
SENTIMENT ANALYSIS ON LEAGUE OF LEGENDS COMMUNITY COMMENTS

Project by Giovanna Ferraro (giovanf@stud.ntnu.no)



TABLE OF CONTENTS

- Twitch overview
- Emotes
- Project goal
- Data collection and lexica
- Model development
- Results and discussion
- Predictions

TWITCH OVERVIEW

- Twitch is the most popular live-streaming platform (2021)
- At this moment there are 2,830,00 people watching Twitch
- 31 million daily active users
- Live chats it's a crucial aspect of the platform
- Emotes as a new form of language



EMOTES



pepega



4Head



Trihard



LuL



Triumphbib



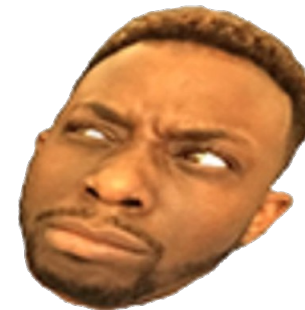
pogchamp



CoolStoryBob



kappa



cmonbruh

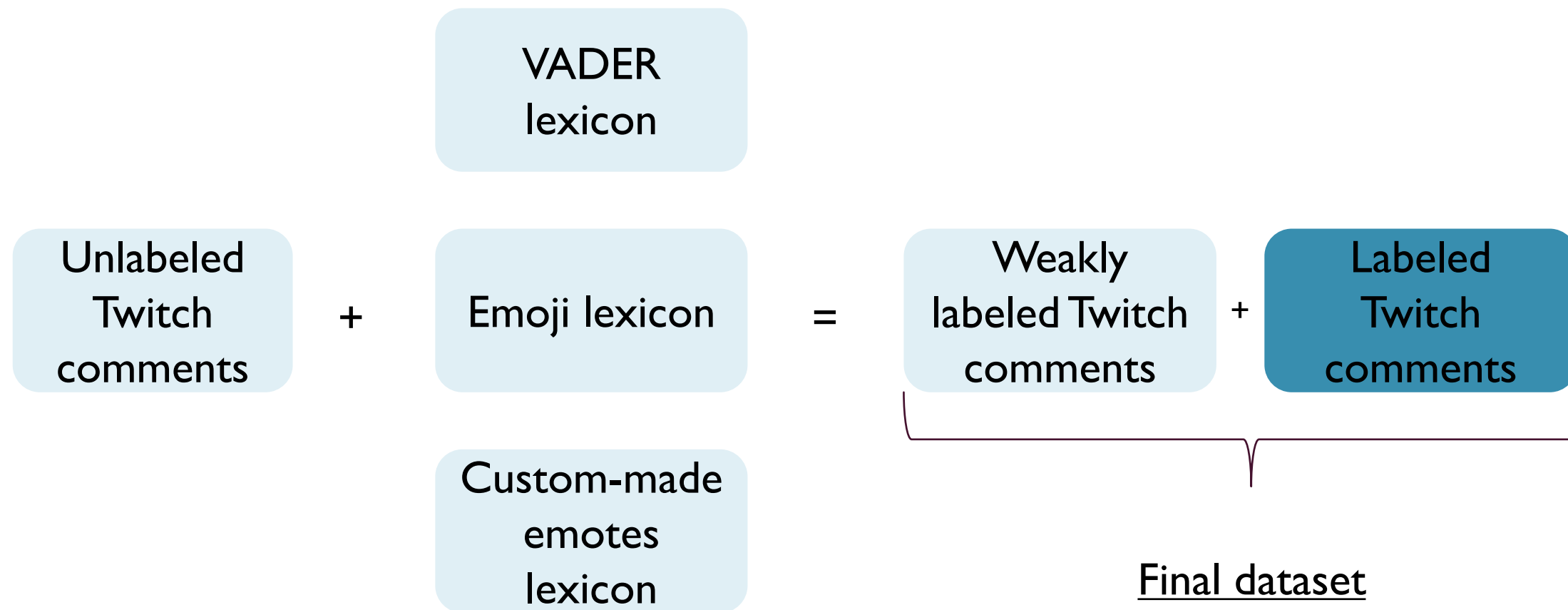


kekw

PROJECT GOAL

- Sentiment Analysis of League of Legends comments on Twitch
- Challenges
 - Few known lexicon for emotes sentiment
 - The sentiment of each emote is context-dependant
 - Social media language issues
 - No specific grammar

