> ***unrelated messages***
> User 6: @[User 1] i pmd you 💜

In terms of threating the newcomers, the findings ran counter to expectations of encountering negative behavior and elitism. Out of all these examples, there was only one instance of potential negativity towards a streamer who was new to the series. That situation was featured and explained in detail in Example 9 in the previous layer of analysis, where the streamer's mistake prompted a sarcastic "200IQ" comment from a chat participant. When it comes to the treatment of

these streamers that attempted the *Dark Souls* series for the first time, there appeared to be injunctive norms against spoilers and unsolicited advice (known as "backseating") and descriptive norms in favor of being friendly and civil towards them.

Another norm-related behavior that occurred and prompted messages was the use of hacks, cheats or exploits. Using exploits (i.e., unintended aspects or flaws in the design that allow players to benefit unfairly), hacks (i.e., tampering with the game), and other forms of cheating or modding are in a normative gray area for gaming communities overall. Players cheat for different reasons and in different ways, but cheating is generally discouraged in gaming networks such as Steam (Vázquez & Consalvo, 2015). Modding or modifying is often approached as a contribution of players to the game's intellectual property (Baldrica, 2007), but other forms of cheating are usually not tolerated when it comes to the gaming community at large. Yet, when it comes to the *Dark Souls* series, that is not always the case. This prompted the classification of recordings with mods, hacks, exploits, and cheating in general into a separate category of ambiguous negativity. 4% (7 out of 189) of examples featured this category, and none of them had clear negativity. The *Dark Souls* series is often used for speedrunning (i.e., single-player challenges for how fast the game can be completed) and there are many speedrunning styles with different rules, some of which allow the use of certain forms of tampering that might otherwise be considered cheating. This explains why in such situations these behaviors are not received negatively. It all depends on the context. Based on my prior viewing experience, however, if someone uses cheating to get an unfair advantage in player-versus-player situations, they would not be received positively.

In Example 23 below, one such known exploit used for speedrunning is being discussed. Quelaag is a boss in *Dark Souls* and the user asks the streamer how she can be skipped. The

streamer explains the skip. There is no negativity here, no one in the chat responded negatively to this exchange, which shows they see it as something normal.

Example 23: Skips/exploits

> *//Player's character jumps down to skip a flight of stairs and keeps progressing through area.*
> User 1: <mark>how do you skip quelag</mark>
> ***unrelated messages***
> **Streamer: "<mark>How do you skip Quelaag</mark>?" Uhm… there's a skip a bit earlier called the "Sen's Fortress Gate Skip." I go into a [indiscernible] state which stops the game from loading a new environment or terrain… shit. Explanations are hard. And it lets me just walk into Sen's fortress without killing Gargoyles and Quelaag.**

There is another source that can inform the study's understanding of the injunctive norms in these communities. As mentioned in the earlier layers, channels on Twitch.tv sometimes have published chat rules that appear on the stream main page, often below the video window and chat. Although these cannot be used to gauge descriptive norms, as they are not part of the text analyzed here, they do frame conversations and provide a basis for injunctive norms. Out of the 20 channels recorded during the study, 9 had published such rules (see Appendix 2 for lists of those rules). These rule sets give insight into what the streamers value in shaping their own communities. All 9 channels had some framing regarding general civility. 5 of them had rules against exclusionary language and comments. 5 had rules against posting of unsolicited links, trying to avoid their use as a potential form of trolling. 3 of them prohibited discussing divisive topics like politics or religion. 3 had rules against spoilers and backseating, specifically oriented to facilitate first-time playthroughs, confirming the above conclusions about injunctive rules on that subject matter. Other values were also articulated in individual rules, such as respecting the moderators and the streamer and avoiding chat behaviors such as excessive caps lock, copypasta, spam, or non-English

languages. These latter chat behaviors were not frequent enough to show trends, yet their mentions confirm that the first layer of analysis was correct in identifying them as categories.

Category 3.4: Other games and current events

Another group of conversations discussed other games, game news, current events, and other unrelated topics. Together, they represent 19% (35 out of 189) of all examples. 10 examples (5%) pertained to the upcoming game *Sekiro: Shadows Die Twice*, a title by the same developers that made the *Dark Souls* series and rumored to have similar gameplay features; none of these examples featured negativity. Those included Example 19 that was discussed above. The disproportionately higher mentions of this game when compared to other games is attributable to its imminent release at the time of recording and to the fact that other games by the same developers, as well as other games with similar features, are frequently of interest and get discussed by these communities. 3 examples (<2%) discussed other games, with one of these examples featuring behavior that can be classified as true negativity.

Category 3.5: Miscellaneous negativity

11% (21 out of 189) examples had miscellaneous and unrelated conversation topics, more than half of which (11 examples) can be interpreted as negative. This was the category where all the random mean comments, inappropriate jokes, and other unclassified negativity ended up. Example 24 is one of those miscellaneous examples of the topic of the negativity. At the start of this recording, User 9 had evidently said something that prompted the streamer to respond by saying "I'm banning you in a minute unless you say sorry and subscribe to me," to which the user replied by saying they couldn't afford it. The gifting conversation us about User 9, a user who was asking for a gifted sub earlier in this recording and they end up receiving one (a gifted sub is when a user buys a paid subscription with the associated perks for someone else's account, in this case

User 8 bought one for User 9). User 12's cursing seems to be part of banter/joking around with User 9. Several users (User 7, User 22, User 11) seem to make fun of the streamer, but they don't get called out, so it appears to be an acceptable form of banter. However, from my perspective and without further context, the streamer's responses are peculiar. Based on his tone alone, he seems to not be dire, so it seemed initially that it was more likely part of the banter than threatening to ban User 9 or accusing them of cheating. However, User 9 did end up getting banned. The tone of that conversation still resembled banter more than a topic of dire seriousness (e.g., the streamer, User 12, User 18, User 2). Then there is User 19, who claimed they never got thanked for subscribing because they were banned at the time and the notification didn't pop up on the streamer's screen. This means that User 19 paid money despite being banned, and then came back, which makes me wonder whether temporary chat bans are another form of banter or a running joke in this community. If users joke about it, come back after the ban and indeed don't get offended, it might be the case. Another aspect of this chat that supports this possibility is the fact that if User 9 really did something unacceptable, it is unlikely that the streamer would have called for the chat to wave goodbye to them, and that users would be joking about it in such a way. Still, some parts of that conversation (e.g. "just starve for a day," or "Go ask mommy for her credit card") border on negative behavior or even bullying.

Example 24: Unrelated negativity

> ***[User 8] has gifted a Tier 1 Sub to [User 9]! It's their first gift sub in the channel!***
> User 4: don't believe him tho
> User 4: pog
> User 9: there i subbed nemz [emote]
> User 10: Pog
>
> User 11: [emote] can't believe that worked
> **Streamer: You can't gift him a sub, that's cheating.**
> User 2: Son of a bitch!
> User 12: gifted [emote]

Streamer: Alright, now you have to gift someone, [User 9]. <mark>Or I will ban you.</mark> Thanks for the gifted sub, [User 8].
User 9: but
User 13: loool
User 2: I was going to gift

User 14: he yoinked it 🧑🏿
User 15: LULW
User 2: Nobody wants my gifts anymore PepeHands
//Player's character defeats the boss.
User 9: I have like $40 to my name until Thursday next month [emote]
Streamer: <mark>Good luck. Go ask mommy for her credit card, buddy.</mark>
User 10: [user]
User 12: LULW
//Player's character teleports back to resting area.
User 16: I need a sub guys, my dog is sick and only a sub will cure his pour soul 👴
User 12: 40$ <mark>rich bastard</mark>
User 17: Harsh
User 18: <mark>mummies asleep lul</mark>
User 19: Nemz38, you never thanked me for the sub, btw. Probably because I was banned and it didn't pop up 🐶
User 9: next week i mean
User 19: [emote]
User 12: <mark>just starve for a day</mark>
Streamer: You have 45 dollars in your name until Thursday? <mark>Well make it 35 or you're fucking banned, kiddo.</mark>
User 20: time is running out [user]
User 21: [User 9] weird flex but ok
User 22: <mark>Nemz 38 IQ</mark>
User 23: Not subbing [emote]
User 9: [User 11] can you gift someone else a sub for me 😃 ?
User 24: hello
User 2: <mark>awful lot of plebs in this here chat</mark>
//Player's character teleports away from the resting area.
User 14: no shame
Streamer: Never thanked you for your sub? Yeah, it didn't pop up for me.
[User 25] Subscribed at Tier 1. They've subscribed for 16 months, currently on a 16 month streak!
User 25: can i get a sub gift
//Player's character starts progressing through a new area.
Streamer: "<mark>You rich bastard…</mark>" True.
User 26: I would sub but all my money go to tattoo 😖
User 27: pog
User 19: bye, [User 9], I tried PepeHands
User 2: <mark>Fuck it</mark>

