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Published: 2021-07-02

Full Articles

How is the Ramkye Bhyea` or Hela Tali' Tradition Ceremony Procession

Bety D.S Hetharion

Modeling Chat System Between Internet Relay Chat (IRC) and Caster Within A Live Streaming Platform

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Abstract

This research aims at modeling how the technology of communication works within a given streaming platform. In this paper, the descriptive qualitative method was used wherein data collection is done by observing multiple channels of varying sizes on service sites such as Twitch, followed by a description of how the technology facilitates communication between the participants. The results show that there are two available methods to communicate, namely Information Resources Catalogue (IRC) chat supported by the platform, and video or audio call, which is done by external applications and funneled to the stream. These results indicate that with the website as a platform, monomodal communication can happen by text, cross-modal communication can happen by video and text, and finally, a hybrid of the cross and monomodal communication can happen wherein at least three participants are involved. Thus, this relatively new technology used by the streaming platform opens many avenues of communication.

Keyword: Streaming platform, Information Resources Catalogue, monomodal communication, cross-modal communication.

INTRODUCTION

Online communication has now become an integral part of the web, so far as to become a part of the online entertainment space. One of the many growing and large parts of this space is live streaming, specifically gaming live-streams. As of 2016, one of the largest websites is Twitch, with over 10 million unique visitors every day, be it as the streamer or as the viewer

(Hilvert-Bruce et al., 2018). Within this live streaming platform, communication can happen between viewers and viewers and streamers using the real-time synchronous chat system known as IRC or Internet Relay Chat (Chong, 2020). Most live streaming platform streamers act in 2 roles; the first is streamer as a player, where communication can happen with other players, and the second is streamer as a caster, where communication mostly happens by viewer interaction through the IRC. In the second case, the viewer and streamer caster are differentiated by how they communicate and how they are represented (Recktenwald, 2019).

There has been much research into the subject of live streaming. Choe researched how *mukbangs*, or the Korean culture of eating together, are achieved by many technology modes (Choe, 2019). Multiple studies have used data mining to apply sentiment analysis. For instance, according to Reis, chat can be analyzed to see how they feel about a particular advertisement, which uses live streaming chat analysis in consumer marketing (Reis, 2020). Another research by Kim predicts how a particular chatter is likely to subscribe to the streamer, which applies sentiment analysis to the context of direct financial support to the channel (Kim et al., 2019). Asides from that, within the platform's context, research has also been done in regards to the interaction between streamer and viewer. For example, Friedländer notes the kinds of streamers and their motives for streaming (Friedlander, 2017). Also, Hilvert-Bruce notes viewers' motivations who become regulars and chatters of the stream (Hilvert-Bruce et al., 2018). Regarding the interaction between the chatters themselves, as a basis for upcoming research, Hastrdlová described how chatters in a general IRC behave as to who chats next (Hastrlová, 2017). Then, Ford notes that chat does not just break down in channels of thousands of viewers due to information overload (Ford et al., 2017). Finally, according to Nielsen, streaming platforms can setup specific IRC within the platform to create a sense of attachment between viewers and streamers, thus increasing viewership and engagement (Nielsen, 2017). The differentiating factor between all of these previous researches and this paper is we take a granular approach to the technology that can be accessed or viewed by the stream's visitors and, therefore, what kind of communication exists within this specific platform. Thus, this research looks at the fundamentals of the technology within this phenomenon. Moreover, it observes how communication is facilitated and represented here.

This research aims to describe how the technology of communication works within this specific live streaming platform. A qualitative description method was used to conduct this research. Multiple channels of varying sizes in the live streaming website known as Twitch were analyzed and tagged to be used as data points for the chat and stream communication.

RESEARCH METHOD

The method used in this research is the qualitative descriptive approach. Data is collected by observing past videos on demand of multiple stream channels of varying sizes. The data used is how chat interacts with each other and streamer, and how streamer interacts with other guests, hosts, or players within the stream. It is then described as to how the platform's technology allows communication to happen between all parties involved.

