

# Sentiments Towards a Cure

Tracking Twitter sentiments towards a Covid Vaccine

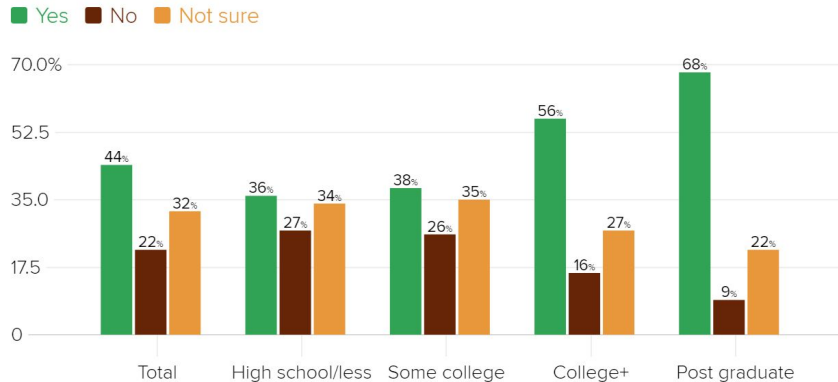


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# Motivation

As we inch closer to a vaccine for Covid-19, an alarming number of Americans are coming forward as being unlikely or unsure about getting a vaccine. Will we arrive at a point where we have a vaccine nobody wants to take?

Would you get a government-approved coronavirus vaccine?



Data: NBC News/SurveyMonkey poll. August 10-16, 2020.

# Objectives

Using twitter's API along with natural language processing techniques, can we track the sentiment on twitter towards a vaccine over time?

Can we visualize this into a Tableau dashboard that is easy to use and which renders insights on how, where, and when people are discussing a vaccine?

# Methodology of Project



Collect Data  
from Twitter



Process and  
clean text



Sentiment  
Analysis



Tableau  
Dashboard

## Data:

- Nearly 6,000 tweets which used the #CovidVaccine hashtag. Earlier tweets were taken from Kaggle and were combined with freshly collected ones

## Processing and Analysis:

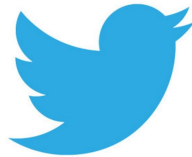
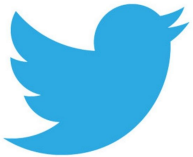
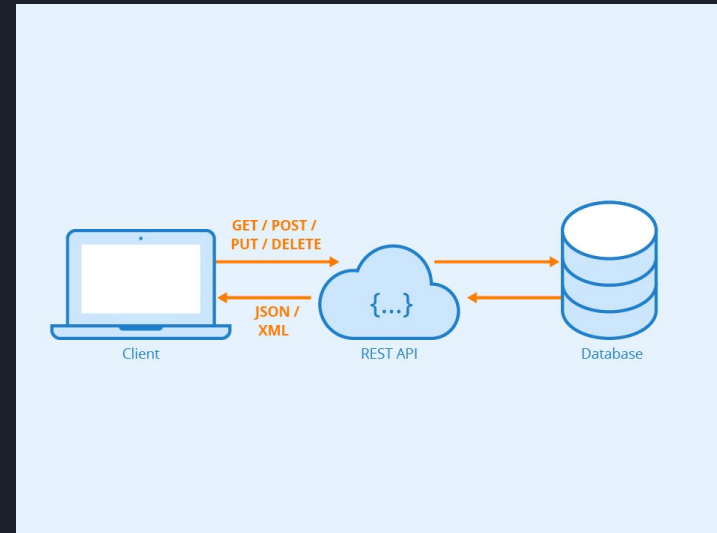
- NLTK
- Manual text cleaning
- VADER Sentiment analysis

# Data Collection

Twitter offers limited access to tweets (1 week back) via it's API.

Tweepy is one of the easiest ways to access this API on Python

Given the limitation of dates, I did have to use data previously collected by another person and combine with it with my own, ensuring uniformity.



# VADER Sentiment Analysis



VADER is a lexicon and rule-based sentiment analysis tool that has specifically been trained and attuned to handle sentiments expressed in social media.

