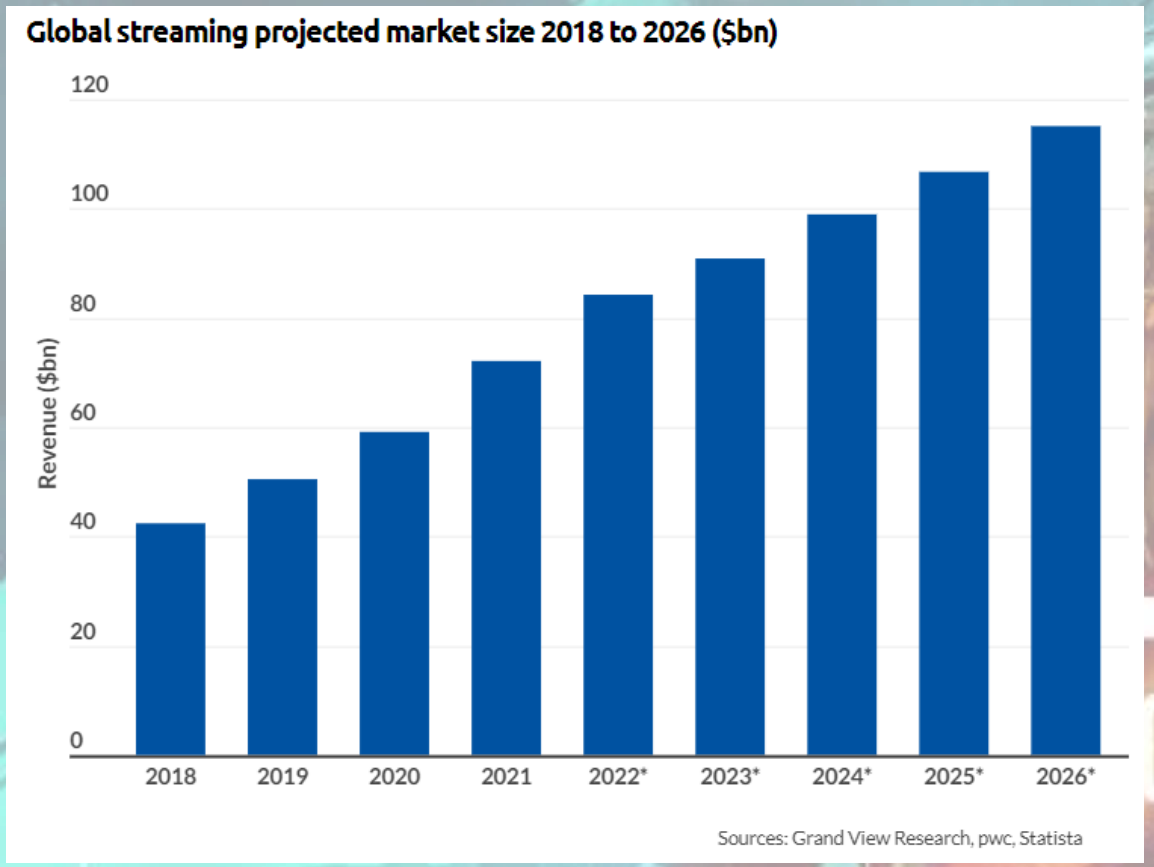
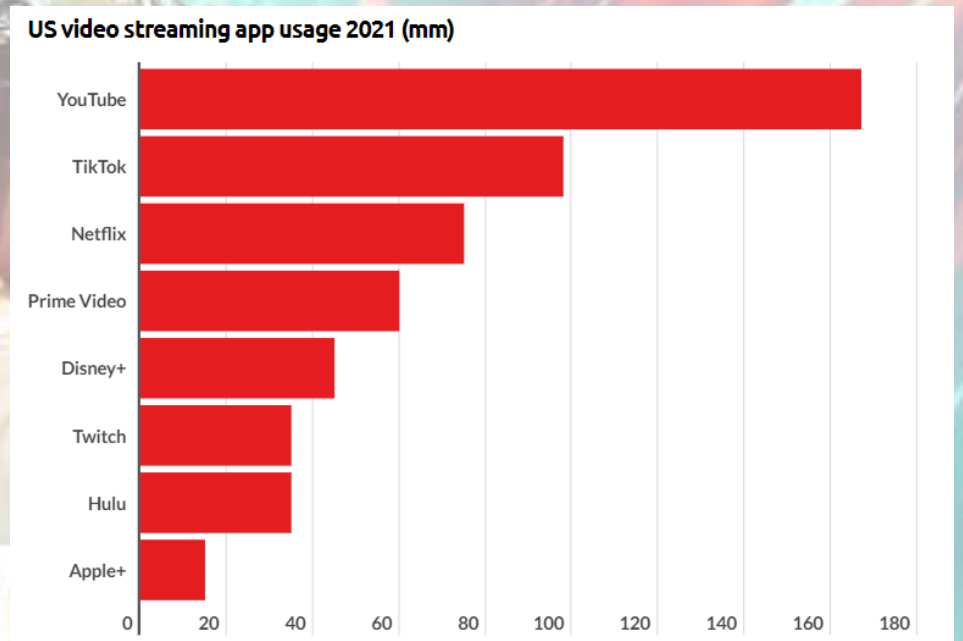
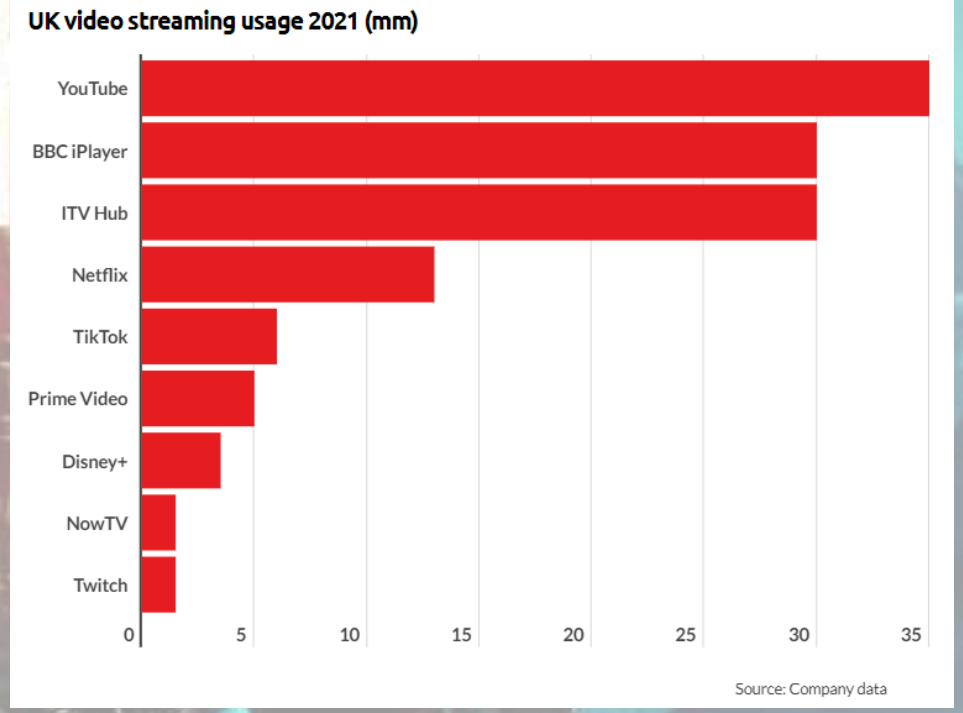
Global Streaming Market Size and Streaming Apps

