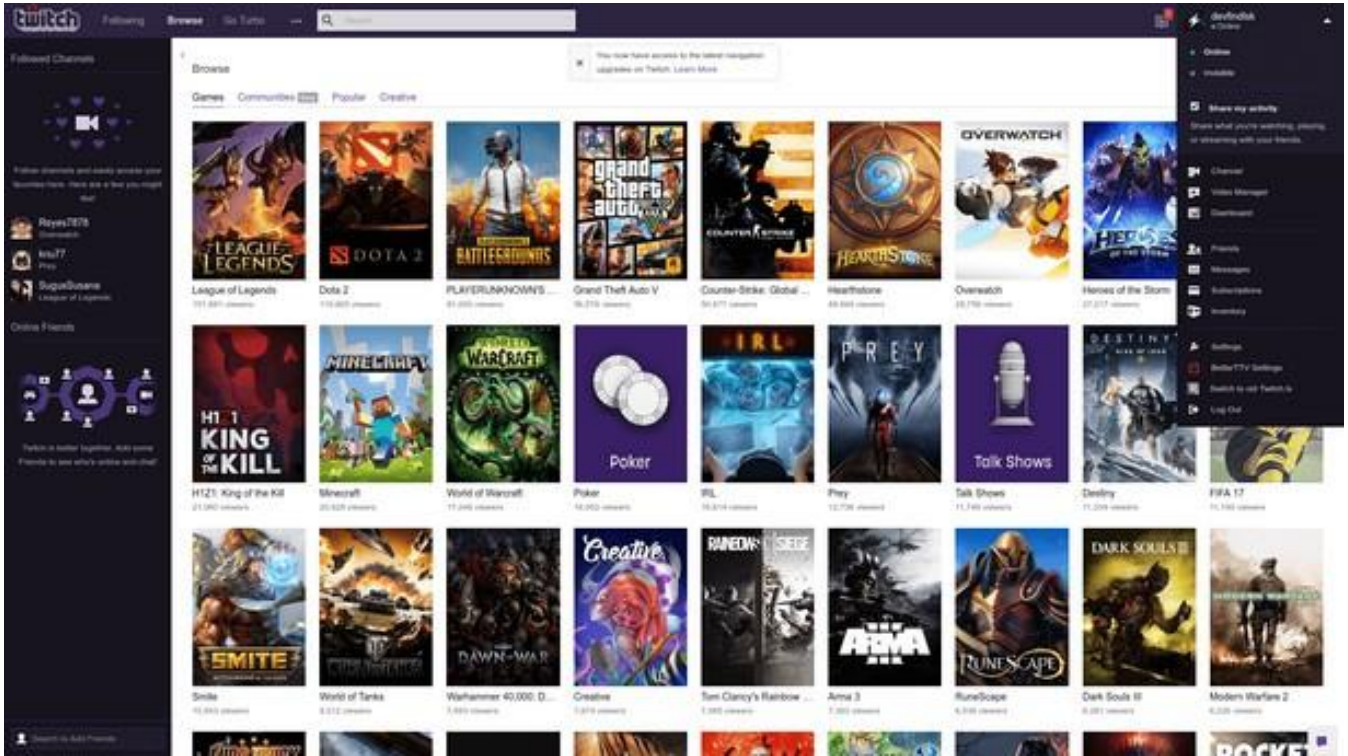
Capstone Presentation

Analysis by Derek Steffan

Automated Twitch Highlights

“Analysis” by Derek Steffan

twitch


twitch
Following
Browse
Go Turbo
Followed Channels
Online Friends
Browse
Games
Communities
Popular
Creative
League of Legends
Dota 2
PLAYERUNKNOWN'S ...
Grand Theft Auto V
Counter-Strike: Global ...
Hearthstone
Overwatch
Heroes of the Storm
H1Z1: King of the Kill
Minecraft
World of Warcraft
Poker
IRL
Prey
Talk Shows
Destiny
FIFA 17
Smite
World of Tanks
Warhammer 40,000: D...
Creative
Tom Clancy's Rainbow ...
Arma 3
RuneScape
Dark Souls III
Modern Warfare 2

How can busy people keep up with their favorite streamers?

