MOTIVATIONS FOR SPECIFIC FEATURER USE ON TWITCH.TV

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ABSTRACT

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Twitch.tv is one the most popular live streaming platforms in the world. This study investigates why people use Twitch.tv by focusing on people's use of ten specific features: chat, cheer, emote, whisper, follow, subscribe, donate, clip, browse and search. This study employs the uses and gratifications approach in combination with the MAIN model and uses and gratifications 2.0 to measure specific feature use on Twitch.tv, contrast motivation types for using a given medium and reveal gratifications otherwise hidden by only measuring general use or time spent on a platform. In an online questionnaire (N = 181) survey data showed that Twitch.tv amounts to more than just content, gratifications are available in the technological structure of the medium. Theoretical and practical implications are discussed.

KEY WORDS: Uses and gratifications, MAIN model, Uses and gratifications 2.0, Specific feature use, General use, Twitch.tv

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CHAPTER I

Introduction

Twitch.tv is an online, interactive video live-streaming platform that allows users to broadcast themselves on the web in real time. These broadcasts, known as live-streams or just streams, have become wildly popular, drawing massive audiences from technologically developed countries throughout the globe. In today's social media landscape going live or streaming is not an unfamiliar feature – however, Twitch.tv takes a commanding lead over other social media platforms such as Mixer, Periscope, Facebook and the late competing entity of YouTube Gaming (Hicks, 2018). In the latest publication of its annual, "Year in Review" the company boasted 355 billion minutes watched and around 15 million unique daily visitors (Freitas, 2018).

Twitch.tv was initially conceived as a platform dedicated to streaming users playing videogames for a live audience – essentially, people watching people play videogames. The surprising popularity of this phenomenon was recognized by Amazon when in 2014 it purchased Twitch.tv for 970 million dollars (Kim, 2014). Recently, this phenomenon of watching people play videogames made headlines when the international rap sensation "Drake" teamed up with popular Twitch streamer "Ninja" for a few hours of Fortnite (a battle royal videogame). Their stream set a record breaking 640,000 concurrent viewers, making the stream Twitch's most watched live broadcast (Tassi, 2018). The core audience of Twitch.tv is still committed to the traditions of the platform's inception (i.e., gaming) – however, the company has branched out its services to include additional markets. Most recently, Amazon announced that its "Amazon Prime

Members" can catch the NFL's Thursday Night Football live on Twitch.tv with new interactive features (Freitas, 2018).

With a continued increase in active users and minutes watched, the importance of Twitch.tv – its contents, features, audiences and users – is worth the attention of media scholars. Although this phenomenon is still in its infancy, some recent academic work has been accomplished in determining the motivations for the obvious question, "why do people watch people play video games?" Notably, Max Sjoblom and Juho Hamari have applied the Uses and Gratification Theory (U&G) to examine the motivations of usage on the platform of Twitch.tv, including their empirical study of motivation and hours watched (2016), their content structure study examining motivation and stream type (Sjoblom, Torhonen, Hamari & Macey 2017), as well as their recent contribution which considers the social motivations of user engagement on Twitch (Hilvert-Bruce, Neil, Sjoblom & Hamari 2018).

These researchers did well to examine the broader strokes of user motivations on Twitch.tv. However, these studies were limited in their findings relying on dated typologies adopted from previous studies on traditional media (e.g., newspapers, radio, and television) (Katz et al., 1973). While these traditional typologies have been useful in determining some motivations in a variety of new media contexts, including Twitch.tv, these typologies do not offer an exhaustive list of motivations for the examination of new media (Sundar & Limperos, 2013). Twitch.tv does share similarities with traditional media, offering user's gratifications that were present in previous technologies such as the television (Sjoblom & Hamari, 2016). Still, Twitch.tv is not strictly defined by its likeness to traditional media but rather possesses qualities and features of both media,

new and old (Hamilton, Garretson & Kerne, 2014). Therefore, more work remains in discovering the nuanced complexities of uses and gratifications on this diverse media platform – from specific feature use; such as that which has been examined on the platforms of Facebook (Smock, Ellison, Lampe & Wohn, 2011) and Pinterest (Wang, Yang, Zheng & Sundar, 2016); to the potential for altogether new gratifications afforded by technological heuristic cues as suggested in the MAIN model and U&G 2.0 (Sundar, 2008; Sundar & Limperos, 2013).

To this point, this study aims to take a step in that direction by considering the potential for new gratifications (U&G 2.0) as well as utilizing typologies from traditional methodologies and applications of U&G to measure gratifications from specific feature use on the platform of Twitch.tv. In considering the gratifications from specific feature use, the results of this study can explain that distinct features on Twitch.tv fulfill unique gratifications to user's motivations. This approach is technology focused and acknowledges the unique element of interactivity in new media. The results of this study will clarify distinguishing elements among different types of uses on Twitch.tv.

CHAPTER II

Literature Review

Uses and Gratifications Theory (U&G)

The primary research model for this study is uses and gratifications (U&G). Smock et al. (2011) defines U&G most succinctly as, "a theoretical framework that is used to study how media are utilized to fulfill the needs of individual users with different goals" (p. 2323). In more detail, U&G is a framework that attempts to categorically assign descriptive generalizations concerning what motivates audiences to use a particular medium – and in addition to that, estimates what audiences might expect to gain (or actually gain) from a certain media use (i.e., gratifications or need fulfillment). Many U&G studies do not make a distinction between the conceptual definitions of motivation and gratification, often times using the terms interchangeably to signify the same set of variables. In fact, motivation and gratification are conceptually linked, but not synonymous. Motivation may be described as what primes an individual to fulfill a need, while gratification is what an individual experiences as a result of having that need filled. Some early researchers stressed the need to identify this distinction in research, and described motivation as gratifications sought (GS) and gratification as gratifications obtained (GO) (Palmgreen, 1984). In order to accurately assess gratifications obtained (GO), researchers would be required to conduct a controlled experiment that attempts to measure gratifications obtained (GO) as a media effect (Palmgreen, 1984). This effect centered approach did not match the conceptual underpinnings explicated by Katz et al. (1974). The U&G approach was not meant to be an evolved media effects model but rather was meant to contest effect models altogether (Palmgreen, 1984). Some U&G

studies attempted to measure media effects by testing gratifications sought (GS) against gratifications obtained (GO) (Palmgreen, 1984). However, the majority of U&G research focused on explaining the process of an individual's choice of media, their motivation for consumption (GS). With the majority of studies not measuring gratifications obtained (GO), "gratifications" became shorthand for gratifications sought (GS) and thus the strict definition for gratifications obtained (GO) was muddled. As a result, motivations and gratifications are often used interchangeably to mean gratifications sought (GS).

In the 1940s, when uses and gratifications was first suggested, the framework was meant to challenge and contrast the popular mechanistic assumption that audiences were passive mobs easily persuaded, manipulated and effected directly by the messages of traditional media – newspapers, radio and television (Ruggiero, 2000). Despite this valid contest, U&G was heavily criticized for its lack of structure and overall inability to identify the predictive relationship between sets of variables. Critics argued that U&G was unreliable in its dependence on self-reports from individual audience members and its presumptions about audience motivations (GS) and gratifications (GO). As a result of these criticisms, U&G quickly fell out of favor with media effects researchers (Elliot, 1974; Swanson, 1977; Lometti, Reeves & Bybee, 1977).

In the 1970s and 1980s, U&G found a revival in the works of Katz et al. (1973), Rubin (1981) and Palmgreen (1984). Katz's promoted a more thorough definition of the U&G framework, "the social and psychological origins of needs, which generate expectations of the mass media or other sources, which lead to differential patterns of media exposure, resulting in need gratifications and other (potential, and perhaps unintended) consequences," (1973, p. 510) – such as attitudinal changes, or behavioral

outcomes. He also provided improvements to the theory in a series of guiding principles, a list of certain assumptions that helped operationalize the model, most importantly: "(1) the audience is conceived of as active (2) linking need gratification and media choice is decided by the audience member (3) media competes with other sources of need satisfaction (4) people are sufficiently self-aware in respect to their motives" (Katz, Blumler & Gurevitch, 1973, p. 510-511).

In addition to these refinements, Katz and his associates proposed a set of categories for the classifications of needs: cognitive needs, affective needs, personal integrative needs, social integrative needs, and "needs related to escape or tension release" (1973, p.167). Cognitive need types can be described as, "needs related to strengthening information, knowledge and understanding" (p. 166). Some examples of traditional media that were theorized to fulfill this need type include newspapers, radio, television (such as news), video (instructional videos) and films (documentaries or historical films). Affective need types can be described as, "needs relating to strengthening aesthetic, pleasurable and emotional experience" (p. 166), and some examples of traditional media that were theorized to fulfill this need type include books, films and television (such as sitcoms and soap operas). Personal integrative needs can be described as, "needs relating to strengthening credibility, confidence, stability and status" (p. 166-167), and these needs are a combination of both cognitive and affective needs, some examples of traditional media that were theorized to fulfill this need type include books, magazines and videos (such as self-help or life coaching). Social integrative need types can be described as, "needs related to strengthening contact with family, friends, and the world" (p. 167), and some examples of traditional media that were theorized to

fulfill this need type include mail (such as letters to a friend or loved one). Tension release needs can be described as, “needs related to escape, or the weakening of contact with self and one’s social roles” (pp. 167), and some examples of traditional media that were theorized to fulfill this need type include books, television, films or videos, and the radio.

These collective improvements were applied to scales of measurement (Rubin, 1981) and consequently provided U&G with an initial set of typologies based on statistics. This systematic formulation produced a consistency within the theory that lent U&G quantitative credibility. In response to Rubin’s successful study on television, additional researchers in the field began applying the framework to other forms of media. Palmgreen (1984) furthered the work of Katz et al. (1973) & Rubin (1981) by considering the various sets of relationships examined within the broad scope of U&G research and categorized them into six distinct and focused structures of study: “(1) gratification and media consumption; (2) social and psychological origins of gratifications; (3) gratifications and media effects; (4) gratifications sought and obtained; (5) expectancy-value approaches to uses and gratifications; and (6) audience activity (p. 21).” Although this suggestion was still heavily criticized, U&G has been found useful as a model for measuring and analyzing many forms of media consumption.