DATA COLLECTION AND LEXICA



MODEL DEVELOPMENT

Step 1

- Distribution-based classifier
- Accuracy 0.63
- F1 score 0.62

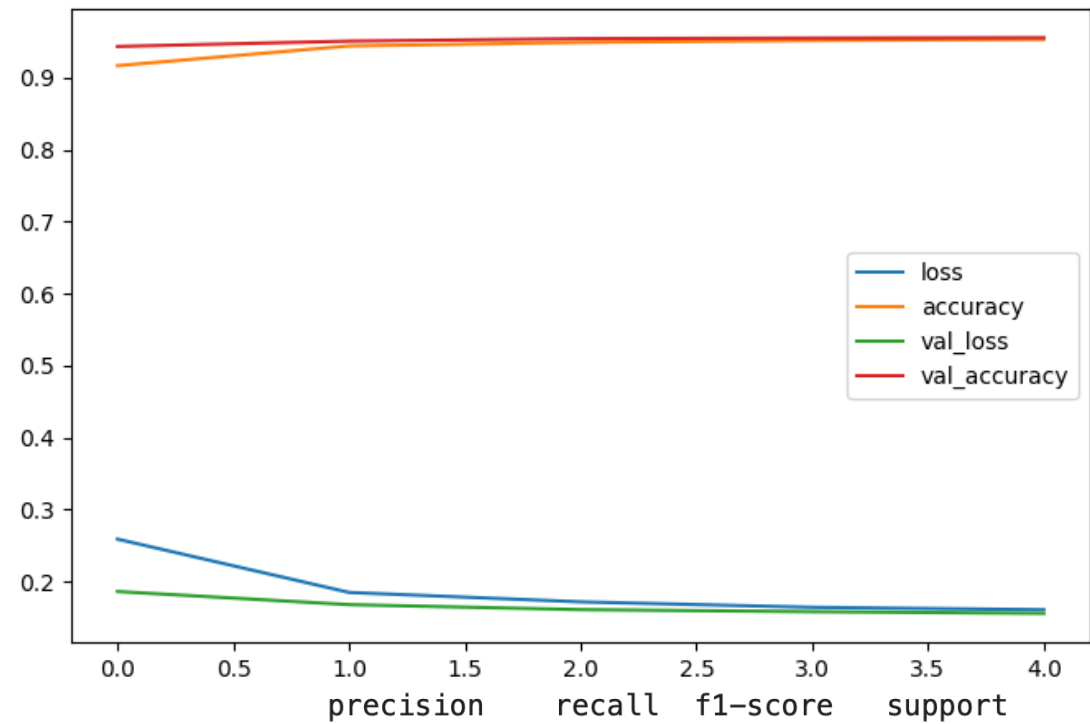
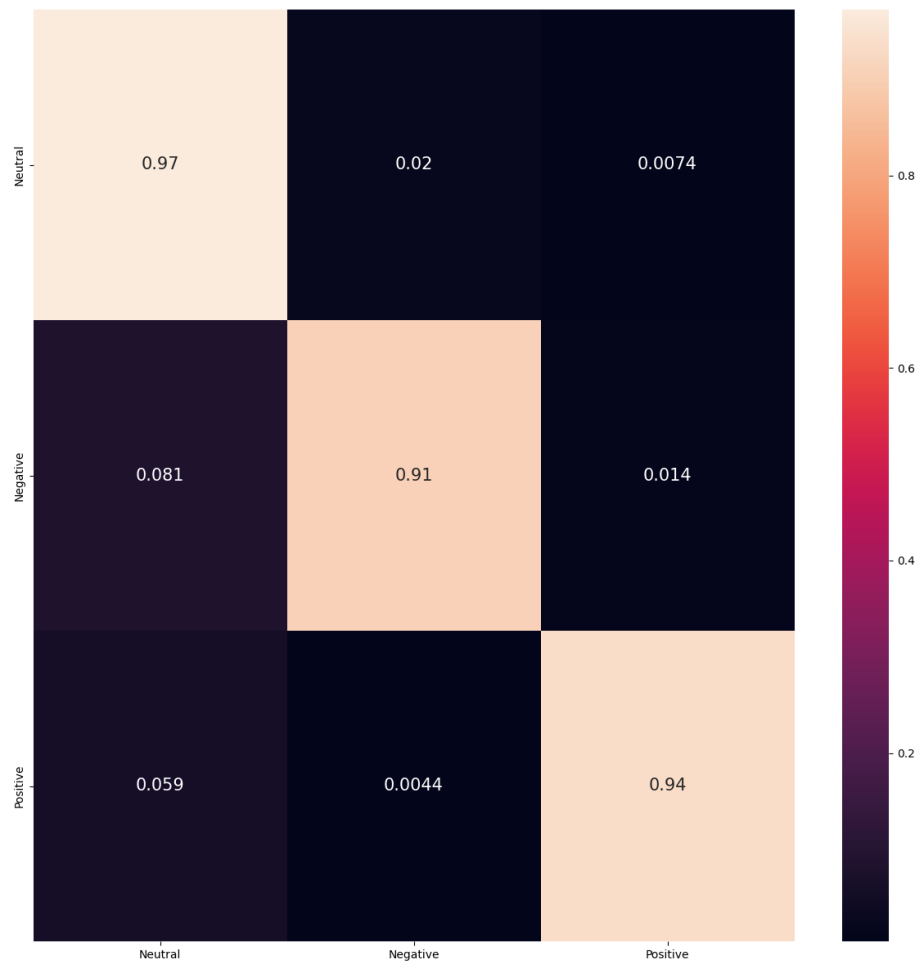
NOT ENOUGH!