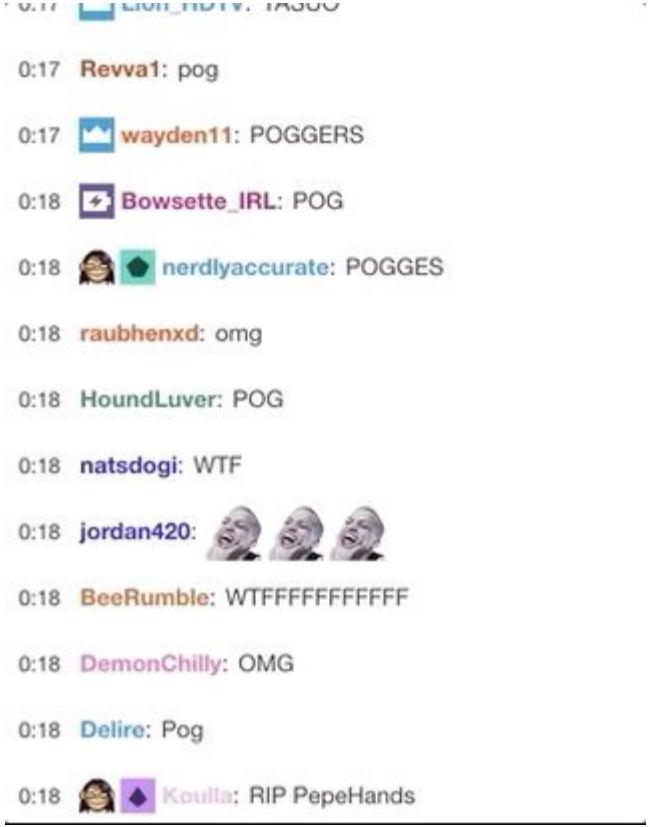
I assume no liability for...

- Feelings hurt
- Sensibilities offended
- Braincells lost

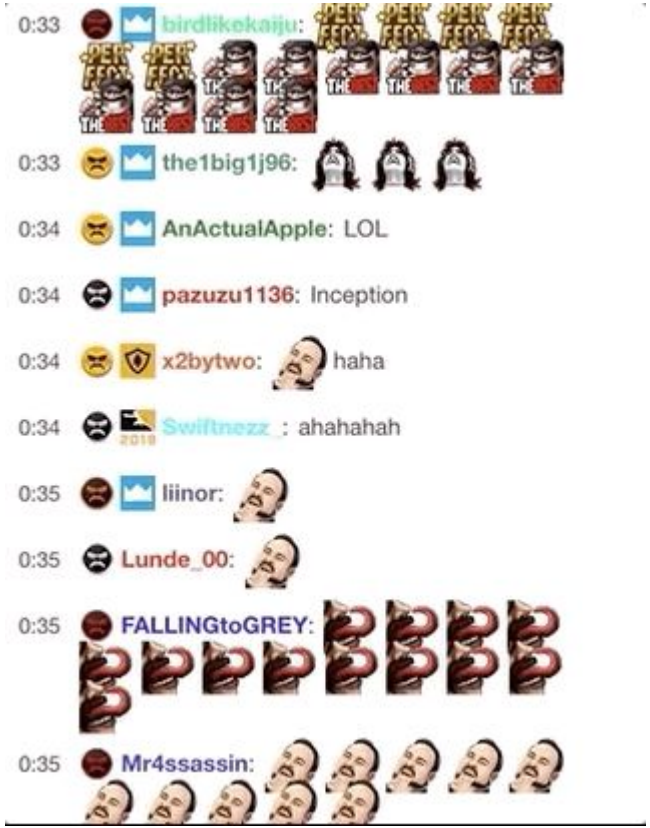
...while reading Twitch chat

Actual picture of Twitch chat

The content of Twitch chat is highly correlated to what is happening in the broadcast.



