

## Extended abstract: Twitch diversity

Twitch is a worldwide gaming and eSports focused platform based on third-party content (Förderer & Gutt, 2021). A great deal of creators go live everyday and create amusing clips. As a long time user, the digital Twitch culture I see is based on the content and streamers that I watch, I am in my own little bubble on the platform. Recently, a big Twitch data leak about paychecks was made public, this has sparked many conversations about the white male privilege on the platform (Molloy, 2021). This made me curious. I became interested in learning if that was the truth, if Twitch really had privileges about certain people. This is how I started my analysis of Twitch, who and what they promote and their overall diversity on the platform. To make this happen, I collect data from multiple sources to make comparisons.

### THEORETICAL FRAMEWORK

Videogame streaming has become a growing digital activity, to do or to watch. As of 2019, 944 millions of people have watched people play video games online (Baker, 2021). At the moment, Twitch possesses 91% of live-streamed videogames on the web, with average weekly viewers around two and a half million (Baker, 2021). Twitch has relied on a few techniques to become so popular, with their main technique being the parasocial interaction system (PSI). Parasocial interaction is where the audience can interact with the streamer, and could get an immediate reaction from him or her on their messages (Förderer & Gutt, 2021). This function on Twitch allows streamers and watchers to become a close digital community together. Unfortunately, there are also downsides to this neat platform function. Twitch is primarily a white male-dominated platform, 81,5% of streamers are male and 71.5% identify as white (Asarch, 2021). This results in that minority groups, like women, people of colour, people with different sexual orientation, mental health issues and more, often face harassment in their chats (Asarch, 2021).

### PROBLEM DEFINITION

"There is no doubt in my mind that I was raided because I am a Black woman that exists on Twitch." says streamer DefinedByKy (Asarch, 2021). Paige Harvey also tells about how she receives hate due to her Arthremis. Another one also comes forth: "I encountered so much toxicity when I was trying to 'git gud' at a game... And just the whole 'fake geek girl thing' (Orme, 2021). These negative interactions leave real damaging effects on the content creator, a lot of them even deter from continuing streaming (Orme, 2021). Therefore this gloom-ridden Twitch behaviour only makes the diversity gap bigger. Luckily, the problem did not go unnoticed. Streamers and watchers took a stance and began making hashtags, like #Gamergate and #TwitchDoBetter to help resolve the problem (Obreja, 2021). Thankfully, it's reached its audience. Twitch got notified and adjusted their team and platform. They made a "ban evasion detection", which would reduce the hate raids (The Daily Dot, 2018). Next they hired people for a new Diversity team, who would try to increase minorities on the front page and Twitch in general (The Daily Dot, 2018). All and all, Twitch was trying to improve. Now standing in 2021, I am going to see if their diversity has grown.

### METHODOLOGY

I looked at the data on three surfaces, (1) the amount of diversity Twitch talks about on their website, (2) looking at the top most 1000 watched streamers and their differences, and at last (3) looking at the content of the first 100 of those watched streamers and what kind of games they entertain with.

1. By using web scraping from Twitch blogs (Twitch Blog, 2021), I collected their archive articles made over the years. First, I looked at the languages these articles came in and compared them. Second, I searched for diversity keywords in the titles of the english articles (like females, hispanic, celebrate, pride, health and more) to learn how much they promote diversity. And third, I looked at which year had the most of these keywords, to learn which years they promoted diversity the most.
2. With the help of a CSV file from SullyGnome (Sullygnome, 2021) I collected data from the 1000 most watched streamers of the last 365 days. This data was collected on the 8th of November

and helps me tell in what language these streamers speak, how mature their content is and if they are Twitch partnered.

3. With a Twitch API (Get videos API) ([Twitch Developers, 2021](#)) I was able to look at the content that these streamers produce. I picked the top 100 streamers (companies not included) from the 1000 from above and divided them into male and female groups, from there I looked at their languages and the games that they played.

## RESULTS

1. The articles came with surprising results. When looking at the different languages that they came in, the english language had by far the most, with 1515 articles. It's runner up was Spanish with a much lower 204. These results show that when accessing and wanting to read Twitch, they mostly expect English readers.
2. The diversity keywords in these 1515 articles showed that a fair number talked about community, games, tournaments and holidays, which is not surprising for a gaming platform. Themes like culture, minorities or even safety only resulted in a few articles. Furthermore, when looking at these English articles and keywords, it can be seen that Twitch had the most diverse articles in 2017, a total of 124.
3. The 1000 most watched popular streamers mostly speak in English, but not more than half. The follow ups are Spanish, Portuguese, Korean, French and German, all close together. Most of these streamers, 765, also produce family friendly content and 968 of those streamers have a contract with Twitch itself.
4. Looking at the content, we can see that there is still a large bridge around male and female streamers, as the top 100 has 98 males and only 2 females. These males play a variety of games, with the top three being just chatting, variety games or League of Legends. The two females are divided into hot tub streams or playing a game of Valorant.

## CONCLUSION

From the data, we can see that Twitch is still not fully there yet. The diversity on the articles seem lacking and overall english and their top streamers are still mostly males. It is understandably that not all articles can or should talk about minorities or other diverse events, but to see a decline in keywords is upsetting. We can see that when Twitch made arrangements to change, around 2017, it stepped up their article game. Unfortunately, after I presume the backlash had simmered down, the results went with it. I believe Twitch should be more responsible in promoting minorities more, for it helps everyone to feel more included. As the results show, only two females are in the top, with one also doing controversy content like hot tub streaming, streams where a person is only wearing swimwear in an inflatable little pool ([Gonzalez, 2021](#)). These streamers are usually more sexualised and do not represent female gamers well. Male content does seem to be diverse. A study showed that males that play relaxed games like Stardew Valley, are more receptive to talk about sensitive topics, like mental health. Males who play mostly competitive games, do not so vastly steer in that direction ([Gandhi, Cook, LaMastra, Uttarapong & Wohn, 2021](#)). Results display that competitive games still overrule the relaxing ones. In the end, Twitch still has a long way to go to become more diverse in streamers, content and sensitive topics. I believe that with work and commitment Twitch has the capability to overcome these problems. It is important to further update the digital platform so all can feel safe and encouraged when opening it.

## DISCUSSION

I must admit that this research did have some data limits to which I could collect. The results give a surface area of analysis of the diversity on the platform. For further research, I wish to look more into datasets that could go into detail of streamer content and more on the web scraping of Twitch's its main page, to learn which streamers they recommended at first glance. At the moment, this data was or locked or too fluid to collect.

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