//Player's character engages an optional boss that doesn't have a designated room.
Streamer: Alright, [User 2], mate. Be prepared to give [User 9] a fat 24-hour
User 28: D;
User 29: PepeHands
User 26: i will see my bank account after
User 30: RIP
User 31: why is he even getting banned? 🐶

User 32: I would sub but I like being a pleb 🧑🏾‍🦱
User 2: I aint wasting no time here
User 18: i only got money in rust skins
//Player's character runs from the boss.
User 11: just spam chat so they can't find him

User 19: 💁🏽‍♀️
User 33: 👋
User 22: wave
Streamer: He's dead.

User 34: 🍤
User 14: 💁🏽‍♀️
User 35: 🤦‍♂️ bye
User 18: 💁🏽‍♀️💁🏽‍♀️

Category 3.6: References to Homosexuality/Homosexual innuendo

One type of behavior that merits special attention was the use of homosexual innuendo. While it was not prevalent in the sample (it was present in only 3 examples, < 2%), it was important to consider due to its potential to be exclusionary given the general gaming community's reputation for exclusionary discourse (Meunier, 2012). Despite expectations, this not prevalent, and the examples where it was mentioned were not clearly negative. One of these examples in secluded below:

Example 25: Ambiguous Homosexual Innuendo

User 1: OhImGay
User 2: naro is the cutest OhImGay
User 3: naro is a whole s n a c c
User 4: naro is cute voice and personality and he's easy on the eyes OhImGay
User 5: OhImGay

User 1: chat is now in OhImGay mode for naro
User 1: OhImGay
User 6: yeah narp is pretty handsome
User 7: Aside from the facial hair, Naro looks a lot like I expected [emote].
User 8: hes cute [emote] OhImGay
User 9: d OhImGay
User 10: What's the story? I haven't heard it.
//Player's character attacks the tail of a giant dragon that has landed on a bridge. The "Drake Sword" drops as a result.
User 11: imagine being hit on by a girl MingLow i cant
User 6: i lived with him for 3 weeks
User 12: OhImGay b
User 6: it was pretty great
Streamer: "What's the story?" It's pretty simple.
//Player's character pulls a lever to open a gate. Meanwhile, the streamer uses the menu to swap some of the player character's equipment.
User 13: @Cirno_TV tell us the story!
User 14: look at those 2hu emotes! [emote]
User 15: KKona
//Player's character goes through door he just opened.
Streamer: Naro was just wearing his, like, super American shorts, and some guy walks up to him and is, like, 'Nice shorts. They'd look better on the floor.'
User 16: @[User 1] i cant join your session MingLow
User 17: gachiBASS
Streamer: And then Naro proceeded to just awkwardly say thanks.
User 18: OhImGay
User 13: [emote]
User 19: OhImGay
User 16: are you doing kt solo?
User 20: [emote]
//Player's character keeps running through the area.
User 15: OhImGay
User 1: [User 16] ___ [emote]
User 5: [emote]
User 11: y-you too MingLow
User 21: yhanks EHEHE
Streamer: Because I don't know how else you would respond in that situation.
User 22: t-thanks [emote]
User 23: with [emote] s
User 1: i'm doing bounties [User 16] ___ [emote]
User 24: [emote]
User 25: maybe giggle nervously EHEHE
User 6: dude, i remember when we BOUGHT those shorts
User 26: EHEHE

User 27: T-Thanks you too mister heh heh! [emote]
User 28: You could also say "Oh"
User 29: He'd take him to the hotel
User 30: Narp dropping mad spaghetti. nepSmug
User 29: Obviously
User 11: giggle like a schoolgirl
User 6: We bought them at the [location]
User 16: said it's private
User 31: t-thanks i guess [emote]
Streamer: He could say, "Oh, y-you, too…"
User 32: That man was totally you
User 33: baka
User 34: [emote] [emote] [emote] [emote] [emote] [emote]
Streamer: Like when a waitress says 'Enjoy your meal!,' and you're, like, 'Thanks, you, too!'
User 29: "y-you too" @Cirno_TV
User 35: EHEHE
Streamer: … 'Fuck, I can never go back to this restaurant again.'

Part of the initial conversation from this recording is missing since this was the very beginning of the recording. The streamer telling the story later clarifies the conversation to some extent. @Cirno_TV is the current streamer, while Naro is another streamer that he (and chat member/s) seems to know personally. It seems that discussions of this story are what sparked the discussion of Naro's attractiveness before the start of the recording. On its own, commenting on such a thing whilst spamming "OhImGay" (this is the text code for an emote of an anime face colored with a rainbow flag; it failed to render) is ambiguous, but the story adds nuance. The streamer does not mock or sexualize Naro, but comments on the awkwardness of the situation, the awkwardness of someone being looked at and commented upon in such a way by passing strangers because of shorts. This means that it might not be completely fair to consider the conversation hostile. Yet spamming "OhImGay" after feeling awkward to mention a(nother) male's attractiveness could be perceived as mocking gay people or trolling. In addition, after the streamer makes the comment about how Naro could have possibly responded to the awkward comment, chat users say things such as "giggle like a schoolgirl." Those appear to be mocking gay men's

attraction to each other. However, the other feature of all the responses is that they are modeled after the way girls respond to such awkward situations in anime and similarly styled. Most of the emotes in this conversation are of anime-style girls, and this channel as well as Naro's channel are known for also streaming Japanese role-playing games (JRPGs) and other games that feature the anime aesthetic that also appeal to anime fans. The comments could be a reference to that. This doesn't mean what they are saying is acceptable. It is difficult to classify as clear negativity because of how they keep calling Naro 'cute' later in the recording, beyond the example above, after they stopped discussing the story and stopped spamming "OhImGay". There is also no reason to assume that the people complimenting him are straight male only, nor that they are strictly mocking; some may be complimenting him. This channel features saved clips of a guest on camera showing fan art of the streamer kissing another man (Cirno_tv, 2018). In that clip, Cirno_TV says of the fan art, "I hate it," but he doesn't appear angry or annoyed; he and the others laugh, and he seems half-joking. Importantly, he allowed that to be shown on the channel and saved for later. That, as well as the flamboyant anime aesthetic of the two channels, makes aggressive homophobia unlikely. This is a situation where I believe the hostility of the intentions is unknowable, but the words might still be hurtful to audience members and contributes to a descriptive norm where such behavior is part of audience banter.

This was not the only example of homosexual innuendo in the study. Example 26 below comes from a stream where the streamer had asked users to ask him questions in the chat, which he would read and answer and he was playing. Knowing the format of the Q&A, User 3 tried to trick the streamer into reading a profanity by spelling it differently. The streamer later reads it as intended and doesn't seem embarrassed, even jokingly complimenting the user. Since the streamer is male, the joke carries homosexual innuendo. Similar to the previous example, based on the fun

of it and on the way it was handled and responded to, it does not constitute negativity, even though

it is inappropriate and potentially exclusionary.

Example 26: Homosexual Innuendo

> **User 3: otz what do you think about ==icewallowcome==**
> **User 4: I wish u luck Otz**
> *// Player character rests at bonfire and continues.*
> Streamer: We'll ==fucking== do it. Don't you ==fucking== worry, we will.
> **User 2: walk the walk**
> Streamer: [User 1]? Yes, it does. "What do you think about ==icewallowcome=="?
> That is beautiful, man.