Twitch chat “cheering”

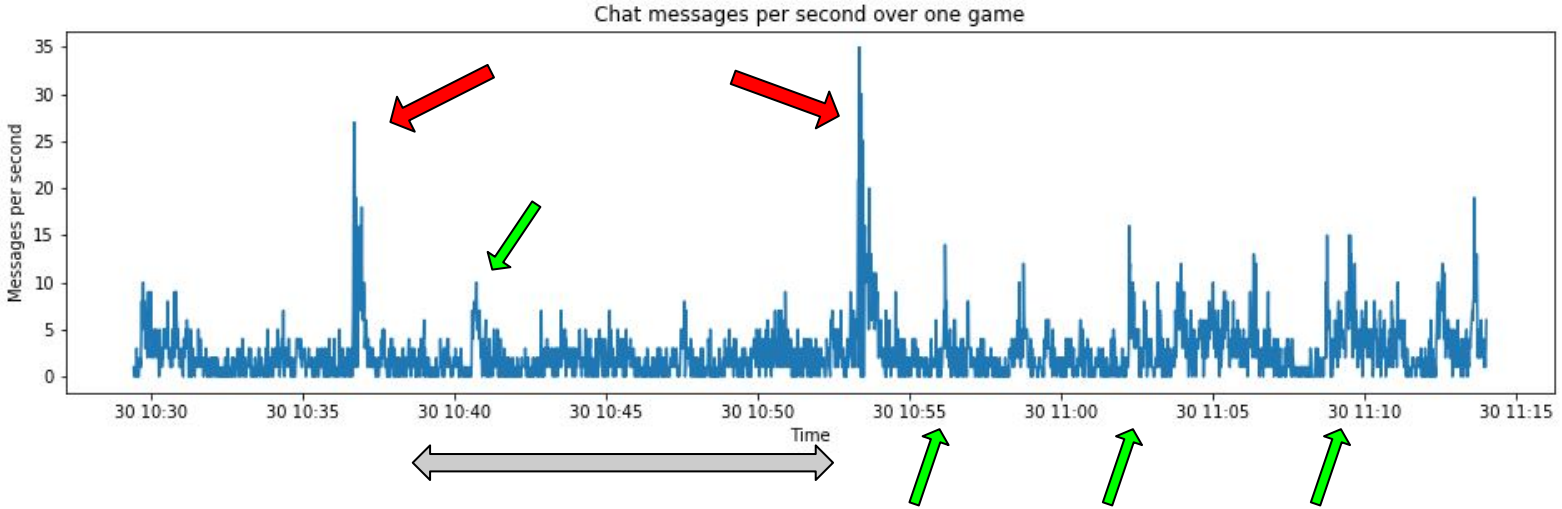


Twitch chat “laughing”