The most recent application of the U&G framework is centered on the use of new media (i.e., the internet) (Papacharissi & Rubin, 2000). This focus is credited to the “obvious reality” of an “active audience,” first suggested by Katz (1973) and now solidified in the information era (Sundar & Limperos, 2013). There have been several studies conducted using U&G to evaluate gratifications for general use on the internet

that would suggest that this "obvious reality" is inarguably the case (LaRose et al., 2001). These studies have laid a solid foundation for U&G in the information era, yet in all their collections of respectable data they have yielded less than 10% of the variance in general internet usage (LaRose & Eastin, 2004). In addition to general use, in an attempt to identify distinct usage patterns, many researchers have taken the application of U&G a step further by examining specific platforms on the internet such as Facebook (Park N. & Lee S. 2014; Smock et al., 2011), Twitter (Chen, G.M. 2011; Liu, Cheung & Lee, 2010; Johnson & Yang, 2009) and even Twitch.tv (Sjoblom & Hamari, 2017; Sjoblom, Torhonen, Hamari & Macey, 2017). According to Sundar & Limperos (2013), examining specific platforms does not necessarily solve the low yield in data concerning user's behaviors on the internet. Sundar & Limperos (2013) further suggest that there is an overall lack of ingenuity in determining the typologies utilized to measure gratifications in new media; instead of performing interviews to enlist new gratifications, many of these studies have simply recycled previous typologies and as a result have yielded nearly identical gratifications to the traditional media of historical U&G studies. In response to this critical evaluation, Sundar and Limperos proposed an alternative model in an attempt to once again refine the framework of U&G and make it more useful in its application to new media, the internet and the technologies involved in their use. The new framework proposed operates from Sundar's MAIN model and is dubbed U&G 2.0 (Sundar 2008; Sundar & Limperos, 2013).

MAIN model and Uses and Gratifications Theory 2.0 (U&G 2.0)

In Sundar and Limperos (2013), the researchers challenge the underlying logic on which the gratification typologies in the historical model of U&G are built by suggesting

that platforms of new media, technologies and their functions of interactivity can cultivate new needs in individual users that may otherwise not occur innately or be available in traditional media or its contents. In other words, technology in and of itself, not only the content it contains, can be a source of unique gratifications. These new technology focused gratifications are theorized as heuristics triggered by technological affordances as identified by the MAIN model. Affordances were first described by the perceptual psychologist James Gibson (1977), they are action possibilities emerging from the relationship between an actor and an object (Fox & McEwan, 2017). Affordances do not exist as inherent psychological properties of people, they also do not exist as material properties of an object (Treem & Leonardi, 2013). An object may possess qualities that invite an actor to use an object, however these qualities are dependent on the perceptions of the actor and may not reflect the objects designed intention (Fox & McEwan, 2017). The affordances suggested by Sundar in his MAIN model are modality, agency, interactivity and navigability (Sundar, 2008; Sundar & Limperos, 2013). Modality is the concept that media are presented not only as "content" or "message" but also too that they exist as structural elements (i.e. "the medium is the message"), such as literature being textual, and radio being aural; these distinct modes appeal to different aspects of the human perceptual system and thus may by their sheer presence affect one's gratifications (Sundar, 2008). This particular affordance can trigger the gratifications of realism, coolness, novelty and being there (Sundar & Limperos, 2013). Agency acknowledges that the user-generated content of the internet era has acutely altered the traditional sender-receiver relationship and that all individuals are potential agents or sources of information and that these sources when perceived, although psychologically

conceived as actual agents (e.g., users), may be confused or attributed directly to devices or platforms (e.g., smartphones, websites) (Sundar, 2008; Sundar & Limperos, 2013). This affordance can trigger the gratifications of agency-enhancement, community building, bandwagon, filtering/tailoring, and ownness. Interactivity allows for users to make real-time choices about the content in a medium, allowing them to change or alter that content (Sundar, 2008). Traditional media had limited interactivity, restricting the user's actions to selecting between competing sources of information. The digital revolution changed this dynamic, increasing functionality and improving technological interfaces. Users are now able to influence nearly all aspects of new media. The interactivity affordance may reveal a plethora of new gratifications not yet considered such as the gratifications of interaction, activity, responsiveness and dynamic control (Sundar & Limperos, 2013). Navigability is what gives users the ability to move through a particular medium. This affordance can trigger the gratifications of browsing/variety-seeking, scaffolds/navigation aids and play/fun.

The overarching theme of U&G 2.0 is twofold. First, Sundar & Limperos challenge the practice of borrowing U&G typologies from traditional media studies and applying them (without adaptation) to new media studies. This practice, while widely accepted as the norm and often celebrated as reference to reliability in research, can result in an uncompromising rigidity that disallows new media from providing anything particularly new. Second, Sundar & Limperos challenge the original tenets of U&G in their assumptions that gratifications are expressly grounded in needs already innate in the human psyche. U&G 2.0 proposes that such a view is limiting in its assumptions and

does not address the possibility of new needs arising as a result of exposure to a particular medium's technological affordances.

Specific Feature Use

In a recent publication from Smock et al. (2011), researchers explored user motivations for specific feature use on the social network site (SNS) Facebook. While researchers have considered how motivations predict the use of a particular SNS (such as Facebook), the vast majority of researchers examined usage in terms of "general use," typically measured as overall time spent on a designated SNS. As a result, Smock et al. (2011) notes that previous SNS researchers tend to treat SNS engagement as homogeneous – that is, users interact with a designated SNS identically and that similar features across a variety of unique SNS are assumed to be equivalent thus yielding uniform motivations. Smock et al. (2011) challenges this assumption by considering Facebook as a "toolkit" or a collection of (unique) features, arguing that the diversity of features available on a designated SNS allow for diverse forms of communication and thus yield unique motivations. Specific features should not be confused with the concept of affordances, in some cases media researchers have conflated affordances to mean "features" (Daft et al., 1987; Eveland, 2003; Tao & Bucy, 2007). However, affordances are not strictly properties of an object, in this case a technological object – such as Facebook or Twitch. In fact, Smock makes the case that SNS should not be studied as objects, but again as toolkits, made up of many tools (features, objects) with specific design qualities that may or may not be used by actors as their design was intended (2011). Specific features then are tools or objects that play a role in the affordance equation, they can supply affordances, however should not be conceptualized as

affordances in and of themselves. The Smock et al. (2011) results suggest that Facebook gratifications between users are not identical, revealing unique gratifications that are otherwise concealed when measuring SNS engagement in terms of general use. For example, "only three motivations – relaxing entertainment, expressive information sharing and social interaction – significantly predict general use, but six motivations significantly predict use of specific features" (Smock et al., 2011, p. 2326). In addition to these findings, the study results suggested that there were distinct user gratifications even between similar features (Smock et al., 2011). The Facebook study concluded that measuring SNS use in terms of overall time spent on the platform (general use) revealed little about the psychological processes involved in that media choice (Smock et al., 2011). The study does well to shift U&G from broad definitions of use to focus on more "granular" gratifications provided by specific feature use (Smock et al., 2011).

Another study recent study, Wang et al. (2016), models the structure of the Facebook study from Smock et al. (2011), examining gratifications from specific feature use on the SNS Pinterest. In addition to focusing on gratifications from specific feature use, Wang et al. (2016) makes use of the typologies presented in the MAIN model and U&G 2.0. The study does not compare gratifications between general use and specific feature use on Pinterest, but rather examines whether or not the typologies presented in the MAIN model and U&G 2.0 can successfully predict gratifications of specific feature use on a given SNS (Wang et al., 2016). The study was successful and found that U&G 2.0 can predict many gratifications of specific feature use on Pinterest.

Similar to the trend found in the majority of U&G studies on SNS prior to Smock, et al. (2011), the studies on Twitch.tv have focused on the gratifications provided from

general use on the platform; not examining the nuanced gratifications from specific feature use. Additionally, researchers of Twitch.tv have yet to make use of the MAIN model and U&G 2.0. These studies have relied on traditional typologies to measure the gratifications from content on Twitch.tv and have not yet included measurements of gratifications for technological affordances supplied by specific features. Therefore, this study aims to bridge that gap by applying U&G 2.0 to measure specific feature use on Twitch.tv.

Twitch.tv

Twitch.tv is a unique site of social and technological convergence. Its myriad of interactive capabilities and distinct features make the platform an exceptional site of application for U&G 2.0, focusing on the gratifications afforded from the technology (or new medium) itself. As the name suggests Twitch.tv shares some of the qualities of its preceding communication medium the television. Both Twitch.tv and the television are platforms centered on the production and performance of live broadcasts, hosting multiple channels from which an audience member can choose to consume. However, there are striking differences between the two media, mainly Twitch.tv introduces a level of interactivity and sociability simply not available to television. In observance of the similarities between Twitch.tv and television the studies on Twitch.tv (Sjoblom, 2015; Sjoblom & Hamari, 2016; Sjoblom et al., 2017; Hilvert-Bruce et al., 2018) have trended towards the application of traditional U&G need types: cognitive, affective, personal integrative, social integrative & tension release (Katz, Gurevitch & Haas, 1973). These studies consider the gratifications from the content of the medium, but not specifically from the affordances of the technology itself.

Max Sjoblom and Juho Hamari (2016) examined "why do people watch other people play video games," measuring the traditional U&G need types (cognitive, affective, personal integrative, social integrative and tension release) against usage types on Twitch.tv. These usage types are collectively grouped into the single dependent variable "usage," and represent "distinct types of usages related to the consumption of video game streams," they are, (a) hours watched (b) streamers watched (c) streamers followed (d) subscription to streamers (Sjoblom & Hamari, 2016, p. 3). The results of the study indicate that all five of the traditional U&G need types were significant to the variables of (a) hours watched and (b) streamers watched. In some instances, no significance could be determined between the need types and (c) streamers followed and (d) subscription to streamers. The most salient significance was found in the relationship between the need type of tension release and variable (a) number of hours watched (Sjoblom & Hamari, 2016). The study did well to consider the general use of a complex new media platform full of confounding media environments (i.e., user generated content, live broadcasting, social networking, video gaming). However, some questions remain to be answered concerning the specific features on Twitch.tv. In fact, concerning variable (d) subscription to streamers, the researchers admit, "subscriptions are a significant indicator of service usage and indicate a willingness to pay for content, however, this study was not able to obtain a high level of prediction when it comes to subscription motivations" (Sjoblom & Hamari, 2016, p. 9). The results of this study implicate the necessity of new need types in order to measure certain gratifications of new media, their platforms and their phenomena. The results of this study also suggest that there is a statistically significant difference between measuring "usage" as general or

"average time spent" and measuring a specific feature (such as subscribing). The amount of time spent using a medium is not homogeneous with the frequency of use of a given specific feature, these variables are distinct and when measured as such will yield distinct gratifications (Smock, et al., 2011).

