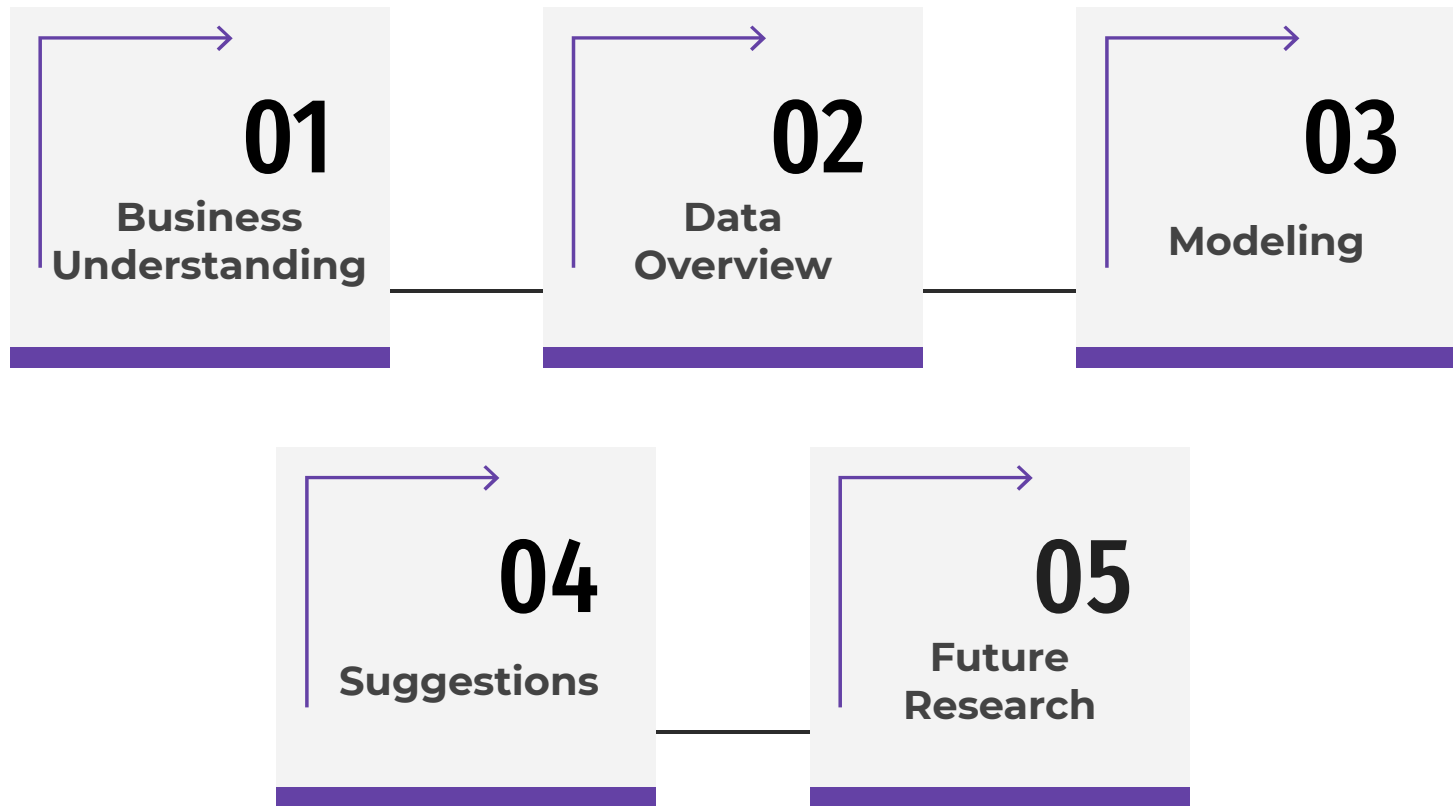


Twitch Streams: Detecting Hate



By: Kelsey Lane

Agenda



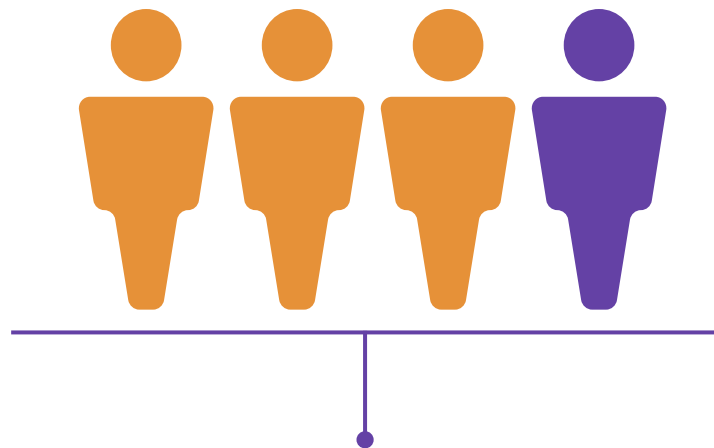
01

Business Understanding



1 in 10 users
reported
they've been
bullied or felt
unsafe while
streaming

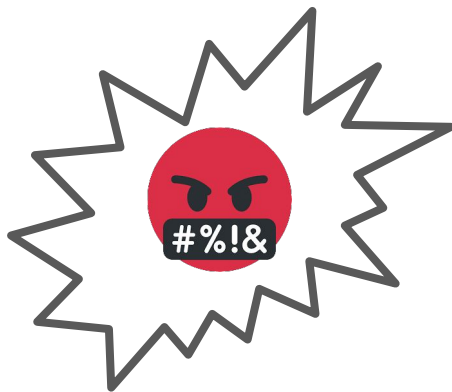




