

The logo for 'Shadowlands Eternity's End' is centered at the top. It features the word 'SHADOWLANDS' in a small, white, sans-serif font above the words 'ETERNITY'S END' in a large, stylized, white font with a metallic texture. The text is set against a dark, ornate, shield-like background with gold and green accents. The background of the entire slide is a vibrant, stylized landscape from the game, showing a large, glowing, blue and gold structure in the distance, green grass in the foreground, and a bright, hazy sky with stylized clouds.

SHADOWLANDS ETERNITY'S END™

The title 'In-Game Player Feedback Using Trade Chat' is displayed in a large, bold, white font. It is enclosed within a dark, rounded rectangular box with an orange border. The box is positioned in the center of the slide, overlapping the game landscape background.

In-Game Player Feedback Using Trade Chat

Overview

1. Business Problem

2. The Data

3. Findings

4. Models

5. Suggestions and Future Research

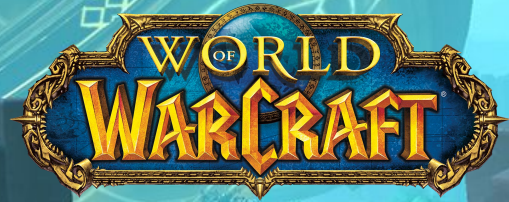


Business Problem

Business Problem

- Released November 23, 2004
- Peaked at 12 million subscribers in 2010
- Estimated to now have ~2 million active max level players towards the end of patch 9.1

**ACTIVISION
BLIZZARD**



Business Problem

Feedback on Patch 9.2 launch

- **Server Stability**
- **Class Set Aesthetics**
- **In-game Bugs**





The Data

The Data

[2. Trade Chat - City]

- Seen by in all major player hubs/cities
- Per Server (Server Name: Area 52)
- Meant for trading between players

General Log

Changed Channel for 2020-08-08 10:00:00

[2. Trade - City] [Boomboommf]: WTS M+ 10-15 ! Gold Only! Guild Team Ready !

[2. Trade - City] [Dildadron]: WTS M+ 10-15!Buy 2 or more and Get Discount! Gold only! Guild Team Ready!

[2. Trade - City] [Dildadron]: WTS M+ 10-15!Buy 2 or more and Get Discount! Gold only! Guild Team Ready!

[2. Trade - City] [Washedcops]: WTB [Shadowghast Necklace] 110K PST

[2. Trade - City] [Karvine]: So what does everyone think about patch 9.2 so far?

[2. Trade - City] [Rezu]: Pretty cool, I like how wow has adapted

[2. Trade - City] [Hooyah]: wts 291 ring/necks or combines

[2. Trade - City] [Karvine]: adapted? In what way? Feels like I've been playing the same expansion for 5 years lol

[2. Trade - City] [Rajini]: story is great, no complaints there :kappa

[2. Trade - City] [Lucifox]: WTS M+ 10-15 ! Gold Only! Guild Team Ready !

