

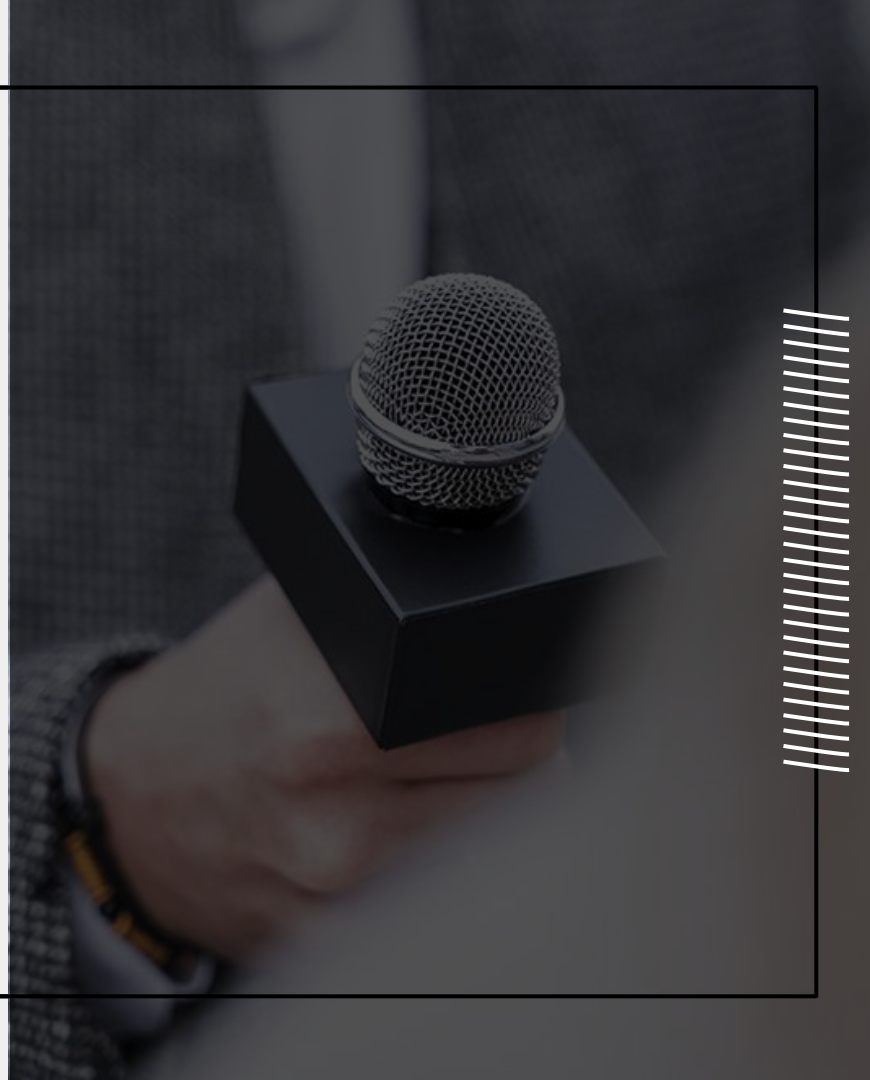


# Unbiased News

By  
Navish Agarwal

# Objective

Combine and summarize news articles across the political spectrum - to display what's commonly being said.



# Case Analysis

## Trump Picks Heather Nauert As Next UN Ambassador

Trump called his U.N. pick very talented, very smart and very quick.....

"She's very talented, very smart, very quick," the president told.....