3 out of 4 users think Twitch is not effective in addressing bullying



So What Can We Do?



Business



StreamElements (2018)

02

Data Overview

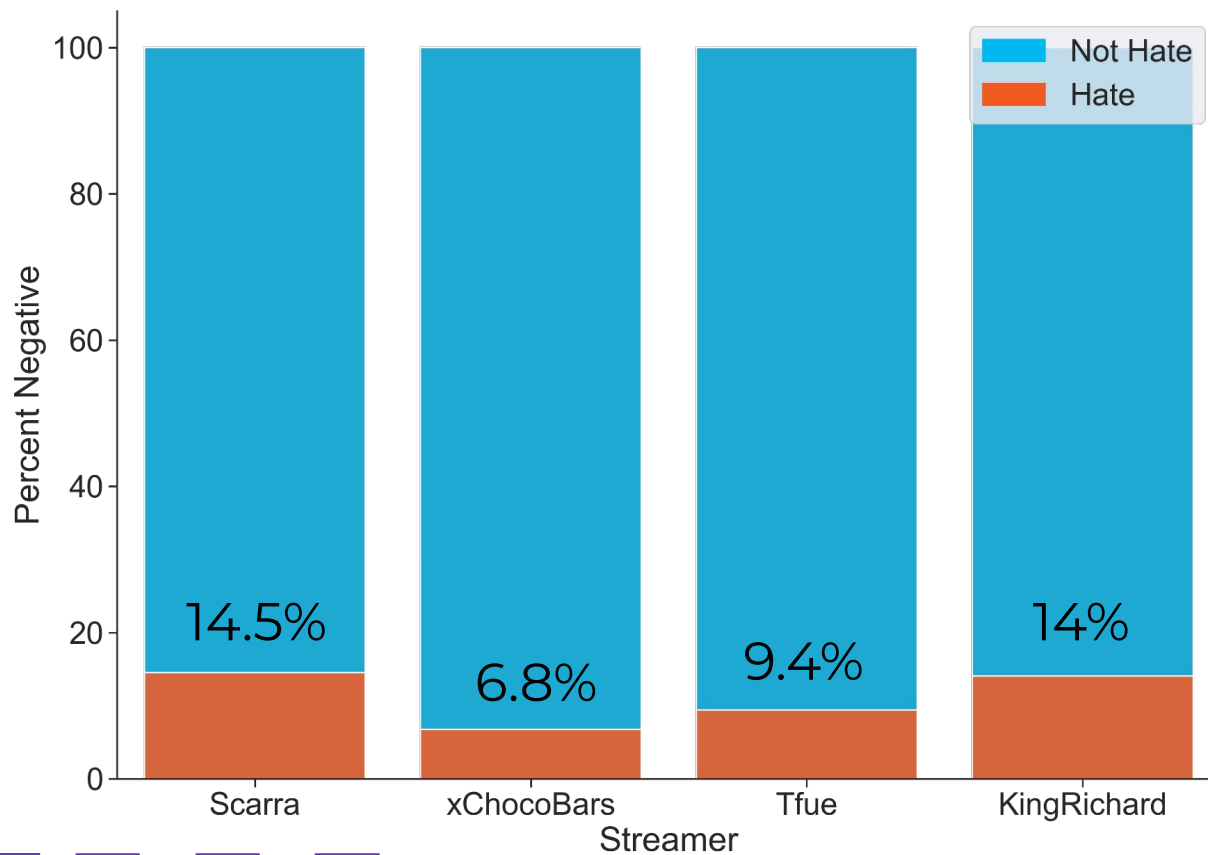


Data

- Twitch livestream chats
 - May - June 2018
 - 4 streamers
 - 9 streams
- 102,700 total