RESEARCH RESULTS AND DISCUSSION

The data shows that the website supports three kinds of technology to facilitate communication technology. The first is IRC technology, accessed mostly by viewers of the stream. This technology point is text-based and allows viewers to communicate with each other or with the streamer. The second is a video or audio-based call, wherein the streamer talks verbally to a co-host or guest of the stream. This kind of technology is accessed by a third-party application such as Discord. Then, the call is funneled to the stream to be watched and listened to by the viewers. The website functions as a window sill. Therefore, to speak, communication does not happen specifically on the platform, but it just presents it. The last is

a similar combination of the two. The parties now communicate with each other through this complex web of modes. For example, the streamer and guest interact via audio or video call while they as a unit interact with the viewers through IRC. Each of these will be explained in detail by the following subsections.

Form and function of IRC chat

The first and simplest of the three is IRC chat. Strict IRC chat communication happens due to interaction between the viewers and possibly the viewers to the streamer (Recktenwald, 2019). This type of technology allows synchronous and near-instantaneous communication, much like a conversation. The features of the IRC chat, asides from the message itself, include the chatter's name, their badges which function as a symbol of their status within the community, and a timestamp of the message. These features are shown in Figure 1.
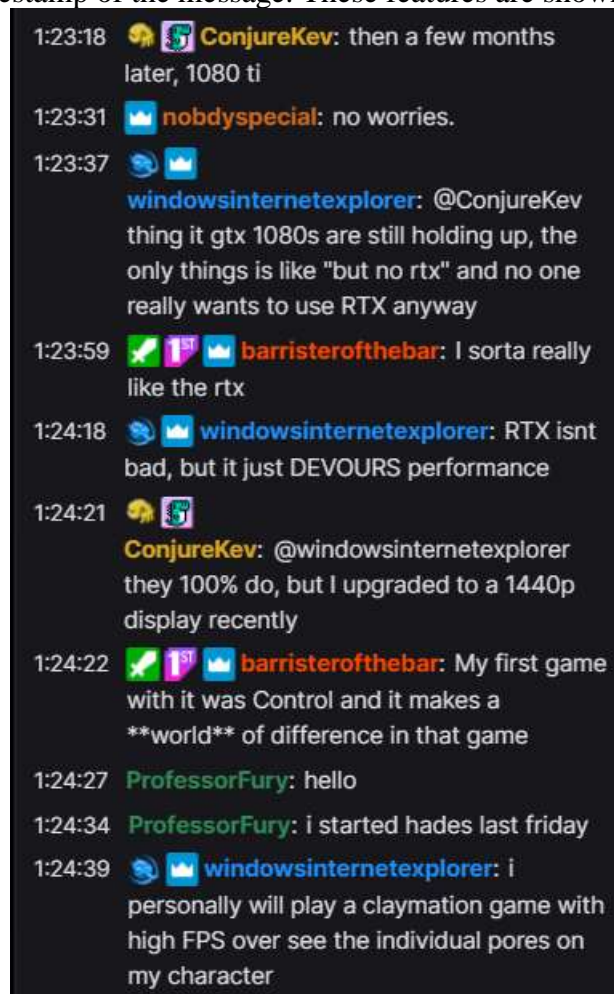
Figure 1. Screenshot of an IRC chat in a Twitch channel

Based on Figure 1, it is shown that the names of the chatters can be of different colors. It is plus the specific badges available to each viewer based on certain criteria. It includes their subscribed status, what kind of jobs they do for the channel, and other site-wide criteria. It creates a unique fingerprint or signature of sorts for the chatter. Therefore, anyone reading the messages can quickly tell who is saying what. It helps with the near synchronous and real-time text-based conversation, which is in line with what Chong suggested, being that that kind of feature was thought to be specifically exclusive to spoken communication (Chong, 2020). Another feature available is that IRC chatters can tag each other to signal who should talk next. However, this does not preclude others from joining in. It would indicate that the turn-taking

signal strategy in an IRC channel is not strictly linear, as Hastrdlová implied (Hastrdlová, 2017). It creates a monomodal, optional participation, two-way communication within this technology.

