

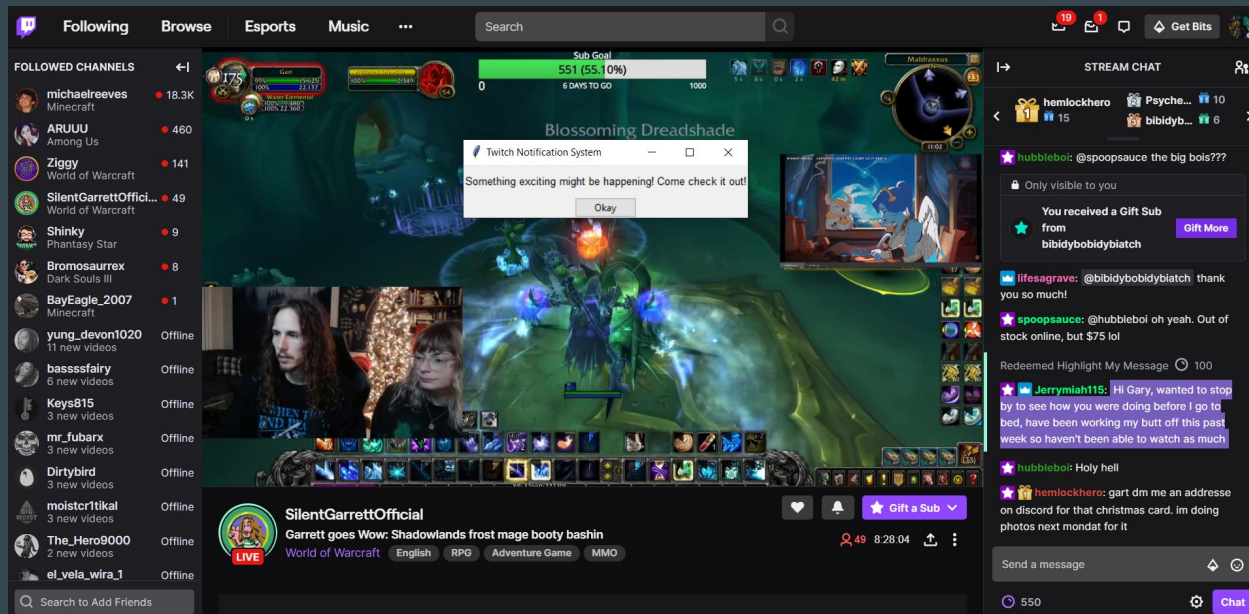
# Hype Train Notification System

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Andres Ramos & Jake Lasley

# What did we build?

- Hype Classification Model using Logistic Regression
- State machine to “notify” to users about never miss exciting events



# Why do we need this?

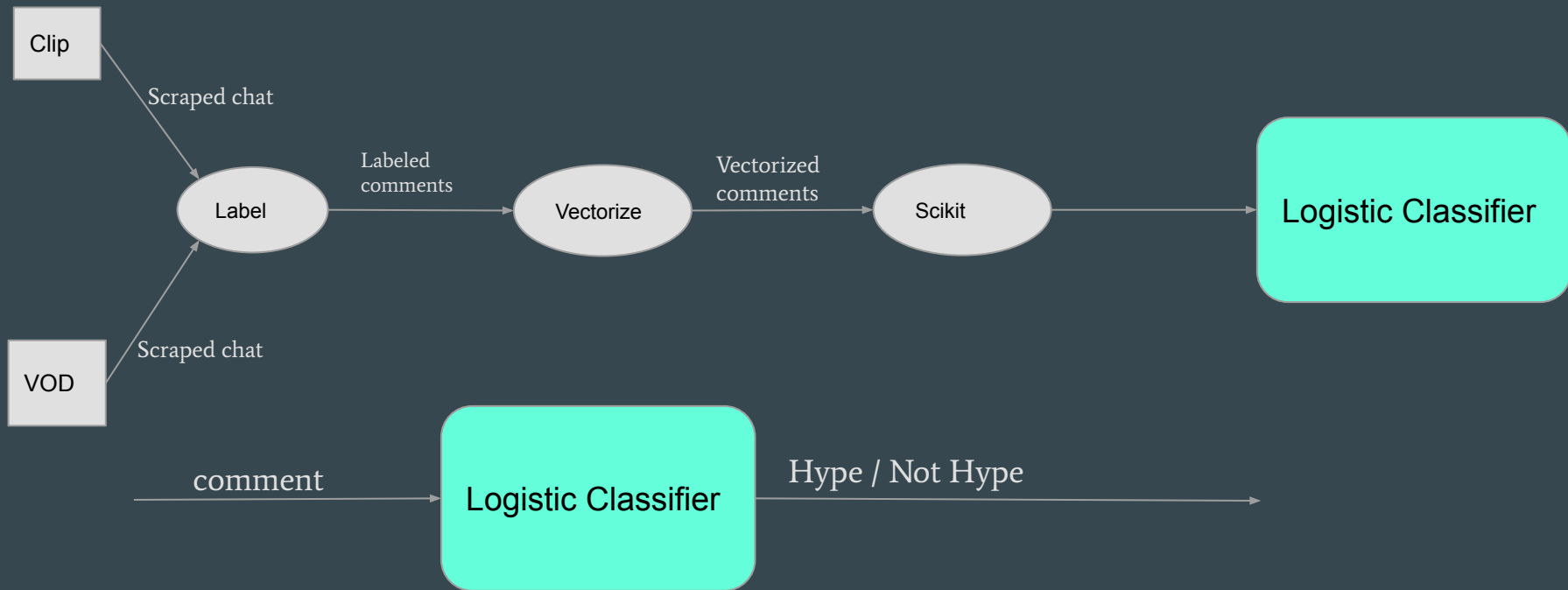
- Often users of Twitch are too busy to actively watch.
- !lurk
- Increased usage of Twitch



