



# Final Presentation

## How has the sentiment of news headlines evolved over time?

Phoenix Pereira

Student ID: a1870965

# Data Sources

- Data sources from Kaggle:
  - Australia – ABC News
  - Ireland – The Irish Times
  - India – Times of India
  - England– Daily Mail
  - United States – The New York Times
- Contains news headlines from 2007 – 2021
- Has two attributes: publish date & headline

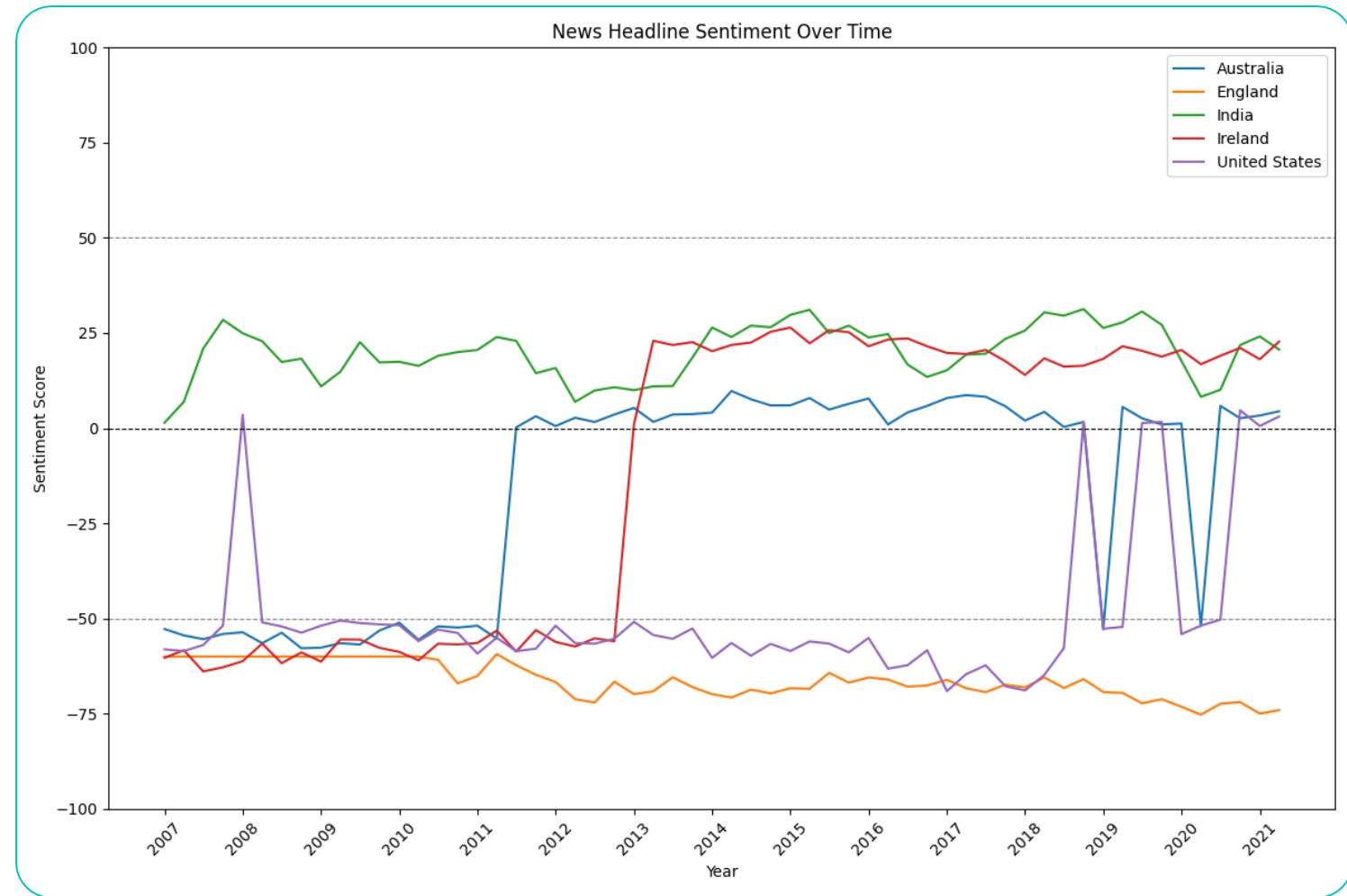
# Methodology

- Python to make visualisations
- Pandas to read and manipulate data
- Matplotlib and wordcloud to make the visualisations
- Used Google Collab to run code
- Similar method of filtering data

```
20091017,Daily Mail,Dutch woman arrested after bodies of three infants found in her shed,htt
20091017,Daily Mail,Greatest free-kick was no fluke: Roberto Carlos' 1997 'freak' goal expla
20091017,Daily Mail,Is this the end of window shopping? Washington complex installs anti-loi
20091017,Daily Mail,Man guilty of posting footage of him sexually assaulting his drunk and u
20091017,CNBC,Symbol Lookup,http://www.cnbc.com/id/15837272
20091017,CNBC,HOME,http://www.cnbc.com/id/15839285
20091017,CNBC,NEWS,http://www.cnbc.com/id/15837362
```