The Data

Data Collection

- /chatlog
- ~24 hours of chat
- 4,448 trade chat entries
- Manual classification of chat entry

```
2/22 08:17:20.753 [2. Trade] Malabrah-Area52: so u got boosted is what ur saying
2/22 08:17:28.587 [2. Trade] Insanepulls-Area52: dont worry buy a new one on blizzard shop then get
2/22 08:17:31.987 [2. Trade] Stinkfish-Area52: naw i think he was saying he was boosting
2/22 08:18:08.905 [2. Trade] Blokemon-Area52: I wonder if they're going to start banning players in
2/22 08:18:11.104 [2. Trade] Blokemon-Area52: =x
2/22 08:18:16.149 [2. Trade] Jaebow-Area52: its the boosteres, not the boosted
2/22 08:18:34.549 [2. Trade] Jaebow-Area52: idk if there is another wave of ban coming or not, but
2/22 08:18:43.049 [2. Trade] Stinkfish-Area52: i thought it was honestly the boosterettes not the b
2/22 08:18:52.649 [2. Trade] Insanepulls-Area52: Maybe he was part of a community
2/22 08:18:56.149 [2. Trade] Blokemon-Area52: So am I the only thing I boost is the morale on them
2/22 08:18:57.816 [2. Trade] Marseille-Area52: no more book flyers in the oribos, god bless blizzar
2/22 08:19:02.116 [2. Trade] Basshammer-Area52: gosh darn boosterino's
2/22 08:19:31.782 [2. Trade] Jaebow-Area52: i sell 2s carries, and i seen in disc about bans for boc
2/22 08:19:47.320 [2. Trade] Basshammer-Area52: screen cap and sending to bliz now... gg
2/22 08:19:53.020 [2. Trade] Stinkfish-Area52: boostie boys buying boosts in best buy backrooms
2/22 08:19:54.453 [2. Trade] Blokemon-Area52: LOL
2/22 08:19:55.286 [2. Trade] Insanepulls-Area52: Blizzard should use Ip Bann for those bosters
2/22 08:20:07.086 [2. Trade] Blokemon-Area52: We got Matlock up in tradachat
2/22 08:20:23.255 [2. Trade] Ego-Area52: can't believe rated solo que will be real
2/22 08:20:33.455 [2. Trade] Valayx-Area52: wait so its not ip ban?
2/22 08:20:35.922 [2. Trade] Blokemon-Area52: Oh IP Ban would be lovely I can imagine the youtube v
2/22 08:20:37.022 [2. Trade] Deltadawn-Area52: Matlock is an attorney/detective...
2/22 08:20:40.088 [2. Trade] Basshammer-Area52: this is the first time trade chat actually has more
2/22 08:20:47.322 [2. Trade] Blokemon-Area52: No Val they're making them start overing
2/22 08:20:47.622 [2. Trade] Insanepulls-Area52: Nah its just account bann
2/22 08:21:18.655 [2. Trade] Blokemon-Area52: So basically the booster gets banned then buys anothe
2/22 08:21:18.655 [2. Trade] Valayx-Area52: ahhh no wonder
2/22 08:21:20.555 [2. Trade] Insanepulls-Area52: so u just get another acc buy instant 60 _D
2/22 08:21:21.923 [2. Trade] Blokemon-Area52: the circle of wow
2/22 08:21:35.188 [2. Trade] Basshammer-Area52: boostception
2/22 08:21:51.755 [2. Trade] Insanepulls-Area52: @Blokemon ya thats why they should bann by Ip
2/22 08:21:54.048 [2. Trade] Deltadawn-Area52: and blizz.. er.. microsoft makes more money from sub
2/22 08:22:04.000 [2. Trade] Gpr-Area52: <Crisp> is a new guild looking forward to push into mythic
2/22 08:22:18.732 [2. Trade] Blokemon-Area52: I know Insane but it's a money con they're only banni
2/22 08:22:46.959 [2. Trade] Insanepulls-Area52: There is a relation that those guys who are booste
2/22 08:22:54.460 [2. Trade] Insanepulls-Area52: so only guys to boost them
```