In the follow up to the abovementioned study Sjoblom, Torhonen, Hamari and Macey (2017) examined both game genres and stream types as predictors of gratification types. The researchers again utilized the five traditional U&G need types (cognitive, affective, personal integrative, social integrative and tension release), in addition to a new need type dubbed "learning to play," against the dependent variables of game genres and content type or "stream types" (measured by frequency of use) (pp. 164). The game genres are adapted from Lee, Karlova, Clarke, Thorton & Petri (2014) and serve to show as the actual content of Twitch.tv. Those game genres are "action, collectible card games (CCG), fighting, first person shooter (FPS), massively multiplayer online (MMO), multiplayer online battle arena (MOBA), rhythm, role-playing game (RPG), real -time strategy (RTS), sand box and sports" (Sjoblom et al., 2017, p. 163). The content type or "stream type" definition is operationalized as the "archetypal structure of the media," emphasizing that "the medium is the message," or the structure of the content is of more importance than the content itself (i.e., game genre) (McLuhan, 1964; Sjoblom et al., 2017, pp. 167). These "stream types" are measured as (a) Competitive (b) Let's play (c) Casual (d) Speedruns (e) Talkshows (f) How to play and (g) Reviews. The researchers express that this list is not exhaustive and that there could be additional stream types not measured in the study. The results of the study suggest that stream type is statistically more significant for obtaining gratifications than that of game genre. The study did well

to examine gratifications beyond the measurements of previous studies on Twitch.tv, suggesting an additional gratification to be used along with the traditional U&G need types. In considering the structure of a particular new medium as a variable, the study opens the conversation for this approach to be used in future studies of new media. Still, while the researchers did well to include a new need type, assisting in measuring this complex media environment, as well as they operationalized variables to examine elements of structure beyond the content of the medium, more work remains in extricating the structure of Twitch.tv, its specific features and their technological affordances from the content of Twitch.tv and its general gratifications.

Another recent publication utilizing U&G on Twitch.tv is from Hilvert-Bruce, Neil, Sjoblom, and Hamari (2018) and measures the socio-motivations of "live stream engagement." Modeling from Sjoblom and Hamari's initial study (2016) the study substitutes the "usage" variable with "live stream engagement" and replaces its divisions. The independent variables used in the study are gratifications adapted from the traditional U&G typologies: entertainment, information seeking, meeting new people, social interactions, social support, sense of community, social anxiety and external support. Unlike the previous studies on Twitch.tv (Sjoblom & Hamari, 2016; Sjoblom, Torhonen, Hamari & Macey 2017), the Hilvert-Bruce, Neil, Sjoblom, and Hamari (2018) study does not explicate how these typologies fall within the traditional U&G need type categories: affective, cognitive, personal integrative, social integrative and tension release. The new divisions of the dependent variable of "usage" are: (a) emotional connectedness (b) time spent (c) time subscribed and (d) donations. The results of the study suggest that six of the eight gratifications predict a least one of the variables within live stream engagement.

The two gratifications that did not prove statistically significant in showing a relationship to live stream engagement were social support and social anxiety. This research model showed the strongest relationship between the independent variables of sense of community, social interaction, meeting new people and the dependent variable of emotional connectedness. The researchers acknowledge that for future studies, emotional connectedness may serve better as predictor for (b) time spent (c) time subscribed and (d) donations. This study did well to expand on the traditional typologies of U&G and include measurements that explore the social functions of Twitch.tv as a new media platform. Still, the structure of the research did not examine the specific technological features of Twitch.tv as unique opportunities for distinct gratifications.

In all of these studies the researchers have a particular focus, paying less attention to technological affordances and paying more attention to content or "content types." The possibility of new gratifications from the typologies proposed by the MAIN model and U&G 2.0, as well as the nuanced gratifications available from specific feature use, remain unexplored. In fact, at times the researchers overlook the presence of the technological affordances from specific features and instead group their functions together in order to simplify behaviors and focus their research models on more palatable patterns of use (Papacharissi & Mendlson, 2011; Smock et al., 2011). In respect to these previous studies, this study aims to make the distinction between general use and specific feature use by defining general use as time spent on Twitch.tv and classifying ten specific features, each which allow uniquely different interactions with Twitch.tv. The specific features are theorized as a collection of technological tools and were selected based on their promotion on the "about" page of Twitch.tv. The ten specific features are: (1)

browsing – using the browse feature on Twitch.tv to explore new content; (2) searching – using the search feature to find a desired channel or category; (3) chatting – using the chat feature to interact with either the streamer or other users; (4) cheering – using the cheer function to interact with the streamer by donating a Twitch.tv currency known as "bits;" (5) following – clicking the follow feature to receive notifications about when a specific streamer is going online; (6) subscribing – opting into a monthly transaction of a specified monetary tier to support a specific streamer; (7) donating – opting into a single monetary transaction to support a specific streamer and (8) clipping – creating a video clip of a stream to share with others on Twitch.tv; (9) emoting – using stream specific images or GIFs in the chat; (10) whispering – sending another user a direct message.

Research Questions

The numerous specific features available on Twitch.tv make it possible for users to engage in several sets of unique gratifications. It is expected that user's gratifications for each specific feature use will be distinct. At the same time, usage on Twitch.tv does not have to be immersive or highly interactive. It shares qualities with the preceding communication medium of the television and thus may yield more passive gratifications related to the traditional U&G framework. In the previous studies on Twitch.tv, researchers utilized the traditional U&G typologies of enjoyment, information seeking about game products, learning about game strategies, recognition, companionship, shared emotional connection, escape, distraction, relaxation, meeting new people, social interactions, sense of community, etc. This study plans to make use of those typologies as well as incorporate the new typologies suggested by Sundar & Limperos in U&G 2.0 (2013): realism, coolness, novelty, being there, agency-enhancement, community

building, bandwagon, filtering/tailoring, ownness, interaction, activity, responsiveness, dynamic control, browsing/variety-seeking, scaffolding/navigation aids and play/fun. The combination of both old and new typologies from traditional U&G and U&G 2.0 is ideal for Twitch.tv because its similarities to the preceding communication medium of the television as well as its dynamic technological interface give it potential for both somewhat passive and highly interactive gratifications. Thus, this study aims to strike a balance between the old and the new by examining Twitch.tv with the following research questions:

RQ1: Which gratifications correlate to the use of the ten specific features on Twitch.tv: chat, cheer, emote, whisper, follow, subscribe, donate, clip, browse and search?

RQ2: Are the gratifications that correlate to specific feature use on Twitch.tv different from the gratifications that correlate to general Twitch.tv use?

CHAPTER III

Research Methods

Study Design

An online survey was conducted using Qualtrics. The survey questionnaire consisted of four sections: a consent/demographic/general use section, a specific feature use frequency section, a section consisting of questions from traditional U&G typologies and a section consisting of questions from the MAIN model and U&G 2.0 typologies. In total, 60 items made up the questionnaire. The questions were randomized (in order to avoid a systematic error) within their respective typologies: traditional U&G or U&G 2.0. These typology classifications were not made known to the participant pool. The data was collected in a single session during a 24-hour period from July 24th, 2019 to July 26th, 2019. The average time spent taking the survey was 16 minutes. Respondents were recruited directly from Twitch.tv live-stream chats with the permission of the streamer hosting stream. There was no reward offered for completing the survey.

Participants

A total of 181 complete responses were collected from Twitch.tv users from across the globe. The geo location information was made available via Qualtrics, however was not recorded here out of respect for the individual participant's privacy. This data has been deleted in order to protect their privacy interests. Respondents were able to select their gender category as either male, female, other or do not wish to disclose. Respondents identified as 90% male (n = 164), 6% female (n = 11), less than 2% other (n = 3), and less than 2% do not wish to disclose (n = 3). The age of the

respondents varied from 18 to 38, the average age of respondents was 24 (*M* = 24.25, *SD* = 4.52).

Measures

The scales and measurements used in this study relied on previous research, borrowing from already established measures on Twitch.tv and other SNS. The scales used in the questionnaire were comprised of items that used a 7-point Likert scale. The frequency of specific feature use was measured using a 7-point Likert scale (1 indicating "never" and 7 indicating "all the time"). This scale was adapted from the Wang, Yang, Zheng and Sundar's study on Pinterest (2016). The total questions considering specific feature use were 8.

The remainder of the survey consisted of scales from traditional U&G typologies as well as new scales from the MAIN model and U&G 2.0. The questions used to measure traditional motivations were adapted from Sjoblom and Hamari's study (2016) and Chang and Zhu's study (2011). These questions include factors for the following need types: affective, cognitive, personal integrative, social integrative and tension release. The enjoyment scale consisted of four items (α = .81), the information seeking scale consisted of four items (α = .78), the recognition scale consisted of four items (α = .84), the companionship scale consisted of three items (α = .85), the shared emotional connection scale consisted of five items (α = .83) and the relaxation scale consisted of three items (α = .73). The total questions considering traditional motivations were 23. The questions used to measure new motivations were adapted from Sundar (2008) in his initial theoretical proposition of the MAIN model and Jung and Sundar (2018) in their recent study on Facebook. These questions include factors for the following technological

affordances: modality and interactivity. The coolness scale consisted of three items (α = .68), the novelty scale consisted of four items (α = .77), the activity scale consisted of three items (α = .80) and the dynamic control scale consisted of three items (α = .79). The total questions considering new motivations were 13. The CO scale only showed a moderate level of reliability, however the Cronbach alpha was very close to meeting the cut off (α = .70). In a previous study the CO scale showed an acceptable Cronbach alpha (α = .89) (Wang, Yang, Zheng and Sundar, 2016, p. 4), therefore this study will include the CO scale.

