

Whether crime rates and the number of gun holders are causally related and whether gun control can decrease the crime rates are always hotly debated. Mining social media for opinions expressed in public seems to be useful with the widely used of social media.

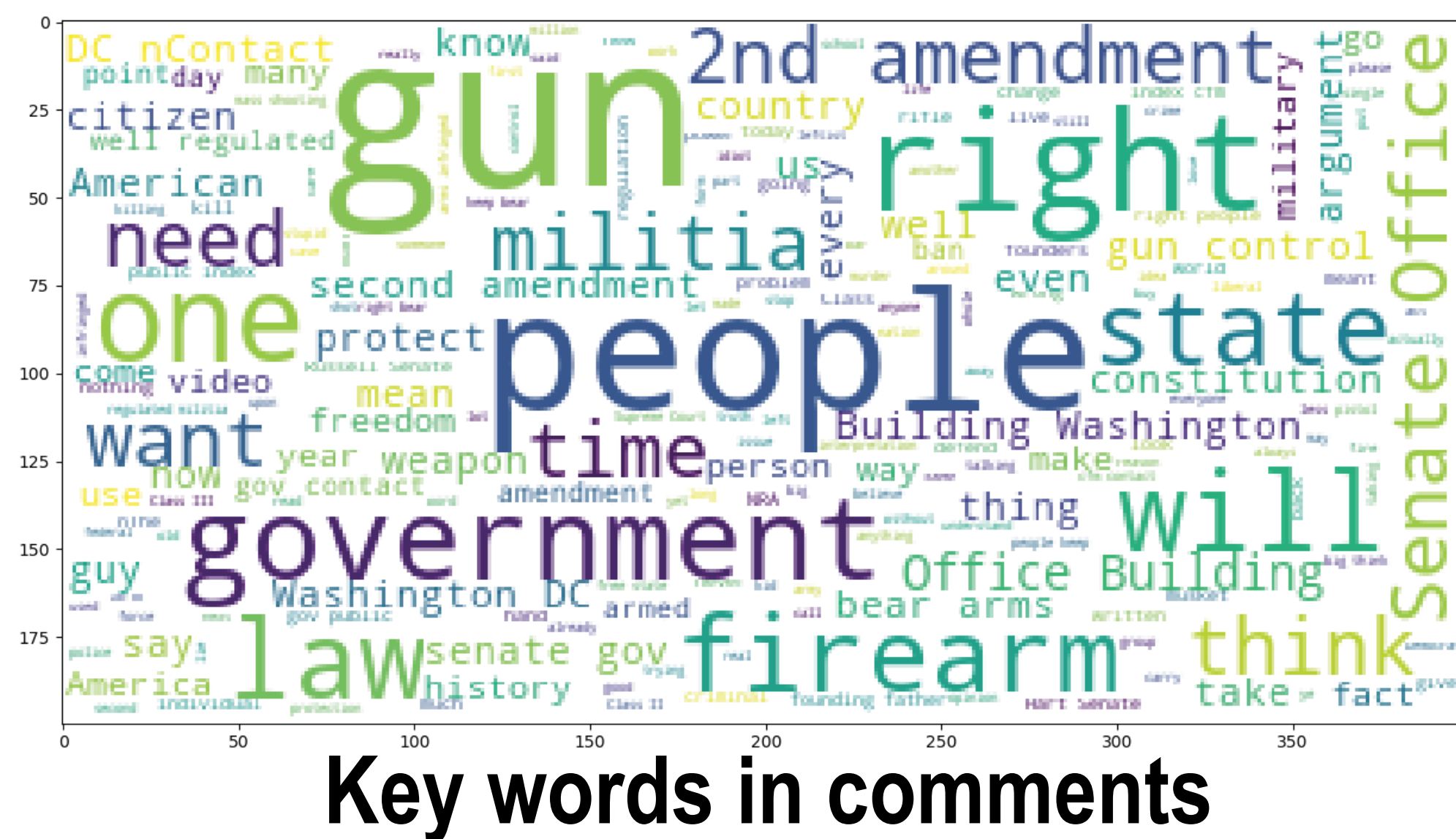
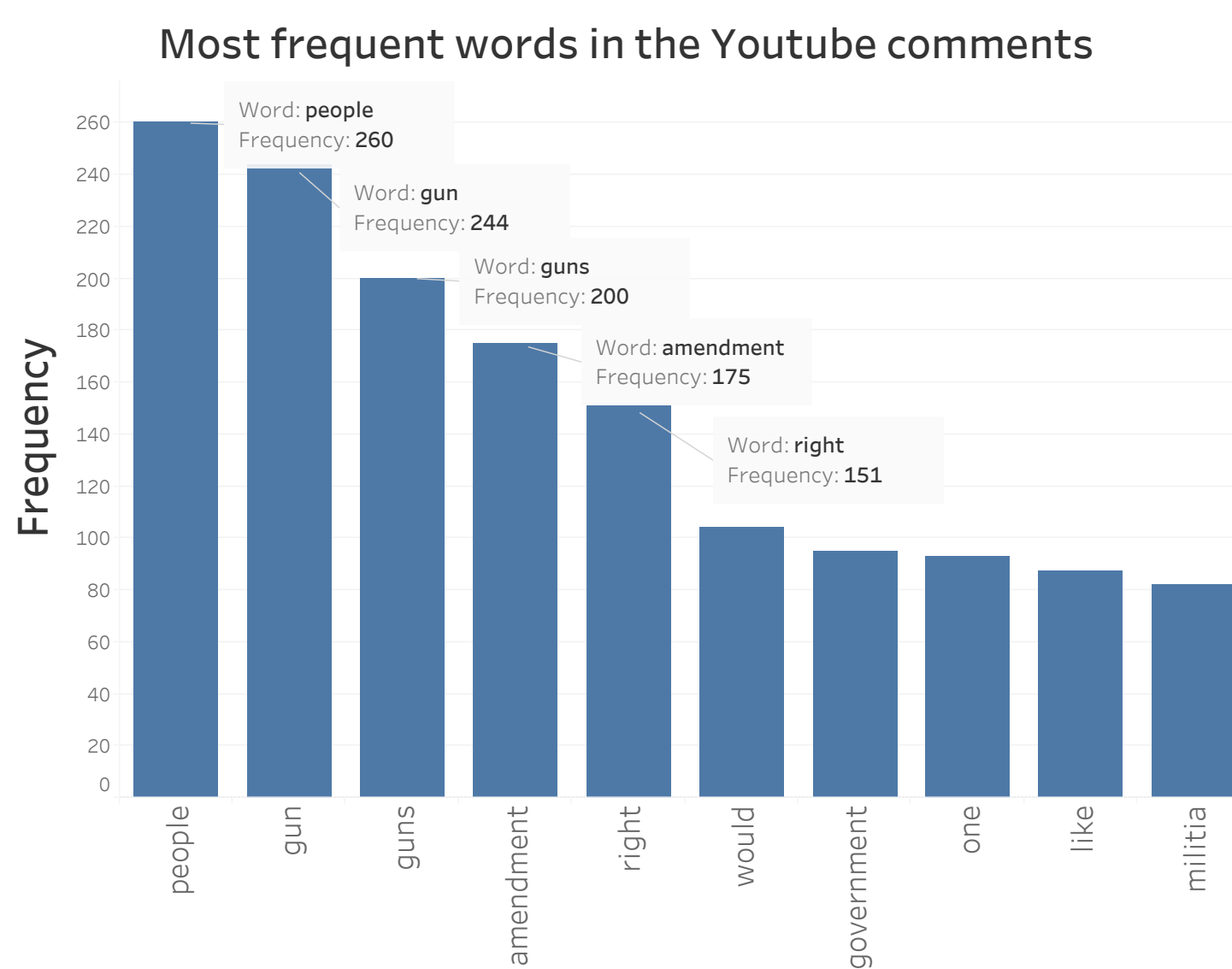
Data collection Using Google API to collect 3000 comments based on the key words “gun control”