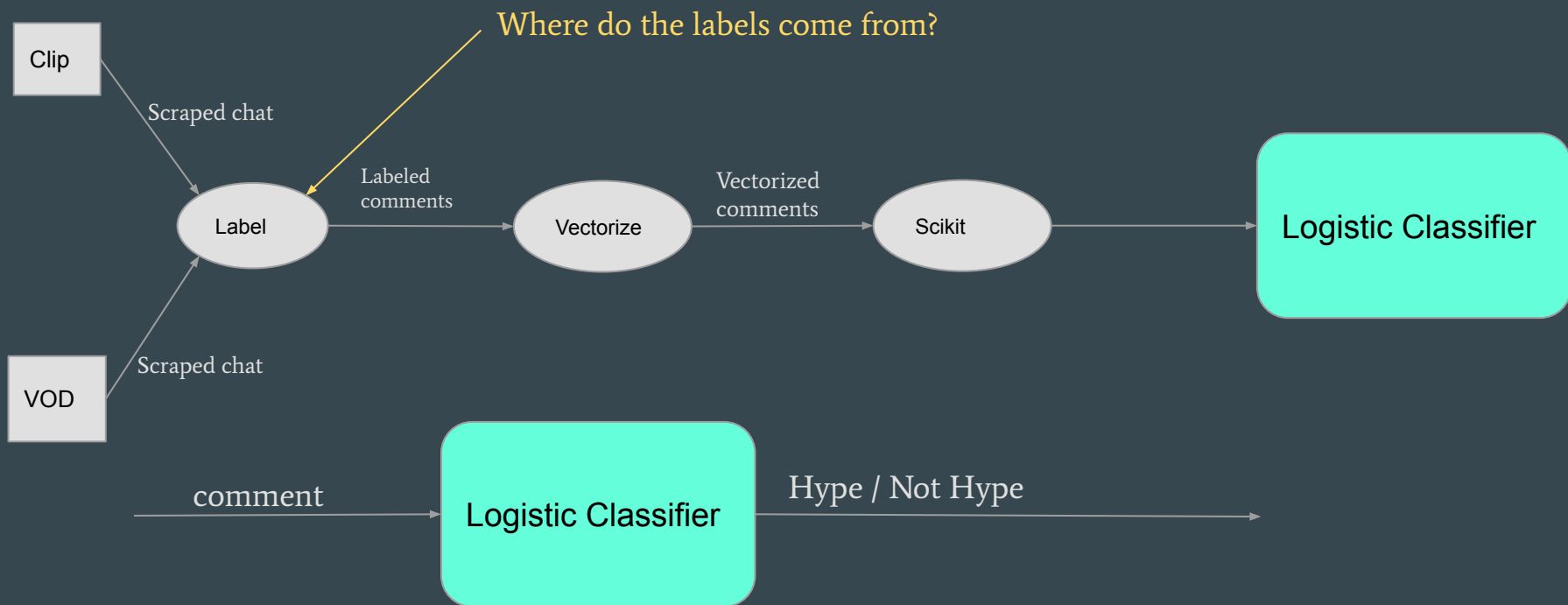
# Two Things We Need to Know

1. Does this person's chat message convey excitement?
2. How much excitement is the audience expressing?

# Building a Classifier



# Building a Classifier



# Streams VODs vs. Stream Clips

- **Video On Demand (VOD)**
  - Full length recordings of recently broadcast streams + chat history
  - Lots of down time can be found in a 3 hour VOD
  - “Not Hype”