CHAPTER IV

Results

Research Question 1

Previous research on Twitch.tv examined the relationship between traditional media motivations from the Uses and Gratifications theory and general use on Twitch.tv. This study explores some of those relationships with the addition of exploring the potential relationships between new motivations from the MAIN model and U&G 2.0 and specific feature use on Twitch.tv. Respondents reported that they used Twitch.tv an average of 9.89 times in the last week (*SD* = 12.5) and an average of 5.73 hours per day (*SD* = 7.65).

In regards to RQ1, a Pearson product-moment *r* correlation was conducted to assess the relationship between the variable of user motivations and the variable of frequency of specific feature use. All 10 motivation factors showed a significant relationship in at least three of the ten specific feature use categories. Only one specific feature, browsing, did not show a single statistically significant relationship with any of the gratifications.

The enjoyment gratification showed a statistically significant positive correlation with usage of six of the ten specific features: the chat feature r (180) = .263, $p < .001$, the emote feature r (180) = .182, $p < .05$, the follow feature r (180) = .255, $p < .01$, the subscribe feature r (180) = .156, $p < .05$, the clip feature r (180) = .210, $p < .01$ and the search feature r (180) = .262, $p < .001$.

The information seeking gratification showed a statistically significant positive correlation with usage of four of the ten specific features: the chat feature r (179) = .240,

$p < .01$, the emote feature r (179) = .196, $p < .01$, the whisper feature r (179) = .259, $p < .001$ and the clip feature r (179) = .188, $p < .05$.

The recognition gratification showed a statistically significant positive correlation with usage of eight of the ten specific features: the chat feature r (179) = .552, $p < .001$, the cheer feature r (179) = .298, $p < .001$, the emote feature r (179) = .452, $p < .001$, the whisper feature r (179) = .311, $p < .001$, the follow feature r (179) = .159, $p < .05$, the subscribe feature r (179) = .228, $p < .01$, the donate feature r (179) = .245, $p < .01$ and the clip feature r (179) = .279, $p < .001$.

The companionship gratification showed a statistically significant positive correlation with usage of six of the ten specific features: the chat feature r (180) = .246, $p < .01$, the cheer feature r (180) = .160, $p < .05$, the emote feature r (180) = .270, $p < .001$, the follow feature r (180) = .230, $p < .01$, the subscribe feature r (180) = .261, $p < .001$ and the clip feature r (180) = .243, $p < .01$.

The shared emotional connection gratification showed a statistically significant positive correlation with eight of the ten specific features: the chat feature r (180) = .438, $p < .001$, the cheer feature r (181) = .268, $p < .001$, the emote feature r (181) = .380, $p < .001$, the whisper feature r (181) = .319, $p < .01$, the follow feature r (181) = .206, $p < .01$, the subscribe feature r (181) = .277, $p < .001$, the donate feature r (181) = .231, $p < .01$ and the clip feature r (181) = .439, $p < .001$.

The relaxation gratification showed a statistically significant positive correlation with eight of the ten specific features: the chat feature r (180) = .210, $p < .01$, the cheer feature r (180) = .182, $p < .05$, the emote feature r (180) = .192, $p < .01$, the whisper

feature r (180) = .160, $p < .05$, the follow feature r (180) = .233, $p < .01$, the donate feature r (180) = .156, $p < .05$ and the clip feature r (180) = .193, $p < .01$.

The coolness gratification showed a statistically significant positive correlation with four of the ten specific features: the chat feature r (175) = .373, $p < .001$, the cheer feature r (175) = .165, $p < .05$, the emote feature r (175) = .292, $p < .001$ and the whisper feature r (180) = .305, $p < .001$.

The novelty gratification showed a statistically significant positive correlation with three of the ten specific features: the chat feature r (175) = .279, $p < .001$, the emote feature r (175) = .237, $p < .01$ and the whisper feature r (175) = .287, $p < .001$.

The interactivity gratification showed a statistically significant positive correlation with nine of the ten specific features: the chat feature r (173) = .486, $p < .001$, the cheer feature r (173) = .288, $p < .001$, the emote feature r (173) = .416, $p < .001$, the whisper feature r (173) = .366, $p < .001$, the follow feature r (173) = .171, $p < .05$, the subscribe feature r (173) = .303, $p < .001$, the donate feature r (173) = .254, $p < .001$, the clip feature r (173) = .295, $p < .001$ and the search feature r (173) = .166, $p < .05$.

The dynamic control gratification showed a statistically significant positive correlation with seven of the ten specific features: the chat feature r (175) = .291, $p < .001$, the emote feature r (175) = .258, $p < .001$, the whisper feature r (175) = .261, $p < .001$, the follow feature r (175) = .152, $p < .05$, the subscribe feature r (175) = .193, $p < .01$, the donate feature r (175) = .160, $p < .05$ and the clip feature r (175) = .185, $p < .05$.

In sum, the most salient relationships were found between the recognition gratification and the chat and emote features; the shared emotional connection

gratification and the chat and clip features; and the activity gratification and the chat and emote features.

Research Question 2

In regards to RQ2 a Pearson product-moment *r* correlation was conducted to assess the relationship between the variable of user motivations and the variable of general use, or average time spent on Twitch.tv per day. Only three motivation factors showed a significant relationship to general use of Twitch.tv: the information seeking gratification $r\ (179) = .156$, $p < .05$, the shared emotional connection gratification $r\ (181) = .170$, $p < .05$ and the interactivity gratification $r\ (173) = .186$, $p < .05$.

CHAPTER V

Discussion

The major findings of this study are threefold. First, in utilizing scales provided from the MAIN model and U&G 2.0 this study revealed technology based gratifications that have otherwise not been measured. This finding suggests that there are gratifications beyond the content of a medium. These gratifications are afforded via the structure of the technological interface on the platform. Second, in measuring with both traditional U&G and U&G 2.0 this study suggests that Twitch.tv operates both as a traditional medium and as a new medium, with users deriving gratifications from the content of the medium as well as from the technology of the platform. Third, in comparing gratifications obtained from frequency of specific feature use against gratifications obtained from general use on Twitch.tv this study suggests that many of the gratifications available from using Twitch.tv can go unnoticed if only measuring usage based on user's average time spent on the platform.

Modality – Coolness and Novelty

Only two of the affordances from Sundar and Limperos's MAIN model were considered for this particular study. Those affordances were modality and interactivity. Modality refers to the affordance in which media stimuli are amounted to more than just their content. Modality suggests the structural elements of a medium's technology are able to afford the opportunity for users to perform an action. The modality affordance included two measures, that of coolness and novelty. These measures assume that the popularity and newness of a medium's technology can give rise to particular needs that are not psychologically present prior to exposure of a given medium. The coolness

measure showed a significant correlation to four of the specific features; chat, cheer emote and whisper, while the novelty measure showed significance with only three; chat, emote and whisper. These specific features are concerned with text/picture based communication on the platform, connecting users to other users through nuanced means of distinct actions. Their significant relationship with the modality affordance reflects that of previous research on Pinterest (Wang, Yang, Zheng, & Sundar, 2016) in which researcher's demonstrated predictable relationships between coolness and "pinning" (a specific feature available exclusively on Pinterest). This relationship might suggest that users think it is cool to be able to reach out to others, sending information on Twitch.tv, in new and slightly varied ways. The MAIN model indicates that it is possible that users may not have been aware of the potential gratifications available from these subtle structural differences in the medium. However, once made available, these specific features afford users with new needs and new actionable opportunities to fill those needs.

Interactivity – Activity and Dynamic Control

Interactivity refers to a user's ability to alter the content of a given medium in real time. Interactivity suggests that users have needs beyond simply selecting their media choice, and desire to actively influence and or control a medium's content directly. The interactivity affordance included two measures, activity and dynamic control. These measures assume that when opportunities for action and control are made available, when sheer technological functionality is increased, users will develop specific needs to interact with the medium that were not previously present. The activity measure showed a significant correlation with nine of the specific features; chat, cheer, emote, whisper, follow, subscribe, donate, clip and search. This measure showed more relationships than

any of the other measures presented in this study and moderate levels of correlation to the chat feature r (173) = .486, $p < .001$ as well as the emote feature r (173) = .416, $p < .001$. The dynamic control measure showed significant correlation with seven of the specific features; chat, emote, whisper, follow, subscribe, donate and clip. The relationship with activity and dynamic control to the specific features of chat, cheer, emote and whisper might suggest that these features have the potential to influence and control the content of the medium – that is, whatever is happening within the stream on Twitch.tv. These findings suggest that the use of these specific features allow users to interact with the streamer and either take control of or influence the direction of the contents within the stream itself. This is supported in Sundar's explication of the MAIN model (2008) and Sundar and Limperos's Uses and Gats 2.0 (2013). In addition to these aspects of influence and control, Sundar explains that interactivity helps to create a greater sense of dialogue within a technological system or media environment (2008). In media such as Twitch.tv allowing for interactivity, the technology invites users to serve as more than simple recipients of rigid programming and static content, giving them a robust selection of tools to shape a medium's content as a source of information and communication. In relation to the older medium of the television, this level of interactivity is unpronounced. A user who desired to influence or control a particular content was limited in their interaction, tethered to the constraints of the technology itself – one could either change the channel, selecting a new content, or turn off the television, shutting down the medium altogether. The relationship of activity and dynamic control to the specific features of subscribe and donate suggest that these features may afford users with similar gratifications regarding the control and direction of content. These specific features allow

users to show support for the contents of a stream or streamer by way of financial contribution. These specific features showed their significant correlations with the activity gratification, subscribe r (173) = .303, p < .001 and donate r (173) = .254, p < .001. In contrast to the gratification of dynamic control, the relationship between the activity gratification and the specific features of donate and subscribe might also suggest users are simply seeking further and more pronounced levels of interaction with the technological interface of the platform. When users subscribe to a channel, they receive perks or benefits that enhance their interface capabilities (e.g., a user who subscribes to a channel can gain access to exclusive emotes for that channel). A donation may offer a similar gratification, depending on the donation amount, special interface interactions can occur. For instance, a donation amount of two dollars may allow the user to select a .gif file to show up on stream (embedded directly in the live content hosted by the streamer). Still, interactions such as a donation or subscription may lend themselves to the abovementioned influence and control of content, linking activity to dynamic control. For example, donation goals or sub goals may be set by the streamer in which rewards are given, usually in the form of the streamer performing an activity, such as doing push-ups, jumping jacks, face painting or playing a specific game.