4,000 to 8,000 avg. viewers

~3 chat messages per second

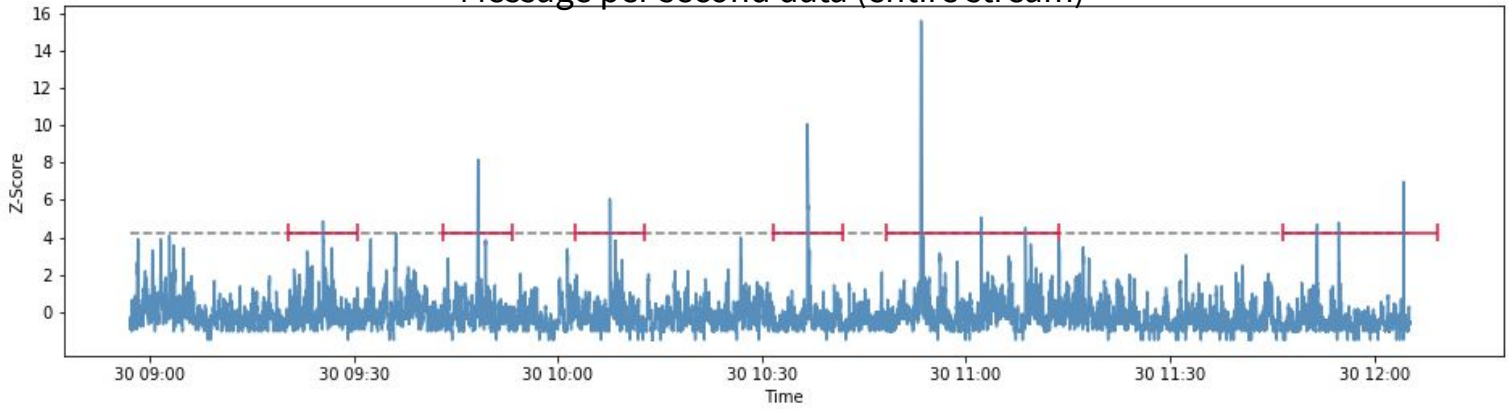
Admiral Bulldog


Chat messages per second over one game
Messages per second
0
5
10
15
20
25
30
35
30 10:30
30 10:35
30 10:40
30 10:45
30 10:50
30 10:55
30 11:00
30 11:05
30 11:10
30 11:15
Time

Anomalies in chat activity are caused by highlights in gameplay.

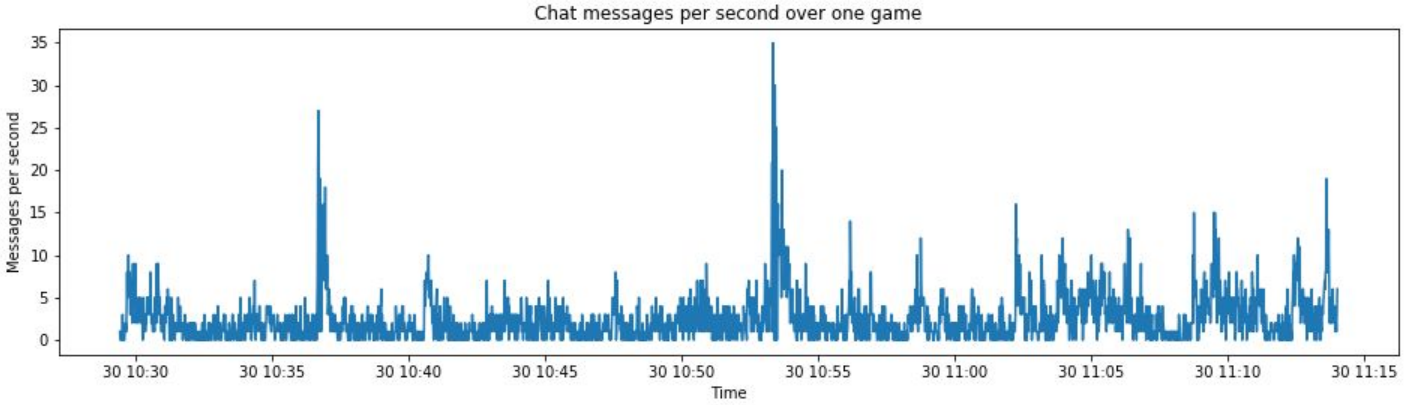
The content of Twitch chat is highly correlated to what is happening in the broadcast.

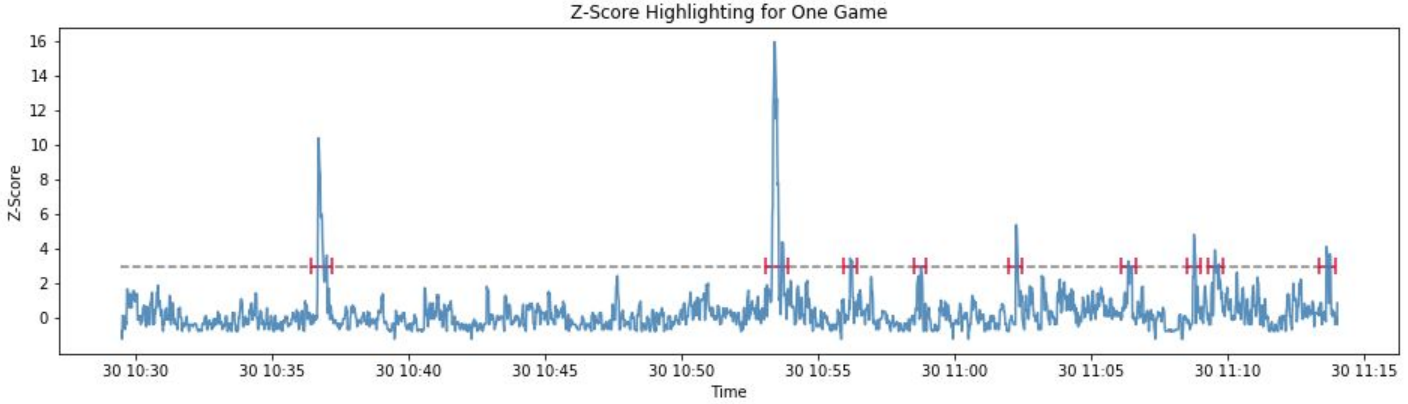
Message per second data (entire stream)



