Twitch Impressions Case Study

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Abstract
As live streaming becomes a more "recognized" and viable career to have, streamers are looking into more ways to grow their channel, and brand. In this case study we discuss Impressions, a tool that provides viewers with a more inclusive way of interacting with a streamer, and providing them with more meaningful data. Impressions allow viewers to provide mid-stream feedback that would give the streamers a qualitative and quantitative understanding of their current performance in the stream. Impressions acts as an opportunity to enhance the communication between streamers and their viewers. We discuss the thought process of creating Impressions, share our findings, and discuss what opportunities lie ahead.

Author Keywords
Case study, Twitch, live streaming, product design

CCS Concepts
•**Human-centered computing** → **Human computer interaction (HCI);** *live streaming;* Case study; https://dl.acm.org/ccs/ccs_flat.cfm

Introduction
We are witnessing a new era of patronage as online platforms have provided content creators new mediums of receiving financial support. As more people turn to content

creation, the landscape will continue to become more competitive and saturated. Content creators are more than just the content (product) that they produce, they are a brand, and a business. In order for content creators to build a successful brand, which is their business, they need to be popular enough as this will help them earn income through subscriptions and donations for example [4]. However, there is no one simple path to become a popular and successful content creator. For some, they went viral, for others they had a huge break, others constantly grew; whichever it may be, they all must have a supportive fanbase to help sustain their business.

Viewers are the "customers" for content creators, and on Twitch.tv building community is essential in having a successful presence. In order to get followers, subscriptions, and any type of support, viewers expressed the importance of being genuine, having quality content, and a sense of community [4]. These things cannot be possible without understanding and listening to your audience. On Twitch, there are several ways of interacting with a streamer such as typing in chat, donating, subscribing, etc. However, these methods do not truly provide context for how your audience truly feels.

In addition, the barriers of entry are limited because having your message recognized by a streamer is more likely if you donate or subscribe as there is a text to voice translation. These people are referred to as "clout chasers," as they use money as a shock factor to get noticed and seek attention, which has priority over a streamer's attention [4]. In our case study we explore Impressions, a tool with the intention of potentially bridging the communication and interaction gap between streamers and their viewers. We test Impressions to see whether this could be a viable tool for Twitch users and see whether they think this will help bridge the communication gap.

Background

Over the course of 3 months, our research team has been designing a tool to provide viewers the opportunity to share how they felt about a stream through a quick survey that could be accessed during any point of the stream. In the backend there would be visualizations for both overall ratings throughout a stream and a view of specific responses with a playback clip of what happened might of caused that rating to occur.

In order to ensure our design was user-centric, our process involved a heavy focus on determining user needs, wants, and pain points. This included the development of journey maps, user flows, wireframes, and user feedback (including speak aloud exercises with an interview component).

The feedback acquired was used to develop new iterations of our designs and create a better user experience. Impressions would allow the users to voice their concerns about actions that are happening in the stream, which allows streamers to better tailor their upcoming streams to their viewers.

Methods

We conducted semi-structured interviews along with usability tests with 10 participants who were all Twitch users. Twitch user response rate was 90% while Twitch streamer response rate was 0%. The interviews and tests were conducted between September-November 2019 and lasted between 10-30 minutes long. All participants were reached out through each team member's social circle. The interview and tests were conducted through Discord with audio and or video and they were recorded with participants' consent and knowledge. Participants received no incentive for

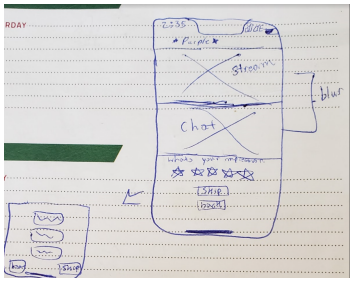

Figure 1: Figure shows one an early lo-Fi sketch of Impressions.

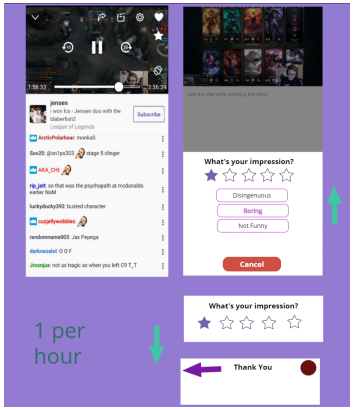

Figure 2: Figure shows an early adaptation as a proof of concept.

completing our interview and test.

Research Questions

When we were in the early stages of conceptualizing Impressions, we developed research questions with the objective of helping us better understanding if Impressions would be viable amongst Twitch users. How much do viewers actually care about having the opinions expressed, and is the data returned in the backend useful for streamers?

RQ1: *What do Twitch viewers think about Impressions?*

It's important to understand whether Twitch viewers find Impressions to be a viable concept for the Twitch ecosystem.