Percent Hate Comments By Streamer



Data



rip one will got lol damn people
hate shit good uk iol time trash
banned now guy stop
game wt f damage
chat fuck dont stream think
bad



Data



03

Modeling



Sentiment analysis

- Identify hateful chats
 - Find frequent words
- 76% Recall



04

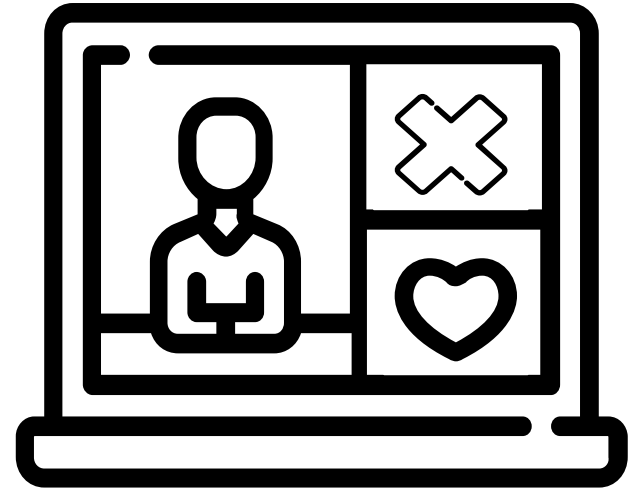
Suggestions

GAMESCOM 2017	
Stage Show Schedule	
10:00	Good Morning Gamescom, brought to you by Intel
10:15	Square Enix
10:30	Shadow of War
10:45	Total War: Warhammer II
11:00	Totally Accurate Battle Simulator
11:15	Sackboy
11:30	FIFA 18
12:45	FIFA 18 on Nintendo Switch
13:00	Towed For Speed
13:15	The Sims
13:30	Star Wars Battlefront II
13:45	FIFA 18
14:00	Microsoft