Intuition

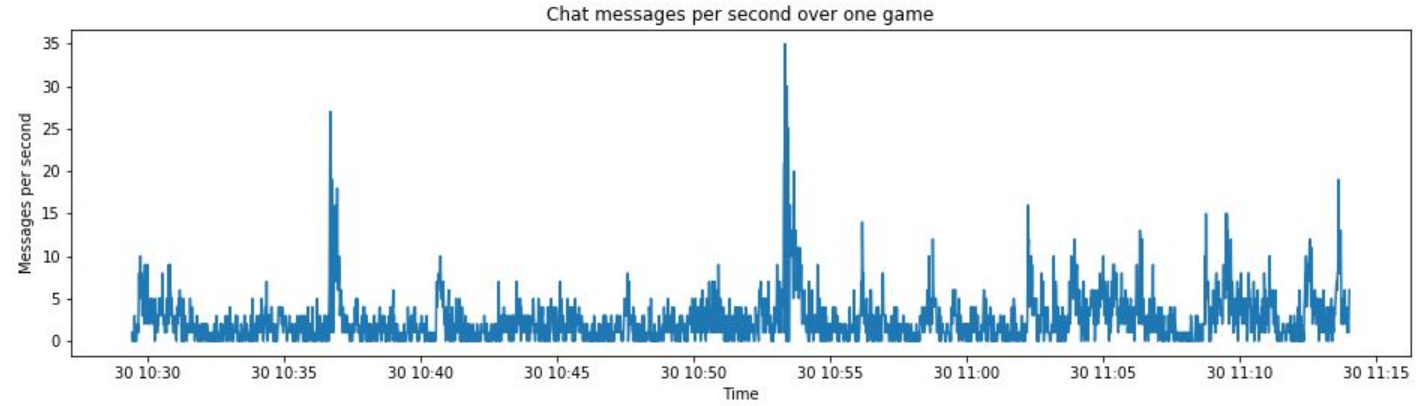
Z-Score Highlighting

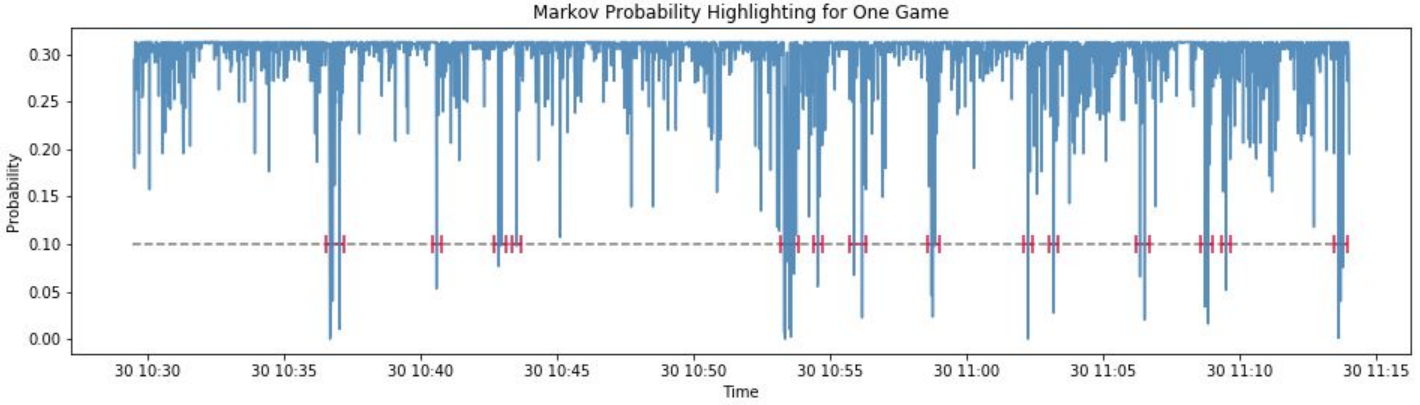




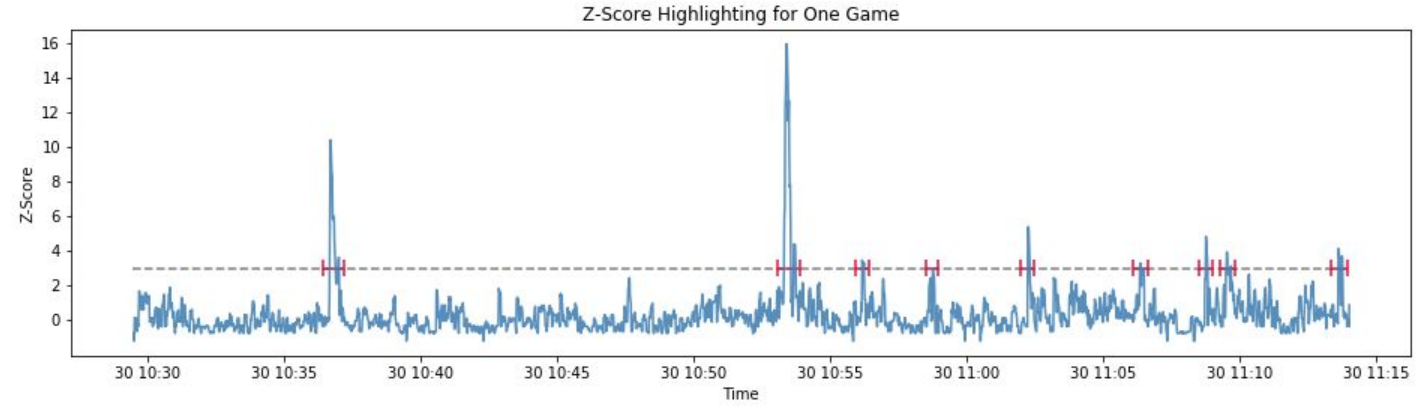
Z-Score Threshold