Assigns a text a rating for its negativity, its neutrality, and its positivity as well as a “compound” score of all three which can be used to infer a general classification.

## Positive

Russia became first country to grant approval to Covid vaccine...

😍 Named as Sputnik V

- SoNa\*S\*\* 🌟🌟❤️👑

Compound Score: .8225

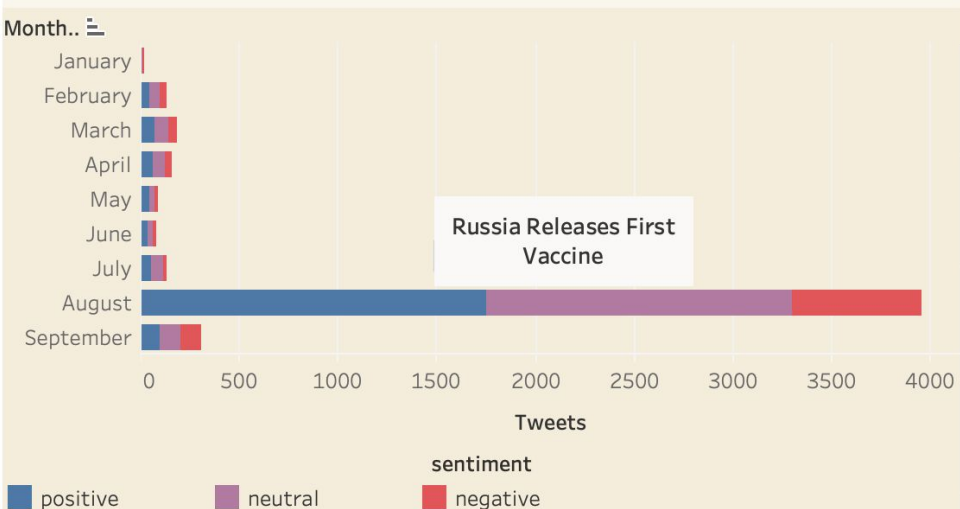
## Negative

Someone needs to tell Russia that putting water in a syringe is not a vaccine. Lol #CovidVaccine

- Ryan Wood

Compound Score: -0.3252

# Tweets with “#CovidVaccine” Hashtag by Month



## Search by User Location

☒ (All)

☒ Null

☒ Fujairah

☒ India

☒ Los Angeles California , USA

☒ New Delhi, India

☒ Ras Al Khaimah UAE

☒ Sydney, NSW, Australia 🇦🇺

☒ 🌐

☒ 📍 All over Mumbai

# Users, Tweets, Sentiment & Location

user_name	text	sentiment
2Dreamin	What IF? The #COVIDVaccine changes your #RNA & #DNA and #BILLGATES wants his #CHIP in your body for the purpose of #TRACK & #Control	negative
2SER 107.3	On this week's Think: Business Futures we ask; how do you purchase a #CovidVaccine for 25 million #Australians? And...	negative
2u2	Hopefully in the nick of time for some small businesses . #COVID__19 #CovidVaccine	neutral
4 Show	The President pressuring for a vaccine for C-19... nobody's gonna take it, the trust and credibility of the FDA, CD...	neutral
4lil	Well, whose going to line up for the #covidvaccine now?	neutral
6 News Australia	One Nation leader said she will not take the potential COVID-19 vaccine, despite ...	negative
6% NeverGiveUp	Reality Check: Questioning Vacc\$nes is a Public Health Threat? #Censorship #BigTech #NOMandates #antivaccine...	negative
11 TJ 11	Aussies stranded overseas to be evacuated and placed in remote quarantine #COVID—19 #CovidVaccine #quarantinecamps...	negative
13	Can I move to Russia already? #CovidVaccine #ThanksRussia #RussianVaccine #Russia How do I get a	negative

# Next Steps

Compare and contrast overtime the evolution of different search terms on Twitter related to the vaccine ie:  
**“Vaccine” vs “#vaccine” vs “covid vaccine” vs “covid vaccine”**





**Thank you!**