Form and function of audio and video call

The second kind of communication technology observed within this platform is presenting an audio or video call. It is mostly done by the streamer when playing with other people, which requires communication, such as a competitive deception game where players can be from all over the globe. From the website's perspective, this communication is hosted and done by a third-party application and is funneled to the stream to be watched or listened to. Viewers essentially observe this communication by being in the channel. Figure 2 shows an audio call happening, whereas Figure 3 shows a video call taking place.

Figure 2. Screenshot of an audio call in a Twitch channel

Figure 2 shows that a viewer can see who is talking, indicated by the small bubble in the top left. The bubble shows the speaker's profile picture, followed by the speaker's name within the third-party application. The figure shows this communication from the viewer's perspective, who is seeing what the streamer, the woman, is seeing. Thus, the streaming platform presents this communication. It does not directly facilitate it, instead, it merely presents the communication as part of the stream for the viewer's benefit so that they may follow the discussion.

Figure 3. Screenshot of a video call in a Twitch channel

Based on Figure 3, it is similar to the previous setup, wherein the viewers see what the player sees, the background overlay, the game, and the multiple players involved. The only difference to the audio call is that this would allow the streamer and viewer to directly see what every player is expressing and where they are looking. It allows a higher degree of attachment and immersion to the stream.

There is a difference between the two modes of communication technology. As discussed, video call creates even bigger ease and less effort for all parties of the stream to follow and engage. It would strengthen Chong's point of principle of least effort for communication (Chong, 2020). It is also congruent with Nielsen's observation that one of the primary motives of a stream is to learn about what is being streamed, the case here being a competitive deception-based game (Nielsen, 2017). Either way, this communication technology creates both a high participation two-way communication between the players and an informative video for the viewers.

Form and function of hybrid between IRC chat and video-audio call

The last kind of technology purported by the website is essentially a hybrid of the previous two kinds. Here all participants interact with each other. The mainstreamer and a guest, co-host, or other players communicate by video or audio call, facilitated by an external application while presented as the website's stream. Those people have access to the IRC to connect and communicate, where viewers can provide feedback, ask questions, and respond to each other, thus offering a way to interact with what they see on stream (Reis, 2020). Figure 4 shows an example of how this kind of technology works.

Figure 4. Screenshot of combination between IRC chat and video-audio call

In Figure 4, it is shown that the streamer, the man at the bottom right, is communicating with the stream guest, the lady at the bottom left. They are using video and audio call technology, similar to the previous points. Then above the man, a chat window is visible. The chat responds to what is happening, using text-based communication to even emote such as "LOL". It is much similar to the findings of Chong (Chong, 2020). Also, the chat contents reveal that the streamer is interviewing his guest and that they are suggesting questions to ask. Coincidentally, the guest's line of sight suggests that she is looking at the streamer, and This indicates that now all parties, viewers, streamers, and guests are connected by the website's available technology either directly through IRC or indirectly through video and audio calls. Thus, a hybrid network of monomodal and multimodal communication is created.

CONCLUSION

In conclusion, live streaming as a platform creates a unique environment to facilitate multiple kinds of communication. IRC chat within the website creates an environment for multiple viewers to communicate by text with each other. Video and audio call facilitates a verbal communication mode to be seen and listened to by the viewers. Finally, combining those two creates a hybrid network where multiple participants of differing roles, streamer, guest, and viewer, can communicate with each other by distinguishable methods, thus creating a combination of the monomodal and multimodal communication network. It shows that the live streaming website technology provides a platform for a unique communication experience for everyone involved.

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