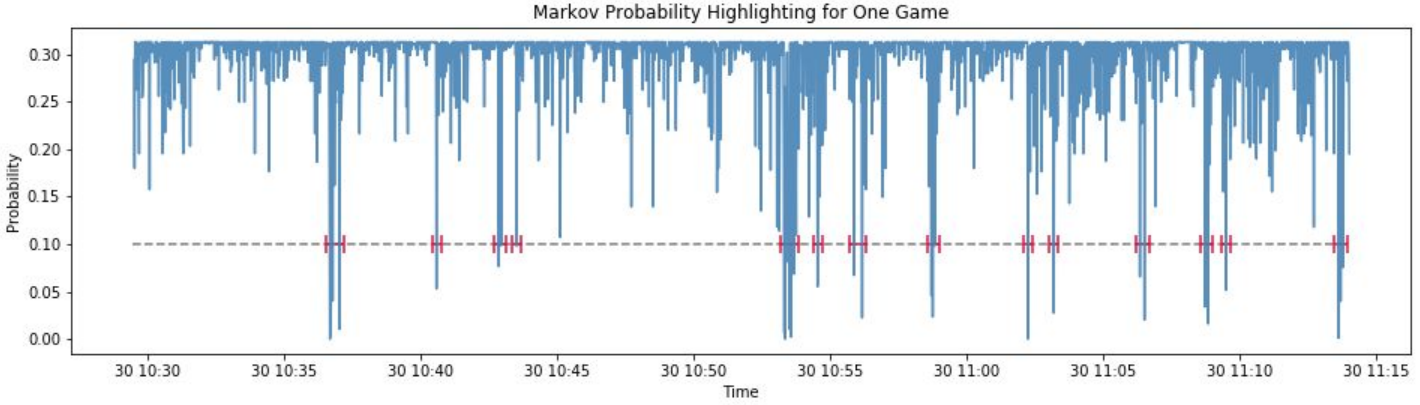
Markov Probability Highlighting





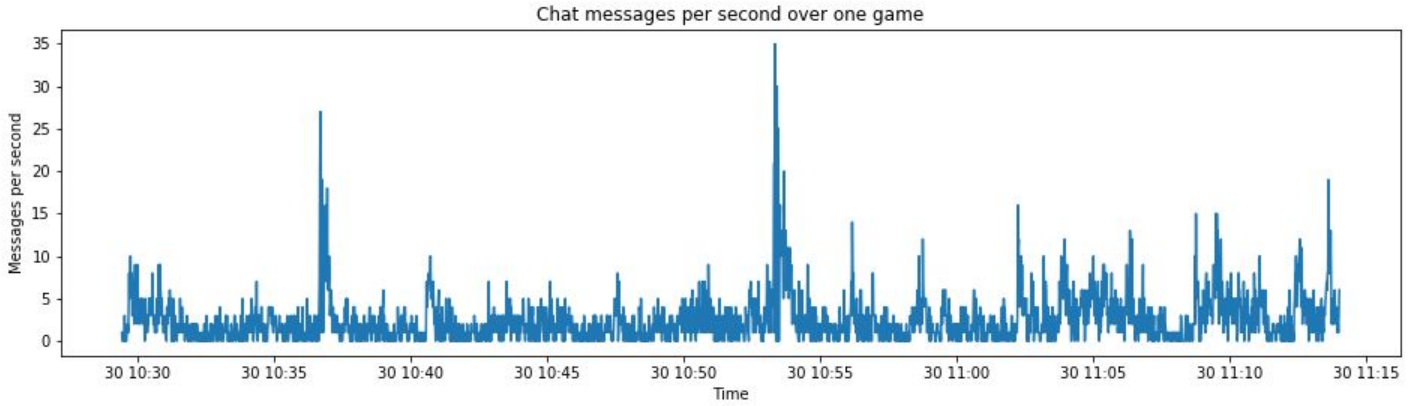
Markov Chain Probability

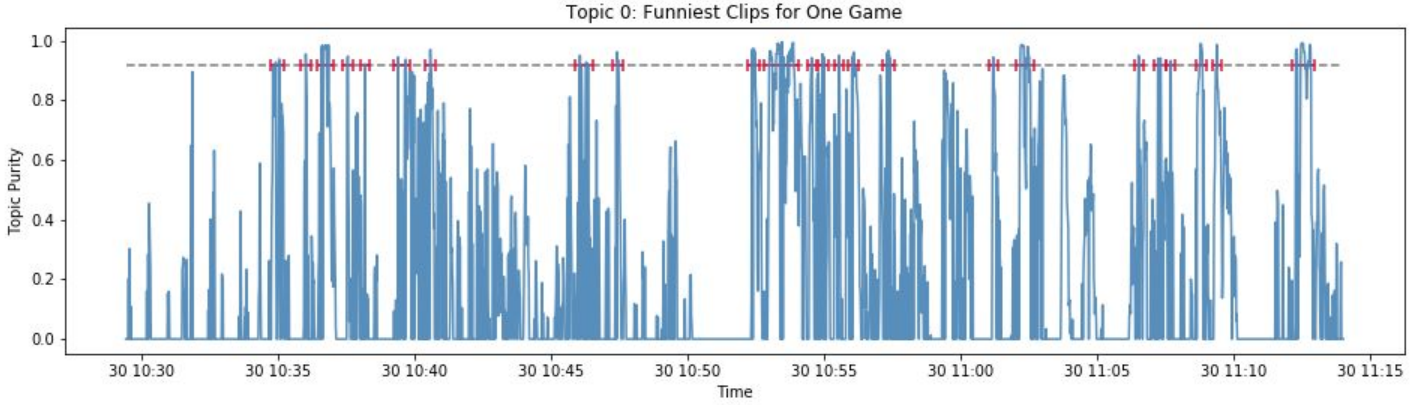