The follow feature in Twitch.tv suggests similar gratifications to the specific features of donating and subscribing, without the monetary commitment. Depending on the average viewership of a stream, the follow feature may play a role in the influence and control of a stream's content. First, the ability to follow a streamer adds a layer activity and dynamic control to the users experience on Twitch.tv by simply allowing the user to interact with the interface by clicking follow. In return, the interface will act back

sending notifications to users when their followed streamers go live. In addition to this, depending on the audience size and average viewership of a stream, an embedded notification may pop up in the livestream when a user selects the follow feature. This notification can prompt the streamer to address the user, thanking them for the follow. Oftentimes, streamers will request “hype” in chat, where subscribers and fellow followers will spam stream specific emotes to welcome the new follower.

The clip feature showed a statistically significant correlation to the gratifications of activity and dynamic control. The clip feature allows users to “clip” footage from the livestream, creating a condensed video clip of a specific section for easy reference. These clips are often shared amongst the chat members and serve as virtual memories of special moments, often used as playful ammunition to embarrass the streamer. This feature showed the highest level of correlation to the gratification measurement of shared emotional connection r (181) = .439, $p < .001$, however, its relationship to activity and dynamic control may suggest that users see the clip feature as a tool that can be used to influence the contents of a stream. In addition to this, the availability of the clip feature is yet another tool allowing for unique actions with the technological interface. In particular, users may simply appreciate the option to interact with contents of the platform according to the function of this specific feature.

The search feature showed a statistically significant correlation to the gratification of activity, but not to dynamic control. The search feature also showed a statistically significant correlation to the enjoyment gratification. These relationships suggest that the search feature is enjoyed as an interface tool, appreciated for its functionality, but not as a means of influencing or controlling content. Considering the features of Twitch.tv, the

affordance of navigability, which gives users the ability to move through a particular medium, was excluded from this particular study (Sundar & Limperos, 2013). In fact, one of the gratifications theorized within the navigability affordance is “browsing”. Therefore, in order to avoid the confusion of identical variables with unique definitions, the navigability affordance was omitted as a measurement.

In total, the new gratifications stemming from the affordances put forth by the MAIN model and U&G 2.0 did well to examine some new relationships between user motivations and specific feature use. The new measures showed statistically significant relationships with nearly every specific feature, save the browse feature, which showed no relationship to any of the measures (new or old). These findings suggest that U&G 2.0 is useful in examining relationships between new media users’ motivations and new media platforms usage.

Still, as previously discussed in the literature review, Twitch.tv is a complex media environment, embodying the essence of interactivity in new media while still bearing a mark of semblance to older, traditional media with its capacity for less involved, passive consumption and at times idle audience. The findings in this study support that suggestion; Twitch.tv can be both new and old. The scales used to measure older forms of media were used again here to examine the relationship between traditional user motivations and specific feature use on Twitch.tv. Of the six traditional media scales used in this study, all of them showed statistical significance in at least four specific feature use categories.

Enjoyment

The enjoyment gratification falls into the affective need category outlined by Katz, Gurevitch & Haas (1973). Affective need types can be described as needs relating to pleasure and emotional involvement, these are needs associated with good, positive feelings such as amusement or happiness. The enjoyment gratification showed a statistically significant relationship with seven of the ten specific features: chat, emote, whisper, follow, subscribe, clip and search. In its most base form of gratification Twitch.tv is fun. The enjoyment gratification gives insight as to which specific features show a relationship to users enjoying themselves and having fun on the platform. It is perhaps more useful to examine which of the specific features showed no statistical significance, cheer, donate and browse. Considering the browse feature showed no statistical relationship to any of the gratifications in this study, it is difficult to impress any particular meaning on its absence. It may be that the browse feature would show a significant relationship with the navigability affordance, which again was not measured in this study. The cheer and donate features, however, do share some similarities in both function and use. Their lack of statistical relationship to the enjoyment gratification may be due to their financial cost. The two features both require a form of currency, real currency for donations and a digital currency ("bits," specific to Twitch.tv) for cheers, in order to submit a one-time transaction in support of the stream or streamer. Likewise, this non-recurring action could play a role in perceived enjoyment from users. Or, the one-time interaction may not be as fun as being able to use specific features over and over again.

Information Seeking

The information seeking gratification falls into the cognitive need category outlined by Katz, Gurevitch & Haas (1973). Cognitive need types are concerned with needs relating to obtaining information, knowledge or understanding. Most simply these needs are about avenues of learning – seeking and finding what you are looking for. The information seeking gratification showed a statistically significant relationship to four of the ten specific feature use categories: chat, emote, whisper and clip. The specific features of chat, emote and whisper are forms of text/picture-based communication. Their correlation to the information seeking gratification suggests that users engage in these functions to request information directly from other users or simply to discuss topics of interest. Previous studies examining the gratification of information seeking on Twitch.tv suggest users discuss topics such as video game strategies, learning to play video games or which games to play/buy next (Sjoblom and Hamari, 2016; Sjoblom, Torhonen, Hamari and Macey, 2017).

Recognition

The recognition gratification falls into personal integrative need category outlined by Katz, Gurevitch & Haas (1973). Personal integrative needs are related to credibility, confidence, stability and status, these needs are theorized as a combination of both affective and cognitive needs. This need category describes people's need for the validation of others to achieve self-worth. It can be expressed in terms of expertise or accomplishment, relying on one's own perceptions of personal standing within a society. The recognition gratification showed a statistically significant relationship with eight of the ten specific features: chat, cheer, emote, whisper, follow, subscribe, donate and clip.

This gratification also showed the strongest statistical relationship to any of the specific feature variables measured in this study. This relationship was between the recognition gratification and the specific feature of chat r (179) = .552, $p < .001$. While this particular measurement has not been studied in the context of specific feature use a similar construct was used to measure the recognition gratification against the amount of time spent on Twitch.tv (Sjoblom & Hamari, 2016). Sjoblom and Hamari (2016) used regression to assess the predictors involved with general use on Twitch.tv and found a negative relationship between the recognition gratification and the use of Twitch.tv. While the statistical procedures used between this study and the study from Sjoblom and Hamari (2016) are not entirely equitable, the findings of this study suggest that there is a meaningful relationship between personal integrative needs, specifically the recognition gratification, and Twitch.tv use. In fact, in addition to the chat feature, the emote feature also showed statistically higher levels of correlation to the recognition gratification r (179) = .452, $p < .001$, more than that of any other gratification. This relationship further suggests that recognition plays a role in motivations for using Twitch.tv. The relationship of chat to the gratification of recognition is relatively straightforward. User's needs for validation can be fulfilled from other users on the platform by making use of the public chat feature. The gratifications derived from chat may vary based on the size of the chat, this variable was not measured in this study. However, it could be that users enjoy chat sizes both big and small. Some users may prefer validation from ten thousand plus other users, while some users may have their needs gratified by a smaller chat of less than one hundred users. Future studies can examine this variable to clarify the effect of chat size on gratifications. The recognition gratification could be achieved in a variety of ways

within the specific feature of chat. It could be that some users achieve recognition by telling jokes, expressing expertise on the topic being discussed by the streamer or having status in the game being played (such as when popular “pro” streamers participate in other streamer’s chats). The relationship of the emote feature to the gratification of recognition is a bit more complex. The use of emotes on Twitch.tv can be a language of expertise unto itself. There are some emotes that can be used throughout the entirety of the platform, while other emotes can only be used when a user subscribes to a particular channel. With each channel having its own unique emotes, they carry community specific meanings derived from that channel’s shared experience. These emotes can thus serve as cultural knowledge, each symbolizing an event in the history of the community. For example, an emote can be a small image of a streamer’s face reacting to a video, this image might be from a livestream dating back to 2015, its meaning was initially established in that livestream and the users that use the emote may or may not have knowledge of that event, however, for those that do it may be that their appropriate use of this emote demonstrates expertise and thus fulfills the personal integrative need by way of collective recognition. The findings therefore suggest that there may be a meaningful relationship worth exploring between these two variables, one that may be of use for future studies considering nuances within specific feature use on Twitch.tv. The remaining statistically significant variables of cheer, whisper, follow, subscribe donate and clip could hold a variety of implications. The cheer feature typically functions as a colorful embedded notification within the livestream. This feature has a monetary value discussed previously, and thus may prompt a streamer to thank the user for using the feature and contributing financial support the stream. In regard to the gratification of

recognition, this specific feature suggests that its use offers the user some sense of status. The same may be said of the follow, subscribe and donate feature. The whisper feature is used for direct contact with a specified user. This study suggests there is a statistically significant relationship between the whisper feature and the recognition gratification. It may be that users feel a sense of recognition if they are contacted directly from other users in the livestream chat. For example, if a user gifts the chat with several subscriptions the recipient of one of those gifted subscriptions may reach out directly and thank the other user for their generosity, the gift giver may then have their personal integrative need filled through that recognition. The clip feature allows users to select a moment from the livestream and publish it to a channel's "clips" section, giving other users access to share the clip via Twitch chat or hyperlink. The statistical relationship between the clip feature and the recognition gratification may be similar to the relationship described between emotes and recognition. Clips serve as a virtual memory for Twitch communities, sharing a clip (an aspect of the clip feature) may fulfill users personal integrative need of recognition by way of expressing their familiarity and expertise with the channel's shared history. It may also be that users feel a sense of recognition by sheer use of the clip feature, the user's name will appear as the author of the clip (i.e. clipped by "username").

