

Exploring Live Streamers: Parasocial Relationships, Fan Culture, and Monetary
Motivations

by

Ali Kneisel, B.A.

A Thesis

In

Mass Communication

Submitted to the Graduate Faculty
of Texas Tech University in
Partial Fulfillment of
the Requirements for
the Degree of

MASTER OF ARTS

Miglana Sternadori, Ph.D.
Chair of the Committee

Megan Condis, Ph.D.

Robert Peaslee, Ph.D.

Mark Sheridan, Ph.D.
Dean of the Graduate School

August, 2021

Copyright 2021, Ali Kneisel

Acknowledgments

Throughout the process of researching and writing this thesis, I have received a great deal of support.

I would like to extend my deepest gratitude to my thesis chair, Dr. Miglena Sternadori for her invaluable insight and patience throughout every stage of this project. Her guidance and expertise have made me a better writer and researcher. Thank you so much for all your help and support.

I would also like to thank my committee chairs, Drs. Robert Peaslee and Megan Condis, who continued posing questions and pushing me to become a more critical thinker and, overall, a more successful academic.

In addition, I would like to thank my husband Malachi for his unwavering support throughout this entire process – without you, I would not be here right now.

Table of Contents

Abstract.....	iv
List of Figures.....	v
List of Tables	vi
Introduction.....	1
Chapter 1: Literature Review.....	3
The Streamer	3
Fan Interests	6
The Rise of SMIs and Micro-celebrities.....	9
Adapting to New Media and Social Change	10
Chapter 2: Theoretical Framework	16
Parasocial Interaction Theory	16
Social Cognitive Theory	19
Chapter 3: Methodology	22
Participants	22
Measures.....	23
Measuring Parasocial Interaction	23
Measuring Streaming Habits	23
Measuring Gift-Giving Motivations.....	24
Measuring Streamer Attractiveness.....	24
Chapter 4: Results	25
Chapter 5: Discussion.....	31
Theoretical and Practical Implications.....	33
Limitations and Directions for Future Research.....	34
Chapter 6: Conclusion.....	36
References.....	38
Appendix.....	45

Abstract

Gaming live streaming has seen unprecedented growth over the past several years on social live streaming services such as Twitch.tv and YouTube. There has been less attention on the relationship between live streamers and their fans as well as general gaming live stream fan culture. Based on parasocial interaction theory and social cognitive theory, this thesis aims to explain the main motivations of fans to watch and donate to their favorite live streamers. The data were collected from two groups, students and participants in a Reddit gaming forum. The analysis indicated that interaction with the chat was a significant motivation of viewership and gift-giving. Participants also reported being more likely to watch because of streamer characteristics than because of game type. In addition, time spent watching a streamer was a significant predictor of parasocial relationship strength, and parasocial relationship strength was a significant predictor of gift-giving motivations, making the strength of parasocial relationships a mediator between time spent watching a streamer and gift-giving motivations. Theoretical and practical implications are discussed, as well as limitations and directions for further research in the field.

Keywords: SLSS, live streaming, gaming, parasocial interaction, fan motivations

List of Figures

Figure 1	26
Figure 2	28
Figure 3	29

List of Tables

Table 1	26
Table 2	28

Introduction

Live streaming rose to popularity in the era of Web 2.0, and as of 2020, 76% of 18-to-34- year-old web users reported watching live stream videos at least once a month, with 15% watching live streams several times a day (Statista, 2020). The digital content can be real-life day-to-day activities (i.e., vlogging), digital gameplay, or other activities involving the streamer. Alongside the audio and visual elements of the live stream is a text-based group chat where viewers can interact with the streamer, again, in real-time. As popular as general live steaming is becoming, gaming live streaming views have also surged. In the past decade, the video game industry has grossed more revenue than the film and music industry combined (Mitic, 2020). Video game live streams can last several hours, with thousands of fans watching (TwitchTracker, 2021). Digital gaming live streams vary in type including, Let's Plays, multiplayer, and co-op. Let's Plays refer to a streamer playing a single-player game and commenting on each action taken or decision made. Multiplayer gaming involves a streamer playing video games with other players online, while co-op refers to multiplayer gameplay online or locally. While there is overlap between co-op and multiplayer, the main difference is that co-ops have the option to be played locally (i.e., split screen) as well as online with other players.

The relationship between celebrities and fans is rapidly changing as technology continues to develop, as social media has created a new dynamic between fans and celebrities (Chung & Cho, 2017). Fan cultures surrounding streamers differ from the cultures that surround other forms of social media. The participatory culture of live streaming and social live-streaming services gives scholars a unique format in which to

study fandom. Streaming offers a unique look into fan practices and fan culture surrounding micro-celebrities and gaming. Among social media influencers, streamers have a unique, faux-reciprocal relationship with their viewers via their preferred SLSSs. Fandom research is meant to explore these relationships among creators and their fans, but currently, streamer fandom research seems to be in short supply.

This thesis is looking to examine the relationship between streamers and fans, as well as the intrapersonal motivations of fans, and provide insight into fan behavior. I have found little research over individual gaming, live streaming fans. This study seeks to gather information about the individual fans' motivations behind viewership and gift-giving. These motivations are then compared against different variables, including streamer attractiveness and cultural norms.

Chapter 1: Literature Review

Although live streaming is a relatively new phenomenon, there are several concepts in media and communication literature that are relevant to the proposed study. This literature includes studies on social live streaming services, fandom, and celebrity/influencer culture. These topics will be reviewed in each of the following subsections.

The Streamer

Social Live-streaming Services (SLSSs), not to be confused with social networking sites (SNS), bring an interactive experience to the audience. SLSSs are synchronous social media platforms that allow media figures to interact with their audience in real-time. Using an asymmetrical interface, streamers can simultaneously broadcast video and audio while also interacting through a text-based format. Streamers are able to use their own mobile devices for broadcasting on the go, and the audience may reward the media figure with money, points, or badges (Bründl, Matt, & Hess, 2017; Zimmer, Scheibe, & Stock, 2016).

Donations are virtual gifts that fans can give to show appreciation or admiration to the streamers. On Twitch.tv, fans can gift subs, Twitch bits, or money. Subs refer to a subscription of a particular user's content. Subs can be purchased by the viewer for a minimum of \$4.99 and can be a one-time or a recurring cost. Bits are a virtual currency used on Twitch. Bits can be purchased by the viewer and donated to their favorite streamers. Fans can purchase 10 bits for \$1.40, and streamers make \$.01 per bit. All gifts on Twitch.tv must be purchased using in-app currency, but all in-app currency must be purchased with real-world money (Hilvert-Bruce et al., 2018). This mechanism

commodifies the nature of the relationship between streamer and viewer. Most SLSSs have their own donation or gifting system.

Scheibe, Fietkiewicz, and Stock (2016) classify the SLSSs in two ways: general live streaming services and topic-specific live streaming services. General live streaming services include services that do not pose a thematic limitation on the creators (i.e., YouTube, Periscope, Facebook live) while topic-specific live streaming services focus on a particular area of content - for example, Twitch.tv is marketed to gamers, and Picarto is intended for artists.

New media has given audiences a closer, more intimate relationship with their favorite media figure. According to Horton and Wohl (1956), a media figure (personae) is “a person's perceived or evident personality, as that of a well-known official, actor, or celebrity; personal image; public role” (p. 216). In today’s social environment, media figures also include micro-celebrities, social media influencers (SMI), live streamers, and fictional characters.

Traditional celebrities are media-manufactured representatives who can be traded as cultural commodities (Gamson, 1994)—as opposed to SMIs, who are thought of as an extension of traditional celebrities. According to Hou (2019), SMIs “personalize[ing] the process of consumption” (p. 537) as brand storytellers, but their relationship with their fans is also seen as more intimate, as SNS lend to a more reciprocal platform. In most cases, a live streamer acts as a form of SMI (Woodcock & Johnson, 2019).

These SMIs are reliant on their fans by way of video views, click rates, likes, follows, shares, and overall engagement. It is also possible for a streamer, or another content creator, to consume content. Streamers may watch other streamers, comment on

SMI Instagram posts, or just take in content that is not their own. These content creators are generally referred to as prosumers. According to Gros et al. (2017), prosumers – users who actively produce and consume content – are more common today than they have been in the past due to SLSSs and SNS. In 2020, monthly streamers on Twitch.tv rose 90% from the previous year. According to TwitchTracker (2021), monthly streamers rose from 3.64 million in 2019 to 6.9 million in 2020. This could likely be in response to the COVID-19 pandemic as millions of people quarantined for several months, but in 2021 TwitchTracker reported 9,894,745 active streamers in just the first month (2021).

Live streaming is important when developing social and group identification for many fans. According to Hu, Zhang, and Wang (2017), people generally prefer to consume brands that appear to possess the same ideals and values as they do, and, accordingly, fans tend to seek out media content producers whose values and behaviors are consistent with their own self-image. This idea of self-congruity has been studied extensively in consumerism (Koo et al., 2014), but there is still room for research on self-congruity in the context of SLSS and streamers.

Gandolfi (2016) identified three main motivations among fans for seeking out digital gaming streams: the challenge (i.e., how well the streamer performs in-game), the exhibition (i.e., personal abilities and spectacle of the streamer), and the exchange (i.e., the bond between streamer-game and streamer-viewer). It is also notable that his study found that fans enjoyed watching Twitch.tv streams in genres different from those that they enjoyed playing, with an emphasis on multiplayer games. For example, fans who reported enjoyment in playing single-player action-adventure games usually also reported watching multiplayer, first-person shooter gaming streams. This could be due to the

spectacle that is caused by introducing one or more human opponents to the game instead of just artificial intelligence opponents.