# Streams VODs vs. Stream Clips

- **Video On Demand (VOD)**

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- **Clips**

- Short Segments ranging from seconds to minutes “clipped” from a live stream + chat history.
- Think of them like post-game highlights from a sports broadcast.
- “Hype”

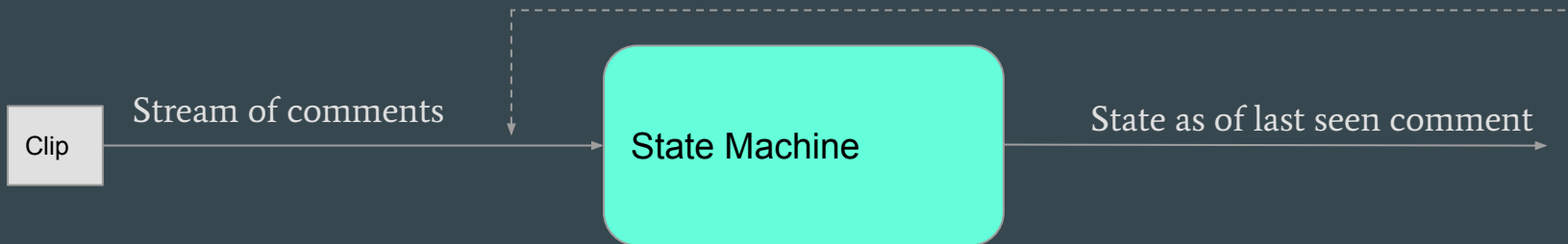
# Classifier Data and Results

- Selenium Webdriver used to gather live/recorded comments
- Collected ~ 2000 comments with each classification
- Much of the Hype comments are similar
  - “POG”, “KEKW”, “LULW”, “OMEGALUL”
- Vocabulary size was about 2500 words
- $F1 = 81.7\%$

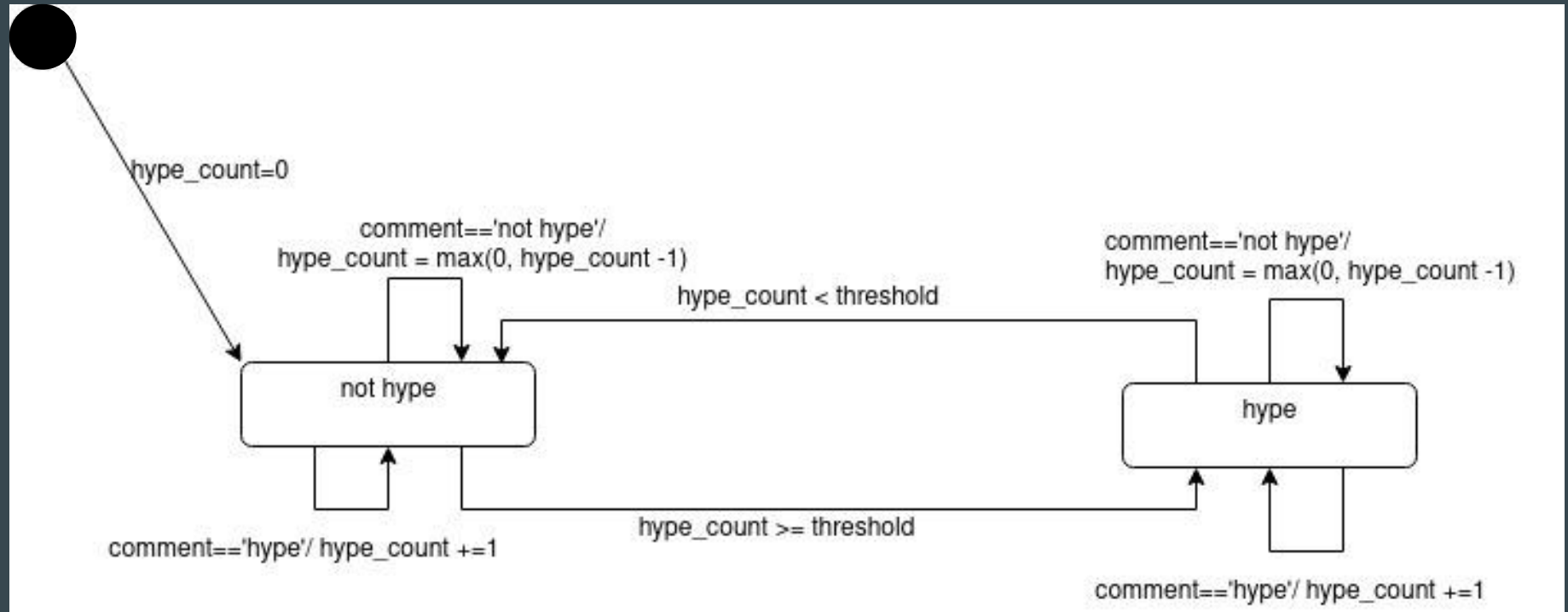
```
1186 h
1187 I'm leaving
1188 who u drawing?
1189 yes i like it!!
1190 Bye
1191 that's just what I think when someone says taking care of business
1192 dont leave
1193 I don't remember asking for it. Anyone remember me asking for it?
1194 nope, i dont remember tea
1195 See, nobody remembers
1196 wait lemme do it
1197 i don't remember
1198 i don't see any redeems in the queue from last time so must not have happened
1199 I HAVE THE CLIP GOMI. You can't pretend
1200 and i'm not lying cause i wasn't here
1201 see nobody at all remembers
1202 laureen smart girl
1203 Me either
1204 yes
1205 gom i dare you to raid AOC
1206 AAAAAAAAAAAAAAAAAAAAAA
1207 but not dark dark brown
1208 AGUS!!
1209 MIRA!!
1210 BLUE
1211 JASON!!
1212 HAHAAHAHAHAHA JUST LIKE IRL
1213 i dont think it looks dead inside, i lov it gom
1214 It looks so beautiful Gomi
1215 yeah it looks great
```