Companionship

The companionship gratification as well as the shared emotional connection gratification fall under the social integrative need category outlined by Katz, Gurevitch & Haas (1973). These needs are related to improving or strengthening relationships between or within communities such as getting closer with family, introducing separate friend

groups to one another or in the case of Twitch.tv, participating in and feeling apart of the communities on the platform. The companionship gratification deals specifically with loneliness aversion. This gratification showed a statistically significant relationship with six of the ten specific feature use categories; chat, cheer, emote, follow, subscribe and clip. These relationships suggest that users can avoid feelings of loneliness by engaging with these features, gratifying their need for companionship by participating in these communities. The relationship between the chat feature and companionship gratification is most easily explained. The chat feature allows for users to participate with fellow users who possibly share similar interests based on their presence on the same channel. If nothing else, they can discuss what is happening in the livestream. Regardless the content of dialog, the relationship suggests that this interaction fills the need for companionship. This is in contrast with previous studies on other SNS. For example, in Smock et al. (2011), the researchers found that Facebook users showed no statistically significant relationship between the gratification of companionship and the specific feature of chatting. The relationship between the follow, subscribe and emote features to the gratification of companionship suggests that users feel an affinity to the streamers they support. In participating with the streamer directly, through the use of these specific features, the user's feelings of loneliness may be averted, fulfilling their need for social integration and companionship. This may also be said of the chat feature, however, as suggested above the chat feature may also be seen as access to community members beyond the streamer or channel hosts. The potential intricacies of this variable were not examined within the scope of this study. The relationship of the cheer feature and clip feature to the gratification of companionship is somewhat mysterious. It was not expected

that these features would show any statistically significant correlation to this particular gratification. In reviewing previous implications of the cheer feature, these findings may suggest that users seeking companionship may utilize the cheer feature in order to garner the attention of the streamer or the other users in the chat. If the donate feature had shown similar significance a case could be made for this approach. The two features appear to show significance in a pair, seeing as their feature function is in some ways similar. However, surprisingly the donate feature did not show significance as a pair with the cheer feature to this particular gratification. The relationship of the clip feature to the gratification of companionship may be similar to that of the cheer feature. The user may utilize the attention garnered from this specific feature to funnel out their feelings of isolation and loneliness, thus gratifying their need for companionship through elaborate calls for attention.

Shared Emotional Connection

The shared emotional connection gratification, again falling under the social integrative need category, showed statistically significant relationships with eight of the ten specific feature use categories. This gratification examines user's relationship to community, their feelings of closeness, their impressions of inclusion and their reflections on shared events. The shared emotional connection gratification showed its highest levels of correlation with the chat feature r (181) = .438, $p < .001$ and the clip feature r (181) = .439, $p < .001$. As outlined in the previous discussions on the recognition gratification and the companionship gratification, the relationship between the shared emotional connection gratification and the chat feature is multi-dimensional. This relationship suggests that users need for emotional closeness and community can be

met by using the chat feature, this is somewhat self-explanatory, when individuals collectively participates in the chat, a community is formed. Involvement in this community creates space for shared experience and shared emotion. The chat allows users to become actively and instantaneously involved with other user's reactions to livestream events, the events prompt users to engage in empathy, responding to the perceived emotions of their fellow users and stream host. The clip feature allows the community to document these emotional events, adding to the collective virtual memory of the chat. It seems natural, given the affordances of these specific features that they would show the highest correlations with the shared emotional connection gratification. It is somewhat surprising that the emote feature did not show this same level of moderate correlation to the shared emotional connection gratification. The emote feature by design is meant to express emotion, hence the name "emote." This feature makes use of small images as an alternative to textual communication. While the emote feature did show statistically significant levels of correlation with the shared emotional connection gratification r (181) = .380, $p < .001$, in comparison to the recognition gratification the statistical significance is lower r (179) = .452, $p < .001$. This comparison might suggest that users are fulfilling needs not necessarily designed in the function of the specific feature, suggesting there might be unintended technological affordances. For example, if emotes were specifically designed as a feature meant for expressing emotion, but users were also using the emotes for something else entirely, such as using emotes as units of expertise or signifiers of adeptness. The nuances of this relationship are beyond the scope of this study; however, it is worth noting that some specific features may extend past their intended use, fulfilling unique and unexpected gratifications for their users. The whisper

feature's relationship with the shared emotional connection gratification is similar to that of the chat feature, only the whisper feature is more intimate, its function allowing for direct one to one communication. Oftentimes users will connect directly to other users in the chat by using the whisper feature. This interaction may be prompted by a shared emotion connection, whether positive or negative. For instance, if a user admires the comment of another user in the chat then the user may whisper the admired user to carry on the connection in a more private context, where each user can communicate directly. It may also be the case that a user finds a comment in the chat disagreeable, and thus reaches out to express their displeasure. However, according to the items compiled for the shared emotional connection gratification, it is likely that users are connecting with each other based on their positive attitudes towards other community members. The remaining specific features of cheer, follow, sub and donate are all considered ways of supporting a streamer and growing that streamer's community. Their significant relationship to the shared emotional connection gratification suggests that users need for closeness and community can be fulfilled not only in the immediacy of interactive participation via chat or in the shared experiences of past events but also in the ongoing activity of community building in and of itself. This finding is supported by a previous study on Twitch.tv in which Sjoblom and Hamari (2016) found social integrative need types were their sole motivation types for subscriptions to streamers on Twitch.tv. Their research also showed support for the relationship between the follow feature and the shared emotional connection gratification suggesting a significant relationship between the number of streamers a user followed and the social integrative need types (Sjoblom & Hamari, 2016).

Relaxation

The relaxation gratification falls into the tension release need category outlined by Katz, Gurevitch and Haas (1973). Tension release needs are related to escapism and restfulness. This gratification is most often associated with motivations for watching television. The relaxation gratification showed a statistically significant relationship with eight of the ten specific features: chat, cheer, emote, whisper, follow, subscribe, donate and clip. In previous studies on Twitch.tv, the relaxation gratification showed the most significant relationship to the variable "hours watched" or "time spent," the most passive activity available on Twitch.tv (Sjoblom & Hamari, 2016; Sjoblom, Torhonen, Hamri & Macey, 2017). In this study, "hours watched" or "time spent" is theorized as general use as according to Smock, Ellison, Lampe and Wohn (2011) and is measured indeed more generally as "hours used" (i.e. "how many hours per day do you use Twitch.tv?"). It was expected that this study's variable of "hours used" would also show higher levels of correlation to the relaxation gratification, it is somewhat surprising that so many of the specific features showed some degree of significant correlation. This may be due to the fact that users do not see the specific features on Twitch.tv as parts making up a whole. It may be that users identify Twitch.tv as a cohesive singular unit, the features of which being taken for granted as Twitch.tv itself. The correlation models suggest otherwise, showing variance between the gratifications measured and the specific features on Twitch.tv. That being said, the eight features that showed a significant relationship to the relaxation gratification may suggest that users obtain a sense of restfulness or escapism from active engagement with those specific features. This finding does not eliminate the possibility that users may also fulfill needs on the same platform through passive

engagement, such as simply watching content on Twitch.tv. This possibility will be explored in more detail in the next section concerning RQ2.

General Use

In regards to RQ2, only three of the ten need types showed a significant relationship to general use on Twitch.tv: the information seeking gratification, the shared emotional connection gratification and the interactivity gratification. The lack of significant relationships between the gratification variables and the general use variable is supported in the previous study measuring the specific feature use on an SNS (RQ1) against the general use of an SNS (RQ2) (Smock, Ellison, Lampe & Wohn, 2011).Those scholars found only three of their nine motivation factors showed a significant relationship to general use on Facebook: relaxing entertainment, expressive information sharing and social interaction, however six of their nine motivation factors showed a significant relationship to specific feature use on Facebook (Smock, Ellison, Lampe & Wohn, 2011). While these gratifications are not entirely equitable to the gratifications identified in this study, there are some noteworthy parallels. Mainly, the Facebook study suggested that in measuring gratifications against time spent on Facebook there was little revealed regarding the user's psychological needs and the gratifications of those needs. However, when measuring gratifications in relationship to specific feature use, significant relationships were revealed that were otherwise hidden. That finding is echoed in this study as well, when measuring the ten gratifications against specific feature use, all ten gratifications showed a statistically significant relationship with at least three of the ten specific features. This is to say, even one gratification measured against the ten specific features revealed at least the same amount of data as all of the gratifications measured

against the one traditional variable representing media use, “time spent” or “hours watched.”

The numerous technological affordances available from the specific features on Twitch.tv allow for a plethora of user gratifications. The gratifications identified in this study suggest that Twitch.tv is both “new” and “old” allowing for a complex model of use ranging from passive consumption to interactive community building. In its most active form, Twitch.tv is a thriving community of lively participants engaging in oftentimes hyper-meta activities, constantly building on shared experiences and events both real and virtual. This study did well to examine some of these complex interactions, needless to say, there is still more room for research and discussion.

Practical Implications

It would appear that Twitch.tv has done well to include a variety of features that allow for unique gratifications. The lack of relationships shown in the coolness and novelty gratification may suggest that users are content with the current features, that they are familiar and functional. If Twitch.tv were to increase or change the features too drastically, it could lead to users having feelings of dissociation with the platform. The statistical results suggest that Twitch.tv user’s use the current features not because they are “new and improved” but because they work, their affordances are obvious, and they do different things (as suggested by the nine statistically significant relationships to the activity gratification). Aside from this, it would appear that Twitch.tv has fulfilled many gratifications for users through its availability of functional specific features. Thus, the practical implications of this study lend themselves more readily to the streamers who host these communities of users. It will be assumed that the most beneficial conversation

points for streamers is centered around the financial contribution from their community of users, hence the focus of these practical implications for streamers will be on the donation feature and the subscription feature.

The donation feature showed its highest levels of significance with the recognition gratification and the activity gratification. This relationship suggests that users want to be identified not only by the streamer, but by their peers as well. If the streamer were to increase this gratification for the user by firstly recognizing the user who donated, but then also encouraging the chat to do the same, there may be increased usage of the donation feature. The subscription feature showed its highest levels of significance with the shared emotional connection gratification and the activity gratification. This relationship suggests that users may be more motivated to subscribe if their feelings of closeness and community are increased. The shared emotional connection gratification showed its most significant relationships to the clip feature and the chat feature. If the streamer were to encourage users to engage with the clip feature and the chat feature there may be an increase in user's feelings of community, which as suggested by the correlation model may play a role in increasing user's interaction with the subscription feature.

Limitations

This study provided a plethora of new data on the relationships between user gratifications and specific feature use on Twith.tv. Despite the productive data sets this study has several limitations. First, this study used a nonprobability convenience sample. The findings of this study may not accurately reflect the large user base on Twitch.tv. Second, the study was conducted using an online self-reported survey. There is no way to

verify that respondents are giving accurate reports of their usage, nor is there any way to monitor if respondents are paying full attention to questions in the survey. Third, the correlation model used in this study cannot predict the cause and effect relationship between variables, thus it is impossible to determine whether the user gratifications are influencing specific feature use or vice versa.