Based on the literature reviewed so far, I propose the following research questions:

RQ1: Upon what gaming livestream characteristics (e.g., streamer personality, game type) is viewership based?

RQ2: What are fans' main motivations for watching their favorite streamers?

SMI rarely utilize only one platform; instead, they use transmedia storytelling (Jenkins, 2006) to further their influence and build their brand. It is not uncommon for a streamer to use an SLSS for streaming; YouTube for recorded videos; Instagram, Facebook, or Twitter for text and image-based content; and Streamlabs or Redbubble for merchandise sales. This encourages fans to take control of their experience and spread content they like.

Fan Interests

Sandvoss (2017) has described the development of fandom studies as waves. The first wave addressed concerns of power and representation within fandom mostly to defend fan communities as legitimate subgroups of society and to protect them from ridicule. This research stage is also when the term “poachers” (De Certeau, 1985) was first proposed to describe individuals who produce as well as consume media content. The second wave dissected the inner social workings of fan culture, especially looking at how fan practices affect interpretive communities. Scholars started to pay more attention to fan practices as a part of a daily routine, especially with the introduction of the internet

and online fandom. While the second wave was more specific to individual fan communities, it did leave questions about individual fan motivations unanswered (Siuda, 2010). Wave three fandom studies focused on the intrapersonal motivations and relationships of the individual. It has offered a micro view of fandom studies, starting with fan wants, needs, and motivations (Sandvoss, 2017).

Regardless of the wave, fandom has long been represented in a negative light, from feminist implications such as the stereotyping of "screaming fangirls" (Duffett, p. 144) or the sometimes-taboo nature of collecting fannish objects (Heljakka 2017). In earlier days of fandom studies, fans were perceived as pathological and their motives as excessive (Jensen, 1992). Fandom has since evolved into "a collective strategy to form interpretive communities that in their subcultural cohesion evaded the meanings preferred by the power block" (Sandvoss et al., 2017, p. 3).

The digital age brings fan scholars more ways to approach, measure, or consider fandom. SNSs make fans accessible to scholars as well as each other. Subreddits, Twitter feeds, and Facebook groups are just a few of the different platforms that fans use to connect. Fans who participate in fan groups are able to exchange ideas with each other, but they can also enact change within their fandom. For example, according to Napoli and Kosterich (2017), *Hannibal* fans took to Tumblr to save the low-rated show. SNS have made fan communities more visible than they have been in the past.

A perceived sense of community is a motivation found to be shared by streamer fans. Fans typically find this experience in SNS, but streaming fans have the added advantage of the live chat box present on streams. According to Hilvert-Bruce et al. (2018), some fans prefer smaller streams, as the chat is easier to navigate, and streamers

can make more meaningful connections with fans. Dunbar (1992) suggested the cognitive limit of meaningful social relationships one person can maintain is between 100 and 150. This number is consistent with past streamer research showing that streamers reported being able to interact effectively with 100-150 fans at a time (Hamilton et al., 2014). So, while bigger channels may net the streamer more profit (Hamilton et al., 2014), streamers are generally able to communicate more effectively with fans on smaller channels. Hilvert-Bruce et al. (2018) suggested fans who prefer larger channels may be more motivated by entertainment and information seeking—as opposed to fans who prefer smaller channels and may be more motivated by social needs.

The anonymity of the internet strongly contributes to relationship formation between fans and the streamers, SMI, or celebrities they like. According to Bargh and McKenna (2004), self-disclosure is a major contributing factor in developing social relationships because it assists in developing a sense of intimacy. Anonymity makes self-disclosure easier and therefore reduces risk and promotes intimacy in the relationship. Rubin (1975) describes the “strangers on a train” phenomenon as a way in which humans make meaningful connections through self-disclosure. This phenomenon is explored through a scenario where two people happen to meet and one, or both, share something intimate; then they part ways and never meet again. Neither party has made a long-lasting relationship, but the encounter still holds meaning due to the self-disclosure. Internet interactions are similar to this phenomenon as strangers only have to reveal what they want about themselves. The fundamental idea of chat spaces is to make acquaintances, so instead of the internet acting as a socially isolating activity, it can expand one’s relationship network. It has also been noted that the internet provides a channel for

people to express their “true” selves (these may be aspects of their personality or interests that they feel they need to keep hidden from the public or people close to them) due to the reciprocal anonymity the internet provides (Bargh & McKenna, 2004).

Previous research suggests social motivations are important to live-stream viewers, so much in fact that they have been called participatory communities. According to Hamilton et al. (2014), by nature, participatory communities are characterized as being open and welcoming to new members and encouraging members to participate in group activities. Sociability refers to an experience of social association or the pleasure of being together. In live streams, sociability is banter in the chat or lighthearted joking alongside gameplay (Hamilton et al., 2014). Chat rooms as a medium are susceptible to host sociability since there are regular viewers playing specific roles. This is an indication of live streams acting as a platform in which social communities can grow as well as playing as the main motivation for viewers to seek out the aforementioned communities (Hilvert-Bruce et al. 2018).

The Rise of SMIs and Micro-celebrities

Hearn and Schoenhoff (2015) describe SMIs as a commodity that can be bought and sold. The SMIs cultivate their own brand image, like traditional celebrities. Unlike traditional media, social media is bidirectional, and SMI can engage with their audience in the form of comment replies, reshares, or shoutouts. This relationship is deceptive, however, as the SMI cannot actually respond to the high number of direct messages or comments received (Lee & Watkins, 2016; Sokolova & Kefi, 2020). Compared to traditional celebrities, SMIs are lesser-known and have a much smaller fan base, but they can still have several million viewers, followers, etc.

Streamers act as a subset of SMI and are generally more active with their audiences with similar self-serving interests. Streamers broadcast themselves doing various activities (i.e., gaming, dancing, singing) and synchronously receive praise, criticism, likes, dislikes, or even virtual gifts. Gamson (1994) writes that traditional celebrities tend to control their celebrity image by putting distance between themselves and their audience; they attempt to remain private from the public eye so that their commodity value stays protected. Streamers, on the other hand, protect their commodity in almost the exact opposite way. Most streamers depend on their channel analytics for their livelihood: in an age of transmedia storytelling (Jenkins, 2006), streamers need fan interaction on their social media channels and SLSSs. SMI and streamers are expected to be “on” all the time. Many of these micro-celebrities are having to change how they view engagement, and “these changes [have] led to a more participatory culture in which fans consume, share, and spread what they like throughout virtual communities, fan sites or social networks” (Bourdaa, Chin, & Lamerichs, 2016, p. 197) From fans’ perspective, all aspects of SMI lives, perfectly curated or not, should be posted and accessible. Posting to SNS (social networking sites) is crucial in order to accumulate the engagement needed.

Adapting to New Media and Social Change

Since social media are evolving so much faster than traditional media, there is a societal expectation of users—especially those with large followings—to take a stand and post for the sake of solidarity, especially in the wake of tragedy (Anđelić, 2020). After the 2013 Boston Marathon bombing, Twitter was flooded with sympathy and condolences from celebrities, SMIs, and the public. Recently, amid the COVID-19 pandemic and several social justice movements, social media have become platforms for

SMI to express support for their causes. According to Anđelić (2020), social media are a tool with which SMI may impress upon their fans what social movements they care about as they post calls to action for their fans to follow. In comparison to traditional celebrities, SMIs rely more heavily on social media, as this is where they gain social capital with their fans.

Social capital theory suggests that the social network and subsequent resources embedded in the network influence interpersonal knowledge sharing. This means that social media at their core encourage the dissemination of shared ideas. Bandura (1989) had previously argued that behavior was heavily influenced by a person's social network. According to Ghoshal and Nahapiet (1998), social capital involves three distinct ideas: structural, relational, and cognitive. Structural is concerned with the properties of the whole social system and network. Relational describes the personal relationships between members of one's personal network, and cognitive refers to the shared ideals and representations of one's social network. It is worth noting, however, that virtual communities do operate differently from more traditional organizational settings since the interaction between members is online instead of face-to-face.

Scholars disagree about the internet's effects on social capital. Putnam (2000) suggested that the internet decreases social capital, while Wellman et al. (2001) argued that the internet supplements social capital by expanding an individual's reach. Recent research on mobile social media (Chen & Li, 2017) suggests that connecting with others online makes contributions to social capital, which in turn builds higher levels of trust and intimacy within relationships.

Although it is unclear to what degree SMIs contribute to the social capital of their audiences, they carry substantial influence online and with their fans. SMIs have also been described as opinion leaders who generate electronic word of mouth to and for their fans (Djafarova & Rushworth, 2017). Gains in social capital expand the SMI visibility to the general public through shares, and their overall perceived credibility and social influence rise (Jin & Phua, 2014).

Keeping up with new media trends, streamers have started setting up a webcam (i.e., facecam) to record and stream their movements. The webcam is usually mounted to one of the streamer's monitors and broadcasts the streamer's face, upper torso, and spoken language (Recktenwald, 2017). Facecams allow streamers to exhibit non-verbal communication cues with fans through SLSSs. According to Anderson (2017),

The eye movements to read chat messages, the head shakes, the hand gestures, and the various non-verbal communication cues present in face-to-face communication all denote that the interaction is between people instead of from a content creator to a nameless, anonymous audience (p. 35).