Suggestions

- Flag hate chats
- Build stronger filter
 - Focus on misspellings



05

Future Research



twitch

Partner Lounge



Future Research

- Model specific categories
- Flag frequent offenders
- Other languages





kelsklane



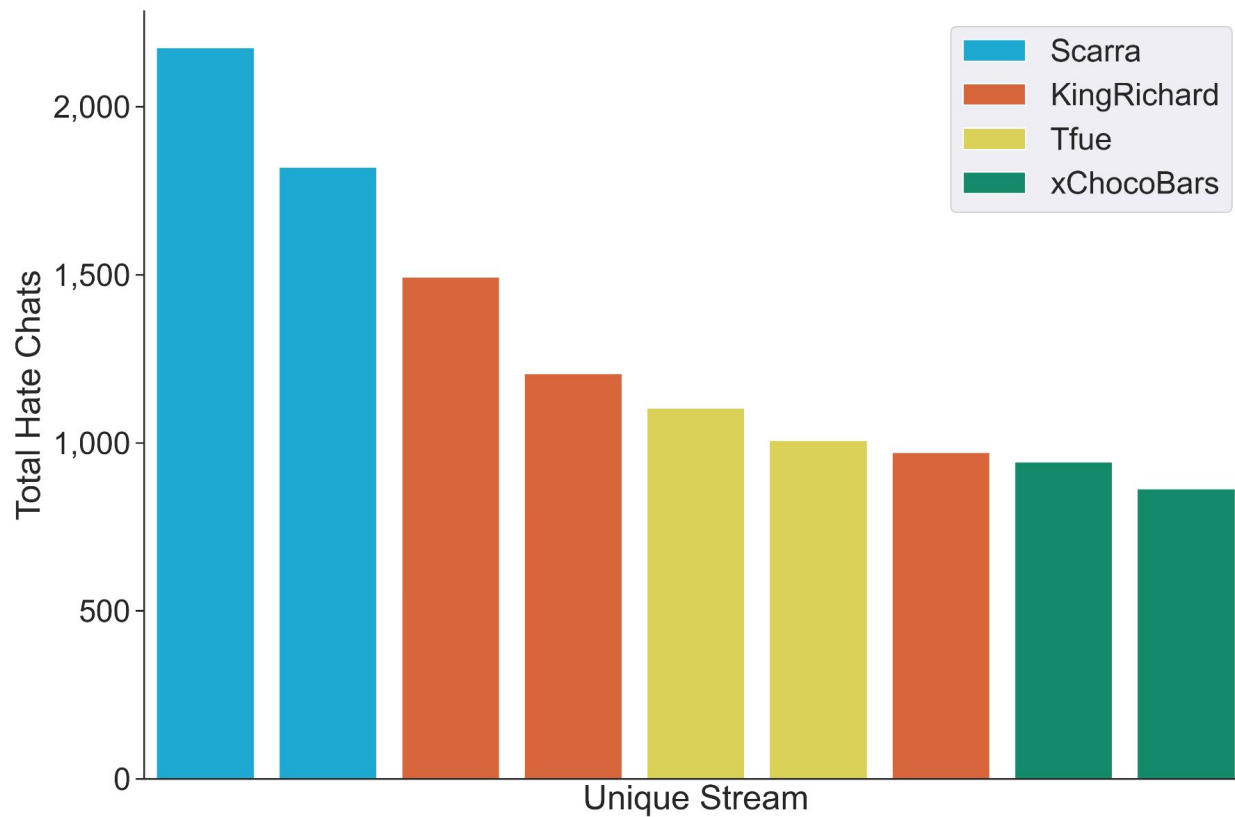
kelsklane@gmail.com

Thank you!

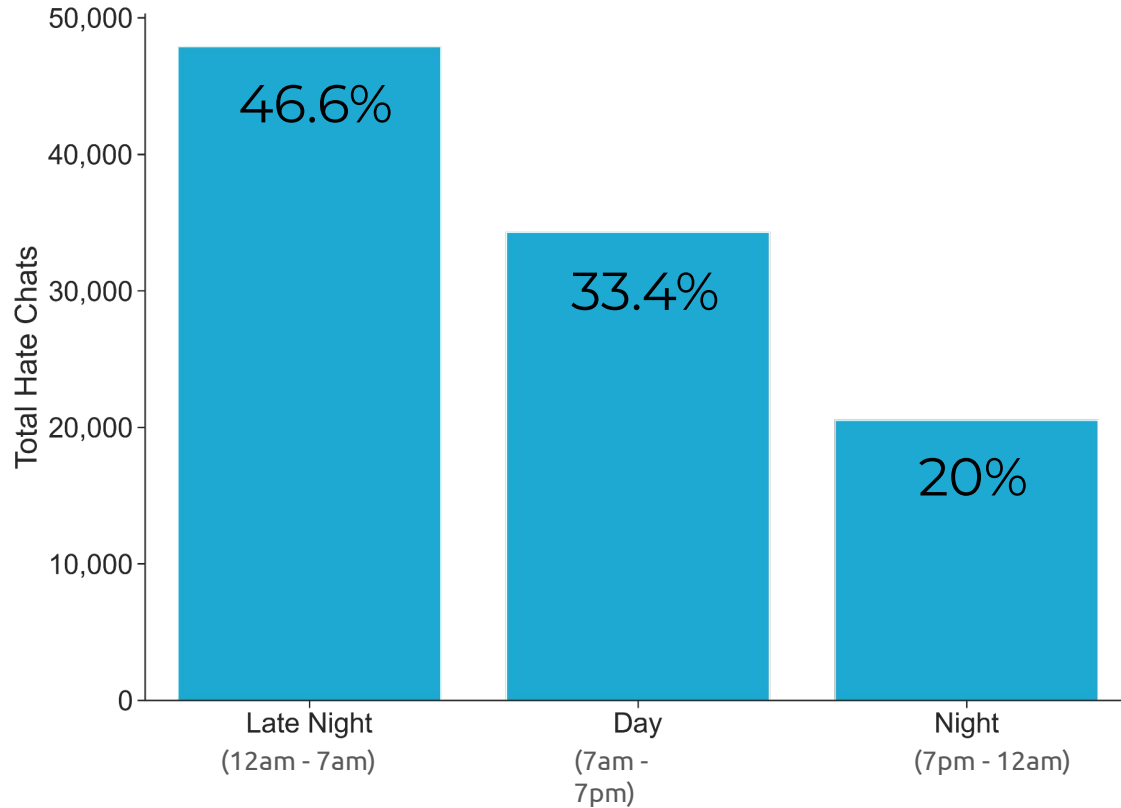
Questions?