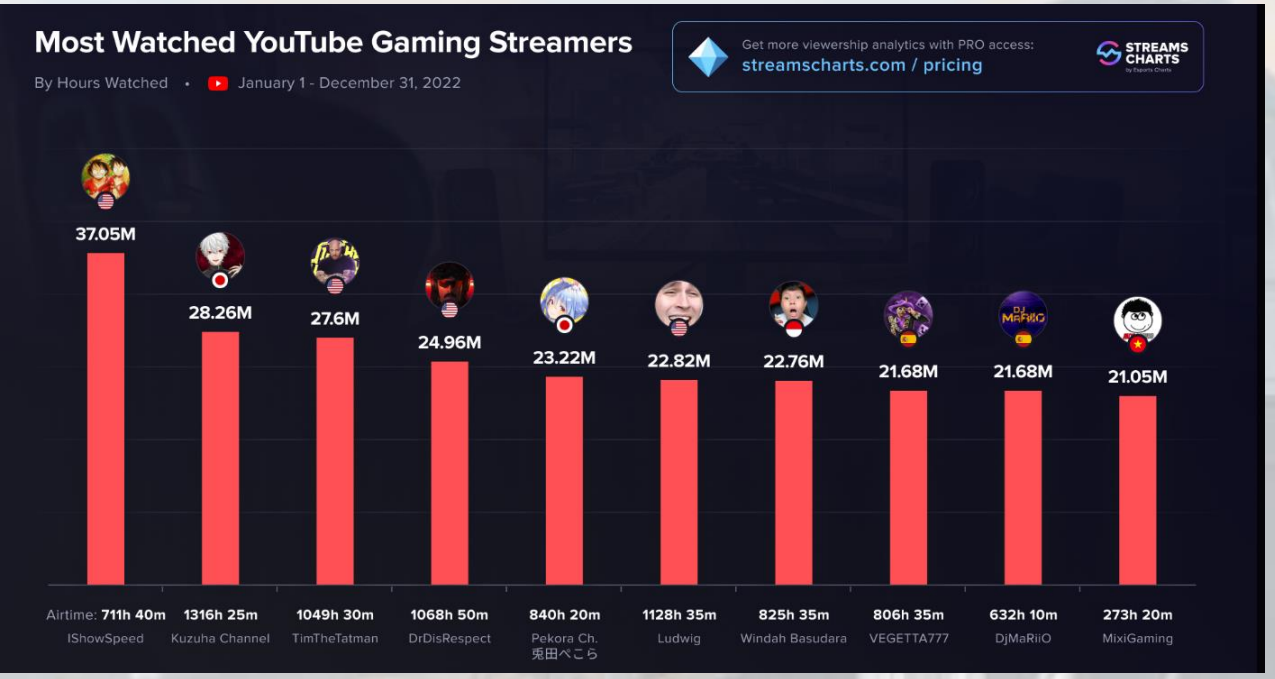


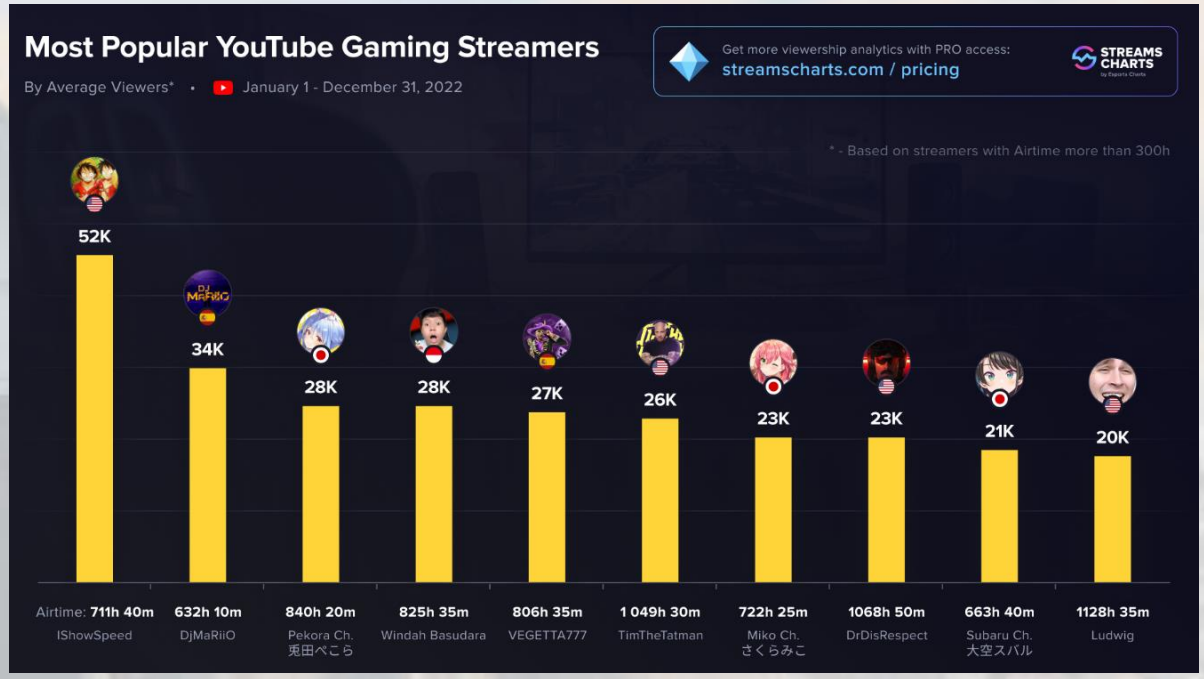




Presentation by Napat Phongvichian 6420422022
Kruawun Jankaew 6420422016

Stats on Gaming Streamers on YouTube





Our Project Objective

Exploring user behavior and chat communication within a YouTube live streaming to extract information on:

- User behavior,
- chat content including sentimental analysis,
- and user engagement evoking factors.

DrDisRespect
@DrDisRespect
4.26M subscribers

Join | Subscribed

HOME | VIDEOS | SHORTS | LIVE | PLAYLISTS | COMMUNITY | CHANNELS | ABOUT

Description

The Official Dr Disrespect YouTube Channel

Stats

Joined Jan 6, 2010

320,813,534 views

- One of the most dominating game streamer.
- An entertainer in the gaming industry rather than a professional gamer, with an arrogant and funny character.
- Specialising in multiplayer games, especially Battle Royale Games (i.e., Call of Duty, Warzone, PUBG, Apex Legends, Fortnite)

TheBrokenMachine
@TheBrokenMachine
401K subscribers

Join | Subscribed

HOME | VIDEOS | SHORTS | LIVE | PLAYLISTS | COMMUNITY | CHANNELS | ABOUT

Description

Optimised for #Battlefield 2042 and much more! TheBrokenMachine is my name, come say hello - livestreams here almost everyday 2pm UK time!

Get 10% off KontrolFreeks with code BROKENMACHINE http://www.kontrolfreek.com/?a_aid=BROKENMACHINE