Facecams also open the streamer up to viewer criticisms. Cullen and Ruberg (2019) explain that while Twitch has community guidelines concerning streamer attire, viewers sometimes have their own standards for how streamers present themselves on camera. Past research suggests strong feminist implications and double standards surrounding streamer attire based on gender (Cullen & Ruberg, 2019). In 2018, Twitch.tv updated its policies regarding streamer attire, calling into question the place of women's bodies in current game culture. In response to the new policies, Taylor (2018) argued that "policing" female bodies creates "broader panics about 'fake girl gamers' and fears of women utilizing their sexuality within an entertainment context" (p. 162). In general,

female streamers are more likely to be the subject of gender-based harassment relating to the misogyny of "toxic gamer culture" (Consalvo, 2012). Large-scale harassment campaigns (i.e., #GamerGate) emboldened those who see themselves as defenders of a primarily male-dominated gaming culture (Ruberg et al., 2019). Ruvalcaba et al. (2018) found that women received more appearance-based comments than men, and more so, these comments are generally overwhelmingly negative or objectifying. "Notably, female players received more body-focused messages (i.e., their appearance), whereas male players received more gameplay-focused comments (e.g., their strategy or a particular move)" (Ruvalcaba et al., 2018, p. 298).

This body of research leads me to another research question:

RQ3: How is the perceived attractiveness of the streamer associated with (a) viewership and (b) gift-giving?

Celebrities and SMIs have also been known for their endorsements. According to Ohanian (1991), successful endorsements require attractiveness, trustworthiness, and expertise. Since streamers are a subset of SMI (Hearn & Schoenhoff, 2015), they typically embody these attributes like traditional celebrities do. Research suggests celebrity endorsements increase public perception of products or brands (Wang et al., 2017). Chen and Lin (2018) found positive and significant results between endorsement and the perceived value of brands. The audience was more likely to interact with the streamer during the live stream when the audience's endorsement level was high. They also found that streamers who are well known had audiences with more positive attitudes.

New media also sets standards for interaction between streamers and fans.

Traditional SMIs tend to have a disconnected relationship with their fans due to the

nature of SNS. While there is an opportunity for interaction, it is generally pre-planned and polished. By contrast, streamers can share raw, real-time interactions with their fans. The most significant interaction is when the streamer mentions specific viewers by username. Streamers routinely reward viewers for different interactions (i.e., donating) during gameplay. A common reward is putting the usernames of donors (i.e., viewers who send money or in-app gifts to the streamers) on screen or having a "top donor" and/or "recent donor" section on the screen (Anderson, 2017; Hou, 2018).

Streamers also ask their fans for direct feedback on their content, interact with their audience in real time, and even express an interest in forming relationships with their audience (Hou, 2019). This participatory format allows for "more effective interactivity" (Lim et al., 2020, section 2.4) and facilitates parasocial relationship development at an accelerated rate. Streamers have been known to have dual monitors hooked up to play the game on one and manage their chat on the other; this arrangement provides an opportunity for viewers to make comments and suggestions in real-time. Streamers do take the time to answer specific questions or thank fans for the advice given (Anderson, 2017). Interactions between the viewers and the streamers is generally more casual during gameplay than on other forms of SNS.

Wohn, Freeman, and McLaughlin (2018) conducted an experiment on social support provisions and streamers. Their study examined instrumental, emotional, and financial social support that viewers can provide to streamers. Financial support motivations (i.e., providing tangible means, such as money or gifts) were categorized in six ways: paying for entertainment, compensation for learning, emotional attachment, desire for interaction, to help solve offline social issues, and helping streamers sustain

and improve content (2018). The results showed some fans gave money in exchange for a service, as when one purchases a theatre ticket, considering it compensation for the streamer's time and energy. Some fans donated to show the streamer some form of support, emotional or otherwise.

Most interesting among Wohn et al.'s motivation categories is the desire for interaction. Some fans donated in pursuit of interaction with either the streamer or with other fans (Wohn et al., 2018). Some fans wishing to interact with the streamer donated so they could receive some form of reciprocity from the streamer (e.g., a verbal acknowledgment), while others donated to the streamer as a way to interact with fellow fans. These fans exhibited a desire to connect with other people in the virtual community. Some donated to get a message on a public channel for other fans to view. These fans admitted to this interaction affecting their overall mood (i.e., being cheered up). This interaction was said to help avoid feelings of "loneness" and fulfill a social need (Wohn et al., 2018, p. 8).

The literature reviewed above leads me to the following research question and hypothesis:

RQ4: What are fans' motivations for giving money or virtual gifts to streamers?

H1: The amount of time spent watching a particular streamer will be positively associated with gift-giving motivations.

Chapter 2: Theoretical Framework

My theoretical framework includes two theories I believe to be relevant to this study: parasocial interaction theory and social cognitive theory. Each will be reviewed in more detail in the following subsections.

Parasocial Interaction Theory

Donald Horton and Richard Wohl coined the term parasocial relationship (PSR) in 1956 as a "simulacrum of conversational give and take" (1956, p. 215), following a study in which the relationship between performers and audience members was evaluated. These relationships are often described as real, one-sided, interpersonal relationships (Sokolova & Kefi, 2020) with a media figure. Since this landmark study, PSI has been used to explain phenomena regarding relationships between fans and media figures. Decades later, there have been numerous studies looking at the implications of and studying the effects of these relationships between the fan(s) and celebrities, media figures, characters, or otherwise (Chung & Cho, 2017; Jensen, 1992; Rubin & McHugh, 1987; Schickel, 1985).

These relationships commonly form between audiences and media figures when the audience member develops a one-sided, perceived intimate relationship with the figure (Chung & Cho, 2017), and repeated exposure to the figure can make audience members feel as if they know and identify this person or character (Rubin & McHugh, 1987). Horton and Wohl (1956) argue the audience member "know(s) such a persona in somewhat the same way they know their chosen friends..." (p. 216). So, even these one-sided relationships can feel like the typical social relationships that most people form.

Horton and Wohl concluded that parasocial relationships should not be a fan's only source of intimacy but should complement a person's other social relationships.

Not all scholars believe PSRs are harmless, however. Jensen (1992) disagrees with the idea that parasocial relationships are innocent. She argues that fandom can be excessive in order to overcompensate for what the fan's personal life is missing.

According to Jensen (1992), parasocial relationships are formed when the fan cannot fulfill their social needs, and so they seek out relations and social capital through celebrities. Schickel (1985) suggested celebrities are a vessel to which fans can gain social capital, and fans use these celebrities as an identity in order to share in their fame and power.

Collisson et al. (2018) hypothesized that insecurely attached people are more attracted to parasocial relationships than avoidant attached people when it came to celebrity admiration. Insecurely attached people generally seek out relationships motivated by fear, especially fear of rejection, so PSR carries less risk of rejection since the relationships are one-sided. Avoidant attached people avoid emotional closeness in their relationships and seek out relationships that pose little risk to them. Both groups of people also generally have a lower self-image and fear rejection. So, while PSRs have similar attributes to social relationships, they generally are less intense, less threatening, and are easier to maintain (Collisson et al., 2018) but carry similar emotional elements.

In addition to the level of perceived realism in these relationships, they also evolve as time goes on. The persona of the media figure is a "regular and dependable event, to be counted on, planned for, and integrated into the routines of daily life" (Horton & Wohl, 1956, p. 216), and the history and length of the relationship add

meaning resulting in deeper intimacy. PSR development is often facilitated through some form of channel. Initially, the medium was radio, followed by television, and finally, today, these relationships typically develop across the internet. The participatory nature of the internet gives fans and media figures alike a platform to interact or stage an imitation of personal interaction.

Previous research has suggested online communities can function as valuable social groups for people who may lack real-life social relationships (Bargh & McKenna, 2004; Hilvert-Bruce et al., 2018). Research also suggests socially anxious adolescents are more likely to experience meaningful connections with other people (or media figures) online as these relationships are less risky and allow the individual to have more control over the interaction (Valkenburg & Peter, 2009).

Streamer fanship possesses characteristics of PSI/PSR, maybe even more than other forms of fandom on SNS or television. The relationship between streamer and fan is not intended to be reciprocal, but the PSR can be enriched due to the streamer's actions towards the fans (Hargittai & Litt, 2011). Fans may view streamers as more "intimate friends" (Hu, Zhang, & Wang, 2017, section 2.3) due to the level of perceived affection by the streamer. Past research suggests fans are more likely to identify and show stronger PSRs with SMI that foster higher levels of PSI/PSR (Brown, 2015; Frederick et al., 2021). Therefore, I hypothesize the following:

H2: There will be a positive association between fans' levels of PSR and their gift-giving motivations.

Social Cognitive Theory

According to Bandura (2001), “social cognitive theory provides an agentic conceptual framework within which to analyze the determinants and psychosocial mechanisms through which symbolic communication influences human thought, affect and action” (p. 1). In mass communication, social cognitive theory (SCT) places three factors—personal, environmental, and behavioral—within a framework called triadic reciprocal causation, which refers to the mutual influence between the three variables (Bandura, 1984; Bandura, 1986). Past research has used SCT in a variety of fields in order to examine human behavior (Bandura, 1994), but there is a lack of research concerning SCT in the context of SLSSs.

Bandura theorized social diffusions of behavior in mass communication. He predicted that adoption rates of a new behavior would increase as more people in one's personal social network also adopt the behavior (i.e., sharing knowledge). Bandura's idea of a social network predates the common SNS of today but with similar implications. He uses television as an example, explaining that television viewers are directly linked to the media source but not to other fans (Bandura, 2001). He hypothesized that television fans who had direct links to each other would adopt and transmit behavioral innovations quicker than if they had no interconnectedness.

