Visualizing Coronavirus in the Language of Emojis😊

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Purpose of Project

- Infographic

- Simplify complex data

- Make data more friendly

- Attract younger audience's attention

- Exercise programming skills

Why Emojis? 🤔

"More natural in design, emojis have attracted scientific attention as they are able to transmit emotion, attitude and attention when added to text."

- Expression

- Improves attention

- Increased understanding/context

Lotfinejad, N., Assadi, R., Aelami, M.H. *et al.* Emojis in public health and how they might be used for hand hygiene and infection prevention and control. *Antimicrob Resist Infect Control* 9, 27 (2020). https://doi.org/10.1186/s13756-020-0692-2
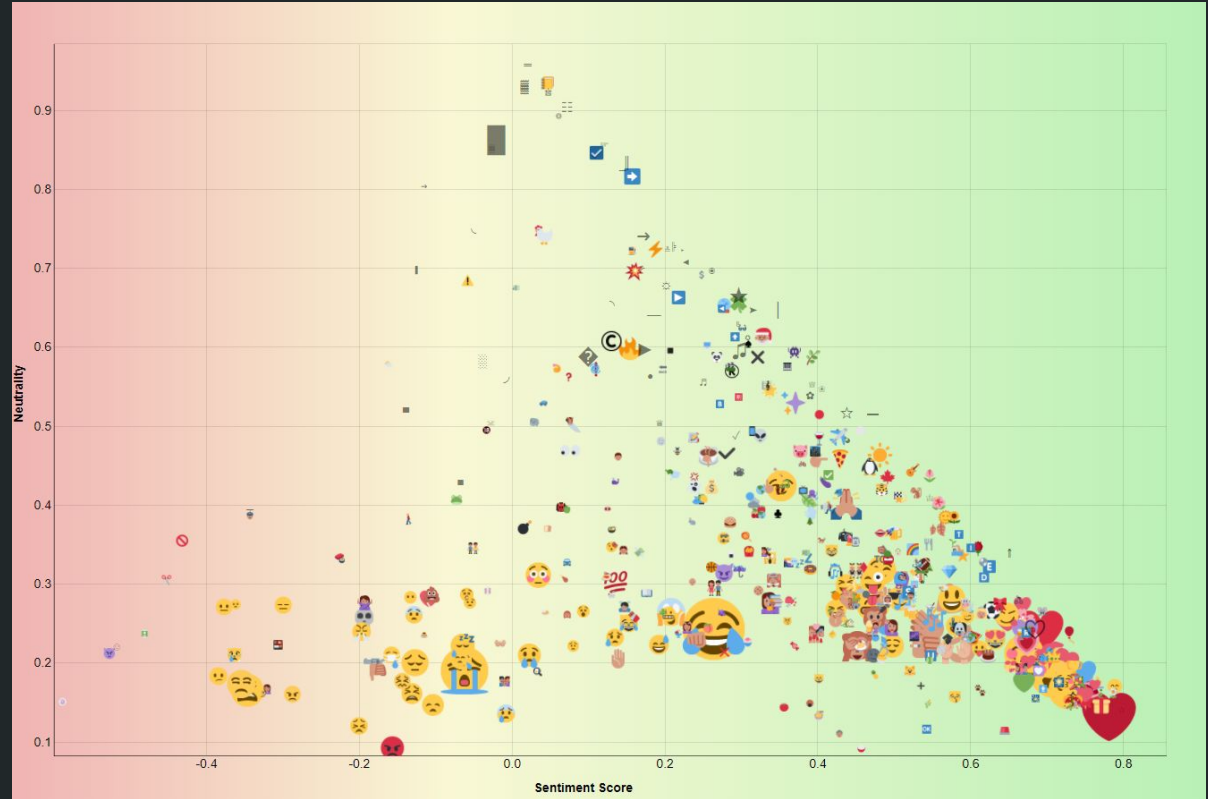
Development Process💻

Area of Study: Emoji Selection

"Sentiment Ranking"

derived from large

amount of Twitter tweets

Selected Emojis

- Covid-related

- Distinguishable sentiment rankings

Face With Medical Mask	Microbe	Loudly Crying Face	Face with Rolling Eyes
Face Screaming in Fear	Warning	Face With Thermometer	Sneezing Face
Thinking Face	Smiling Face with Smiling Eyes	Smirking Face	Party Popper
Smiling Face with Sunglasses	Pensive Face		