Channel Thumbnail includes image by: https://twitter.com/Shadow6ix

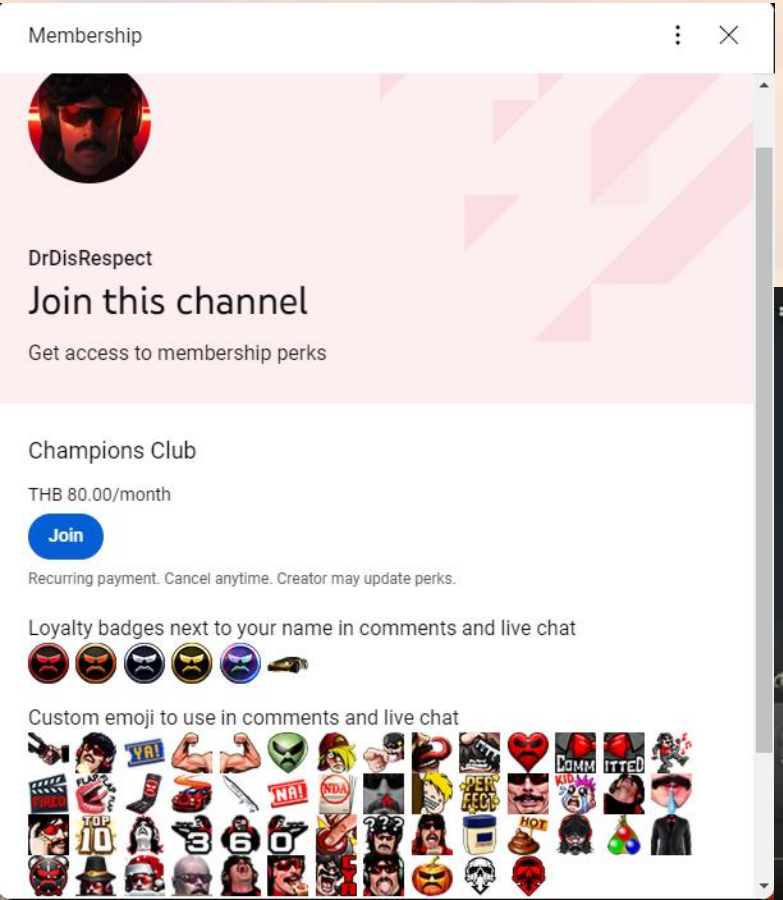
Stats

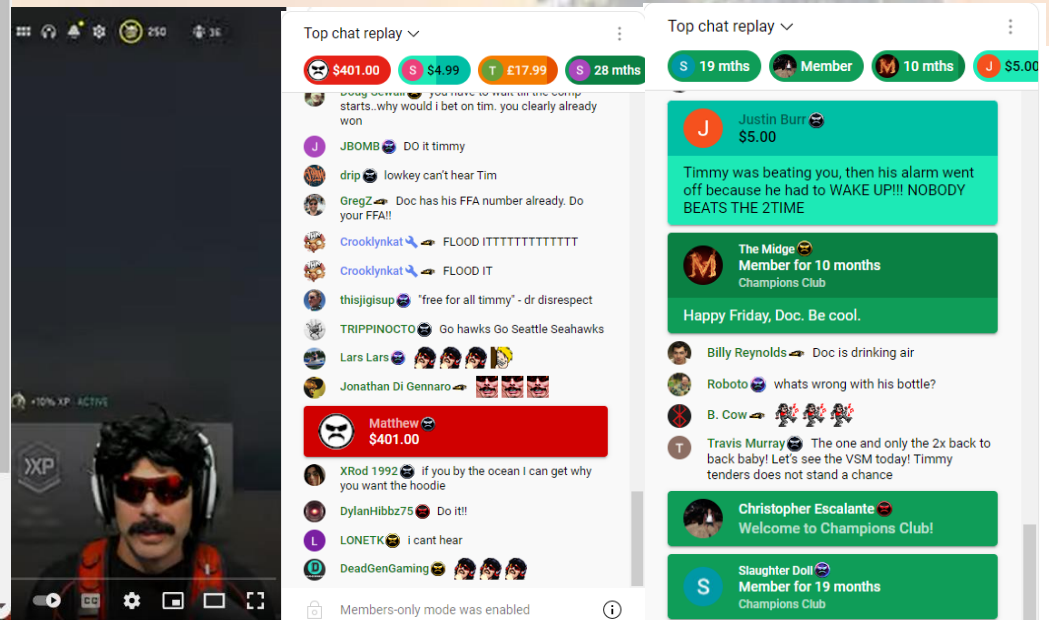
Joined Aug 20, 2011

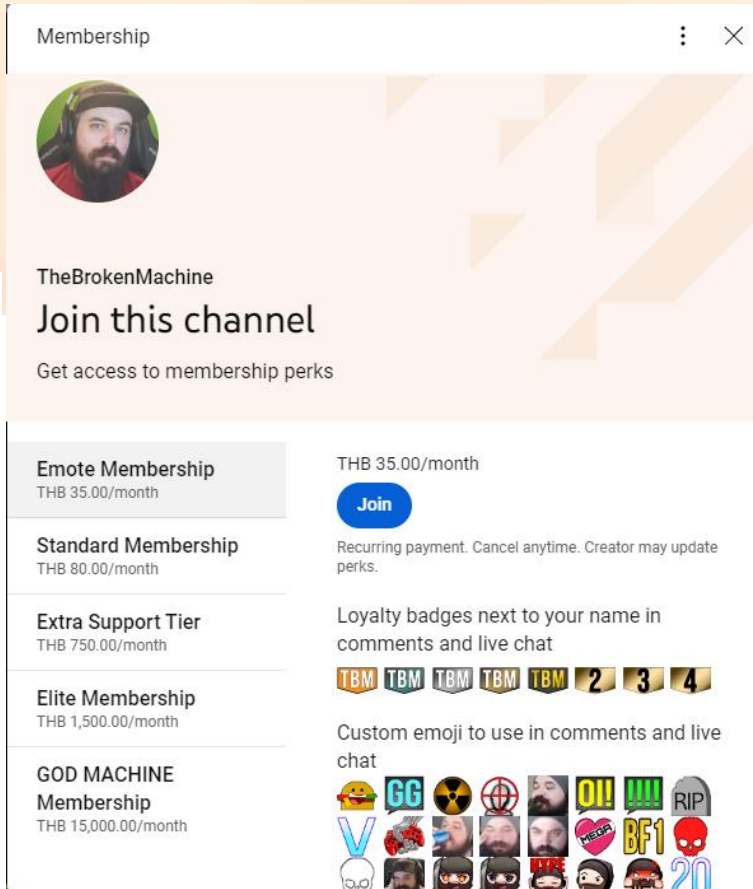
110,191,733 views

- British First Person Shooter game streamer.
- Specialising in multiplayer games (i.e., Battlefield, Warzone)

Revenue from Game Streaming (apart from YouTube Views)