Based on the low prevalence of these situations, there are no descriptive norms in favor of

homophobia or of general references to homosexuality. The sample did not see anti-homophobic

norms being enforced. However, based on the rule sets put forward by the streamers, it appears

that there are injunctive norms against homophobia (5 of the 9 rule sets prohibited exclusionary

language and behavior, and 3 of these mentioned homophobia explicitly).

Category 3.7: Health and disability

Another behavior that merited inclusion due to the general gaming community's reputation

for exclusionary discourse (Meunier, 2012) was the use of discourses related to health and

disability. This behavior was also not prevalent (it only occurred in 4 examples or 2%), but it was

coded as problematic. None of the instances implied any intentional negativity, but they were

negative because of the way they used language associated with health and disability in lieu of

other negative language. Though it is not directed at people with disabilities themselves, using

language this way is inherently mocking and dismissive of the conditions it is meant to describe.

Only unlike the above example with homosexual innuendo, there was no play and blurring of

social conventions, only this language was meant as insults. Such behaviors, therefore, do not have

the same potential as the above example to start conversations and challenge norms, they could only alienate users.

One such instance was featured in Example 20 above, where a user in the chat uses the word "retarded." It's not clear where User 6's remark is directed, so it might be directly hostile, or just harmful in general. Again, using that word, even if the intent is not hostile, results in a hostile environment as it is exclusionary.

Another example is Example 27 below. This episode occurred just after the player character died in the game, so the streamer was annoyed that he would have to do the entire area again to get to where he was. His first phrase was said sarcastically, as if imitating someone who explains how the area is supposedly easy. The word "cancer" in particular is usually used in gaming communities to describe something annoying or obnoxious due to intention or poor design. That, in conjunction with cursing, was used in frustration at the game, not towards the community – the streamer goes on to explain his frustration. Yet, such language creates a hostile environment regardless of whether it was intended or not. The behavior here is not called out or ignored but supported – User 9 articulates their agreement.

Example 27: Language related to health/disability

> *// Player's character progresses through the Iron Keep area again after dying.*
> **Streamer: <mark>"This area's easy, just parry."</mark>**
> User 1: facts
> **Streamer: This area is <mark>cancer. Just fucking cancer</mark>.**
> User 2: I heard you love Iron keep
> User 3: 30
> User 2: Let's do it again
> User 4:
> User 5: TheKink
> **Streamer: Because the thing is that you can't… normally in Dark Souls the big mitigator, like, the big thing that saves you is that once you know your way through you can just run through an area, like…**

User 6: Barb ,did you try to parry?
User 7: @[user] I'm glad someone else knows what I'm talking about
User 8: No, because DS is actually good

User 9: as much as I like DS2, this area IS cancer

For this category, the way the language was used in the same ways as in the gaming community at large. However, it was considerably less prevalent based on my own experience as a gamer. Based on the low prevalence of these situations, there are no descriptive norms that govern such discourse. The sample did not see such language getting policed, and even though 5 of the 9 rule sets established by streamers had rules against exclusionary language and behavior, none of them mentioned health or disability. Therefore, there were also no injunctive norms against this behavior.

Category 3.8: Gender and sexism

One more behavior that merited inclusion due to the general gaming community's reputation for exclusionary discourse (Meunier, 2012) were references to gender and sexism. Only 3% (6 out of 189) of examples featured this behavior. Examples in this category – most of them were included because they were in reference to females more than males (e.g., body comments, trolling) even though they were not sexist or referencing gender directly. 3 of these examples occur on the channels of male streamers and constitute issues related to the game, and the other 3 were from one female streamer's channel and concerned the streamer herself. One of those instances was Example 17 above, which had no explicit reference to gender, but is gendered in the sense that in the gaming world females often receive negative comments or harassment (Fox & Tang, 2017; Kuznekoff & Rose, 2012).

Example 28 below is one example that could be misinterpreted negatively but is not. This exchange follows a discussion of the player character's face and wagering guesses as to whom it

resembles. User 3's message appears to be mean, but the community context makes it ambiguous. The researcher's experience as a fan shows that streamers of DS games often try to use the character generator to create the most hideous characters they can as a running joke or way of trolling in the community. The facial proportions are usually very exaggerated and are unnatural. Making a comment like that based on appearance is hardly positive, but because of the context of trying to make unrealistic and exaggerated faces it is at least ambiguous and definitely not hostile or against community norms.

Example 28: Gender-related content, no hostility

> *// Close-up of player character's face, which has exaggerated features.*
> User 1: Squilla, are you drinking out of a fucking kettle?
> User 2: Just got my first win in apex legends!
> **Streamer: 'Character has the face of John Cena'? John Cena… yeah.**
> **Guest: A little bit, actually. I can see that.**
> **Streamer: I guess just some facial… similarities, yeah.**
> Guest: Yeah.
> User 3: she sad because she looked at herself in a mirror lmao

That said, 5 of the 6 examples in this category had what could be considered negativity, though ambiguous or unknowable at times. In Example 29 below, User 7, 8 and 11 discuss the reasons for the streamer to have picked a female character as it doesn't affect the gameplay, suggesting it is likely related to the character model's body (e.g., "thicc" is online slang for curvaceous). It is an ambiguous-sounding discussion, with User 15 stepping in to just say "because females look cool," a seeming counterpoint to the body comments, although they don't enter into a confrontation. It seems the original comments were also not meant negatively, but they are ambiguous and were included because such discussions would be less likely to occur regarding a player character with a male body, unless it was one of the grotesque creations discussed in Example 28 above.

Example 29: Gender-related content, ambiguous

> User 11: ==why do you always run with a female character==
> *// Streamer uses the menu. Player's character jumps off ledge. She screams, and that voice track is usually an audio cue that the character has died due to falling from great height. The streamer exits the game at the same time.*
> User 12: ds2 is the first game to be created ever
> User 13: after playing ds1 and ds3 I bought ds2 and quit because I couldnt mentally cope with the game controls and some other bs mechanics
> User 7: ==she more skinny==
> *// Streamer restarts the game. Player's character is not dead, but rather on a cliff where she's not supposed to be able to get. This is one example of an exploit used in speedrunning to make the playthrough faster – some styles of speedrunning allow it.*
> **Streamer: "What about Bloodborne?" Bloodborne's a good… is kinda good, I mean there's… some of the bosses that I can speedrun are pretty boring. A lot of them are scripted. And the early game is ==super fucking cancerous, really long running segment…==**
> User 7: ==plus thiccness 100==
> User 13: 🐙
> *// As a result of the intentional exploit, the game glitches and goes into top-down view. The streamer has just skipped a good chunk of the area and is heading for the next bonfire (checkpoint), using the menu to swap some of the items equipped on the player character.*
> Streamer: …in the, uhm, forest, and then running to Paul, and all that.
> User 8: ==she got a nice butt==
> User 14: people who like ds2 remind of the divs that like shit like love island
> Streamer: So you do like 16… 17, can't remember how long it is, segment of running, and then you get to Shadows, and then get one-shot and the run's over. Or you get [unintelligible] and the run's over. So, like, fuck that.
> User 15: ==@[User 11] because females look cool==

Example 30 below comes from the same female streamer's channel as Example 17 earlier this section, so it is from the same recording of her using a dancing pad instead of a controller. This comment sounds like a creepy reference to the streamer's setup. It is probably trolling and sounds disturbing. It was included once again because this is considerably less likely to happen to a male. No one reacted to it – not the streamer, guest, or another user. Therefore, if it was a provocation (trolling), no one took the bait, and if it was seen as annoying or creepy, no one engaged with it to proliferate it, but no one called it out either. Though the lack of engagement

with this message could also be partially due to the fact that the stream had relatively low viewership and a non-populous chat.

Example 30: Gender-related content, negative

> *//Player's character is summoned as a helping phantom and is in a boss fight.*
> User 1: do you like playing with your feet [foot emoji]?

Such interactions are not prevalent – 3% of the sample is a low proportion, which would translate to an even lower proportion compared to the overall volume of interaction. Based on the low prevalence of these situations, there are no descriptive rules in favor of sexism or of general references to sex and gender. Even though the sample did not see anti-sexism norms being enforced, the rule sets put forward by the streamers suggest that there are injunctive norms against sexism (5 of the 9 rule sets had rules against exclusionary language and behavior, and 4 of those explicitly mentioned sexism).