# State Machine

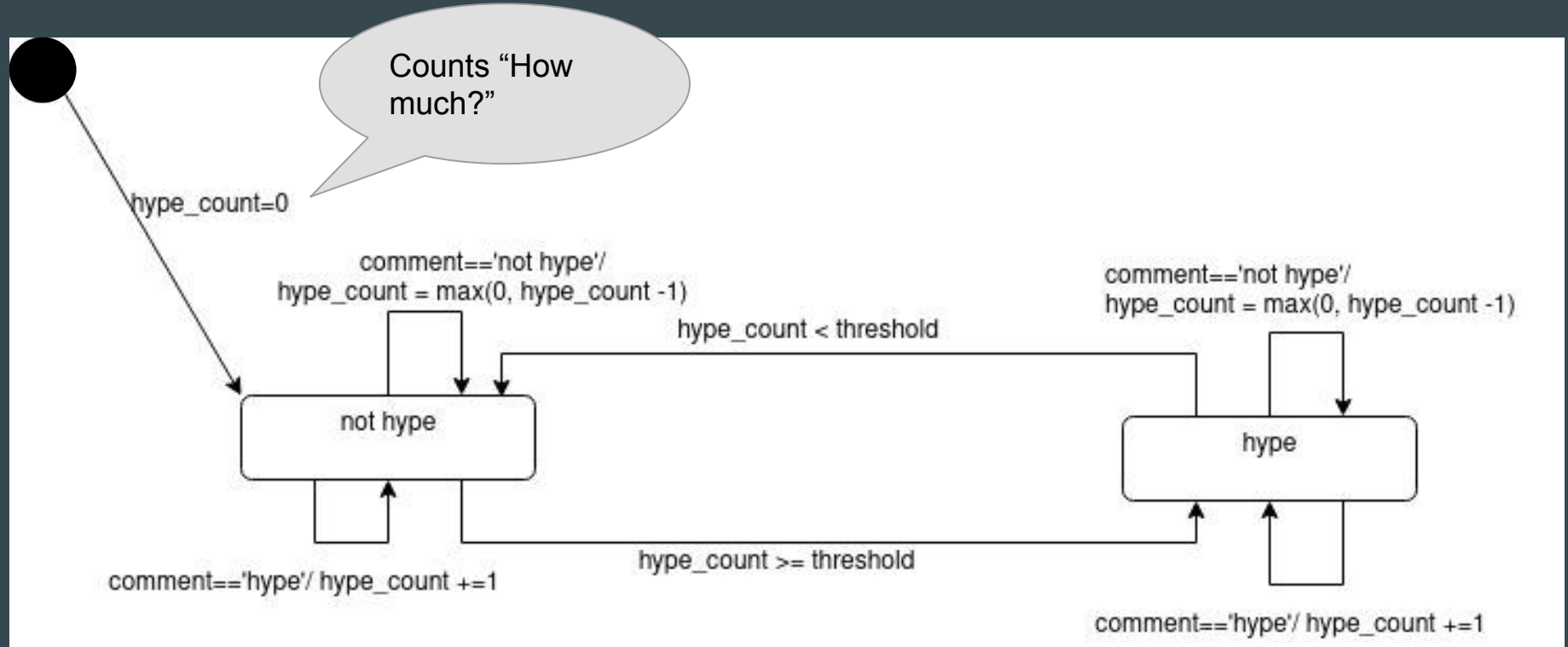
- “Watches” chat from a clip or VOD segment



