Sentiment analysis over “gun control”

Introduction

“Gun control” is always is topic in US. Recent mass shootings in America reveal the serious of this problem. I wanted to see people’s opinion above “gun control” through sentiment analysis.

Literature Review

There are some articles online mention about different approach used for “twitter sentiment analysis”. While some use automated sentiment analysis solutions such as “monkeylearn”, other use Python or R. Basic they all label dataset with positive / negative / neutral rating and use them to train a model.

Dataset

I’m going to download about 1000 tweets through Twitter’s REST API, because I can’t find any public dataset focus on “gun control”. I’m going to label 200 of them manually, then create a model to classify them all. Only attribute I need is text of each tweet.

Approach

Step 1: Down twitter datasets

Login the Twitter Developer website and create an application, follow step on <http://rtweet.info/articles/auth.html>. Then scrape tweets against hash tags “guncontrol” and store the tweets into a csv. I already downloaded the dataset.

Step 2: Apply NLP techniques to extract keyword

Label 200 tweets as with positive or negative, then use Naive Bayes or TF-IDF method for text preprocessing and extract quite the keywords

Step 3: Train and label the tweets as positive/negative

Train the 200 tweets until we get high accuracy then use that model to label the rest of 800 tweets.

Step 4: Build a classifier

Save the model

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