Future Research

Future research could be conducted to determine more gratifications from specific feature use on Twithc.tv. The entirety of the MAIN model was not applied in this study, leaving room for the need categories of agency and navigability to be explored in future studies. It is expected that the specific features of browse and search, which showed little or no relationships to the gratifications selected in this study, would show significant relationships to the navigability need category. There are also additional features on Twitch.tv that were not mentioned in this study. Many of those features are more relevant to the streamers who serve as the message senders on Twitch.tv. This study focused on the audience's perspective (message receivers), but future studies would do well to understand that the line between sender – receiver is blurred, especially on the complex interactive platform of Twitch.tv. Future studies could explore this blurred relationship of sender – receiver examining specific features and making use of the agency need category available in the MAIN model. Considering this study used a correlation model that cannot predict the cause and effect relationship between variables, future studies could implement more effective statistical models in order to examine the relationships suggested by this study more thoroughly. Additionally, the findings of this study are difficult to generalize. The sample size was relatively small, and may not represent the

entirety of the Twitch.tv population. Also, it is difficult to generalize the findings of this study to other platforms. It may be that the relationships discussed in this study are only applicable to Twith.tv. Future research could pursue models that aim to measure and compare specific feature use across multiple platforms.

REFERENCES

Blumler, J. G. (1979). The role of theory in uses and gratifications studies. *Communication Research*, 6(1), 9-36.

Chen, C. C., & Lin, Y. C. (2018). What drives live-stream usage intention? The perspectives of flow, entertainment, social interaction, and endorsement. *Telematics and Informatics*, 35(1), 293-303.

Chen, G. M. (2011). Tweet this: A uses and gratifications perspective on how active Twitter use gratifies a need to connect with others. *Computers in Human Behavior*, 27(2), 755-762.

Daft, R. L., Lengel, R. H., & Trevino, L. K. (1987). Message equivocality, media selection, and manager performance: Implications for information systems. *MIS Quarterly*, 11, 355–366.

Elliot, P. (1974). Uses and gratifications research: A critique and a sociological alternative. *The Uses of Mass Communications: Current Perspecctives on Gratifications Research*, 249-268.

Eveland, W. P. (2003). A “mix of attributes” approach to the study of media effects and new communication technologies. *Journal of Communication*, 53, 395–410.

Fox, J., & McEwan, B. (2017). Distinguishing technologies for social interaction: The perceived social affordances of communication channels scale. *Communication Monographs*, 84(3), 298-318.

Freitas, E. (2018). 2017 twitch year in review: the comic book. Retrieved from https://blog.twitch.tv/2017-twitch-year-in-review-the-comic-book-ed1b08f8f116

Freitas, E. (2018). Thursday night football returns to twitch. Retrieved from https://blog.twitch.tv/thursday-night-football-returns-to-twitch-32a850c5bee8

Gandolfi, E. (2016). 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.

Gibson, J. J. (1977). The theory of affordances. *Hilldale*, USA, 1(2).

Hamilton, W. A., Garretson, O., & Kerne, A. (2014, April). Streaming on twitch: fostering participatory communities of play within live mixed media. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 1315-1324.

Hanson, G., & Haridakis, P. (2008). YouTube users watching and sharing the news: a uses and gratifications approach. *Journal of Electronic Publishing*, 11(3).

Hicks, A. (2018). Livestreaming Q2'18 report – streamlabs OBS doubles, tipping breaks record $36m, twitch hits 1m+ avg. CCV, fornite dominates. Retrieved from https://blog.streamlabs.com/livestreaming-q218-report-streamlabs-obs-doubles-tipping-breaks-record-36m-twitch-hits-1m-ef41d2c61923

Hilvert-Bruce, Z., Neill, J. T., Sjöblom, M., & Hamari, J. (2018). Social motivations of live-streaming viewer engagement on Twitch. *Computers in Human Behavior*, 84, 58-67.

Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The public opinion quarterly*, 37(4), 509-523.

Katz, E., Haas, H., & Gurevitch, M. (1973). On the use of the mass media for important things. *American sociological review*, 164-181.

Kaytoue, M., Silva, A., Cerf, L., Meira Jr, W., & Raïssi, C. (2012). Watch me playing, i am a professional: a first study on video game live streaming. *Proceedings of the 21st International Conference on World Wide Web*, 1181-1188.

Kim, E. (2014). Amazon buys twitch for $970 million in cash. Retrieved from https://www.businessinsider.com/amazon-buys-twitch-2014-8

LaRose, R., & Eastin, M. S. (2004). A social cognitive theory of Internet uses and gratifications: toward a new model of media attendance. *Journal of Broadcasting & Electronic Media*, 48(3), 358-377.

Lometti, G.E., B. Reeves, and C.R. Bybee (1977). Investigating the assumptions of uses and gratifications research. *Communication Research*, 4: 321-338.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370.

Palmgreen, P., & Rayburn, J. D. (1982). Gratifications sought and media exposure an expectancy value model. *Communication Research*, 9(4), 561-580.

Papacharissi, Z. (2008). Uses and gratifications. *An Integrated Approach to Communication Theory and Research*. *Lawrence Erlbaum*, 137-152.

Papacharissi, Z., & Mendelson, A. (2010). 12 Toward a new (er) sociability: uses, gratifications and social capital on Facebook. *Media perspectives for the 21st century*, 212.

Park, N., & Lee, S. (2014). College students' motivations for Facebook use and psychological outcomes. *Journal of Broadcasting & Electronic Media*, 58(4), 601-620.

Rubin, A. M. (1981). An examination of television viewing motivations. *Communication Research*, 8(2), 141-165.

Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication & Society*, 3(1), 3-37.

Sjöblom, M., & Hamari, J. (2016). Why do people watch others play video games? An empirical study on the motivations of Twitch users. *Computers in Human Behavior*, 75, 985-996.

Sjöblom, M., Törhönen, M., Hamari, J., & Macey, J. (2017). Content structure is king: An empirical study on gratifications, game genres and content type on Twitch. *Computers in Human Behavior*, 73, 161-171.

Smock, A. D., Ellison, N. B., Lampe, C., & Wohn, D. Y. (2011). Facebook as a toolkit: A uses and gratification approach to unbundling feature use. *Computers in Human Behavior*, 27(6), 2322-2329.

So, J. (2012). Uses, gratifications, and beyond: Toward a model of motivated media exposure and its effects on risk perception. *Communication Theory*, 22(2), 116-137.

Sundar, S. S., & Limperos, A. M. (2013). Uses and grats 2.0: New gratifications for new media. *Journal of Broadcasting & Electronic Media*, 57(4), 504-525.

Sundar, S. S. (2008). The MAIN model: A heuristic approach to understanding technology effects on credibility. *Digital media, youth, and credibility*, 73100.

Swanson, D.L. (1977). The uses and misuses of uses and gratifications. *Human Communication Research*, 3: 214-221.

Tao, C. C., & Bucy, E. P. (2007). Conceptualizing media stimuli in experimental research: Psychological versus attribute-based definitions. *Human Communication Research*, 33, 397– 426.

Tassi, P. (2018). Twitch comments on the record-breaking drake-ninja ‘fornite’ stream. Retrieved from https://www.forbes.com/sites/insertcoin/2018/03/15/twitch-comments-on-the-record-breaking-drake-ninja-fortnite-stream/#5c2b84ff46c6F

Treem, J. W., & Leonardi, P. M. (2013). Social media use in organizations: Exploring the affordances of visibility, editability, persistence, and association. *Annals of the International Communication Association*, 36(1), 143-189.

Wang, R., Yang, F., Zheng, S., & Sundar, S. S. (2016). Why do we pin? New gratifications explain unique activities in Pinterest. Social Media+ Society, 2(3), 2056305116662173.

West, R. L., Turner, L. H., & Zhao, G. (2010). *Introducing communication theory: Analysis and application* (Vol. 2). New York, NY: McGraw-Hill.

APPENDIX A

Table 1. Summary of U&G scales and items

Item	U&G need type
Enjoyment (ENJ)	**Affective**
ENJ_1: I find using Twitch.tv to be enjoyable.	Sjoblom
ENJ_2: I find using Twitch.tv to be exciting.	Hamari, 2016
ENJ_3: I find using Twitch.tv to be fun.	
ENJ_4: I find using Twitch.tv to be entertaining.	
Information Seeking (IS)	**Cognitive**
IS_1: Using Twitch.tv, I can learn about unknown things.	Chang & Zhu,
IS_2: Using Twitch.tv, I can search for information I need.	2011
IS_3: Using Twitch.tv, I can keep up to date on current trends.	
IS_4: Using Twitch.tv, I can get useful information.	
Recognition (REC)	**Personal Integrative**
REC_1: I like when other users take my comments into account.	Sjoblom
REC_2: I feel good when my comments prove to other users I am knowledgeable.	Hamari, 2016
REC_3: I try that my comments improve my reputation among other users.	
REC_4: I like when other users take my suggestions into consideration.	
Companionship (COM)	**Social Integrative**
COM_1: I use Twitch.tv, so I don't have to be alone.	Sjoblom
COM_2: I use Twitch.tv when there's no one else to talk or be with.	Hamari, 2016
COM_3: I use Twitch.tv, so I feel less lonely.	
Shared Emotional Connection (SEC)	**Social Integrative**
SEC_1: It is very important to me to be a part of the Twitch community.	Sjoblom
SEC_2: I spend time with Twitch community members a lot and enjoy spending time with them.	Hamari, 2016
SEC_3: I expect to be a part of the Twitch community for a long time.	
SEC_4: Members of the Twitch community have shared important events together.	
SEC_5: Members of the Twitch community care about each other	
Relaxation (RX)	**Tension Release**
RX_1: Using Twitch.tv allows me to unwind.	Sjoblom
RX_2: Using Twitch.tv relaxes me.	Hamari, 2016
RX_3: Using Twitch.tv is restful.	
Coolness (CO)	**Modality**
CO_1: I use Twitch.tv because it is different.	Wang et al.,
CO_2: I use Twitch.tv because it is distinctive.	2016
CO_3: I use Twitch.tv because it is cool.	
Novelty (NV)	**Modality**
NV_1: I use Twitch.tv because the technology is new.	Wang et al.,
NV_2: I use Twitch.tv because the technology is innovative.	2016
NV_3: I use Twitch.tv because the interface is unique.	