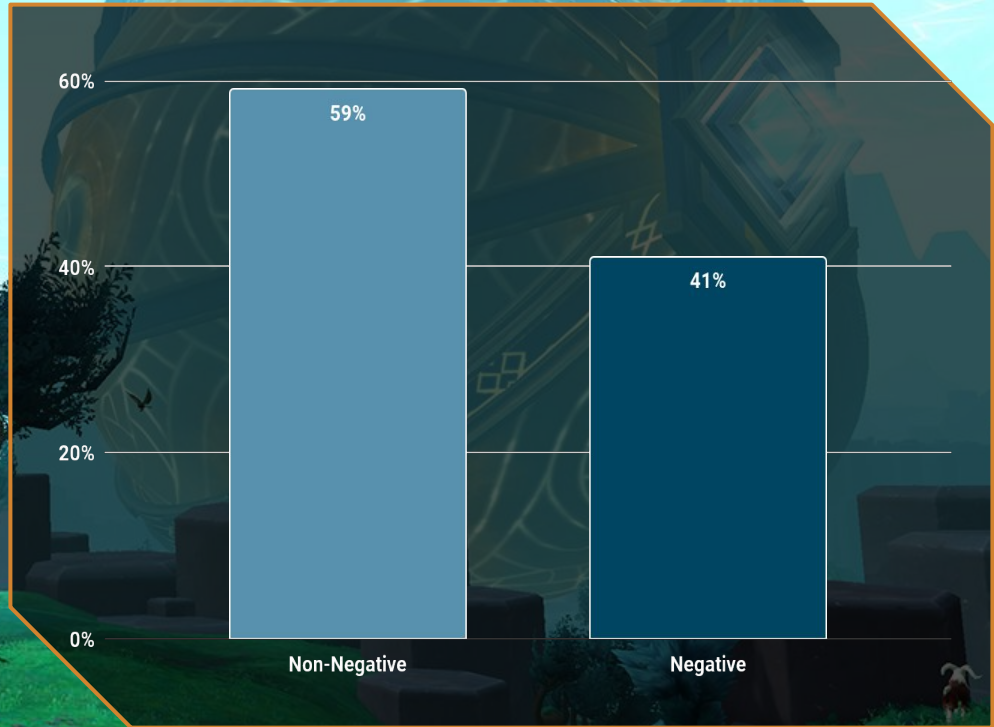



Findings

Sentiment Analysis

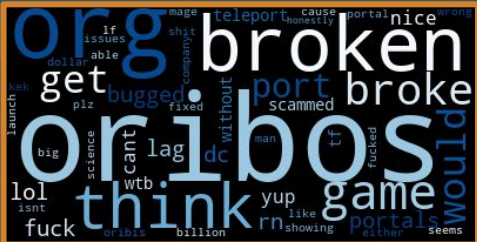
Patch day!

These sets
are a joke!
kek



Feedback by Topic

Server Stability



Armor Set Aesthetic



Quest Bug





Models

Models

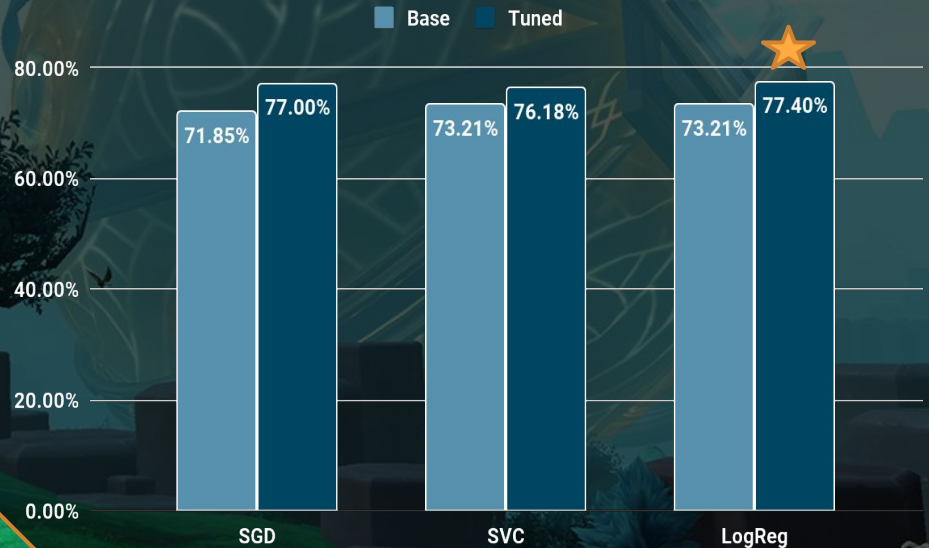
- **Multiclass Model**
 - Labels: Chat, Game, Service
- **Sentiment Model**
 - Labels: Negative, Non-negative
- **Topic Model**
 - Top 8 Clusters