RQ2: *Do you feel the analytics for Impressions are useful?*

Another aspect that we wanted to see whether the backend side of Impressions is useful for Twitch streamers. We wanted to better understand if the metrics returned would be useful to help further grow a channel.

Results

Iteration 0

We learned that viewers perceive their financial and emotional support as ways of motivating a streamer. They also expressed that they want to be a part of their streamer's success and get them to a point where they will be financially stable [4]. With this understanding, we were able to have more empathy for what viewers are thinking when it comes to their thought process of providing emotional or financial support. With that in mind, we wanted to create and design a tool that is inclusive, does not require any type of payment (i.e Bits, Subscriptions, Donations) and is simple to use to create engagement.

We started designing on mobile. The first low fidelity sketches of the Impressions were done using pen and paper, this allowed the team to collaborate on them and modify them easily. After a finalized paper prototype was reached, it was then transferred to Adobe XD where we create a more high fidelity mockups then interactive prototypes.

Before conducting individual interviews and tests with Twitch users, we first showcased our early work to our research lab where 10+ people gave bit sized feedback in our design. The people who shared their feedback were users of Twitch. We incorporated their early feedback in our design, which was later tested in the first round of testing.

Iteration 1

For our first testing iteration, we conducted tests with five participants who are all users of Twitch and are familiar with the platform. Two out of five participants mentioned how the flow of Impressions was rather redundant and not simplified enough. The original process took six clicks and participants suggested how they would improve the process. With their feedback we were able to reduce the process by half, making Impressions twice as efficient to get through.

Three out of the five participants also shared how several UI elements did not evoke the idea of what the Impressions button was supposed to do. Originally, there were five meteors to represent a Likert Scale, however, participants were confused why this symbol was chosen and what it meant. In addition, they did not feel that it corresponded with what they were trying to accomplish, which was rating the stream experience. Furthermore, those three participants also brought how up the UX and placement of those UI elements were not smooth and did not feel heuristic. For example, the Impression button itself was aligned differently compared to the other buttons, this confused users. They thought the graph icon was supposed to represent stats and not Impressions.

Overall, participants thought the concept and utility of this Impressions had some value. They expressed that it could have purpose on Twitch and be beneficial while watching a stream.

> It was good, you could provide feedback without closing/blocking the stream. (P1, 27, Male, Hispanic)

> I think fundamentally this is good because I can share more explicitly how I feel. This just needs to simplified more. (P2, 23, Male, Asian)

Iteration 2

Using the synthesized feedback from iteration 1, we mainly focused on improving the Impressions experience of navigating through the tool and redesigning a lot of the UI elements and the placement of those elements. In addition, we wanted to test our backend analytics design of Impressions and determine whether our testers believe these analytics would benefit streamers. We also switched our medium to desktop design because the entirety of Twitch's capabilities can be used through desktop as opposed to mobile, which is a bit limited. Furthermore, we did some other fine tuning in our design such as fonts, and colours.

We then recruited another set of five different participants who are all users of Twitch and have good familiarity of the platform. We tested the Impressions design from a viewer's and streamer's perspective.

While participants felt the improved simplicity of Impressions was good, they expressed that the placement needed to be changed. There were several mentions that the Impressions box itself was too difficult to read on a 1920x1080

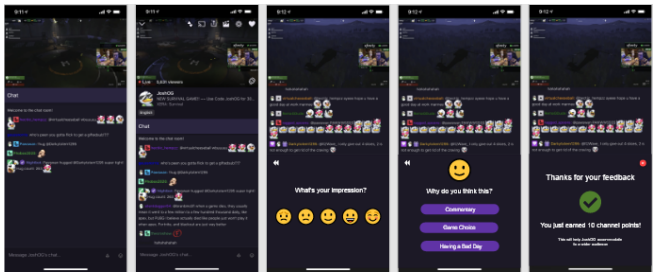

Figure 3: Figure shows improved mobile version of Impressions that's two times more efficient when tapping. We transferred this new process on the desktop medium.

dimension screen. In addition, the placement of the Impression icon to initiate the process was not placed in the ideal area. Participants struggled to find the button and expressed that buttons on the video player relate to video settings. Placing it in the chat section is where users normally go to when they want to interact with the stream. This is where they use bits, chat, insert emojis, etc. Therefore, to them, placing the Impression button there would make more heuristic sense.

> It's hard to read the font, it's too small, make the prompt box bigger. (P6, 24, Male Asian).

> The buttons on the video player screen are meant for settings, surveys don't go there. (P7, 22, Male, Hispanic)

When testing the analytics portion, participants felt the analytics provided made sense in hindsight with what the tool is supposed to do. However, the interface needed better clarity for what exactly these analytics would do.