Overview of ambiguous negativity

The majority of the time the streams and live chats observed were very civil spaces. People rarely seemed to be angry at each other, whether among users or between users and the streamer. When it comes to the majority of the cases observed, the ambiguous negativity seemed to either be directed inwardly, expressing frustration with one's own performance, or towards game design elements thought to be flawed. This frustration was not directed toward the developers or anyone identified individually. This supports the idea that it is ambiguous whether or not it should be interpreted as negativity since there is no hostility to another person, just general frustration.

DISCUSSION

Twitch.tv live chat interactions are part of a long history of socializing and interaction surrounding gaming. Such social interaction has always come from the players themselves, as shown by developments in interaction and spectatorship. For interaction, user-initiated interaction over VoIP (Singh & Acharya, 2005) preceded built-in voice chat and third-party software targeted at gamers (DiscordApp.com, 2019) because people wanted to talk while playing. For spectatorship, creative layering of game functionality with additional software done by users preceded streaming platforms (Recktenwald, 2018) because people wanted to watch others play virtually and in real time. As part of that tradition, people on Twitch.tv stream, chat, and form communities because they want to have those shared spectating experiences. This study looked at one subset of resulting communities and the way they have built norms for behavior in these spaces facilitated by the affordances of the platform. Descriptive community norms show what user practice looks like, and those are enabled by social affordances of communication, such as chat participation, mentions and replies. Injunctive norms show how users respond to unwanted behavior, facilitated by social affordances of communication (e.g., expressing positions in chat, replying to users to call them out, as well as streamers' ability to set and publish rules) as well as social affordances of interaction (e.g., chat moderation, banning or silencing problematic users). The way viewers experience channels is affected by each level of social affordance, including the affordances of presence that allow them to witness or be part of the nearly synchronous ephemeral interactions that take place.

Descriptive community norms show what communities practice as defined by observing their behavior. The findings suggest that *Dark Souls* communities commonly practice spamming and cheering in live chats, with emote spamming being the most common kind. Those

communities also use a lot of curse words, but do not frequently use offensive or exclusionary language. Using caps lock is also not a common practice. Community members frequently engage in banter with one another, but that banter can also frequently cross over into what can be considered negativity. Community members sometimes used irony and sarcasm, and in some of those instances, sarcasm was used negatively. Community members rarely engaged in trolling. They frequently used game-related words and jargon, and occasionally sent messages that required game-related knowledge to be understood. People in these communities most commonly talked about the game being played (as well as other games in the series), which very rarely contained hostility. They also talk about other content creators, other games, current events, and other unrelated topics. When a streamer or chat referred to another streamer from the community, it was usually in a positive light, and discussions of other games were also positive. The most common other game to be discussed was *Sekiro: Shadows Die Twice,* the anticipated game by *Dark Souls* developers.

Injunctive norms, which describe what behaviors are approved or disapproved, was more difficult to observe because calling out and moderation were rare. Spamming, cursing, caps lock, banter, sarcasm, trolling, and jargon were hardly ever called out or moderated out. There was also hardly any policing regarding the topics of the interaction. The most common reason to for getting called out was backseating or spoiling in blind or first-time playthroughs. The recordings where streamers attempt a game for the first time had strict rules to prevent the audience from spoiling the content or giving advice based on prior knowledge. Even then, the most common reaction was calling out, and that was usually done in a friendly and civil ways. These streamers also usually had chat bots reminding chat users of these rules every now and then.

The other source of information that was considered regarding injunctive norms were published rule sets on stream pages, which were published by nearly half of the observed content creators as afforded by the communicative social affordances of Twitch.tv. They set rules about things such as general civility, avoiding offensive or exclusionary language, avoiding trolling by sending unsolicited or inappropriate links, avoiding divisive topics like religion and politics, and avoiding spoilers and backseating. These rule sets brought new information, because not all injunctive norms can be directly observed in the chat. Just because the sample did not see people getting called out or moderated out for the topics they talk about it does not mean that there are no injunctive norms against particular topics – it could be, for instance, that those rules were already articulated in the rule sets, so the chat was already compliant. This was probably the case with trolling by sending unsolicited links: the fact that it was a very common rule to have suggests that it is a common type of problem behavior, yet its absence from the sample suggests that users complied with the rule. The low amount of exclusionary language in the sample and the absence of divisive social topics are probably also related to these rule sets. This suggests another unspoken norm – that chat users tend to comply with rule sets.

Potential Places of Norm Misunderstanding

Apart from missing out on jokes that require game-related knowledge to understand, outsiders are probably most likely to misunderstand norms related to spamming and cheering, cursing, and backseating. While the norms regarding spamming might vary among streams, it is one behavior easily understood as negative, so it would be easy for outsiders to mistake acceptable spam for negativity. Cheering at in-game events could also be confusing to them or seem negative, but if they are outsiders to and insiders to Twitch.tv and gaming, they might still be able to understand it. Different people have different tolerance for curse words, but the level of cursing

that is used in an acceptable and non-hostile way is quite high, so outsiders might misunderstand that as negativity too. Misunderstanding in the opposite direction (i.e., an outsider seeing something negative as non-negative) was also possible, such as phrases or statements that appear normal but are revealed as sarcastic or mean with background knowledge of how they are used in gaming or *Dark Souls* games, but it was not common. The norms against spoilers in first-time playthroughs would probably be straightforward to them as spoiling is unacceptable for any media and chat bots keep reminding users of that. When it comes to backseating or unsolicited advice, however, they might misunderstand the norm. They might not know what the word "backseating" refers to and might think that people giving advice are doing a positive thing, when in reality it is anti-normative behavior in those situations. Just as the references related to the game might be difficult for them to understand, references to other games and content creators could also be confusing. The level of familiarity chat participants have with other content creators that stream *Dark Souls* content and other games from the *Dark Souls* series could make them feeling left out of the conversation, but it probably wouldn't be misunderstood as negativity.

Clear Negativity and Problematic Issues

While they had low overall prevalence, the sample did show instances of problematic discourse that could contribute to a hostile and unwelcoming environment. I classified it as exclusionary language in the first level of analysis and delved more into the biases it reveals in the third level of analysis. Some of the common problematic areas these Dark Souls streams shared with other gaming communities and online discourse as a whole include toxic masculinity, homophobia, and sexism.

Toxic Masculinity

One of the ways in which this manifested was through the uses of the word "cuck." This is interesting, because while not traditionally derogatory in the same way as other language classified as exclusionary, it has become such due to its recently increased use to indicate weakness, or anything that does not comply with traditional and often toxic understandings of masculinity (Schwartz, 2016). There were instances of users using it as "shorthand for any perceived weakness, or rather, perceived reluctance to exploit strength," as Schwartz (2016) described, and that contributes to a negative environment.

Another manifestation was evident in the harassment delivered by trolls in one of the recordings. It was a conversation about (allegedly) masturbating while watching a stream and, in terms of intent, it was unclear whether these people were joking around, trolling, engaging in banter, or trying to see who can sound the most absurd. Their banter or provocation seemed to rely on the assumption that their behavior wouldn't be read as harassment because of the context - the remarks are exchanged between (presumably) male audience members and a male streamer. That assumption is in itself problematic. Presuming a straight male identity for the audience and refusing to consider sexual harassment as what it is when directed at males are both features of toxic masculinity, and they can also contribute to an unwelcoming environment.