Multiclass Model

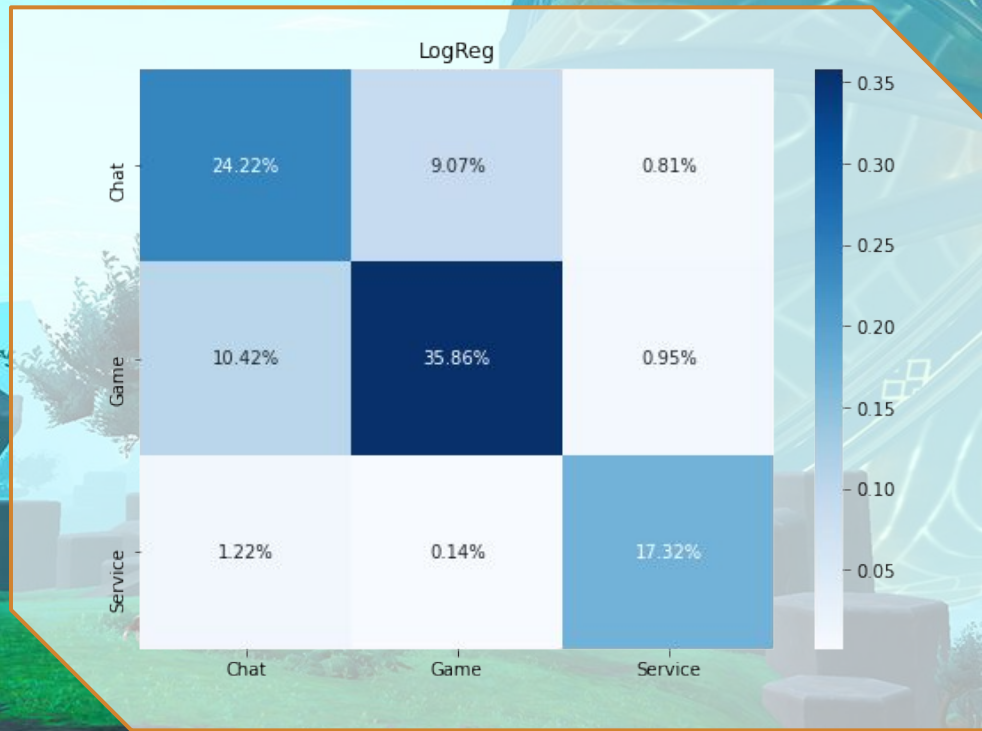
Tuned Logistic Regression

Accuracy: ~77.40%

Accuracy



Multiclass Model

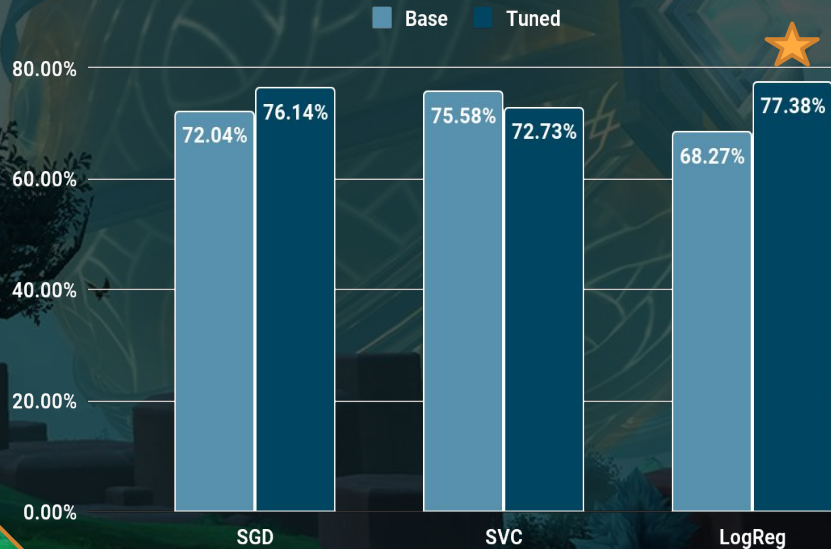


Sentiment Model

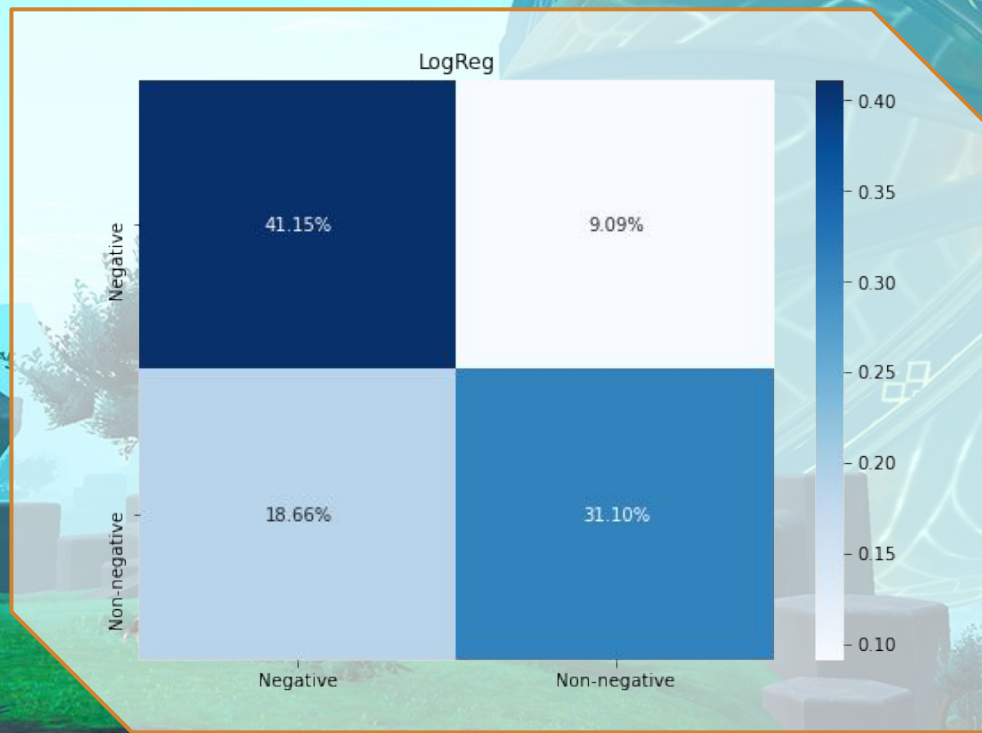
Tuned Logistic Regression

Recall: ~77.38%

Recall



Sentiment Model



Topic Model - GDSMM

Gibbs Sampling Dirichlet Multinomial Mixture

- Lesser known compared to LDA
- Aimed at detecting topics in smaller documents
- Assumes only one topic per document
- Model calculates number of clusters

Server

org broken nice
get bugged port broke
on ibos
think yup game
fuck

Patch 9.2

never taking imagine
game lol boring
like take gonna pvp
day patch new
almost dead gear zone

Unknown

blizz scammer earth stuff wanted
new negative
gear proly honestly hes k
area keep
heard cant event dumbasses idiots tower

PvP Armor Set

end upset gauntlet purpose yup wonder wow
trash pay
like know hopefuller better
gear people
time korthia

Server

crashed today cuz finally
work hours shit
servers
wow want days
fucking call going week

Quest Bug

getting nasty oribos
anyone
shit else
stuck issue

Armor Set

shit person decided new priest
sets lmao
looks retire
look lass
unsub til hard content hunter

Server

wizard happy little sucks per hope
relog nothing
working feel fairly bugs
without wouldn't tonight
play patch
blizzard basically weeks want



Suggestions and Future Research

Suggestions

- **Increase Server Stability During Launch**
- **Player Voted Class Armor Set Aesthetics**
- **Fix the Quest “A Hasty Voyage”**

Future Research

- **Gather data from all linked servers and other regions**
- **Player Feedback NPC**
- **In-game harassment filter**

Questions?



Edel Prado
Data Scientist



github.com/epradojr



linkedin.com/in/edel-prado-jr



edel.prado.jr@gmail.com