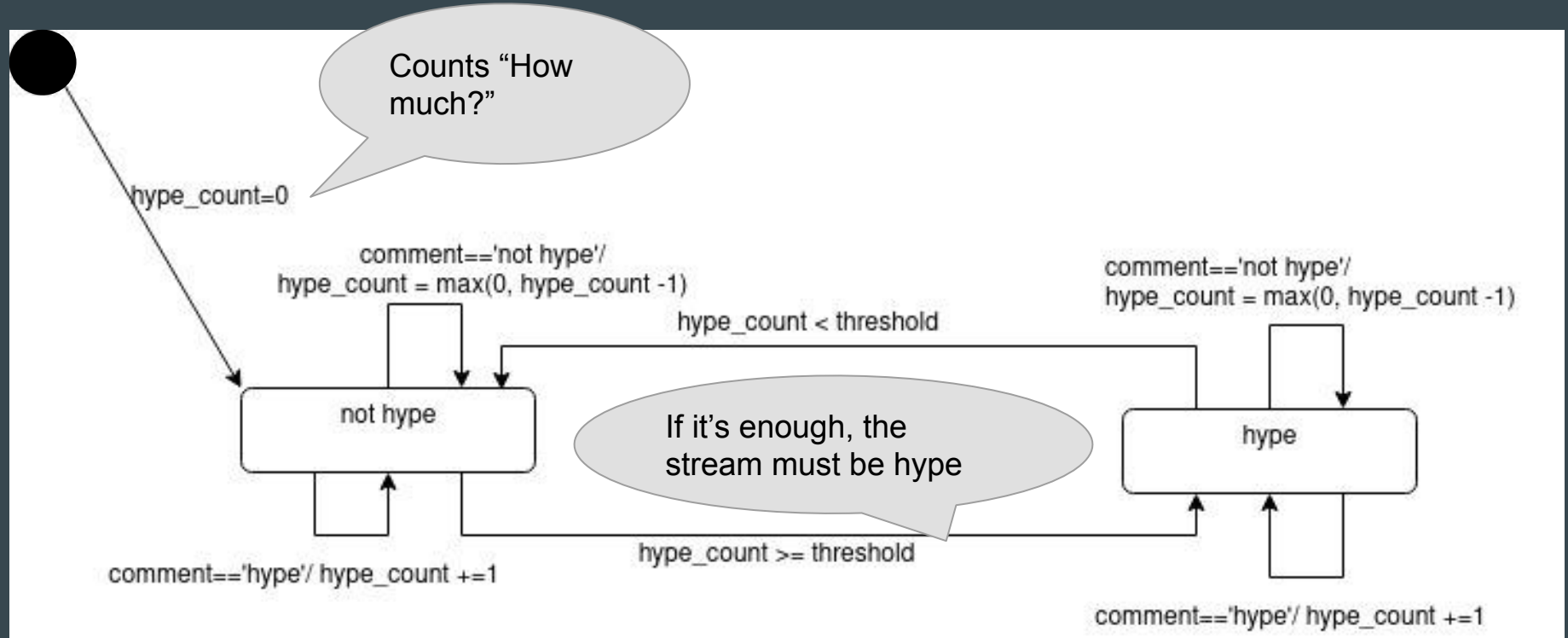
# State Machine



# State Machine

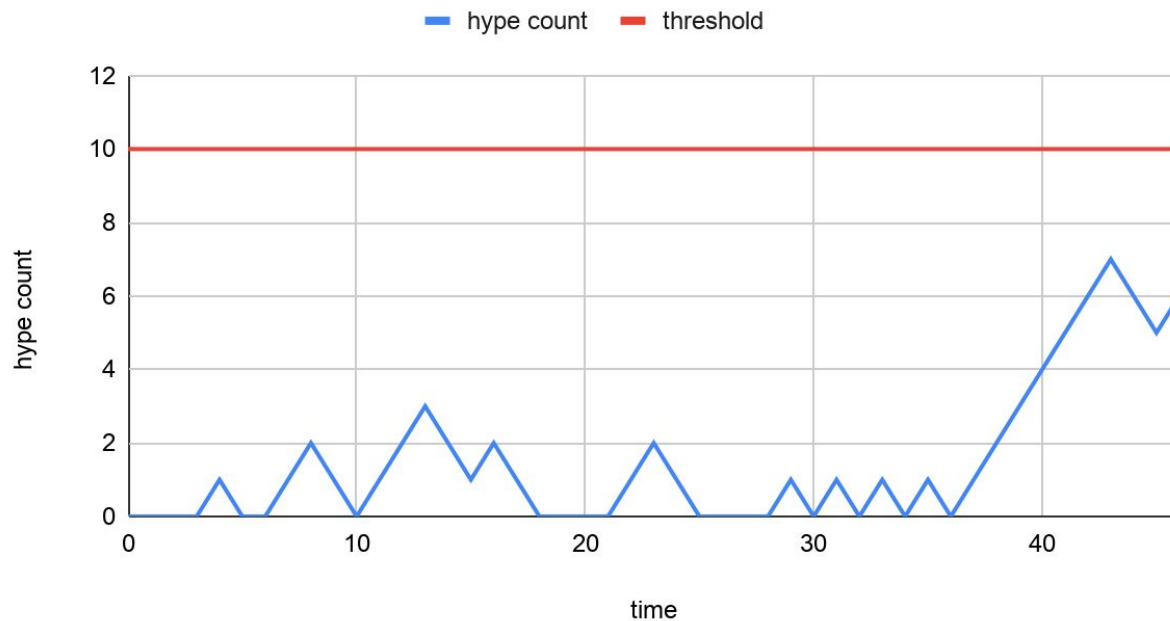


# State Machine

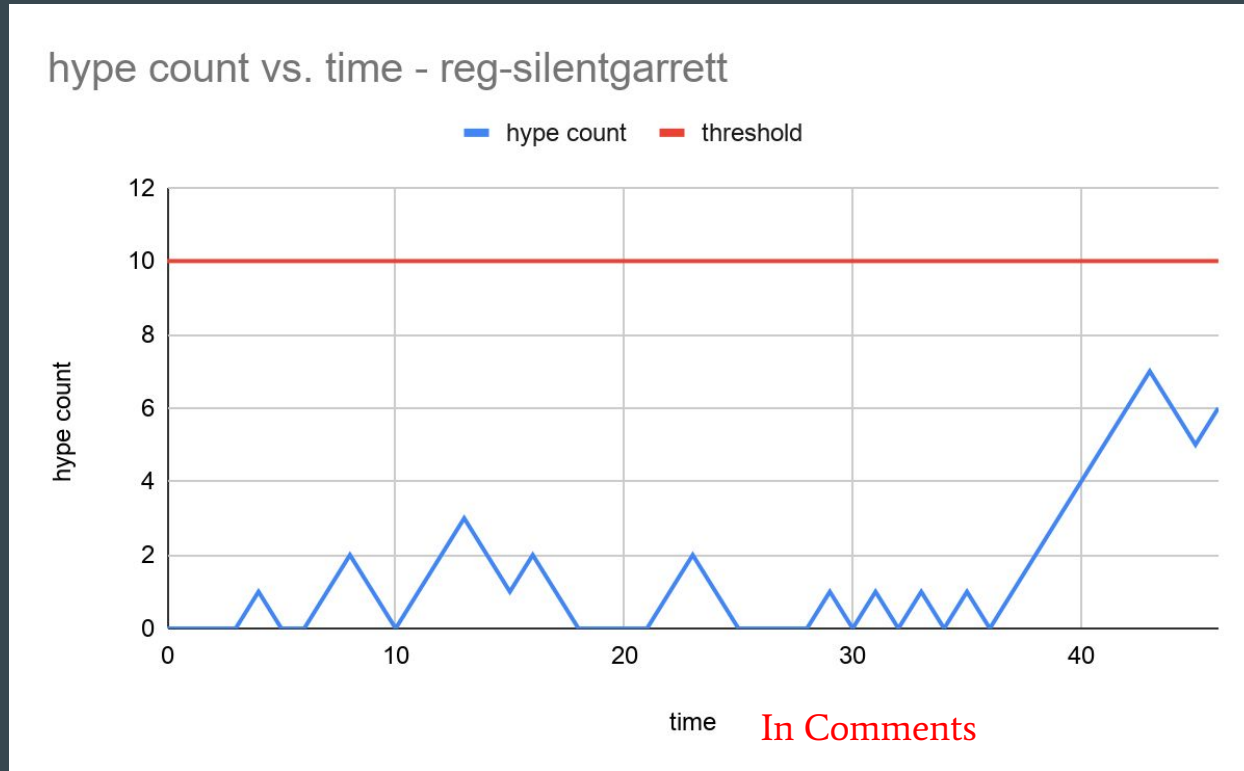


# State Machine - Not Hype VOD segment

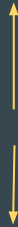
hype count vs. time - reg-silentgarrett



# State Machine - Not Hype VOD segment



Hype

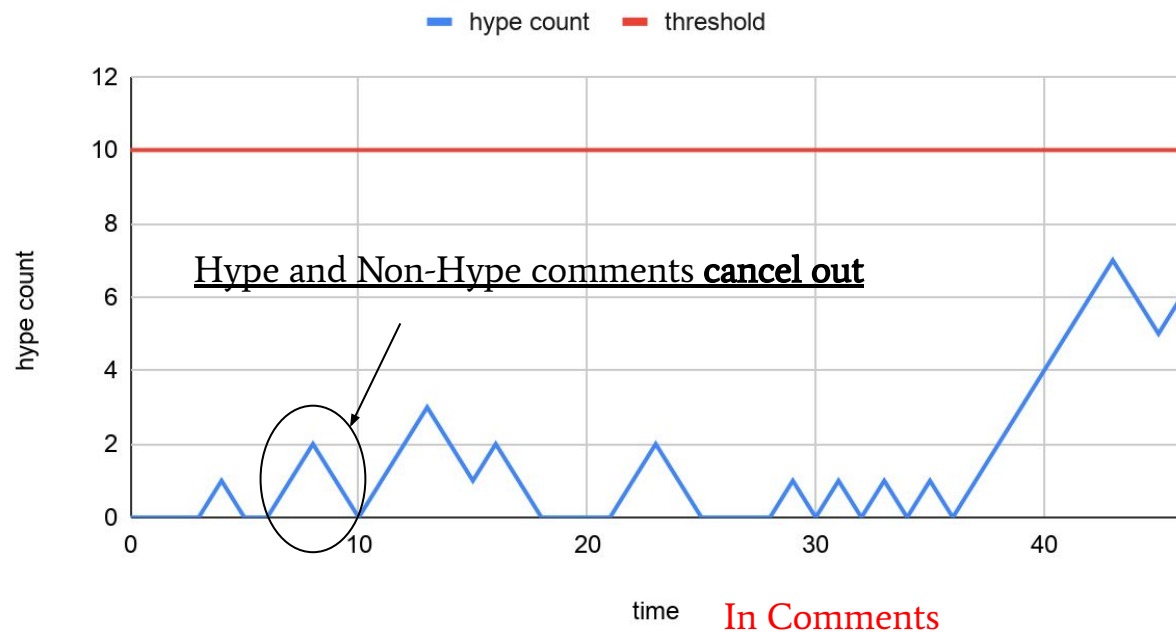


Not Hype



# State Machine - Not Hype VOD segment

hype count vs. time - reg-silentgarrett