1. Search video by the key 2. Get comments by video id and page token 3. Get video statistics by id

SentiStrength
model

21	25
79	137

Recall: 0.4597
Precision: 0.214
F1-score: 0.337
Accuracy: 0.656



Gun Control Sentiment Analysis

Based On YouTube Comments

Group members' names removed

Model 1:
SentiStrength+SRL

Step 1: Tokenize the comments into sentences

Step 2: Apply SRL to extract semantic components

Step 3: Remove ambiguous subjects

Step 4: Deal with the negations

Step 5: Calculate the sentiment scores for each component

Step 6: Calculate the sentiment scores for reviews

**But only
31/262 can
be processed**

9	2
2	18

Recall: 0.834
Precision: 0.820
F1-score: 0.827
Accuracy: 0.870

Model 2: Feature Sets

Step 1: Tokenize the comments into sentences

Step 2: Lemmatize and stem to remove the similar components

Step 3: Build a word cloud and frequency distribution to show most frequent words

Step 4: Built a word feature model and Deal with the negations

Step 5: Build a classifier from moviereviews available in NLTK and test our model on that.

Step 6: Calculate the sentiment scores

Remove haghtags ,mentions,links and build a clean dataset and apply sentiment analysis on that and Label the results.

id	text	Label	Sentiment-Strength		Sentiment-Strength wiz SRL		Featuresets	
			score	sentiment	score	sentiment	score	sentiment
0	if gun control works then why do we	neg	-1	neg	-1	neg	-0.1083	neg
1	if gun control work then why are we	neg	-1	neg	-1	neg	-0.13258	neg
2	Come and take!	neu	0	neu	***	***	-0.58098	neg
3	Why do they let drunk people take	pos	-1	neg	2	pos	-0.19491	neg
4	Ban private ownership of assault	pos	-2	neg	***	***	0.587437	pos
5	This guy is imposing his opinion	pos	0	neu	1	pos	0.523487	pos
6	The lecture starts on a bad note	neg	-2	neg	-2	neg	-0.09752	neg
7	pay attention to your kids they	pos	0	neu	***	***	-0.1969	neg
8	I actually don't care that much	neu	-1	neg	2	pos	-0.29571	neg
9	Since 1999 there have been 250	pos	-1	neg	***	***	-0.6469	neg
10	AUS banned most guns - robber	neg	-2	neg	-1	neg	-0.69553	neg
11	Dear gun people, please explain	pos	0	neu	2	pos	-0.56327	neg
12	We love our guns. Just need to	neg	-1	neg	-9	neg	-0.75077	neg
13	TRUTH CHECK>>>>>>> Your ge	neg	-1	neg	***	***	-0.79482	neg
14	Sorry. You are wrong.	neg	-1	neg	-1	neg	0.056705	pos

27	20
65	150

Recall: 0.574
Precision: 0.293
F1-score: 0.434
Accuracy: 0.676