Step 2

- Deep learning approach [*]
 - LSTM
 - BiLSTM

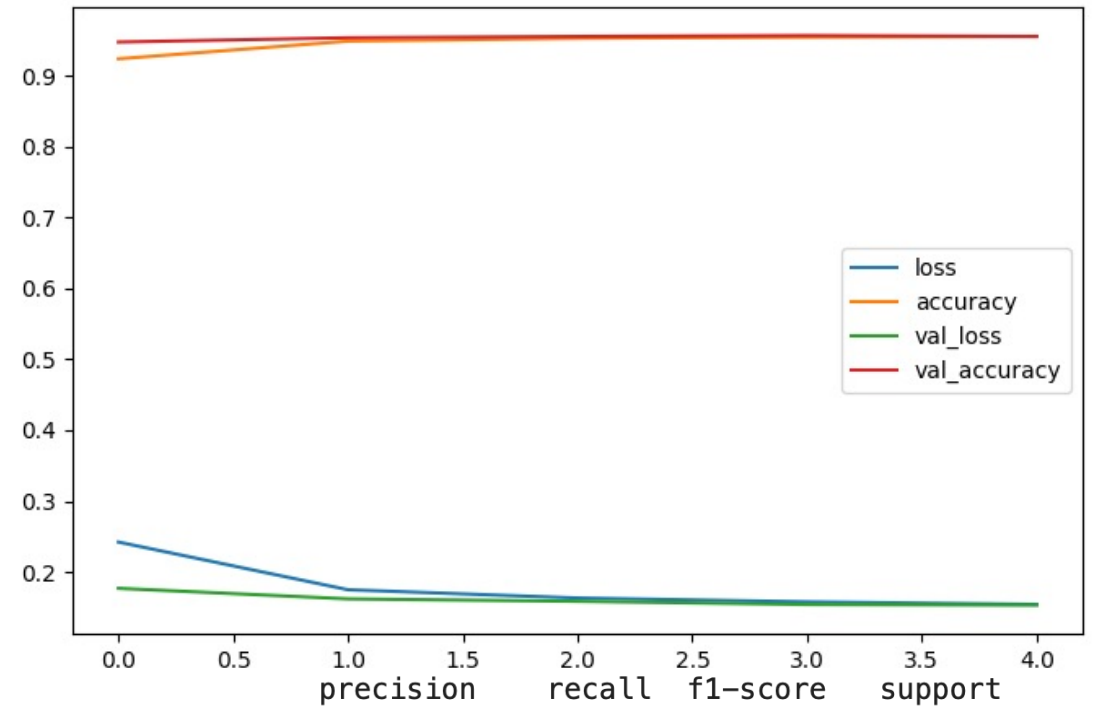
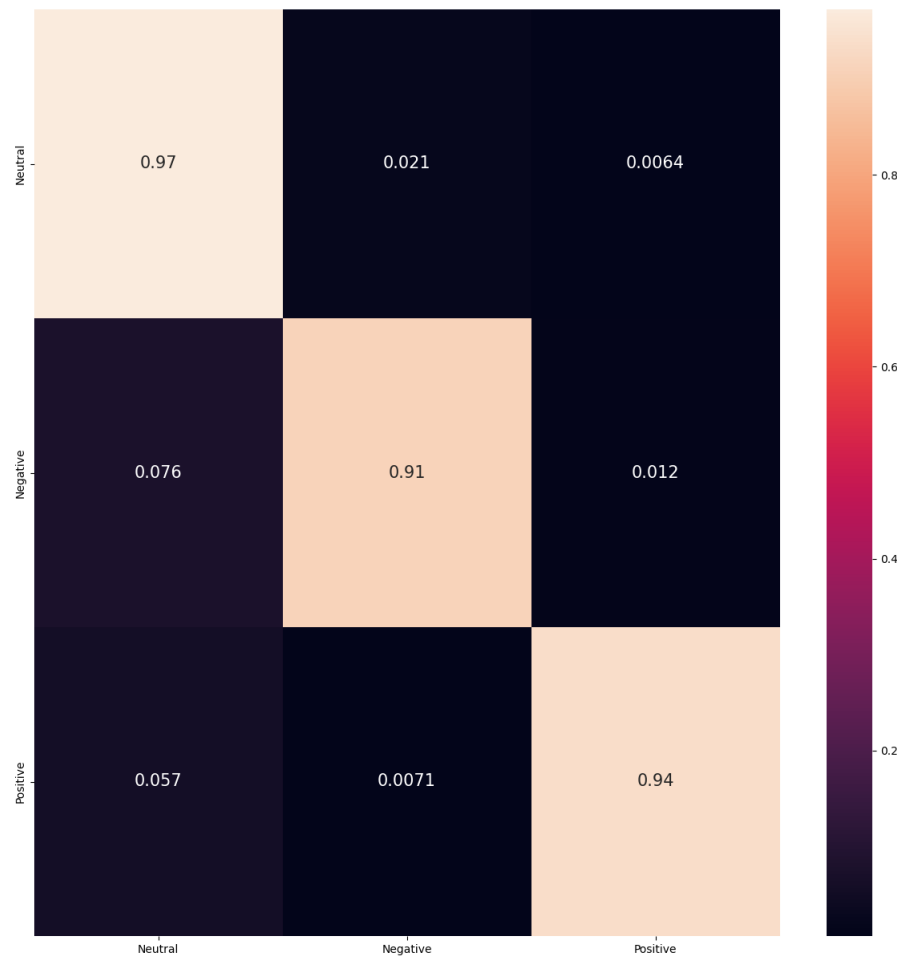
* Model courtesy: <https://github.com/sergiovirahonda/TweetsSentimentAnalysis>

RESULTS AND DISCUSSION - LSTM MODEL



	0	0.97	0.97	0.97	64261
	1	0.92	0.91	0.91	17745
	2	0.93	0.94	0.93	10336
accuracy				0.96	92342
macro avg		0.94	0.94	0.94	92342
weighted avg		0.96	0.96	0.96	92342

RESULTS AND DISCUSSION – BILSTM MODEL



0	0.97	0.97	0.97	64261
1	0.92	0.91	0.92	17745
2	0.94	0.94	0.94	10336
accuracy			0.96	92342
macro avg	0.94	0.94	0.94	92342
weighted avg	0.96	0.96	0.96	92342



TUSEN TAKK