Homophobia

The recorded examples that featured references to homosexuality fell on the spectrum between innuendo and homophobia and had problematic features. The most prominent example was described in detail above and had many chat participants spamming the "OhImGay" emote in response to stories of another streamer in light of his alleged attractiveness. The nearest academic precedent that can be used as a parallel to make sense of that situation is Potts's (2014) discussion

of the way a set of straight male *Minecraft* YouTubers use homosexual innuendo in their videos. The study consists of over 60 YouTube videos, an interview with one of the content creators and thousands of user comments. The situation is similar, because it involves straight male gamers using homosexual innuendo as a dynamic between them when they partner for videos. In addition, the study also points out the fact that there is fan fiction (fan created writing and art) depicting them as a couple. Despite being known as straight, content creators allow and condone such fan creations. That is they permit fans to question their sexuality and to depict it as they wish in art. This parallels Cirno_TV's reaction to the drawing of him kissing another man in the saved video (Cirno_tv, 2018). I have not been a follower of this channel for a long time, and there is also nothing on there to explicitly indicate the streamer's sexuality one way or another, but whatever the case, he responds playfully to the fan art. Potts (2014) also notes that the whole thing is very ambiguous but engages a discussion to also show its positives. The ambiguity comes from the fact that even when the intentions are positive and lighthearted for straight people to play with queer discourse, it is not theirs to play with. In the interview with one of the gamers, he admitted that some gay people can perceive (and have perceived) his behavior as making fun of homosexuality, though the gamer believed it is a very small proportion of the responses (Potts, 2014). He also admits to receiving trolling comments and getting called 'gay' in a way that suggests that as a negative thing – he also believes that this behavior probably alienates viewers more than increasing his popularity (Potts, 2014). Based on an examination of the comment sections, Potts (2014) suggests that the responses are mostly playful and positive, with any negative comments getting reprimanded many times over. Ultimately, the space has allowed gamers to blur gender roles and participate transgressively, and according to Potts, "videos in which influential gamers

demonstrate disregard for hegemonic discourses and normed roles can positively influence the discourses of adolescent audiences" (2014, p. 184).

Applying Potts' (2014) conclusions to the example, while it remains ambiguous for majority-straight users to use emotes coded as gay, it can be considered beneficial for people to experiment with such discourse in a positive environment where sexual roles can be blurred and no negativity is demonstrated or implied. Yet it becomes more problematic if the uses are less transgressive and more about banter and joking around. The intentions of the users and streamer were hard to discern and might not have been negative. Though not common in the sample, other references to homosexuality had similar features – they were not aggressively homophobic and seemed to contain banter or innuendo. Overall, though, the conversations that unfolded could be perceived as hurtful and unwelcoming nonetheless.

Sexism

Similarly to homophobia, sexism was uncommon but present. The way sexism and gender-related issues manifest in *DarkSouls* streams resembles the way it does in gaming communities overall (i.e., females' presence is more readily questioned and female bodies in game and outside of the game are more readily discussed).

One of the salient examples involved a female streamer playing on a dance mat instead of a controller. A user asked how she managed to do that, and another user responded with, "if u hot enough the world helps u," which both devalues her skill and makes an unsolicited comment about her appearance. Research suggests that females often face sexist negative treatment in gaming environments. Kuznekoff and Rose (2012) created an experimental design that exposed random gamers to pre-recorded voice messages featuring a female voice, a male voice, or no voice at all. Their quantitative content analysis of showed that players with female voices got more overall

messages and three times as many negative comments as players with male voices or no audible voices (Kuzenkoff & Rose, 2012). Fox and Tang (2017) surveyed women about their experiences with sexual harassment and their findings suggested that it predicted rumination and withdrawal from the game. The current case study cannot make any quantitative claims, but it did reveal instances of sexist language that could contribute to a similarly hostile environment.

Conclusions: Is the Dark Souls *Community on Twitch.tv. Hostile or Welcoming?*

One of the goals of this study was to get at what it would be like to experience these communities, both in terms of what is common and what is salient even if uncommon. The impressions created while viewing were influenced by the social affordances of presence, particularly the sense of witnessing and being part of something that unfolds in real time. This enables viewers to feel more engaged, and also gives interactions a fleeting and ephemeral quality: they happen and then seem to disappear, and the impressions they leave with viewers usually cannot be corrected once the moment is over unless there is specific injunctive interference. I conclude that how welcoming or hostile an environment is depends on the particular channel, but there are general trends as well.

Upon interpretation, the majority of the ambiguous negativity observed during this study was not exclusionary or hostile – it was not actual negativity. The remainder that constituted clear negativity (e.g., inappropriate jokes, other exclusionary messages) was less heavily represented in these live chats than it would be in many places online. Most messages featuring exclusionary language were either ignored or had to do with accents. The fact that the utterances that joked about accents had more engagement than other exclusionary language was understandable, since despite being stereotypical, most people wouldn't consider them as hostile.

As far as the small proportion of situations where arguments can be made for real negativity, those usually looked either like banter gone too far, or used exclusionary remarks. My understanding of the findings here is twofold. On one side, there are rude and mean people everywhere and these communities are no exception; it didn't seem like there was something about *Dark Souls* streams that encourages them or makes them overly prevalent. Exclusionary language was often prohibited by streamers in their published rule sets, and that was reflected in the overall rarity of such occurrences. Streamers used their communicative affordances to articulate their stance to exclusionary language via the rule sets, and chat viewers rarely used their communicative affordances to be exclusionary to others. The infrequency of these behaviors was also inconsistent with my prior experience in other gaming contexts. Given the context-specificity of community norms, this infrequency might not translate to other communities as it might be the case that the *Dark Souls* community has less negative descriptive norms.

On the other side, though, despite explicit rules, it was also extremely rare to see the behaviors called out. When rules related to avoiding spoilers were broken during blind playthroughs, users intervened, which suggests they cared about enforcing those rules. Though both are anti-normative (according to most rule sets), this intervention was not present with exclusionary language as those instances were hardly ever called out in real time. In other words, chat participants rarely used their communicative affordances to call others out for exclusion, and moderations rarely used their interaction affordances to interfere. Twitch.tv is a transitory medium, so not responding immediately leaves the remarks unchallenged; as far as the audience is concerned, there is no better revised version of the fleeting interaction. The immediacy of Twtich.tv's social affordances of presence both engages viewers and makes it more likely that this initial impression will also be the one that stays with them with no chance of correction. Despite

their rarity, even few instances of exclusionary language that go unchallenged could shape descriptive norms by showing people they could get away with it, not to mention being hurtful and turning others away. Given Seering et al.'s (2017) findings on the effectiveness of positive example setting, it is not impossible for it to work for negative example as well. With both of these aspects in mind, it can be concluded that clear negativity was infrequent, but that doesn't preclude the possibility that even a few instances of real negativity might impact the way people experience and perceive the community as a whole.

Although there is a general *Dark Souls* series community on Twitch.tv (as supported by the cross-discussions of streamers and the chat visits, another form of social affordance of interaction), there are also differences between the individual channels. The expectation that communities centered around different streamers would differ from each other was supported for both rule sets and observed behavior. There was an uneven distribution of ambiguous negativity among channels. This was visible for behaviors that were not interpreted as clearly negative, such as spam. Six channels had 2 or fewer examples with spam, while 3 had a dozen or more. It was also visible for clear negativity, for instance, when it comes to the problematic behavior of using exclusionary language, the majority of all the instances came from only two recordings that had 5 instances each. All the other 20 recordings had 2 or fewer instances, while 7 had none at all. As mentioned above, all the gender-related examples came from only 2 recordings as well. This uneven distribution is consistent with the explanation this far. If a person were to observe one of the communities that had no instances of exclusionary language, their perception of the descriptive norms of that community would suggest that using such language is not acceptable in this community. The opposite is also true – if they observed one of the communities with more frequent exclusionary language modeled by the streamer and the audience, they would see it as acceptable

in the community. In the spectrum between these extremes, it would be harder to predict how users might perceive channels due to the conflicting impressions created by the low frequency coupled with the lack of response or willingness to address the particular issue. To outsiders and audience members, a community's failure to handle a negative situation to their satisfaction might leave an impression that's even more salient than the positive impression resulting from the infrequency of negativity.

The other aspect that differed among channels was how streamers chose to shape their spaces through their communicative affordances that let them publish rules and talk to viewers. The discussed examples of chat rule sets are evidence to these different approaches to setting explicit norms. Nine channels chose to publish rule sets, and the rest did not. Five of those nine chose to prohibit exclusionary language, while the others did not. The rule sets had different priorities in terms of choosing what to include from among things such as prohibiting unsolicited links, to banning divisive topics, to addressing things like self-promotion, or warning about the maturity of the conversations held. Some chats contained abundant emote spams, while one chose to prohibit them in the rules. These findings support Seering et al.'s (2017) statements that different channels would have different rules and expectations regarding behaviors like emote spam.