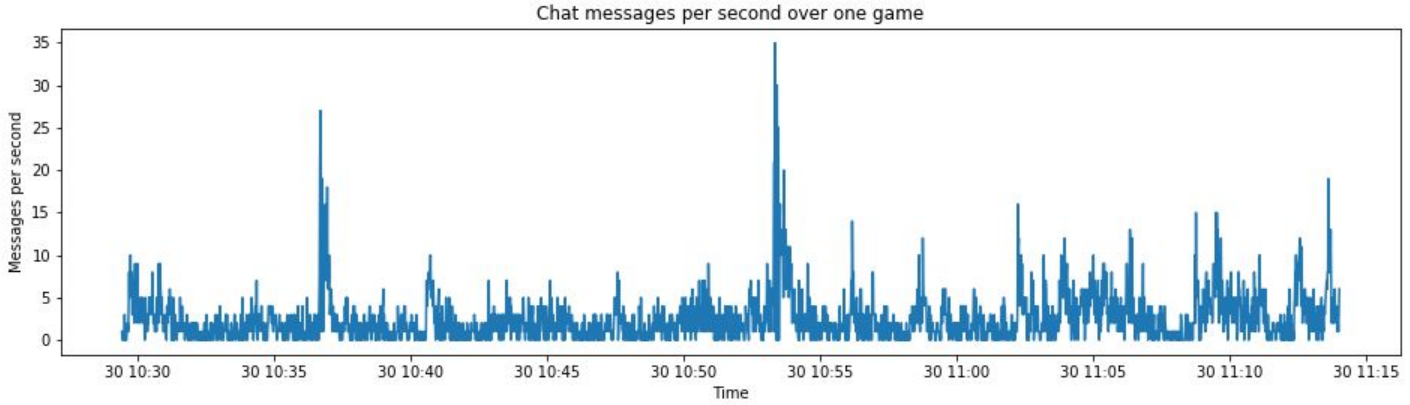
Z-Score vs. Markov Chain

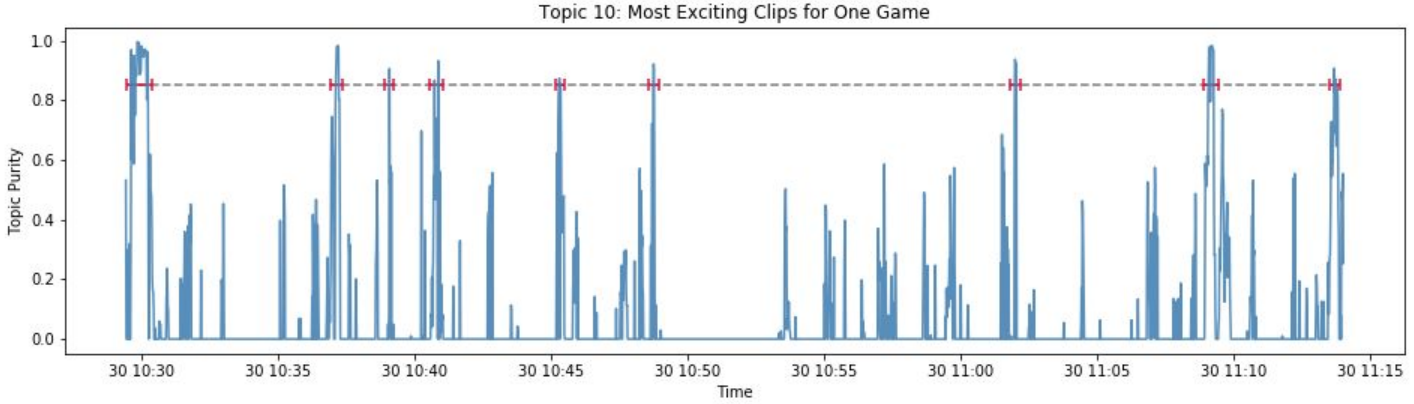
Topic Modeling





Topic Modeling





Topic Modeling

Next Steps

Key Takeaways...

- Streams are long
- Chat reacts to the stream content
- Anomalies are caused by highlights

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Thank you.