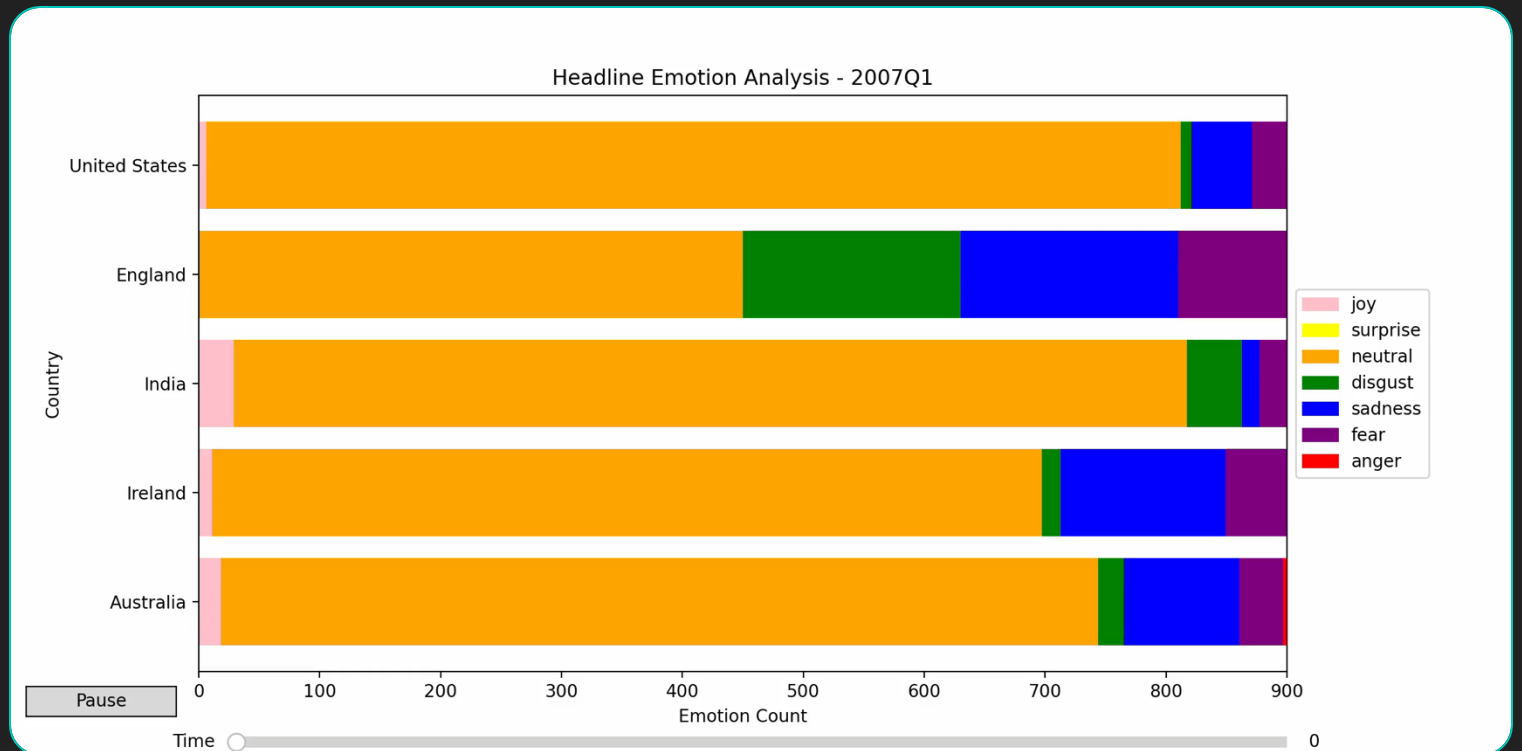
# Results - Sentiments

- India most positive
- England most negative
- Shifts correlates to major events
- How about emotions?



# Results - Emotions

- More negative emotions
- Correlates to previous graph
- What about the headlines affects its sentiment & emotion?



# Results - Keywords

- Mainly includes places & names
- Varies most in Australia and Ireland
- Gets more positive over time

## Top 25 Keywords - 2007Q1



- Mainly includes places & names
- Varies most in Australia and Ireland
- Gets more positive over time

# Conclusions

- Headlines generally became more positive over time
- India was most positive, England was most negative
- Major events affected sentiment and emotions



- Models not 100% accurate
- Only considered a small selection of news headlines
- Sentiment and emotions varies on other factors

## **Limitations**



# Relevance

- Shifts in sentiment can impact international relations, politics, and diplomacy
- Emotions can affect financial markets and investment decisions
- Understanding emotions to assist governments and organisations in crisis management