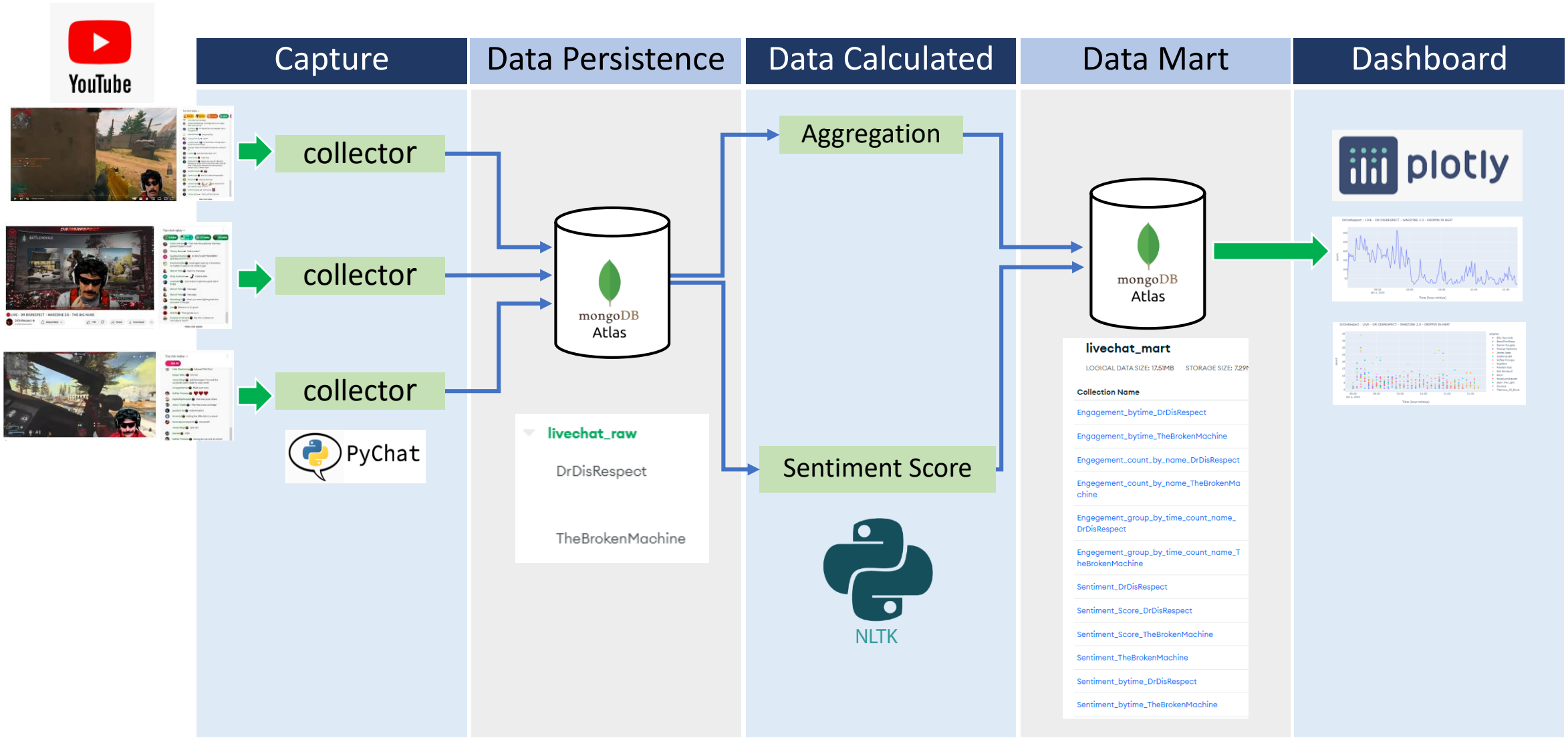




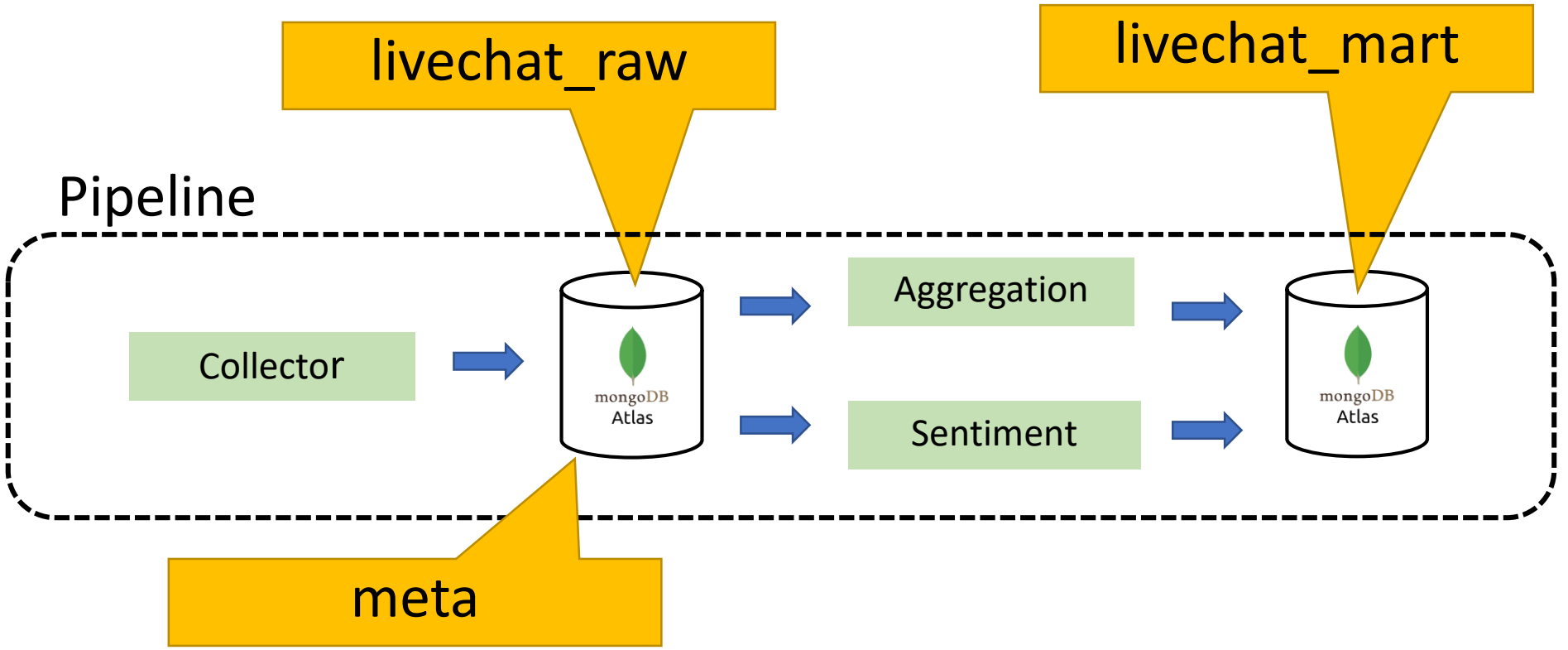


Data Pipeline

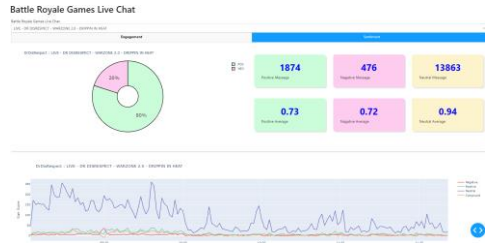
Data Journey



Data Pipeline



Dashboard



Data Management

Database: livechat_raw

Collection: channel_name

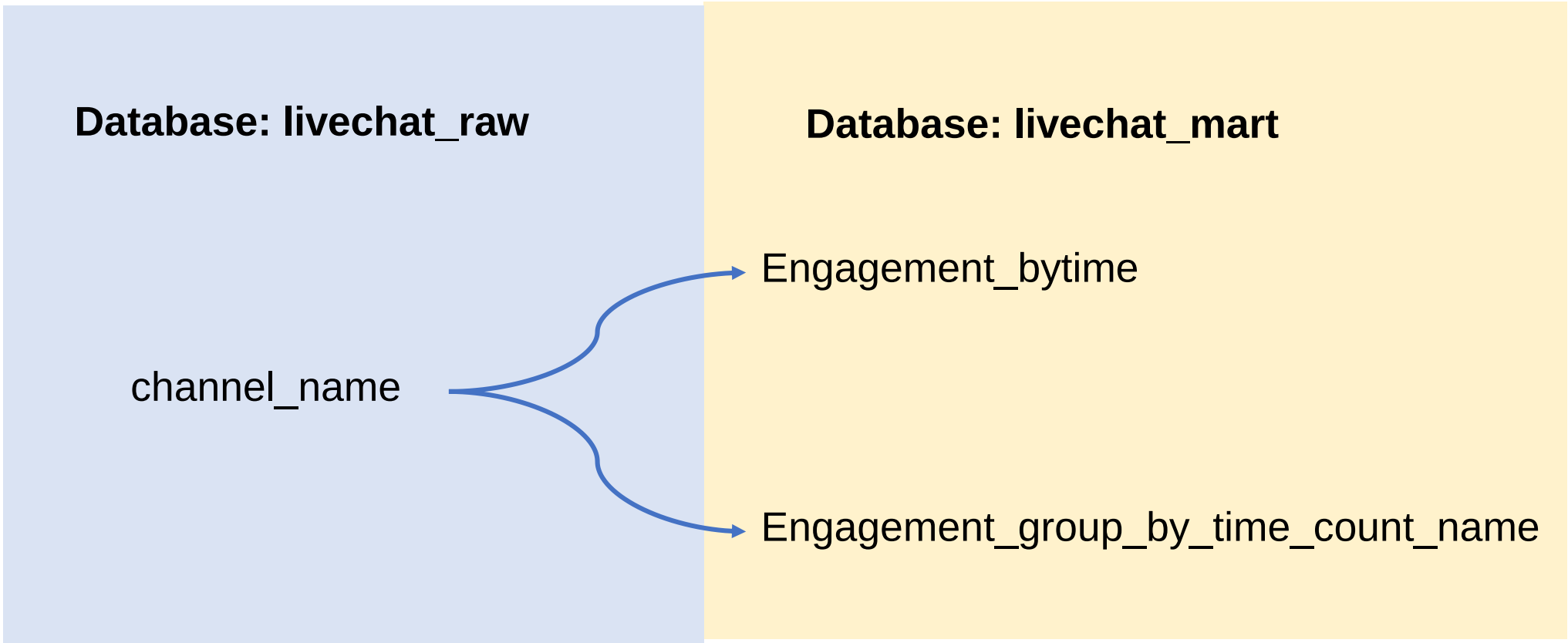
```
_id: ObjectId('63b57ce35666a334ca2c5a7f')
datetime: "2023-01-02 09:02:23"
vid: "tuxuH67r7y8"
aname: "Microwaved Grape"
msg: "GIVE ME BACK MY SON"
```

```
_id: ObjectId('63b57ce45666a334ca2c5a80')
datetime: "2023-01-02 09:02:24"
vid: "tuxuH67r7y8"
aname: "Mattyboocakes"
msg: "New menu inside the arena? "
```

```
_id: ObjectId('63b57ce55666a334ca2c5a81')
datetime: "2023-01-02 09:02:25"
vid: "tuxuH67r7y8"
aname: "Casanova Frankenstein"
msg: "MFING tree star!!"
```