Social cognitive theory argues that human behavior is partially influenced by their social systems (e.g., online communities, among others) and their personal cognition. Bandura (1989) outlined two expectations that guide human behavior: outcome expectations and self-efficacy. Outcome expectations refer to observing situations and events from one's environment and being able to learn and therefore anticipate outcomes

of different actions. Outcome expectations have been seen to motivate behavior change in adults and can be either positive (e.g., spending more time online will promote meeting new people) or negative (e.g., spending more time online will be detrimental to one's in-person, social relationships). Self-efficacy is a person's belief in their ability to succeed. According to Bandura (1982), self-efficacy is a crucial component of human decision-making and behavior. He argued it is unlikely that individuals will be motivated to share knowledge if they are not confident in their abilities.

Chui, Hsu, and Wang (2006) suggested virtual communities thrive on social influences and that the main motivation of joining online communities is not just information seeking but looking for support or a sense of community. Past research shows social influences to be important in knowledge sharing in virtual communities; Chui, Hsu, & Wang (2006) suggested that strong community ties provided conditions for knowledge exchange among members of the community. They found that member-member and organizer-member interactions had a strong, positive effect on member interactions within the community. Other research has shown that trust is one of the most important factors in the level of participation within virtual communities (Langerak et al., 2004). Group norms also have a strong effect on the intentions of the group (for example, a virtual community) and its members.

Bandura (2001) has suggested media influence has an impact on human behavior. The "dual path of influence" are direct pathways—mostly passive—through which people are motivated, informed, and guided, while socially mediated pathways—mostly active—through which people support and spread innovation (p. 285). Both pathways should lead to behavior change. Chui, Hsu, and Wang (2006) argued that past research

has left out the importance of social network influence on social cognitive theory in virtual communities. In the world of live streaming, fans have a direct link to the media source (i.e., live streamer) as well as other fans in the form of text-based chat options.

Considering the literature reviewed above and the questions that the existing research has so far left unanswered, I am interested in exploring fan motivations, participation in virtual communities, and social influences in the context of livestreaming. The next section outlines the ways in which I intend to answer the research questions and test the hypotheses posed in this thesis.

Chapter 3: Methodology

The method was a survey administered online to undergraduate students at a major research university in the Southwest and to participants in Reddit gaming forums. The undergraduate students participated in exchange for extra credit, while the Reddit users were encouraged to enter their emails into a drawing for two Amazon gift cards worth \$20 each. The questionnaire was designed and administered via Qualtrics.

Participants

There were 567 participants in the original sample. The data were cleaned to remove 363 participants who (a) did not fit the study criteria (e.g., they did not watch live streams or did not list a specific streamer); (b) gave identical answers (e.g., only “neutral” or only “strongly agree”) across the measures in the survey; or (c) claimed to know in real life streamers with more than 500,000 followers. Participants who claimed to know in real life streamers with fewer than 500,000 followers were left in the sample because there was a greater chance that they could have met the streamer at a convention or a meet-and-greet event. The final sample included 204 participants, of whom 53% identified as women, 44% as men, and .5% as nonbinary or other. The median age was 21 years. More than half of the participants identified as White/Caucasian (61.1%), 23.6% identified as Hispanic/Latinx, 6.9% identified as Black/African American, 4.9% were Asian American/Pacific Islander, and 2% were Native American/American Indian. More than half of the participants (80.9%) reported having some college experience, 16.2% held a high school diploma or GED, 17.2% held a bachelor’s degree, 2% had a graduate or professional degree, and .5% had not completed high school. Finally, in regard to

annual income, the category that was most frequently selected was under \$20,000 (28.9% of participants), followed by more than \$100,000 (20.9%), \$40,000-\$60,000 (15.4%), \$60,000-\$80,000 (13.9%), \$20,000-\$40,000 (13.4%), and \$80,000-\$100,000 (7.5%).

Measures

The participants were first asked to name their favorite streamer and provide an estimate of how long they had been a fan of that specific streamer. In the subsequent portions of the questionnaire, the participants were asked to keep this streamer in mind and answer the questions in relation to that specific streamer.

Measuring Parasocial Interaction

The Celebrity-Persona Parasocial Interaction Scale from Bocarnea and Brown (2006) was used to measure parasocial interaction between fans and streamers. All 20 items from the scale were used without modification ($\alpha = .84$). Example items included “I look to [celebrity or persona] as a role model”; “I care about the same things [celebrity or persona] cares about”; “I feel that I am in unity with [celebrity or persona]” (1 = *strongly disagree*, 5 = *strongly agree*).

Measuring Streaming Habits

All 11 questions from the Gaming Habits scale by Gandolfi (2016) were used to measure fans’ typical streaming habits ($\alpha = .86$). The focus of the scale was on how fans feel about SSLs and their personal streaming habits. Example items included “I feel that Twitch.tv is part of the current game culture,” “I follow specific twitchers,” and “I have friends on Twitch.tv that I have never met” (1 = *strongly disagree*, 5 = *strongly agree*).

Measuring Gift-Giving Motivations

Fan motivations for gift-giving to their favorite streamers were measured through the emotional, instrumental, and financial support scales employed by Wohn et al. (2018). These scales were adapted from Cutrona and Russell (1987), with slight changes to only two questions to reflect their use for live streaming ($\alpha = .89$). Example items included "I would give money to them to help with their livelihood," "I would give them money to support their efforts," and "I would give them a gift to show my appreciation" (1 = *strongly disagree*, 5 = *strongly agree*).

Measuring Streamer Attractiveness

Streamer attractiveness was measured with questions from the Measurement of Interpersonal Attraction scale from McCroskey and McCain (2009). The 10-item physical attraction scale ($\alpha = .73$) involved gender implications for streamers and fans alike. Example items included "I think he (she) is quite handsome (pretty)"; "He (she) is somewhat ugly"; "I find him (her) very attractive physically"; "The clothes he (she) wears are not becoming" (1 = *strongly disagree*, 5 = *strongly agree*).

Chapter 4: Results

The first research question asked what factors (e.g., streamer personality, game type) viewership of gaming livestreams is based on. To answer this question, the data were submitted to a repeated-measures ANOVA with a single within-subject factor — main motivation to watch livestreams. The two levels of the factor were (1) watching mainly because of streamer characteristics and (2) watching mainly because of game type. The results showed there was a significant difference between the two levels, $F(1, 203) = 5.49, p = .02, \eta^2 = .26$, with participants reporting a stronger motivation to watch because of streamer characteristics ($M = 3.82, SD = 1.01$) than because of game type ($M = 3.61, SD = 1.02$). This evidence indicates that viewership is dependent more on streamer characteristics than on game type.

RQ2 asked about fans' main motivations for viewership. The data were submitted to a Cochran's Q test, which tests for equality of proportions within subjects. The test indicated significant differences among the frequencies of the viewership motivations reported by the fans, $\chi^2(6) = 291.14, p < .001$. The most popular viewing motivation, reported by 64% of fans, was the streamer's interaction with the chat during gameplay. The second most popular viewing factor was the streamer's use of a facecam (58%). These motivations were expressed more frequently than the streamer's attractiveness (28%, $p < .001$), the streamer's dressing modestly (12.5%, $p < .001$), and the streamer's dressing provocatively (7.5%, $p < .004$). For complete results that show the percent of respondents reporting each motivation, see Figure 1. For statistically significant pairwise comparisons, see Table 1.