Appendix

Number of Hate Comments For Each Stream



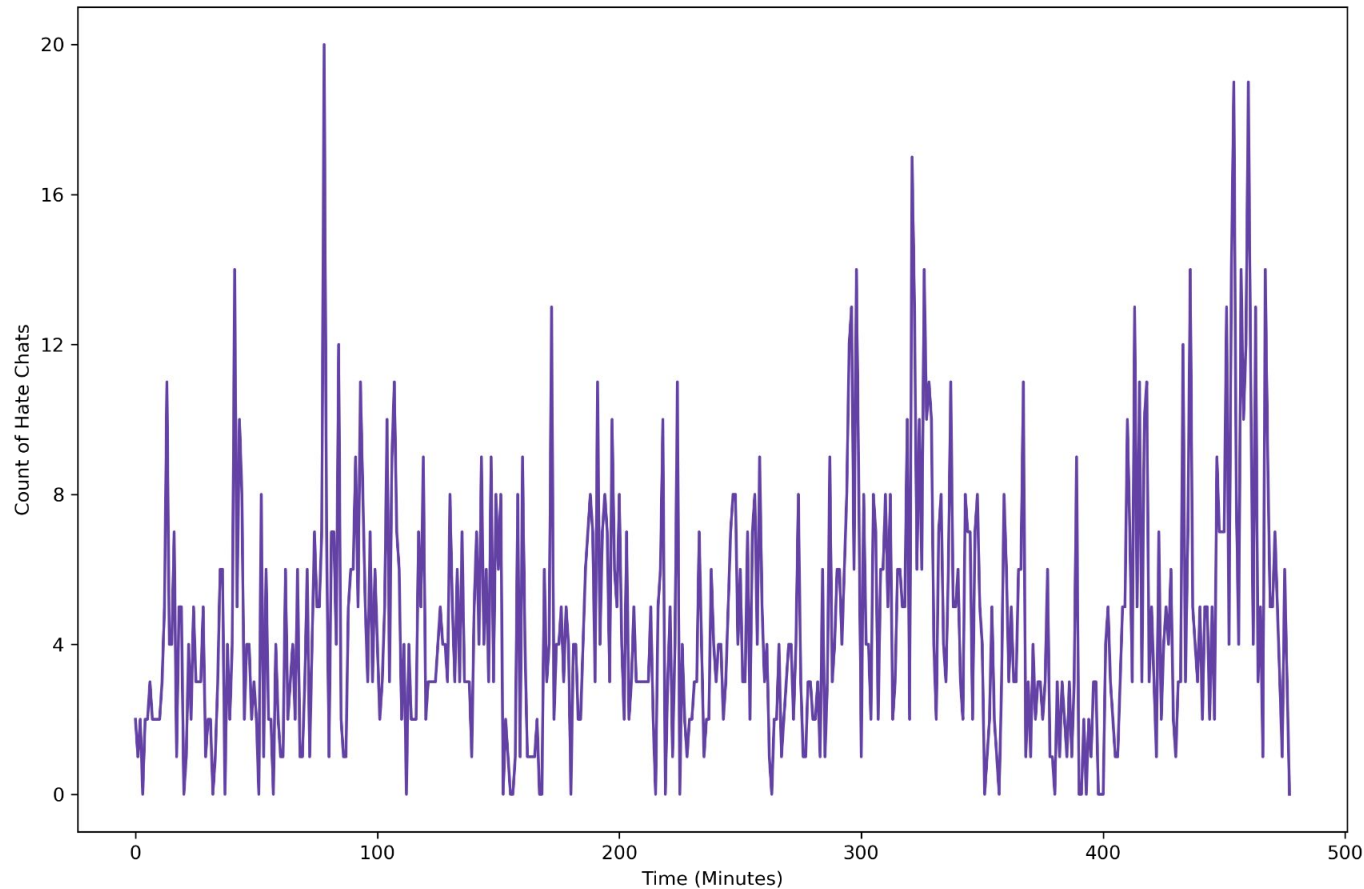
Number of Hate Comments By Time of Day



Data



Number of Hate Comments Over Time For One Stream



Credits:

Image:

<https://www.polygon.com/22700564/twitch-hate-raids-safety-feature-streaming>

Survey:

<https://blog.streamelements.com/streamelements-analysis-on-twitch-bullying-c3f2b2240318>