NV_4: I use Twitch.tv because the experience is unusual.	
Activity (ACT)	**Interactivity**
ACT_1: I use Twitch.tv because I feel active when I use it.	Wang et al.,
ACT_2: I use Twitch.tv because it is not a passive interaction.	2016
ACT_3: I use Twitch.tv because I get to do a lot of things on it.	
Dynamic Control (DC)	**Interactivity**
DC_1: I use Twitch.tv because it gives me control.	Wang et al.,
DC_2: I use Twitch.tv because it allows me to be in charge.	2016
DC_3: I use Twitch.tv because I can control my interactions with the interface.	

Table 2. Descriptive statistics for specific features of Twitch.tv.

Specific Feature	*M*	*SD*	Skewness
Chat	3.76	1.84	.153
Cheer	1.46	0.88	2.47
Emote	4.13	2.25	-0.17
Whisper	1.97	1.23	1.31
Follow	5.18	1.39	-0.33
Subscribe	2.88	1.70	0.54
Donate	1.75	1.29	2.03
Clip	2.56	1.75	0.88
Browse	3.88	1.86	0.09
Search	3.54	1.70	0.39

SD: standard deviation

Table 3. Descriptive statistics for gratification scales.

Gratification Scale	*M*	*SD*	Cronbach's α
Enjoyment	5.91	0.90	.81
Information Seeking	4.28	1.33	.78
Recognition	4.27	1.46	.84
Companionship	3.55	1.73	.85
Shared Emotional Connection	4.16	1.43	.83

Relaxation	5.35	1.12	.73
Coolness	4.16	1.43	.68
Novelty	3.68	1.31	.77
Activity	3.68	1.59	.80
Dynamic Control	3.33	1.43	.79

SD: standard deviation

Table 4. Correlation between specific features and gratification scales.

	Chat	Cheer	Emote	Whisper	Follow	Subscribe	Donate	Clip	Browse	Search
Enjoyment	.263”	.073	.182’	.136	.255”	.156’	-.021	.210”	.132	.262”
Information Seeking	.240”	.112	.196”	.259”	.078	.072	.092	.188’	.067	.118
Recognition	**.552”**	.298”	**.452”**	.311”	.159’	.228”	.245”	.279”	.012	.014
Companionship	.246”	.160’	.270”	.121	.230”	.261”	.132	.243”	.044	.038
Shared Emotional Connection	**.438”**	.268”	.380”	.319”	.206”	.277”	.231”	**.439”**	-.008	.096
Relaxation	.210”	.182’	.192”	.160’	.318”	.233”	.153’	.193”	.019	.110
Coolness	.373”	.165’	.292”	.305”	.083	.141	.065	.098	.012	.141
Novelty	.279”	.042	.237”	.287”	.033	.052	.004	.147	.009	.092
Activity	**.486”**	.286”	**.416”**	.366”	.171’	.303”	.254”	.295”	-.004	.166’
Dynamic Control	.291”	.104	.258”	.261”	.152’	.193’	.160’	.185’	.062	.166

“ $p < .01$
‘ $p < .05$

APPENDIX B

Q1. Please indicate your age.

1. How old are you?

2. What year were you born?

3. Are you 18 years of age or older?

Q2. Please answer the following questions regarding Twitch.tv.

1. Do you have a Twitch.tv account?

2. Do you have a Twitch.tv Prime account?

3. How many times in the last week did you use Twitch.tv?

4. How many hours per day do you use Twitch.tv?

Q3. Please indicate the frequency of use for the following Twitch.tv specific features.

1. How often do you use the chat feature on Twitch.tv?

Never 1 2 3 4 5 6 7 All the time

2. How often do you use the cheer feature on Twitch.tv?

Never 1 2 3 4 5 6 7 All the time

3. How often do you use the whisper feature on Twitch.tv?

Never 1 2 3 4 5 6 7 All the time

4. How often do you use the follow feature on Twitch.tv?

Never 1 2 3 4 5 6 7 All the time

5. How often do you use the subscribe feature on Twitch.tv?

Never 1 2 3 4 5 6 7 All the time

6. How often do you use the donate feature on Twitch.tv?

Never 1 2 3 4 5 6 7 All the time

7. How often do you use the clip feature on Twitch.tv?

Never 1 2 3 4 5 6 7 All the time

8. How often do you use the search (or browse) feature on Twitch.tv?

Never 1 2 3 4 5 6 7 All the time

9. How often do you watch Twitch.tv without using any of the additional features listed above?

Never 1 2 3 4 5 6 7 All the time

Q4. Please indicate the extent to which you agree or disagree with each of the following statements regarding Twitch.tv. (Traditional U&G typologies: Affective, Cognitive, Personal Integrative, Tension Release)

1. I find using Twitch.tv to be enjoyable.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

2. I find using Twitch.tv to be exciting.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

3. I find using Twitch.tv to be fun.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

4. I find using Twitch.tv to be entertaining.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

5. Using Twitch.tv, I can learn about unknown things.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

6. Using Twitch.tv, I can search for information I need.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

7. Using Twitch.tv, I can keep up to date on current trends.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

8. Using Twitch.tv, I can get useful information.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

9. I like when other users take my comments into account.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

10. It feel good when my comments prove to other users I am knowledgeable.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

11. I try that my comments improve my reputation among other users.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

12. I like when other users take my suggestions into consideration.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

13. I use Twitch.tv, so I don’t have to be alone.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

14. I use Twitch.tv when there’s no one else to talk or be with.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

15. I use Twitch.tv, so I feel less lonely.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

16. It is very important to me to be a part of the Twitch community.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

17. I spend time with other Twitch community members a lot and enjoy spending time with them.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

18. I expect to be a part of the Twitch community for a long time.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

19. Members of the Twitch community have shared important events together.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

20. Members of the Twitch community care about each other.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

21. Using Twitch.tv helps me to unwind.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

22. Using Twitch.tv relaxes me.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

23. Using Twitch.tv is restful.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Q5. Please indicate the extent to which you agree or disagree with each of the following statements regarding Twitch.tv. (MAIN Model and U&G 2.0: Modality, Agency, Interactivity, Scaffolding)

1. I use Twitch.tv because it is different.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

2. I use Twitch.tv because it is distinctive.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

3. I use Twitch.tv because it is cool.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

4. I use Twitch.tv because it is new.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

5. I use Twitch.tv because the technology is innovative.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

6. I use Twitch.tv because the interface is unique.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

7. I use Twitch.tv because the experience is unusual.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

8. I use Twitch.tv because it allows me to have my say.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

9. I use Twitch.tv because it allows me to assert my identity.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

10. I use Twitch.tv because it allows me to share my thoughts with many other users.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

11. I use Twitch.tv because it allows me to broadcast to many other users.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

12. I use Twitch.tv because once I use it, I feel like it is mine.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

13. I use Twitch.tv because it features content that reflects myself.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

14. I use Twitch.tv because it allows me to make it my own.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

15. I use Twitch.tv because I feel active when I use it.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

16. I use Twitch.tv because it is not a passive interaction.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

17. I use Twitch.tv because I get to do a lot of things on it.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

18. I use Twitch.tv because it gives me control.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

19. I use Twitch.tv because it allows me to be in charge.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

20. I use Twitch.tv because I can control my interactions with the interface.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Q6. Here are some questions for us to tabulate the results. The information you are providing will be kept confidential and anonymous. (Demographics)

1. Your gender is: _____

    a. Male b. Female c. Other d. Do not wish to disclose

VITA

Hunter Chase Cantrell

Education

MA, Digital Media Studies (in progress) Aug. 2017 – Dec. 2019
Sam Houston State University, College of Arts & Media

MTS, Theology (did not complete) Jan. 2015 – Dec. 2015
Baylor University, Truett Theological Seminary

BS, Radio-Television-Film Jan. 2009 **–** Dec. 2014
The University of Texas at Austin, Moody College of Communication

Academic Awards and Honors

Outstanding Graduate Student
April, 2019
Sam Houston State University, Department of Mass Communication

Teaching Experience

Primary Instructor / Instructor of Record Aug. 2018 – Present
Sam Houston State University, Department of Mass Communication

Scriptwriting, MCOM 3375

> This course introduces the fundamental principles of screenwriting for film and television, emphasizing the substance, structure and style of screenplays. Explores principles of screenwriting through various means: reading and analyzing award winning screenplays, watching films that were born from them and of course having the students write their own original scripts

Media Literacy, MCOM 1130

> This course requires students to critically examine and analyze media found in the world around them. Through in-class discussions, interactive media demonstrations and other experiences, this course helps students make sense of and control their media environments, as well as develop a critical approach to understanding and creating media.

Analysis of Electronic Culture, MCOM 1330

This course surveys the history and theory of communication media with an emphasis on the modern United States. Topics addressed include: the impact and development of print and electronic media; the structure of contemporary media industries; the influence of advertisers, regulatory agencies and ratings services; production, distribution and syndication systems; the social influence of mass media content in culture; and the relationship of media content to the development of personal and collective values. Topics related to new media will be introduced throughout the semester, and integrated into the assessment of legacy media and legacy media industries. Students will be introduced to essential concepts in communication theory, to significant events in media history, and to emerging development in media industries.

Teaching Assistant Jan. 2018 – May 2018

Sam Houston State University, Department of Mass Communication

Audio Production & Performance, MCOM 1371

This course surveys the mechanics of audio production and the operation of studio equipment. Students study and practice the use of microphone techniques, music, sound effects, and performance. They are introduced to digital audio production and appropriate audio software. Lecture and laboratory projects acquaint students with audio production requirements and responsibilities. Students receive practical hands-on experience with attention to mixing, recording, and editing. Students are expected to produce original content for broadcast on KSHU-FM.

Research

Motivations for specific feature use on Twitch.tv (Master Thesis)

Examines the relationship between user motivations and user's frequency of use of specific features on Twitch.tv. Applies the Uses and Gratifications theory, the MAIN model and U&G 2.0, using correlation to determine the statistical significance of the relationships between variables. Compares the statistically significant relationships of user motivations and user's frequency of use of specific features against the statistically significant relationships of user motivations and general use (time spent) on Twitch.tv.