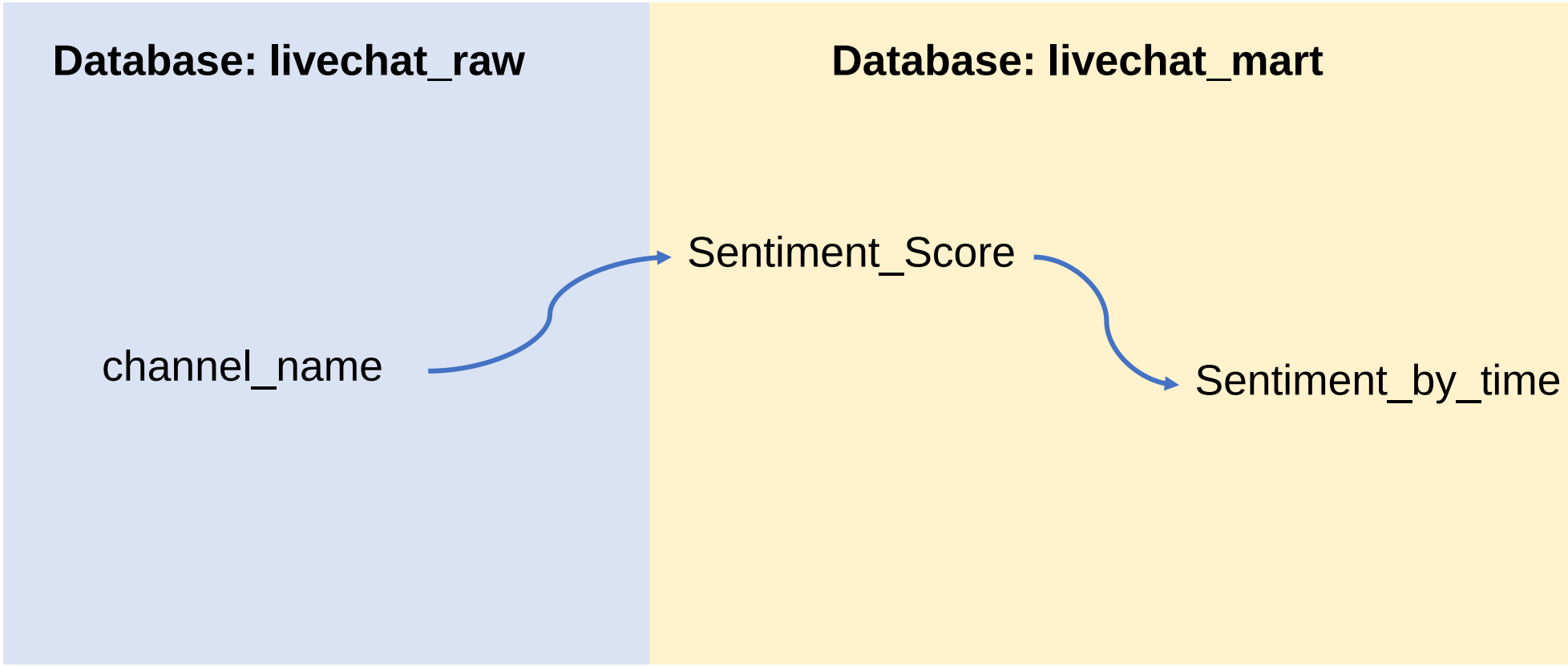
Data Management

Engagement Mart



Data Management

Sentiment Mart



Data Management

Engagement_bytime

	time	count
0	2022-12-28 08:55:00	38
1	2022-12-28 08:56:00	159
2	2022-12-28 08:57:00	196
3	2022-12-28 08:58:00	152
4	2022-12-28 08:59:00	139
...	...	...
146	2022-12-28 11:21:00	140
147	2022-12-28 11:22:00	69
148	2022-12-28 11:23:00	29
149	2022-12-28 11:24:00	22
150	2022-12-28 11:25:00	15

Engagement_group_by_time_count_name

	aname	time	count
0	A_Lex661	2022-12-28 08:55:00	16
1	A_Lex661	2022-12-28 09:00:00	13
2	A_Lex661	2022-12-28 09:05:00	4
3	A_Lex661	2022-12-28 09:10:00	5
4	A_Lex661	2022-12-28 09:15:00	1
...	...	...	...