Figure 1

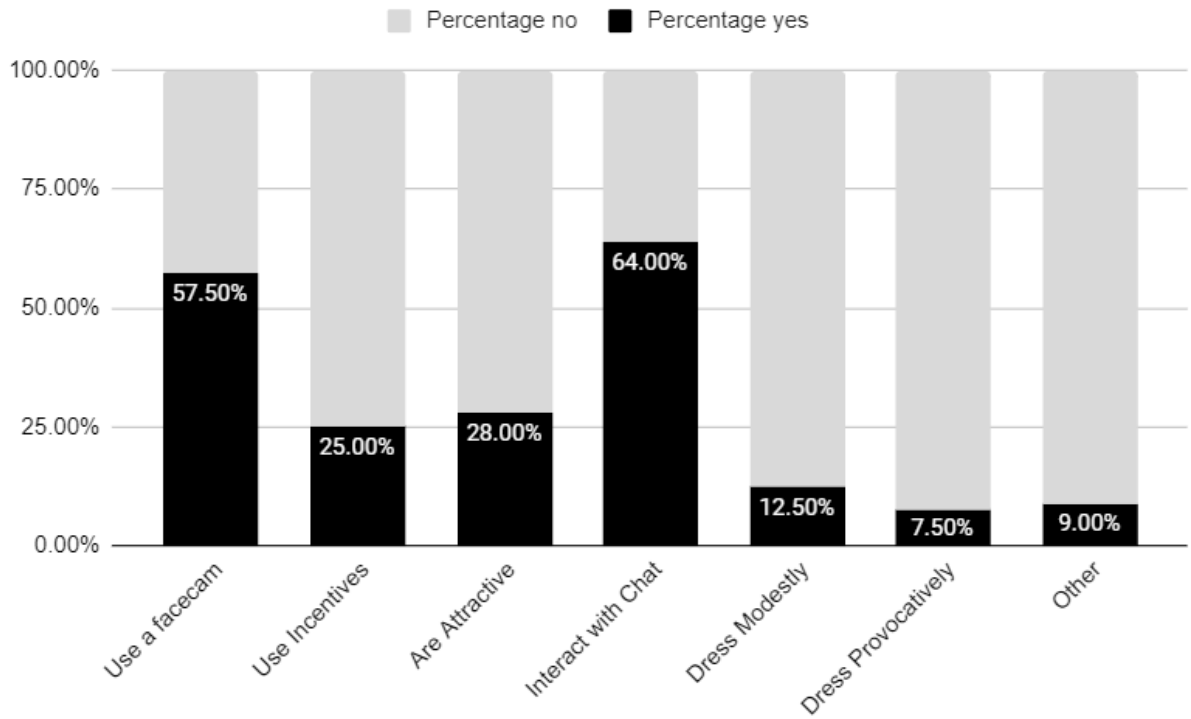


Table 1

More likely to watch if streamer....	Interacts with chat	Uses facecam	Gives incentives	Are attractive	Dresses provocatively	Dresses modestly
Interacts with chat	n.a.	$p = 1.00$	$p < .001$	$p < .001$	$p < .001$	$p < .001$
Uses facecam	$p = 1.00$	n.a.	$p < .001$	$p < .001$	$p < .001$	$p < .001$
Gives incentives	$p < .001$	$p < .001$	n.a.	$p = 1.00$	$p = .004$	$p = .16$
Is attractive	$p < .001$	$p < .001$	$p = 1.00$	n.a.	$p < .001$	$p = .02$
Dresses provocatively	$p < .001$	$p < .001$	$p = .004$	$p < .001$	n.a.	$p = 1.00$
Dresses modestly	$p < .001$	$p < .001$	$p = .16$	$p = .02$	$p = 1.00$	n.a.

* Shaded cells indicate that the difference between two motivations' reported frequencies is a statistically significant difference.

To address *RQ3*, two separate linear regression analyses examined streamer's perceived attractiveness as a predictor of viewership and gift-giving motivations. With respect to *RQ3(a)*, which asked whether a greater level of perceived attraction is related to increased viewership, results indicated that perceived attraction was a significant predictor of viewership, $F(1, 198) = 16.48, \beta = .275, p < .01$, explaining 7.6% of the variance ($R^2 = .076$). *RQ3(b)* asked whether the level of perceived attraction was related to gift-giving motivations. The results indicated perceived attractiveness was a significant predictor of gift-giving motivation, $F(1, 201) = 31.82, \beta = .37, p < .001$. Perceived attractiveness explained 13.7% of the variance in gift-giving motivations ($R^2 = .137$).

In respect to *RQ4*, which asked about fans' main motivations for gift-giving, the data were submitted to a Cochran's Q test, which tests for equality of proportions within subjects. The test indicated significant differences among the frequencies of the gift-giving motivations reported by the fans, $\chi^2(6) = 161.72, p < .001$. The most popular gift-giving motivation, reported by 44% of fans, was the streamer's interaction with the chat during gameplay. This motivation was significantly more frequently expressed than motivations linked to the streamer's use of facecam (29%, $p = .01$), the streamer's attractiveness (13%, $p < .001$), the streamer's dressing modestly (9%, $p < .001$), and the streamer's dressing provocatively (4%, $p < .001$). However, there was no statistically significant difference between the proportion of fans who reported being more likely to donate if the streamer interacts with the chat during gameplay and those who said they would not donate regardless (41%, $p = 1.00$). For complete results showing the percent of respondents who reported each of the motivations, see Figure 2. For statistically significant pairwise comparisons, see Table 2.

Figure 2

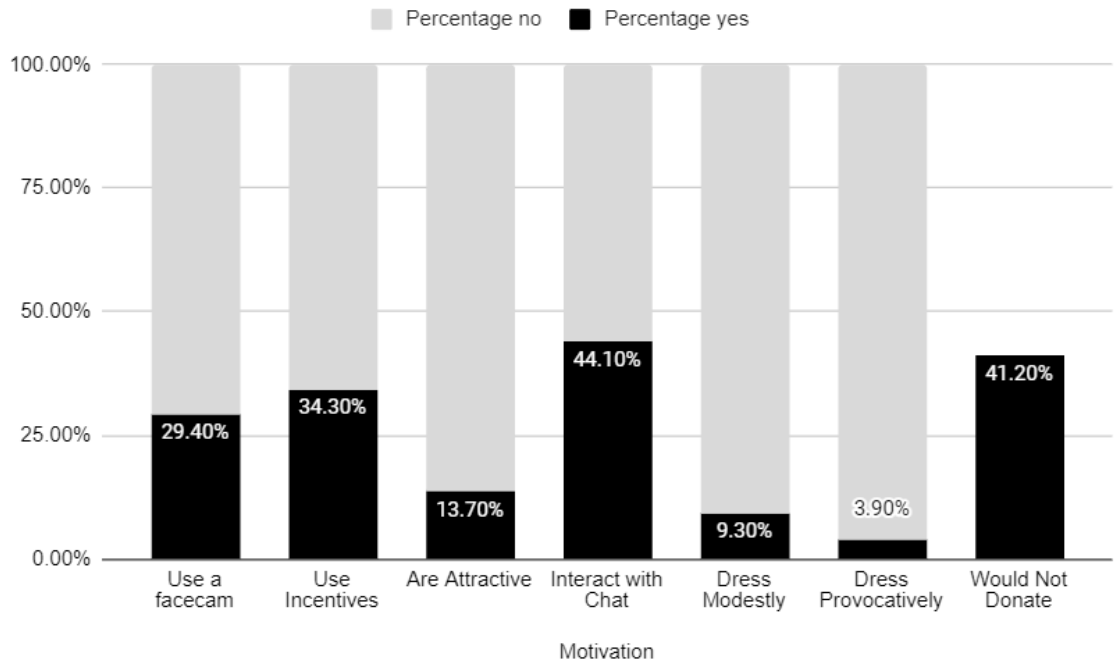


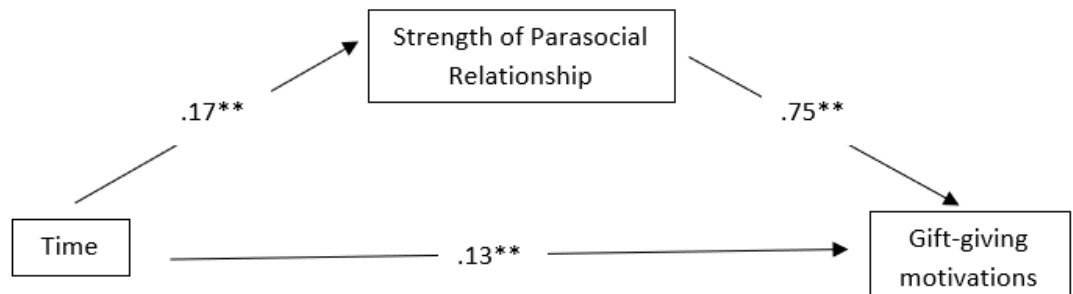
Table 2

More likely to donate if streamer....	Interacts with chat	Uses facecam	Gives incentives	Is attractive	Dresses provocatively	Dresses modestly	Would not donate
Interacts with chat	n.a.	<i>p</i> = .007	<i>p</i> = .529	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> = 1.00
Uses facecam	<i>p</i> = .016	n.a.	<i>p</i> = 1.00	<i>p</i> = .007	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> = .152
Gives incentives	<i>p</i> = .529	<i>p</i> = 1.00	n.a.	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> = 1.00
Is attractive	<i>p</i> < .001	<i>p</i> = .007	<i>p</i> < .001	n.a.	<i>p</i> = .529	<i>p</i> = 1.00	<i>p</i> < .001
Dresses provocatively	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> = .529	n.a.	<i>p</i> = 1.00	<i>p</i> < .001
Dresses modestly	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> = 1.00	<i>p</i> = 1.00	n.a.	<i>p</i> < .001
Would not donate	<i>p</i> = 1.00	<i>p</i> = .152	<i>p</i> = 1.00	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> < .001	n.a.

* Shaded cells indicate that the difference between two motivations' reported frequencies is a statistically significant difference.

H1 proposed that the amount of time spent watching a particular streamer will be positively associated with gift-giving motivations, while *H2* proposed that there will be a positive association between fans' levels of PSR and their gift-giving motivations. Regression analysis showed that the strength of the parasocial relationship with a streamer mediates the effect of the amount of time spent watching the streamer on gift-giving motivations. Results indicated that time spent watching a streamer was a significant predictor of the strength of the parasocial relationship, $B = .17$, $SE = .04$, 95% $CI [.08, .26]$, $\beta = .26$, $p < .01$, and that the strength of the parasocial relationship was a significant predictor of gift-giving motivations, $B = .75$, $SE = .07$, 95% $CI [.61, .89]$, $\beta = .60$, $p < .01$. Approximately 43% of the variance in gift-giving motivations was accounted for by the predictors ($R^2 = .43$). Consistent with partial mediation, time alone was still a statistically significant predictor of gift-giving motivations, $B = .13$, $SE = .04$, 95% $CI [.05, .22]$, $\beta = .17$, $p < .01$. The indirect effect was tested using a PROCESS macro version 3.5 (Hayes, 2020) percentile bootstrap estimation approach with 5000 samples. These results indicated the indirect coefficient was significant, $B = .14$, $SE = .04$, 95% $CI [.06, .21]$, $\beta = .16$. Therefore, both *H1* and *H2* were supported (Figure 3).