As discussed above, people's experience with each channel depends not only on the (in)frequency of negativity, but also on the way people act in case of clear negativity, which might be channel-specific as well. It depends on how people feel they should respond to negativity. Some might believe the community should ignore trolls and negative people so as not to give them the satisfaction of seeing they succeeded in provoking others. Others might want to take a more proactive stance, shaping their space with clear intent by calling out people who behave inappropriately. Choosing which approach to take depends on the individual, as well as the way

they perceive their own role within the community. Those perceptions can be shaped by group norms – for instance, some of the streamer rule sets implicitly referred to this. Darksyde_Phil, whose chat featured visible moderator activity, explicitly stated, "No discussion of haters and/or their content!" This suggests to his community that they are to have a more passive role, leaving action up to the moderators. Similarly, Zazztrain states, "Please argue elsewhere." On the other hand, AdamKoebel's rules were all phrased from a "we" point of view, and ended in, "We hold each other accountable for this stuff." These rules give community members greater agency, implying that they should be more active in shaping the community. This speaks to the 'influence' dimension of sense of community (McMillan & Chavis, 1986), which was suggested by Blanchard (2007) to be less salient in the way people experience virtual sense of community. This might not be true to the same extent everywhere as different communities invite people to have different roles, more active or more passive. Determining those perceived community roles and their relationship to norm policing was beyond the scope of this study.

Ultimately, the streamer has a very significant impact on users' experience of that community because of their specialized communicative and interaction affordances: their ability to set explicit rules and recruit moderators to enforce then, because of their ability to set the parameters of community members' involvement, and also because of the behavior and language they model in their interaction. While tuning in to Otzdarva might feel like entering a lighthearted but sincere conversation with a friend, tuning in to some of the channels that were more prone to negativity feels like entering a space governed at the whims of a school bully, popular with his group, sarcastic, and slightly volatile. The existence of these differences makes sense because audience members choose not only the topic to tune into, but also the person to deliver it; from among all *Dark Souls* content creators, streamers differentiate themselves with the style of content

they stream, as well as with their personality. In this sense, to say that clear-cut negativity us uncommon and anti-normative is inaccurate. Depending on the channel, hostility and exclusionary language might be virtually nonexistent, or they might be an existing descriptive norm. By articulating some rules and not others in their chat rules, streamers may decide what particular brands of ambiguous negativity or hostility to prohibit and which ones they can accept.

The Role of Dark Souls

Apart from being shaped by streamers themselves, the interactions observed were probably also influenced by the fact that all the observed streams featured games from the Dark Souls series. The *Dark Souls* games are known for being challenging, but ultimately being about overcoming challenges because while progressing might be difficult, the game would never issue the challenge that is impossible. This mindset is reflected in all the introspection, all the inward frustration shown by the streamers angry at their own performance, all the difficult challenges they choose to undertake (such as going through multiple games in the series in a row, speedruns, or attempting to go through entire games without getting hit by enemies), as well as the cheers and compassion directed at the veterans and the friendliness towards those attempting the game for the first time. Another factor here is also definitely the type of gameplay. The vast majority of the situations were single-player, so there was no one else to blame for their failings even if they wanted to. It would be reasonable to expect different findings when looking at streams of player-versus-player or team-based games and similar findings in other single player-oriented games and role-playing games.

The choice of this particular community affects the question whether findings are applicable to other contexts. Communities centered around different fandoms would behave in different ways, which includes different norms and different expressions of ambiguous negativity. So, while the behaviors observed could also be seen in other communities or in gaming as a whole,

they will not be reflected identically. Some behaviors that were more prevalent in the sample could be less prevalent or missing in other communities, and there could be behaviors in other communities that were not observed in the sample at all.

Limitations

This project has several limitations that need to be considered when understanding the results. The methodology used was cross-sectional and qualitative, and that comes with a few limitations. Online communities are dynamic, they grow and evolve over time, but this cannot be captured in a cross-sectional study. The current findings present a snapshot of the given communities at that given time, so they may not apply to the same communities at earlier or later points of their existence. The data captured were qualitative in nature, therefore the reported frequencies for the behaviors studied cannot be used to estimate the frequencies of those behaviors in the communities represented or in *Dark Souls* communities as a whole. In addition, because of the way they were coded, they also do not correspond to the frequencies of the behaviors in the entirety of the discourse that was recorded. Only examples with that was judged to be ambiguous negativity were transcribed and coded, so the frequencies reported are relative to the volume of transcribed examples.

The sample was constructed based on the top viewed unique stream of *Dark Souls* series content during the specified time window each day of the study. The criteria were specific and systematic, yet the variability of the recordings did not perfectly match the variability that was expected. Because of the unique channel criterion, each subsequent recording went lower and lower down the popularity list, which included smaller channels as was intended. The variability in the viewership was very large, so it is possible that it could have affected the way people behaved and expressed negativity in the respective live chats in ways that could not be captured

by the research questions and the analysis. In addition, by going to those smaller channels, the sampling emphasized more on the variety of what live chats could look like, rather than the typicality of what most chat interactions look like (since the majority of the participants can be found in the most highly viewed channels). There was also a temporal component to issues with viewership numbers. Sometime into the data collection period, a new game was released that was highly anticipated by the community, *Sekiro: Shadows Die Twice*. The game's release coincided with a significant drop-off in *Dark Souls* content as the top channels of the community were trying out the new game instead. This forced the end of data collection, as there would be significant differences in pre- and post- release recordings that would create confusion.

Another way in which the variety of the data was not as expected was the type of gameplay being streamed. When planning for the project, it was argued that one of the reasons *Dark Souls* would be a good game series to look at is that it offers different gameplay modes, which would allow for greater variability of stream types in the sample. This was not the case in practice, because while those different formats did exist, the majority of the recordings involved the single player format of play, with nearly none player-versus-player situations getting recorded. This resulted in a sample that was less varied than anticipated. This could also have affected the types of negativity encountered, because competing against other people in gaming could induce different emptions and responses when compared to challenging oneself in the single-player format.

Questions can also be raised regarding whether the chosen sampling method accurately portrays *Dark Souls* communities on Twitch.tv. for instance, games such as *Bloodborne* and *Demon Souls* that are frequently played and viewed by top streamers and their communities were not included in the sample because of not technically being part of the *Dark Souls* series. By

excluding some of the content these people view and produce, the sample cannot capture the full range of behavior they exhibit. On the other hand, when going down the list of channel viewership, some of the channels recorded were not ones that regularly stream *Dark Souls* series content – about a quarter were streamers attempting the games for the first time. While there was a strong argument to be made for the viewers of these channels being members of *Dark Souls* communities on Twitch.tv, it does bring some confusion to the results to consider the fact a quarter of the content creators were not already established with the community.

The goal of the analysis was to interpret instances of ambiguous negativity contextually using the researcher's background knowledge of the games and their online community. In order to do that, situations were transcribed with what was judged to be enough context to understand what is happening. One issue that arose from this was the discrepancy in example length. Some examples ended up only being 4-5 lines long, because that was all that was needed to understand the situation. Other examples were over 100 lines long because they involved many participants responding to the same situations in similar ways and represented a cohesive event that happened in the recording. Others still had gaps in them, because they featured participants of highly populous chats responding to an event or to each other with a considerable volume of unrelated interaction getting cut out from in between. This discrepancy in the length of the examples raises questions of whether these examples can be interpreted consistently, and whether it is logical and to report frequencies in percentage of examples given how different examples are from each other.

Another issue came with interpreting those examples that came from recordings of streamers attempting one of the games for the first time. The researcher's background knowledge of *Dark Souls* communities extended to some of the established content creators, but not to these new streamers. Additional research was done during the analysis to try to recover some of the

missing context, but still that could not substitute for the more detailed understanding available in the case of established creators. Therefore, the two were not interpreted with the same level of expertise despite attempts to look into the newer communities to make up for that discrepancy.