402	ROG-ghostsyoutube	2022-12-28 10:20:00	3
403	ROG-ghostsyoutube	2022-12-28 10:30:00	4
404	ROG-ghostsyoutube	2022-12-28 11:10:00	2
405	ROG-ghostsyoutube	2022-12-28 11:15:00	4
406	ROG-ghostsyoutube	2022-12-28 11:20:00	6

Data Management

Sentiment_Score

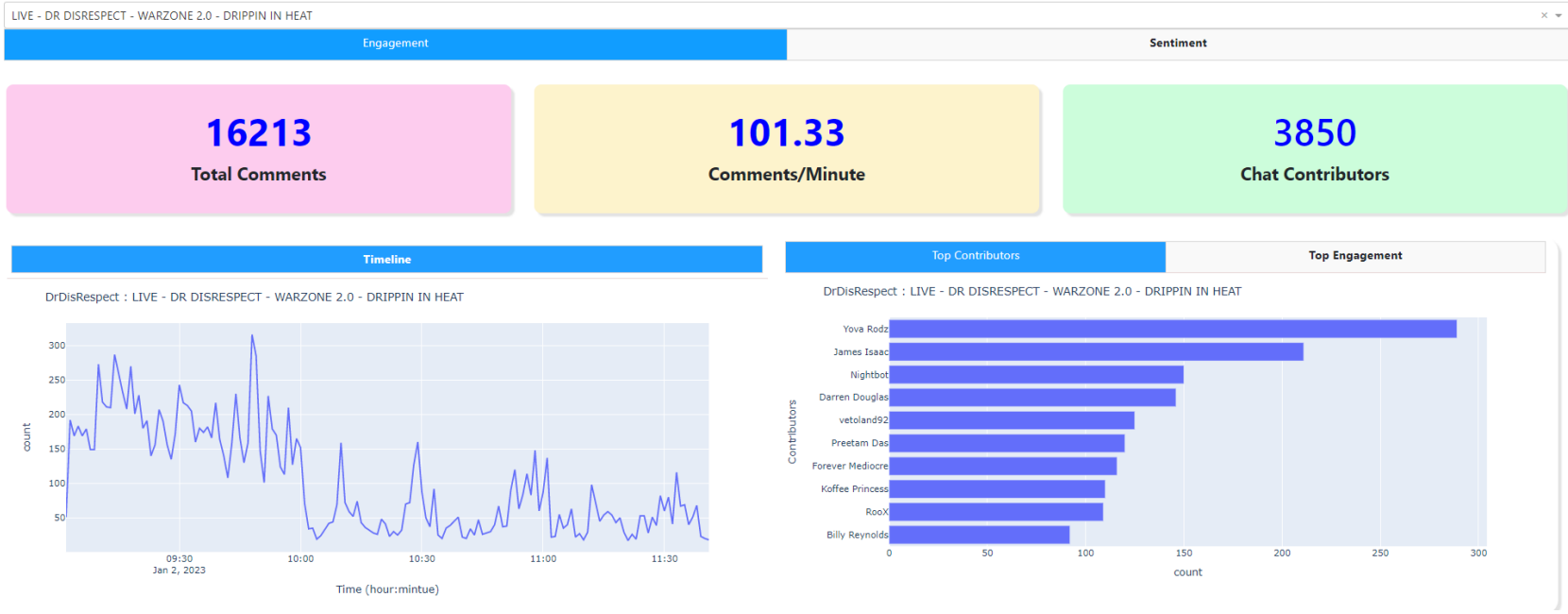
	datetime	score	Polarity
0	2022-12-30 09:05:37	1.000	NEU
1	2022-12-30 09:05:37	1.000	NEU
2	2022-12-30 09:05:38	0.546	POS
3	2022-12-30 09:05:39	0.607	POS
4	2022-12-30 09:05:40	1.000	NEU
...	...	...	...
19941	2022-12-30 11:37:08	1.000	NEU
19942	2022-12-30 11:37:09	0.556	NEU
19943	2022-12-30 11:37:09	1.000	NEU
19944	2022-12-30 11:37:10	1.000	NEU
19945	2022-12-30 11:37:10	1.000	POS