Figure 3



The amount of time spent watching a streamer impacts gift-giving motivations through parasocial relationship strength, $B = .14$, $SE = .04$, 95% $CI [.06, .21]$, $\beta = .16$

** $p < .01$

Chapter 5: Discussion

This study investigated fans' motivations for viewing game-related live streams as well as for gift-giving in the context of forming and maintaining parasocial relationships with their favorite streamers. Regarding motivations for viewership, participants reported being more likely to watch because of streamer characteristics than because of game type. Streamer characteristics can be categorized as personality, physical features, and sense of humor, among other things. This finding parallels another set of results, in which participants' most popular viewing motivations were streamer interaction within the chat and streamer's use of a facecam. This finding aligns with a study by Gandolfi (2016), who identified the bond between streamer and fan as one of the three main motivations among fans to seek out gaming streams.

Similarly, the main gift-giving motivation among fans was also streamer interaction with the chat during gameplay. Wohn, Freeman, and McLaughlin (2018) also found a desire for interaction among their sample of fans of live streamers. The reason for this desire for interaction varies, but there could be an expectation of reciprocity from the streamer. Interestingly, socialization with other fans was chosen by only 20% of the participants, in direct contrast to Wohn, Freeman, and McLaughlin's (2018) findings, which showed a significant number of their fan participants donated to get a message to other fans. Another discrepancy between this study's findings and existing research is in reference to Chui, Hus, and Wang's (2006) study, which showed a major motivation for joining online communities, such as streamers' fanbases, is a sense of community with other fans.

Income was not a significant predictor of gift-giving motivations among fans in this study—a somewhat surprising finding that was not the subject of a specific research question in this thesis, but it would be worth investigating in future research. This finding could imply that gift-giving is not necessarily about the money and is therefore not driven by income—rather, it reflects something more, presumably a parasocial relationship or a sense of dedication to the streamer.

In reference to streamer appearance, the results showed that perceived streamer attractiveness was a significant predictor of fan viewership and gift-giving. Fans were more likely to watch particular streamers and give monetary donations to streamers if they perceived them as more attractive. This finding further indicates that, for at least some fans, watching gaming streams is less about the game and more about the person playing the game. Cullen and Ruberg (2019) reported that Twitch fans have guidelines on how streamers dress, broken down by gender, but the findings of this thesis showed that streamer attire seemed to be less important than overall attractiveness. It is possible that the attire guidelines have, in fact, eliminated any substantial differences in how streamers dress. Ohanian (1991) writes that celebrities must be able to use their attractiveness, especially when it comes to endorsements, which is common among the streaming community.

Time spent watching a particular streamer was a direct predictor of the strength of the parasocial relationship between a streamer and fans. The strength of the parasocial relationship was also a predictor of gift-giving motivations. This finding aligns with the literature (e.g., Brown, 2015; Frederick et al., 2021), which suggests fans' level of PSR is associated with perceived affection from a streamer. It is also interesting to note that the

level of PSR is generally higher among streamer fans due to the reciprocal nature of live streaming versus other forms of SNS (Hargittai & Litt, 2011).

Theoretical and Practical Implications

This study extends social cognitive theory to a context to which it has never been applied before. Bandura (2001) proposed social cognitive theory has important implications for mass communications theory. Chui, Hsu, and Wang (2006) extended the theory to virtual communities, but thus far, there is a lack of live streamer research within an SCT framework. Conceptually, this thesis also furthers parasocial interaction/relationship theory by expanding its relevance to the digital world. The findings of this study may well apply to other situations regarding fandom or live streaming.

This thesis has practical implications for streamers who seek to grow their fan base and companies that use streamers to endorse their products, as it provides insight into fan wants and needs in relation to gaming live streaming. As found by this study, fans want to see more streamer-fan interaction. Such interactions are generally achieved by reading and replying to commenters in the chatbox and by taking fan suggestions seriously. Some streamers allow fans to dictate the next moves in role-playing style games, choose weapons/character features, or give feedback based on game progression. Such an approach is likely to boost viewership and gift-giving. Additionally, the use of a facecam was the main motivation for viewership, which in turn boosts PSR. A facecam tends to increase the level of closeness or familiarity with the streamer, who is therefore no longer an ambiguous, faceless being.

Limitations and Directions for Future Research

This thesis has several limitations. First, it appears that many of the participants showed acquiescence bias, responding with "yes" even when such an answer was unlikely. For example, in response to whether they knew their streamer of choice in real life, an overwhelming number of respondents chose "yes," even for streamers such as Markiplier, who has more than 23 million subscribers. This type of response limited the sample, as many of the respondents had to be removed. Another limitation involved the streamer attractiveness scale reliability, which was lower than the recommended minimum level of .8. It is possible that some respondents experienced some degree of discomfort while answering the attractiveness questions. It is possible that respondents who chose a streamer of the same gender were reluctant to answer truthfully (or answer at all) some or all of the attractiveness questions.

Future research should look at the size of streamer fanbases and the degree to which fan motivations differ, if at all, based on the fanbase size. It would be interesting to study the potential difference in fan-streamer PSI levels when a streamer has 2 million subscribers versus 1,000 subscribers. Hilvert-Bruce et al. (2018) have suggested that fan motivations do differ in relation to channel size, but there is room for more research. Similarly, there is room for more research on fan-fan interaction within streaming communities, as some literature suggests that fans who are active within these communities have different motivations than more casual fans (Chui, Hsu, & Wang, 2006). Finally, an exploratory analysis of the data set used for this thesis indicated a significant interaction between gender and motivations for watching, with women being

significantly more likely to watch because of streamer characteristics than game type.

This finding suggests that future research should also employ gender as a variable.

Chapter 6: Conclusion

Scholars have long overlooked the impact that individual fans have on culture and the potential wealth of knowledge that studying fandom can offer about the processes of human communication and connection. Streaming has become a relevant topic in gaming and fan studies very quickly. There are many factors to consider when studying streamers and their fans. This analysis found a wide range of reasons why fans watch and give gifts to streamers. The results address streamer fandom as well as intrapersonal motivations behind fan decision-making and have both practical and theoretical implications.

There is something to be said for the appeal of streamers or SMIs in general. In the early stages of SMI, there was an unusual degree of authenticity that drew users to this new idea (Chronis & Hampton, 2008). Audiences wanted to see real people use different products and give honest reviews. The keywords here are "real" and "honest." Quickly, money started to commodify this relationship between SMIs and the audience. Companies saw an opportunity in influencer marketing on SNS. Although influencer marketing has been around since the late 1950s (Woodcock & Johnson, 2019), SNS expanded the playing field. Some SMIs started reviewing products for companies but did not disclose their posts as advertisements; instead, they falsified the authenticity that their followers wanted (Audrezet et al., 2020). And thus, some of the initial appeal of SMI authenticity waned.

Streamers, however, gave audiences a new form of SMI authenticity, as, by nature, they are doing and showcasing things in real-time. Gaming streamers cannot edit a live stream if they make a mistake. In a way, streamers provide the authenticity that their audience is not getting from other SMIs. According to Lee (2020), a higher level of

PSR is positively associated with the perception of authenticity one gets from a streamer. Lee writes that the appeal of streamers is the “people like us” (p. 17) feeling because current internet culture values transparency.

Ultimately, authenticity aside, SMIs and streamers still appeal to their audiences for many other reasons as well. This thesis provides some insight into the relationship between streamers and their audience, and it also furthers the theoretical frameworks it employed in the analysis. As audiences’ interests evolve and their relationships with these media persona change, new fan motivations will undoubtedly emerge, requiring a new wave of research to examine them.

References

- Anđelić, A. (2020). Influencers and media: Influencer-generated content on social media platforms as a journalistic source (316.774:004.774). Master's thesis, Faculty of Philosophy in Niš.
- Audrezet, A., Kerviler, G., & Moulard, G. J. (2020). Authenticity under threat: When social media influencers need to go beyond self-presentation. *Journal of Business Research*, 117 557-569. doi: doi.org/10.1016/j.jbusres.2018.07.008
- Anderson, L. S., (2017). Watching people is not a game: Interactive online corporeality, twitch.tv, and videogame streams. *Game Studies*, gamestudies.org/1701/articles/anderson
- Bargh, J. A., & McKenna, Y. A. K., (2004). The internet and social life. *Annual Review of Psychology*, 55, 573-590. <https://doi.org/10.1146/annurev.psych.55.090902.14192>
- Bandura, A. (1984). Representing personal determinants in causal structures. *Psychological Review*, 91(4), 508-511. <https://doi.org/10.1037/0033-295X.91.4.508>
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. *Prentice-Hall*.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175–1184. <https://doi.org/10.1037/0003-066X.44.9.1175>
- Bandura, A. (2001). Social cognitive theory of mass communication. *Media Psychology* 3(3) 265-299. https://doi.org/10.1207/S1532785XMEP0303_03
- Brown, J. W., & Bocarnea, M. (2006). Celebrity-persona parasocial interaction scale. In R. A. Reynolds, R. Woods, & J. D. Baker, *Handbook of research on electronic surveys and measurements* (pp. 309-312). Idea Group Reference. doi:10.4018/978-1-59140-792-8.ch039
- Bourdaa, M., Chin, B., & Lamerichs, N. (2016). The transmedia practices of Battlestar Galactica: Studying the industry, stars, and fans. In A. L. Hutchins & T. J. Tindall (Eds.), *Public relations and participatory culture: Fandom, social media, and community engagement* (pp. 195-205).
- Brown, J. W. (2015). Examining four processes of audience involvement with media personae: Transportation, parasocial interaction, identification, and worship. *Communication Theory*, 25(3) 259-282. <https://doi.org/10.1111/comt.12053>