Another more technical issue pertained to understanding chat moderation. Twitch.tv live chats only show a set number of lines at a time. In the video recordings, messages can be seen as they appear. Logs of the chats were taken at the end of each recording. More populous chats exceeded the number of lines stored, however, so often only the latter portion of the chats was visible in the textual logs. This could be a potential problem when it comes to understanding chat moderation, because it takes time for that to take effect. In some instances, messages that were seen in the videos later appeared as "message deleted" in the logs. Whenever the chat was too long to be included fully in the log, that information was lost, and a comparison could not be drawn between messages as they appear, and what remains after possible moderation. This affects the way injunctive norms are understood if not all acts of moderation are observed, which means that it is possible for there to be more interventions than it appears in the results.

Future Directions

Ambiguous negativity in Twitch.tv live chats needs to be explored further in order to gain enhanced understanding of the phenomenon. Different methods can be applied, the scope could be broadened or deepened, and the approach could be applied to other communities or questions.

One way in which new methods might be applied would be to use self-report, rather than observational measures. In the discussion, it was established that community members' perception of their own role within the community might affect the way they respond or don't respond to negativity and norm violations. Measuring those perceptions was beyond the scope of this content analysis study, conducting it as a follow-up would advance our understanding of online

community. Members' perceptions of their own roles within a community could further clarify the relationship between sense of (online) community, social identity, and group norms. Moreover, this could help get additional information to understand users who view but do not chat, taking advantage only of their affordances of presence, because those users might be part of communities, but they are invisible to this current analysis beyond the recorded viewer number.

Another way might be using quantitative methods as a follow-up. The categories that resulted from the qualitative coding can be used as the foundation of quantitative content analysis to test the validity of the findings, but also to measure the prevalence of the observed behaviors. Longitudinal designs could also be applied to see how findings shift over time or after specific events (e.g. game releases).

The study of these communities could be broadened up by including other games that are of interest to this community, which will allow for observations of the same communities in a greater variety of situations. This can be done by including other games by the same developer and of similar style that they are known for enjoying (e.g. *Bloodborne* and *Demon Souls*). In addition, research could study their responses to new games of interest to them, such as *Sekiro: Shadows Die Twice* (the game that was released as the data was being collected), or new upcoming releases (such as *Dark Souls* developers' new announced title, *Elden Ring*). They seem to enjoy other games with similar gameplay elements. The examples cited above are all by the same developers, but these communities are also known for enjoying other "souls-like" games by different developers. This could enable a better look at questions such as what defines those communities. Their interests are not limited to a single game, game series, or possibly even developer. This can be broadened out even further by observing the way these communities behave on other platforms (e.g. YouTube), or by looking at different communities altogether.

New knowledge could also be gained by narrowing down the scope, such as by taking a deep dive into individual channels and observing more of their interaction, possibly longitudinally. Longitudinal designs could enable a closer look at their shared meaning and shared symbol system through their specialized emoji, for instance. Insider knowledge combined with background looks into individual emoji enabled me to know or interpret their meaning in context, but there is much more to be known. The meaning of even a single emoji is not set and limited to what it is intended to be, and I have seen neutral emoji get banned from specific channels for racist use by certain users. Therefore, longitudinal observation might show more about the meaning of emoji as part of those shared symbol systems of channels and how that meaning changes over time or with context of application. Another possible direction for longitudinal research would be looking at how rule sets develop. For the purposes of this study, rule sets were treated as static, but they are not. The overall rules of the Twirch.tv platform, as well as current events such as banning or reprimanding channels could affect the rules streamers choose to publish. Having explicit anti-exclusion rules, for instance, might be a response to not wanting to get backlash after other channels have gotten backlash, rather than a genuine concern.

While the method and design applied in this project has limitations, it also offers advantages when it comes to identifying community norms and understanding ambiguous negativity. Background knowledge of a community allows the researcher to identify a community, to determine how and where to observe them, and to have a level of understanding that enables contextual analysis. Selective transcription of only those examples that exhibit what could broadly be considered ambiguous negativity allows the researcher to zoom in on those behaviors they want to explore. The layered analysis allows the researcher to gradually gain an enhanced understanding of what communities talk about and what matters to them. From looking at easily quantifiable

behaviors that could be spotted by outsiders, to the more complex and relational behaviors that require interpretation, and finally to arriving at the issues and sore points that stand at the core of the ambiguous negativity that was observed. A focused and tiered approach like this could be used as a method of identifying and describing ambiguous negativity that could also be applicable to other contexts (e.g. different platforms) or communities (e.g. fans of other games or other media).

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Appendices

Appendix 1: Stream Statistics for Recording

Table 2: Descriptive Information

#	Streamer	Game	Date	Time (CST)	Watching Now	Total Views	Rules	Blind	Streamer (Guests)
1	Barbarous King	DS II	2/15/2019	3:05 PM	953	2,528,992	N	N	M
2	Squillakilla	DS III	2/16/2019	3:36 PM	424	4,057,895	N	N	M(F)
3	Otzdarva	DS II	2/17/2019	3:05 PM	880	1,442,977	N	N	M
4	Nemz38	DS III	2/18/2019	6:18 PM	344	672,986	N	N	M
5	Zazztrain	DS	2/19/2019	5:02 PM	318	199,020	Y	N	M
6	Cirno_TV	DS	2/20/2019	6:33 PM	966	15,074,194	Y	N	M
7	esamarathon	DS II	2/21/2019	4:27 PM	14,619	25,086,322	N	N	M(MF)
8	Epicnamebro	DS	2/23/2019	3:50 PM	607	2,539,277	N	N	M
9	Otzdarva	DS II	2/24/2019	3:22 PM	1,252	1,473,961	N	N	M
10	The_Happy_Hob	DS III	2/25/2019	6:08 PM	5,355	7,329,130	Y	N	M
11	DarksydePhil	DS	2/26/2019	3:24 PM	434	7,004,954	Y	N	M
12	trihex	DS III	2/27/2019	5:23 PM	5,811	17,614,455	N	Y	M
13	AdamKoebel	DS III	2/28/2019	4:28 PM	283	1,881,891	Y	N	M(F)
14	Xwater	DS	3/2/2019	3:25 PM	150	942,698	Y	Y	M
15	cArn_	DS III	3/3/2019	3:06 PM	509	914,770	N	Y	M(MF)
16	SwishandShoot	DS II	3/4/2019	6:45 PM	84	235,844	Y	N	F
17	GrandPOObear	DS	3/5/2019	6:03 PM	1,592	5,845,783	Y	Y	M
18	Spamfish	DS II	3/7/2019	3:18 PM	304	33,256,349	Y	N	M
19	Kwitty23	DS	3/13/2019	5:07 PM	323	2,282,916	N	N	M
20	GrandPOObear	DS	3/18/2019	5:57 PM	1,547	5,925,536	Y	Y	M
21	Distortion2	DS III	3/19/2019	4:35 PM	1,541	13,098,896	N	N	M
22	Ms_Tricky	DS III	3/21/2019	4:19 PM	303	946,421	N	N	F

Appendix 2: Rule Sets from Recorded Channels

Cirno_TV (2019):

1. This goes without saying but PLEASE respect not only the Mods but the other users of the chat also! Everyone is super nice if you are!
2. No copypastas
3. No calling the moderators Nazis
4. No excessive Capslock
5. English in chat please
6. Use common sense when linking stuff (no porn, excessivly lewd or gory pictures)
7. and PLEASE don't roleplay in the chat. it's creepy yo

Figure 3: Stream rules, text copied from Cirno_TV, 2019

Zazztrain (2019):

- Don't post anything you shouldn't.
- Be nice to one another.
- Please argue elsewhere.
- Have a good time

Figure 4: Stream rules, text copied from Zazztrain, 2019

The_Happy_Hob (2019):

Text reads:

"Thou shalt not

- Post links without permission

- Be racist, sexist of homophobic

- Give the mods shit over bets

- Take purges personally

- Be a dildo"

Figure 5: Stream rules, image copied from The_Happy_Hob, 2019

Darksyde_Phil (2019):

Text reads:

- "Do not post links

- Do not abuse caps lock

- No text or emote spamming

- No advertising or self promotion

- Be respectful towards others

- No discussion of haters and/or their

content!"