Twemoji: Open Source Twitter Emojis

Mechanical Messages💬

For example,

"The rate of vaccination is increasing in Cuyahoga County from the previous month"😃

- Highlighted phrases are variables

Website Development 🐍

- Python for ease of use
  - Previous experience
- Django
  - Full-stack Web Framework
  - Quick Development
- HTML
  - Page Structure/Format
- CSS
  - Styling and Page Design

Data Processing

- Retrieved as .csv file
  - Common Format (excel file)
  - Comma-separated
- Following libraries used to aid processing:

Area of Study: Data Sources 🔢

- Factors that come into effect:
  - How often updated
  - Size of Data
  - Types of information included
- 10 different data sources considered

Program Concept 🤖

Updates once every week 🕑

- Vaccine Data
- County COVID Data

Application Retrieves Data

- getVaccineData()
- getAgeGroupData()
- getCountyMessages()

Data is Processed

getLargestPercentChange()

Messages and Graphs Generated

HTML File Upon Request

Finished Web Model 🌐

OHIO WEEKLY COVID-19 REPORT 🦠
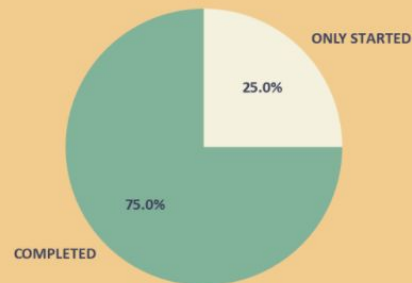
This report intends to provide information about the condition of COVID-19 to the general public.
The report makes use of emojis to add depth to the meaning of the statistics. The key below defines the severity of which each emoji is meant to represent.

── SEVERITY KEY ──

🎉 HIGH POSITIVE — Very good, no concerns

😊 MEDIUM POSITIVE

😏 LOW POSITIVE

🙄 LOW NEGATIVE

🤒 MEDIUM NEGATIVE

😭 HIGH NEGATIVE — Very concerning statistic

THE MAJORITY OF THOSE WHO HAVE STARTED VACCINATION HAVE COMPLETED IT 😊
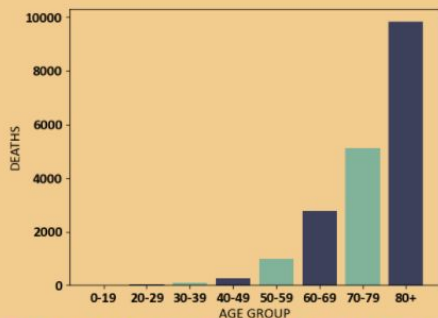
ONLY STARTED 25.0%

COMPLETED 75.0%

THERE HAS BEEN THE MOST DEATHS IN THE 80+ AGE GROUP 🤒

10000

8000

REMEMBER

COVID-19 spreads through respiratory droplets from coughing, sneezing, or talking. Wearing a mask will reduce the chance of an infected person spreading

THERE HAS BEEN THE MOST DEATHS IN THE 80+ AGE GROUP 🤒

THERE HAS BEEN A INCREASE IN DEATHS BETWEEN AGES 30-39 🤒

COUNTIES TO WATCH OUT FOR...

LOGAN'S RATE OF CONFIRMED CASES HAVE SEEN A LARGE INCREASE OF 82% 😭

VAN WERT'S RATE OF DEATH HAS SEEN A LARGE INCREASE OF 266% 😭

ON THE BRIGHT SIDE...

ATHENS'S RATE OF CONFIRMED CASES HAVE SEEN A LARGE DECREASE OF 82% 🎉

CARROLL'S RATE OF DEATH HAS SEEN A LARGE DECREASE OF 650% 🎉

Concluding Thoughts 🧠

- Developed new skills in web development

- Learned proper project planning

- Introduced concept of using emojis to explain data

Acknowledgements🎉

- Twemoji v13.02

- CDC Data providement

- Advice from Dr. Khan and Kaitlin