- Bründl, S., Matt, C., & Hess, T., (2017). Consumer use of social live streaming services: The influence of co-experience and effectance on enjoyment. In *Proceedings of the 25th European Conference on Information Systems (ECIS)*, Guimarães, Portugal, June 5-10, 2017 (pp. 1775-1791). https://aisel.aisnet.org/ecis2017_rp/
- Chatman, D. (2017). Black Twitter and the politics of viewing scandal. In C. Sandvoss, J. Gray, & C. L. Harrington (Eds.), *Fandom: Identities and communities in a mediated world* (pp. 299-314). New York University Press.
- Chen, C., & Lin, Y. (2018). What drives live-stream usage intention? The perspectives of flow, entertainment, social interaction, and endorsement. *Telematics and Informatics*, 35(1), 293-303. <https://doi.org/10.1016/j.tele.2017.12.003>
- Chen, H. T., & Li, X. (2017). The contribution of mobile social media to social capital and psychological well-being: Examining the role of communicative use, friending, and self-disclosure. *Computers in Human Behavior*, 75, 958-965.
- Chronis, A., & Hampton, D. R. (2008). Consuming the authentic Gettysburg: How a tourist landscape becomes an authentic experience. *Journal of Consumer Behaviour: An International Research Review*, 7(2), 111-126. doi: /doi.org/10.1002/cb.241.
- Chui, M. C., Hsu, H. M., & Wang, T. G. E. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems*, 42(3), 1872-1888. <https://doi.org/10.1016/j.dss.2006.04.001>
- Chung, S., & Cho, H. (2017). Fostering parasocial relationships with celebrities on social media: Implications for celebrity endorsement. *Psychology & Marketing*, 34(4), 481-495. doi:10.1002/mar.21001
- Collisson, B. Brown, L. B., McCutcheon, E. L., Britt, R., & Brown, M., A. (2018). The interpersonal beginnings of fandom: The relation between attachment style, trust, and the admiration of celebrities. *Interpersona: An International Journal on Personal Relationships*, 12(1), 23-33. doi:10.5964/ijpr.v12i1.282
- Consalvo, M. (2012). Confronting toxic gamer culture: A challenge for feminist game studies scholars. *Ada: A Journal of Gender, New Media, and Technology*, 1(1), 1-6. <https://adanewmedia.org/2012/11/issue1-consalvo/>
- Cullen, L. L. A., & Ruberg, B. (2019). Necklines and ‘naughty bits’: Constructing and regulating bodies in live streaming community guidelines. *Association for Computing Machinery*, 36, 1-8. <https://doi.org/10.1145/3337722.3337754>

- De Certeau, M. (1985). The practices of everyday life. *University of California Press*.
- Djafarova, E. & Rushworth, C. (2017). Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users. *Computers in Human Behavior*, 68, 1-7. <https://doi.org/10.1016/j.chb.2016.11.009>
- Duffett, M. (2017). I scream therefore I fan? In C. Sandvoss, J. Gray, & C. L. Harrington (Eds.), *Fandom: Identities and communities in a mediated world* (pp. 1-26). New York University Press.
- Dunbar, M. I. R., (1991). Neocortex size as constraint on group size in primates. *Journal of Human Evolution*, 20, 469-493.
- Fredrick, L. E., Lim, H. C., Clavio, G., & Walsh, P. (2012). Why we follow: An examination of parasocial interaction and fan motivations for following athlete archetypes on Twitter. *International Journal of Sport Communication*, 5(4), 481-502. <https://doi.org/10.1123/ijsc.5.4.481>
- Gamson, J. (1994). Claims to fame: Celebrity in contemporary America. *California: University of California Press*. doi: 10.1080/08821127.1995.10731722
- Gamson, J. (2011). The unwatched life is not worth living: The elevation of the ordinary in celebrity culture. *PMLA*, 126(4), 1061–1069. doi:10.1632/pmla.2011.126.4.1061
- Gandolfi, E. (2016). From celebrity to influencer: To watch or to play, it is in the game: The game culture on Twitch.tv among performers, plays, and audiences. *Journal of Gaming & Virtual Worlds*, 8(1), 63-82. doi:10.1386/jgvw.8.1.63_1
- Gros, D., Wanner, B., Hackenholt, A., Zawadzki, P., & Knautz, K. (2017). World of streaming. Motivation and gratification on Twitch. In Meiselwitz G. (ed.). *Social computing and social media. Human behavior. SCSM 2017* (pp. 44-57). Lecture Notes in Computer Science, vol 10282. Springer, Cham. https://doi.org/10.1007/978-3-319-58559-8_5
- Koo, W., Chi, E., & Kim, Y. (2014). Actual and ideal self-congruity affecting consumers' emotional and behavioral responses toward an online store. *Computers in Human Behavior*, 36, 147-153. <https://doi.org/10.1016/j.chb.2014.03.058>
- Hargittai, E., & Litt, E. (2011). The tweet smell of celebrity success: Explaining variation in Twitter adoption among a diverse group of young adults. *New Media & Society*, 13(5) 824-842. <https://doi.org/10.1177/146144481140580>

- Hearn, A., & Schoenhoff, S. (2015). From celebrity to influencer: Tracing the diffusion of celebrity value across the data stream. In Marshall, P. D., & Redmond, S. (Eds.), *A companion to celebrity* (pp. 212-236). John Wiley & Sons.
- Heljakka, K. (2017). Toy fandom, adulthood, and the ludic age In C. Sandvoss, J. Gray, and C. L. Harrington (Eds.), *Fandom: Identities and communities in a mediated world* (pp. 1-26). New York University Press.
- Hung, T. W., Tsang, S. S., & Liu, H. Y. (2010). Website characteristics and the impact of user-perceived value on user behavior in web 2.0. *Academy of Information and Management Sciences Journal*, 13(1), 1-18. doi:10.1177/1354856517750368
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York University Press.
- Jin, A. S., & Phua, J. (2014). Following celebrities' tweets about brands: The impact of Twitter-based electronic word-of-mouth on consumers' source credibility perception, buying intention, and social identification with celebrities. *Journal of Advertising*, 43(2), 181-195. <https://doi.org/10.1080/00913367.2013.827606>
- Hayes, A. F. (2020). *PROCESS Macro* (Version 3.5) [Computer Software].
- Hamilton, A., W., Garretson, O., & Kerne, A. (2014, April 26). *Streaming on Twitch: Fostering participatory communities of play within live mixed media*. [Conference session]. CHI 2014, One of a CHInd, Toronto, ON, Canada. <https://dx.doi.org/10.1145/2556288.2557048>
- Hilvert-Bruce, Z., Neill, T. J., Sjöblom, M., & Hamari, J. (2018). Social motivations of live-streaming viewer engagement on Twitch. *Computers in Human Behavior*, 84, 58-67. <https://doi.org/10.1016/j.chb.2018.02.013>
- Horton, D., & Wohl, R. R. (1956). Mass communication and parasocial interaction: Observations on intimacy at a distance. *Psychiatry*, 19, 215-229.
- Hou, M. (2018). Social media celebrity and the institutionalization of YouTube. *Journal of Research into New Media Technologies*, 25(3), 534-553. doi:10.1177/1354856517750368
- Hu, M., Zhang, M., & Wang, Y. (2017). Why do audiences choose to keep watching on live video streaming platforms? An explanation of dual identification framework, *Computers in Human Behavior*, 75, 594-606. <https://doi.org/10.1016/j.chb.2017.06.006>
- Jensen, J. (1992). Fandom as pathology: The consequences of characterization. In L. A. Lewis (Ed.), *The adorning audience* (pp. 9-29). London: Routledge.

- Langerak, F., Verhoef, C. P., Verlegh, W.J. P., & Valck, K. (2004). Satisfaction and participation in virtual communities. *Advances in Consumer Research*, 31, 56-57. <https://acrwebsite.org/volumes/8847/volumes/v31/NA-31>
- Lee, E. J., & Watkins, B. (2016). YouTube vloggers' influence on consumer luxury brand perceptions and intentions. *Journal of Business Research*, 69(12), 5735-5760. <https://doi.org/10.1016/j.jbusres.2016.04.171>
- Lee, Y. (2020). How video streamers' mental health disclosures affect viewers' risk perceptions. *Health Communication*. <https://doi.org/10.1080/10410236.2020.1808405>
- McCroskey, C., J., & McCain, A., T., (2009). The measurement of interpersonal attraction. *Speech Monographs*, 41, 261-266. <https://doi.org/10.1080/03637757409375845>
- Nahapiet, J. & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242-266. <https://doi.org/10.5465/amr.1998.533225>
- Napoli, P. M. and Kosterich, A. (2017). Measuring fandom: Social TV analytics and the integration of fandom into television audience measurement. In C. Sandvoss, J. Gray, & C. L. Harrington (Eds.), *Fandom: Identities and communities in a mediated world* (pp. 299-314). New York University Press.
- Ohanian, R. (1991). The impact of celebrity spokespersons' perceived image on consumers' intention to purchase. *Journal of Advertising Research*, 31(1), 46-54.
- Putnam, R. (2000). Bowling alone: America's declining social capital. *Journal of Democracy*, 6(1), 65-78. <https://doi.org/10.1145/358916.361990>
- Recktenwald, D. (2017). Toward a transcription and analysis of live streaming on Twitch. *Journal of Pragmatics*, 115, 68-81. <https://doi.org/10.1016/j.pragma.2017.01.013>
- Ruberg, B., Cullen, L. L. A., & Brewster, K. (2019). Nothing but a "titty streamer": legitimacy, labor, and the debate over women's breasts in video game live streaming. *Critical Studies in Media and Communication*, 36(5)466-481. doi:10.1080/15295036.2019.1658886
- Rubin, Z. (1975). Disclosing oneself to a stranger: Reciprocity and its limits. *Journal of Experimental Social Psychology*, 11(3), 233-263. [https://doi.org/10.1016/S0022-1031\(75\)80025-4](https://doi.org/10.1016/S0022-1031(75)80025-4)