Sentiment_by_time

	neg	neu	pos	compound	time
0	0.744	33.475	3.781	2.6046	2022-12-30 09:05:00
1	2.202	78.258	7.540	4.5002	2022-12-30 09:06:00
2	0.538	3.462	0.000	-0.5423	2022-12-30 09:07:00
3	5.539	228.098	17.363	8.1365	2022-12-30 09:08:00
4	5.475	211.634	14.891	7.3594	2022-12-30 09:09:00
...	...	...	...	...	...
148	5.874	79.617	6.508	1.8878	2022-12-30 11:33:00
149	7.928	68.502	7.569	2.8136	2022-12-30 11:34:00
150	5.397	97.918	18.685	8.3609	2022-12-30 11:35:00
151	24.107	200.612	40.282	5.6664	2022-12-30 11:36:00
152	5.326	31.391	6.283	-0.7555	2022-12-30 11:37:00

Dashboard

Engagement Dashboard



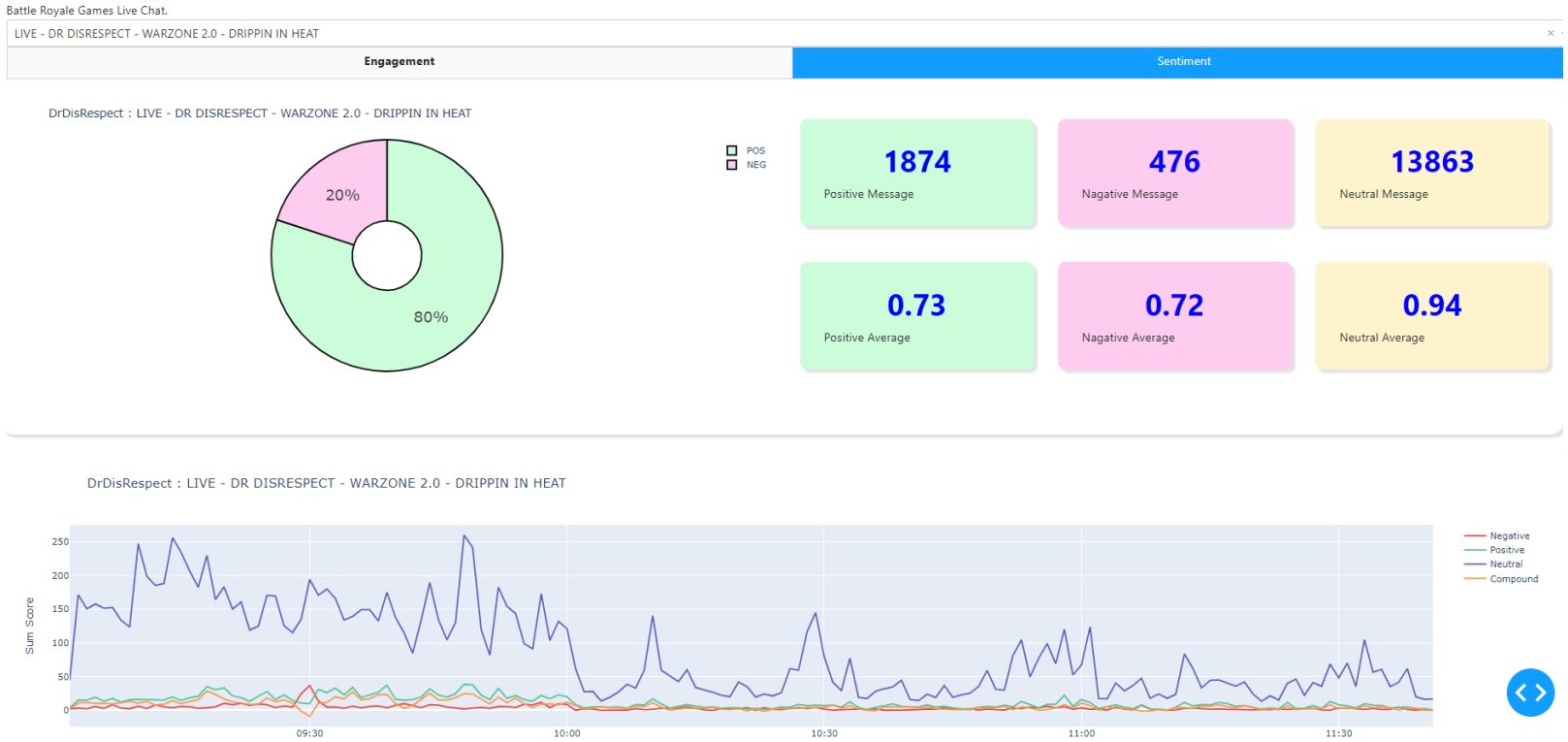
Engagement_bytime_DrDisRespect

Engagement_count_by_name

Engagement_group_by_time_count_name

Dashboard

Sentiment Dashboard



Sentiment_Score

Sentiment_by_time

Conclusions on YouTube Chat Analytics of First Person Shooter Game Streamers

1. We observed that the chat messages are very active when the players are interacting with users (read out comments, donation and asking opinion of users).
2. Engagement in certain period is restricted to member only.
3. The chat includes a lot of emojis, most which are site specific (member only emoji).
4. Many words in chat are domain-specific (to gaming industry and type of game).
5. Almost all messages express sentiment, and the positive sentiment outweighs the negative.

Polarity	Word
Positive	Lol, Yes, Yep, Yeh, haha, EZ, gg, Wow, Champ, Beautiful, nice, sweet, better, <3, Gains
Negative	Empty, Wrong, No, Nah, No, Dead, Nasty, Filthy, Broken

Recommendations

1. In order to have a more accurate assessment of sentimental analysis, we need a domain-specific lexicon for game streaming.

2. Library used should include member-only emoji for more accurate analysis.

3. If we can analyse the amount of donations from users and the numbers of members joining the live stream, it will give us a better assessment on member’s loyalty and sentimental analysis.