> “Also, the Y axis has no number. There’s a lack of clarity for what these words mean.” (P8, 21 Male, Caucasian)

Final Iteration

Design is never truly finalized, it’s constantly changing. However, this is the final iteration from all the feedback we have received within the project timeline. This “final iteration” incorporates all things liked by the participants such as creating a simplified tool with an easy process to allow viewers to leave their impressions of a given stream, where their feedback would be incorporated in the back-end analytics. In addition, the analytics dashboard, specifically the metrics returned was described as useful and helpful when returning information from the Impressions tool. From the brief testing we’ve done, Impressions has potential to be a tool that can help facilitate more community engagement and interaction between the streamer(s), and viewers. This can help grow a streamer’s community and their brand, which relates to our initial motivation of designing a tool that provide viewers a way to help grow their favorite streamer’s channel through this type of emotional support.

Discussion

From our results, Impressions received positive reception as participants thought it was an interesting concept and saw potential value of this tool in the Twitch viewing experience. The process and flow of interactions was intuitive and simple enough to use. As for the backend analytics design, participants felt that the analytics provided were useful and represent what type of data you want to see in regards to Impressions. We also learned from our results that because there was no need to input anything such as Bits, Subscriptions or Donations, participants felt that experience was inclusive and that they could engage with a streamer without any barriers of entry.

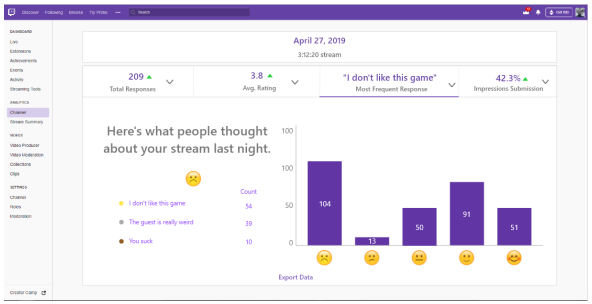

Figure 4: Final design of the qualitative design of the Impressions analytics. The streamer gets to see the terms that were used the most as well as a quantitative view of the results.

In today’s “data economy,” data has become a sought after resource used by individuals and organizations to make higher confidence decisions. It gives context, evidence, and empathy to allow entities to path out how they want to accomplish particular objectives. When it comes to live streaming, data plays an important role for the streamer in better understanding their stream performance. You can learn about your general audience, but there are currently no ways on Twitch to really understand how viewers perceive your stream at a given moment. Perhaps you have a high bounce rate on your stream, but you might not know when this massive bounce rate occurred and what caused it. Impressions aims to bridge the gap in truly understanding how your viewers feel.

Viewers believe that their financial and emotional support really makes a difference. However, we noticed that expressing emotional support seems to be more difficult for streamers to consume compared to financial support. Streamers enable notifications upon receiving financial support, however, non-financial support can get lost because

there are no notifications. Emotional support is essential for streamers as it provide evidence and reassurance that they're doing good.

In order to help foster and build community on Twitch, streamers need better data to understand what they could do in the future to provide a better stream experience for their audience. If you're able to better understand your mistakes, you can fix them in the following streams. Having a more satisfied audience can lead viewers to become fans and overtime grow their intensity of their fandom. Results show having a stronger fandom for a streamer can lead to the increase of financial support. Higher satisfaction could lead to higher retention, increased digital patronage spending, etc. [4].

Limitations

Our case study had no significant quantitative data to use for the research and design of this project. All of the data we used was qualitative. Furthermore, most of the tests were conducted through audio and video, however most of the data that was saved was through just audio. When testing out the backend analytics, none of our participants were dedicated streamers. They have streaming experience, but would not consider themselves to be regular streamers. Therefore, their perspective might not be as in depth compared to a more knowledgeable Twitch streamer. Recruiting for streamers was difficult as our connections could not find time to schedule an interview within our sprint timeframe. In addition to recruiting troubles, there were no female participants in this case study. We recognize having diverse backgrounds for our participants will help us further understand the capabilities and problems of our Impressions project. Because we did not have any female participants, we might have missed out on insights that a female user might only know.

Conclusion

Our case study provided some early results for how Impressions could synergize with Twitch.tv and continue to grow and evolve the platform in its mission of "building the future of live, interactive entertainment one community at a time" [1, 2]. The goal was to create an inclusive and simple tool that would reduce parity from viewers who abuse donations and subscriptions. While communicating with streamers doesn't require innate payment, viewers who donate and subscribe more often allows them to become more recognized within the community, which can eventually lead to them having priority when communicating with a streamer [4].

There are passionate viewers who provide emotional support and meaningful feedback, but don't always have their messages noticed. This is where we believe Impressions could play a role in facilitating better communication amongst passionate fans. The results from our brief testing showed us there was positive reception to this idea of how Impressions could play a role in the Twitch ecosystem. We learned that simplicity is truly key, as we don't want to make Impressions a chore to do. As a result we simplified the process by 50% compared to our first iteration and incorporated the idea of implementing channel points, a new in-house point system on Twitch [3] as an incentive. In addition, placement is key, as Impressions should serve as another mechanic to interact with a streamer, as a result we placed it where the chat section is because participants expressed that this thematically made more sense for them when they want to communicate with a streamer.

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