- Rubin, R. B., & McHugh, M. P. (2009). Development of parasocial interaction relationships. *Journal of Broadcasting & Electronic Media*, 31(3), 279-292.
- Ruvalcaba, O., Shulze, J., Kim, A., Berzenski, R. S., & Otten, P. M. (2018). Women's experiences in esports: Gendered differences in peer and spectator feedback during competitive video game play. *Journal of Sport and Social Issues*, 42(4), 295-311. doi: 10.1177/0193723518773287
- Sandvoss, C., Gray, J., & Harrington, C. L. (2017). Introduction: Why Still Study Fans? In C. Sandvoss, J. Gray, and C. L. Harrington (Eds.), *Fandom: Identities and communities in a mediated world* (pp. 1-26). New York University Press.
- Scheibe, K., Fietkiewicz, K. J., & Stock, W. G. (2016). Information behavior on social live streaming services. *Journal of Information Science Theory and Practice*, 4(2), 6–20. doi: 10.1633/JISTaP.2016.4.2.1
- Schickel, R. (1985). Coherent strangers. In Richard Schickel (Ed.) *Intimate strangers: The culture of celebrity* (pp. 1-312) Garden City, New York: Doubleday.
- Siuda, P. (2010). From deviation to mainstream – evolution of fan studies. *Studia Medioznawcze [Media Studies]*, 3(42), 87-99. http://piotrsiuda.com/wp-content/uploads/2015/01/Piotr_Siuda_Evolution_of_Fan_Studies.pdf 970
- Sokolova, K., & Kefi, H. (2020). Instagram and YouTube bloggers promote it, why should I buy? How credibility and parasocial interaction influence purchase intentions. *Journal of Retailing and Consumer Services*, 53, 101742. <https://doi.org/10.1016/j.jretconser.2019.01.011>
- Statista (2020, July). *Frequency of watching livestream video in the United States as of July 2020, by age group*. <https://statista.com/statistics/297071/us-social-media-live-streaming-video-usage-age-group/>
- Taylor, T. L. (2012). *Raising the stakes*. Cambridge, MA: MIT Press.
- Twitch Statistics & Charts. (2021, February 18). *TwitchTracker*. Retrieved February 18, 2021, from <https://twitchtracker.com/statistics>.
- Valkenburg, M. P., & Peter, J. (2009). Social consequences of the internet for adolescents: A decade of research. *A Journal of the Association for Psychological Science*, 18(1), 1-5. <https://doi.org/10.1111/j.1467-8721.2009.01595.x>
- Wellman, B., Quan-Haase, Q. A., Witte, J., & Hampton, N., K. (2001). Does the Internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. *American Behavioral Scientist*, 45(3), 437-456. doi:10.1177/00027640121957286

- Wohn, Y. D., Freeman, G., & McLaughlin, C. (2018, April). *Explaining viewers' emotional, instrumental, and financial support provision for live streamers*. CHI Conference on Human Factors in Computing Systems, Montréal, QC, Canada. <https://dl-acm-org.lib-e2.lib.ttu.edu/doi/abs/10.1145/3173574.3174048>
- Woodcock, J., & Johnson, M. R. (2019). Live streamers on Twitch.tv as social media influencers: Chances and challenges for strategic communication. *International Journal of Strategic Communication*, 13(4), 321-335.
- Zimmer, F., Scheibe, K., & Stock, G. W. (2018). A model for information behavior research on social live streaming services (SLSSs). In *International Conference on Social Computing and Social Media* (pp. 429-448). Springer, Cham. https://doi.org/10.1007/978-3-319-91485-5_33

Appendix

This appendix lists the questions used in the study. These questions address parasocial interaction, streaming habits, fan motivations for consuming streaming, and streamer attractiveness.

Q1: Do you watch gaming live streamers? Y/N

Q2: Which gaming streamer is your favorite or the one you like to watch most often?

Please put their handle (for example, @markiplier) or Twitch.TV link (for example, www.twitch.tv/markiplier) here.

Q3: Do you know streamer in real life? Y/N

Q4: I follow [streamer] on these platforms...

Instagram; Facebook; Twitter; TikTok; YouTube; Twitch.tv; Other; I do not follow [streamer] on any platforms

Q5: Approximately how many hours a week do you spend watching gaming streams?

0-3 hours; 4-7 hours; 7-10 hours; 10+ hours

Q6: What genre of gaming streams is your favorite to watch?

First Person Shooter (for example, BioShock); Puzzle (for example, Human Fall Flat);

Street Fighter (for example, Mortal Kombat); Battle Royale (for example, Apex

Legends); Role-playing (for example, Legend of Zelda); Sports (for example, NBA 2k);

Other (Please specify)

Q7: What genre of games is your favorite to play?

First Person Shooter (for example, BioShock); Puzzle (for example, Human Fall Flat);

Street Fighter (for example, Mortal Kombat); Battle Royale (for example, Apex

Legends); Role-playing (for example, Legend of Zelda); Sports (for example, NBA 2k);
Other (Please specify)

Q8: What is the main reason you watch gaming streams?

Entertainment based on game; Entertainment based on streamer performance; Learning
heuristics and best practices in playing; Formulating an idea of the game before purchase;
Socialization; Being informed about gaming; Other

*Q9: In reference to your experience on gaming streams (e.g., Twitch.tv), please indicate
how much you agree with each of the following statements (1 = strongly disagree, 5 =
strongly agree):*

- I follow specific streamers
- I follow specific games.
- I watch streamers with my friends.
- I feel like on streams there is a shared feeling of belonging.
- I feel like streams are part of current game culture.
- I feel like streams bring people together.
- The main reason I watch live streams is that I like the streamer(s).
- The main reason I watch live streams is that I like the game(s) being played.

*Q10: In reference to your favorite streamer (the one you listed in response to question
#2), please indicate how much you agree with each of the following statements (1 =
strongly disagree, 5 = strongly agree):*

- Sometimes I feel like calling or writing [streamer]
- [Streamer] makes me feel as if I am with someone I know well.

- I see [streamer] as a natural, down-to-earth person.
- I am aware of the details of [streamer's] life.
- I feel like I have very little understanding of [streamer] as a person.
- If I saw a newspaper or magazine article about [streamer], I would read it.
- Learning about [streamer] is important to me.
- Sometimes I go to the internet to learn more about [streamer].
- I am not really interested in [streamer] (reverse)

I look forward to [streamer] posting new content and/or going live.

Q11: In reference to your favorite streamer (the one you listed in response to question #2), please indicate how much you agree with each of the following statements. Please keep in mind the statements are whether you want to give anything to the streamer, regardless of whether or not you can afford to (1 = strongly disagree, 5 = strongly agree):

- If [streamer] was hosting a fundraiser, I would contribute.
- I would give money to help [streamer] with their livelihood.
- I would give [streamer] money to support their efforts.
- I would give [streamer] a gift to show my appreciation.
- I value [streamer]'s skills and abilities.
- I want to compensate [streamer] for their time and effort, but I lack the funds to do so.
- I would encourage other people to donate money to [streamer].
- I would donate money if [streamer] said they really needed it.

Q12: In reference to your favorite streamer (the one you listed in response to question #2), please indicate how much you agree with each of the following statements (1 = strongly disagree, 5 = strongly agree):

- I think [streamer] is quite handsome/pretty.
- I find [streamer] very attractive physically.
- I don't like the way [streamer] looks (reverse).
- The clothes [streamer] wears are not becoming (reverse)
- I like watching [streamer] because of their facecam.
- I do not like [streamer] using a facecam (reverse)
- I prefer when [streamer] uses a facecam rather than when they don't.

Q13: I am more likely to donate money or gifts to [streamer] if they... (Select all that apply)

Use a facecam; Use incentives for donating (e.g., a shoutout on screen); Are attractive; Dress modestly; Dress provocatively; Regardless of the circumstances, I would not donate.

Q14: I am more likely to watch [streamer] if they... (Select all that apply)

Use a facecam; Use incentives for donating (e.g., a shoutout on screen); Are attractive; Dress modestly; Dress provocatively; Other

Q15: I am more likely to donate money or gifts to [streamer] if I... (Select all that apply)

Have watched [streamer] for <1 year; Have watched [streamer] for >1 year; Identify with [streamer]; Feel a sense of community with other fans of [streamer]; Feel a sense of community with other fans of [streamer].

Q16: Finally, we have a few questions about yourself. What is your age?

18; 19; 20; 21; 22; 23; 24 or older

Q17: What gender do you identify with?

Man; Woman, Non-binary/third gender; Prefer not to say

Q18: What is your level of education?

High school diploma or GED; Some college or associate's degree; Bachelor's degree;

Graduate degree (master's, PhD., M.D., J.D.)

Q19: What race/ethnicity do you primarily identify with?

White or Caucasian; Hispanic or Latinx; Black or African American; Native American or American Indian; Asian American or Pacific Islander; Other

Q20: What is your annual income -- or, if you rely on your parents for financial support, what is your parents' annual income?

Less than \$20,000; \$20,001-\$40,000; \$40,001-\$60,000; \$60,001-\$80,000; \$80,001-\$100,000; Over \$100,000