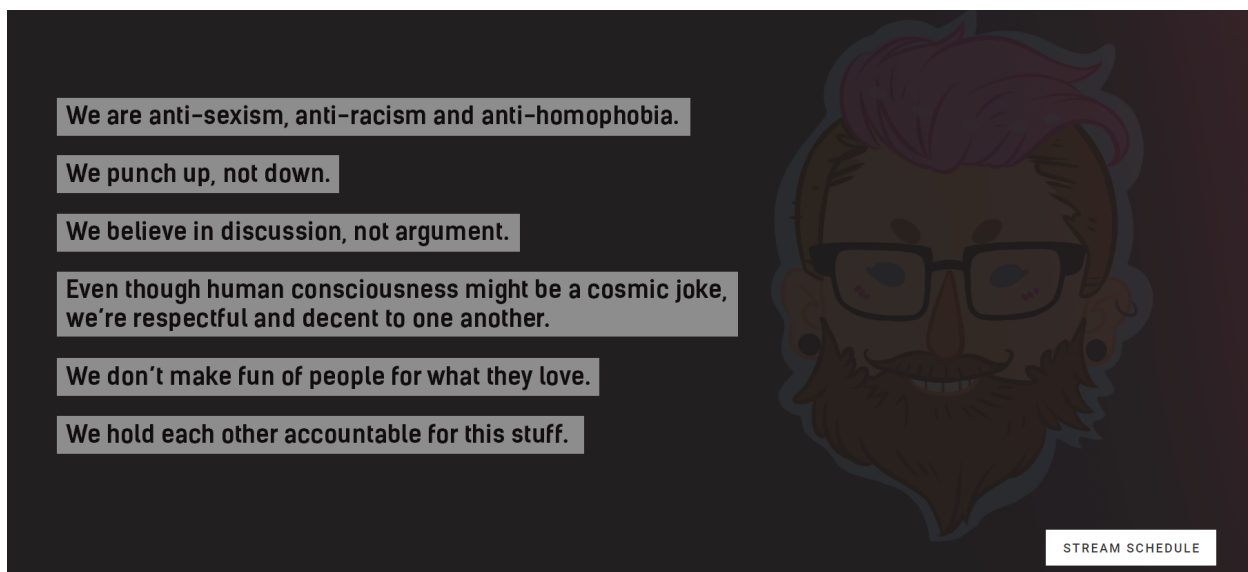*Figure 6: Stream rules, image copied from Darksyde_Phil, 2019*

AdamKoebel (2019):

Figure 7: Stream rules, image copied from AdamKoebel, 2019

Text reads:

- "We are anti-sexism, anti-racism and anti-homophobia

- We punch up, not down

- We believe in discussion, not argument

- Even though human consciousness might be a cosmic joke, we're respectful and decent to one another.

- We don't make fun of people for what they love.

- We hold each other accountable for this stuff."

Xwater (2019):

The Rules of chat are pretty laid back. Act the way you would act if you were talking to everyone in the chat face to face. No hate, yo. Much love. Check da rules I guess ¯_(ツ)_/¯
1. Don't ask to be a mod.
2. Be nice. No one really wants to talk to a jerk, anyway.
3. Don't be an asshole. If you're being an asshole, stop.
4. Ask before sharing links, and don't use link shorteners
5. Don't backseat game too hard.
6. If you're under 18 don't talk about your age
7. I will play what I decide, please don't tell me what to play
8. Keep it civil. No Controversial topics (Religion, Politics, etc) in the chat.

Figure 8: Stream rules, text copied from Xwater, 2019

SwishandShoot (2019):

1. Refrain from dropping spoilers during first playthroughs and try not to be backseaty. Ask first, sometimes more chat interaction is wanted, sometimes I want to figure it out on my own.
2. Do not call me by a pet name, i.e. "honey" or "babe." I'll warn you but if it persists you will be banned
3. No hate speech, bullying, sexism, etc. You will be banned. I prefer chat to avoid sensitive subjects such as religion and politics and enjoy the game, the company, the positive things we can create here
4. Do not promote other content without my or a mod's permission. We have a self promotion channel in Discord, if you care to use that
5. Bring dessert

Figure 9: Stream rules, text copied from SwishandShoot, 2019

GrandPOObear (2019):

Text reads:

- "No racism, homophobia, sexism, politics, or religion

- Don't be a dick

- Be nice

- Be nice and don't be a dick

- We will have mature convos

- Make fun of Poo, but make sure he knows it's a joke, or he cries at night

- Have fun, but don't ruin others' fun"

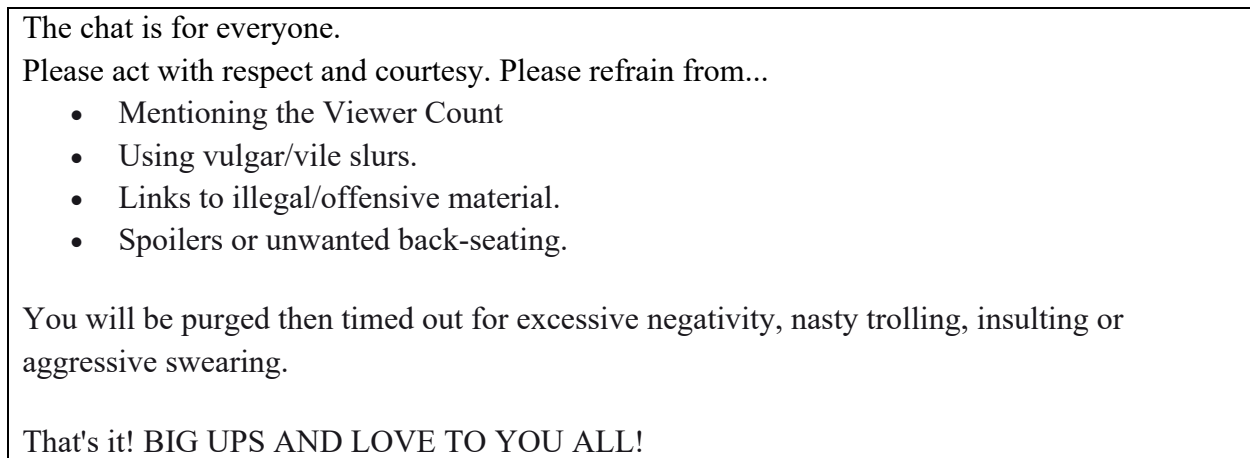*Figure 10: Stream rules, image copied from GrandPOObear, 2019*

Spamfish (2019):

The chat is for everyone.
Please act with respect and courtesy. Please refrain from...
- Mentioning the Viewer Count
- Using vulgar/vile slurs.
- Links to illegal/offensive material.
- Spoilers or unwanted back-seating.

You will be purged then timed out for excessive negativity, nasty trolling, insulting or aggressive swearing.

That's it! BIG UPS AND LOVE TO YOU ALL!

Figure 11: Stream rules, text copied from Spamfish, 2019

Summary of Rule Topics:

Out of the 20 channels recorded, 9 have explicit chat rules on their pages. The list below

represents the specific topics that the rules about/against:

- General civility: all 9 channels

- Exclusionary language: 5 channels

- Links/unapproved links: 5 channels

- Divisive topics: 4 channels

- Spoilers/backseating: 3 channels

- Treat mods well: 2 channels

- Self-promotion: 2 channels

- Caps Lock: 2 channels

- Warning about age/maturity of conversations: 2 channels

- Single mentions of topics, grouped by categories at researcher's discretion:

    o Respect for streamer:

        ▪ Discussing haters;

        ▪ Mentioning viewer count;

        ▪ Being friendly when making fun of streamer;

        ▪ Calling streamer inappropriate names (e.g. honey/babe);

        ▪ Telling streamer what to play.

    o Mechanics of chat:

        ▪ Spam;

        ▪ Copypasta;

        ▪ English language.

    o Miscellaneous:

        ▪ Roleplaying;

        ▪ Asking to be a mod;

        ▪ Trolling;

        ▪ Swearing.