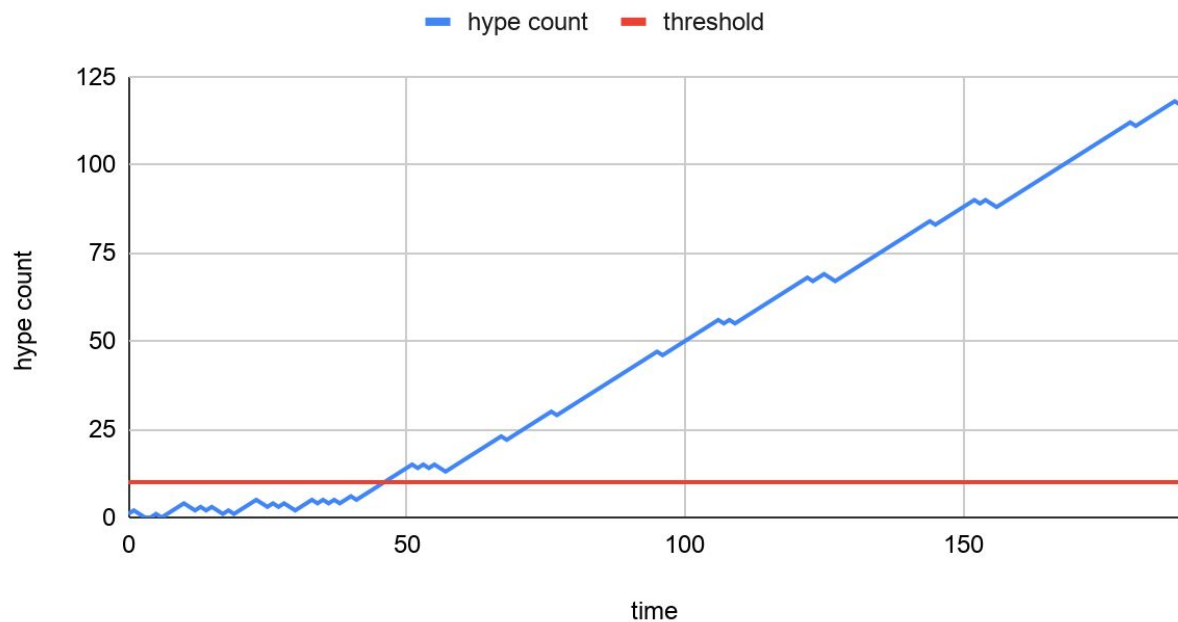
Hype



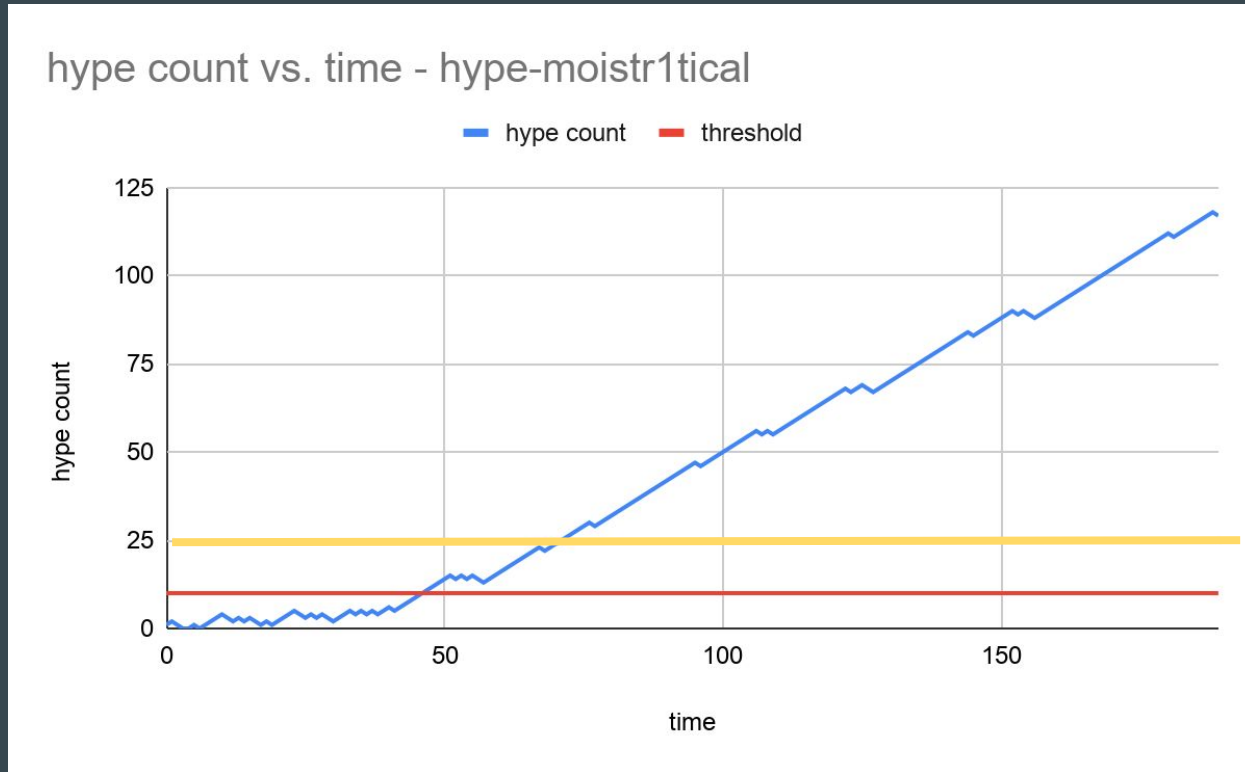
Not Hype

# State Machine - Hype clip

hype count vs. time - hype-moistr1tical



# State Machine - Hype clip



Needs an  
Upper Bound

# State Machine Results

Name	Stream Label	Majority State	% of time hype (t=comments)	# of comments in hype state
hyp-esl_csgo-11-22.txt	hype	hype	91.08280255	143
hyp-timthetatman-11-22.txt	hype	hype	91.33858268	116
hyp-moistcr1tikal-11-15.txt	hype	hype	75.78947368	144
hyp-GMHikaru-11-22.txt	hype	hype	93.40277778	269
hyp-eslcsgo2-11-22.txt	hype	hype	91.42857143	96
hyp-loltyler1-11-22.txt	hype	hype	85.12396694	103
reg-silentgarrett-11-21.txt	not hype	not hype	0	0
reg-gomisworld-11-21.txt	not hype	not hype	0	0
reg-aforestlife-11-21.txt	not hype	not hype	0	0
reg-keys-11-21.txt	not hype	not hype	0	0
reg-hologramdreams-11-21.txt	not hype	not hype	0	0
reg-coffeewithbee-11-21.txt	not hype	not hype	0	0
reg-sudarezz-11-20.txt	not hype	not hype	0	0

# References

Koeze, Ella, and Nathaniel Popper. “The Virus Changed the Way We Internet.” *The New York Times*, 7 Apr. 2020,  
[www.nytimes.com/interactive/2020/04/07/technology/coronavirus-internet-use.htm](https://www.nytimes.com/interactive/2020/04/07/technology/coronavirus-internet-use.html)  
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**Live Demo**