# Case Analysis

## Trump Picks Heather Nauert As Next UN Ambassador

Nauert was criticized for Instagram photo ... her smiling in ... Riyadh shortly after ... disappearance of ... Jamal Khashoggi

when President Trump moved the US Embassy from Tel Aviv to Jerusalem, ... Nauert faced heat ... straight on as State Department spokesman

# Case Analysis

Trump Picks Heather Nauert As Next UN Ambassador

Subjectivity	
Huff Post	0.33
Fox News	0.43

# Case Analysis

## Trump Picks Heather Nauert As Next UN Ambassador

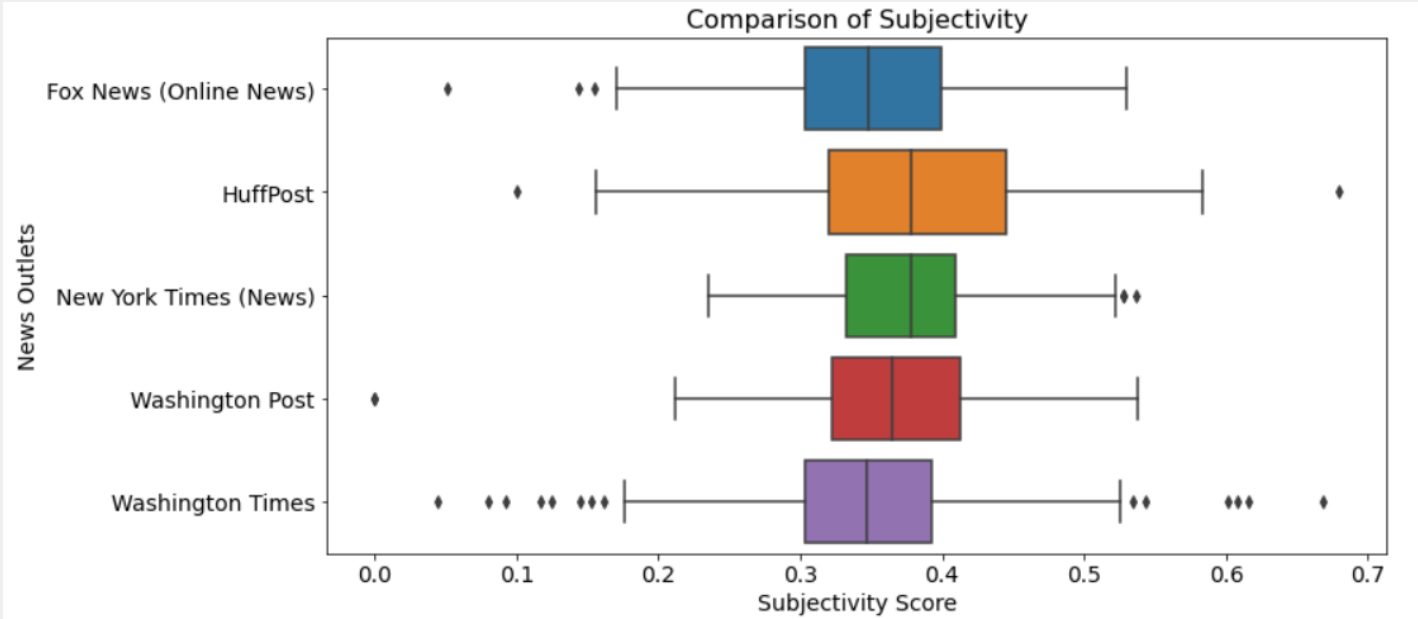
Subjectivity	
Huff Post	0.33
Fox News	0.43

## Pennsylvania Court Rules Gerrymandered Maps Unconstitutional

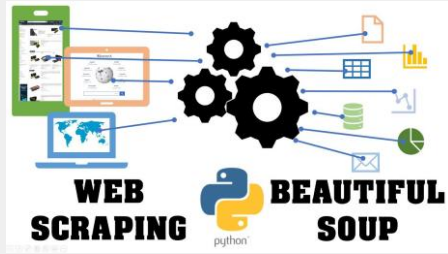
Subjectivity	
Huff Post	0.44
Wash Times	0.31



# Case Analysis



# WORKFLOW



COLLECT  
DATA



## Top Online News Media Bias Ratings





# WORKFLOW



NLTK

COLLECT  
DATA

CLEAN

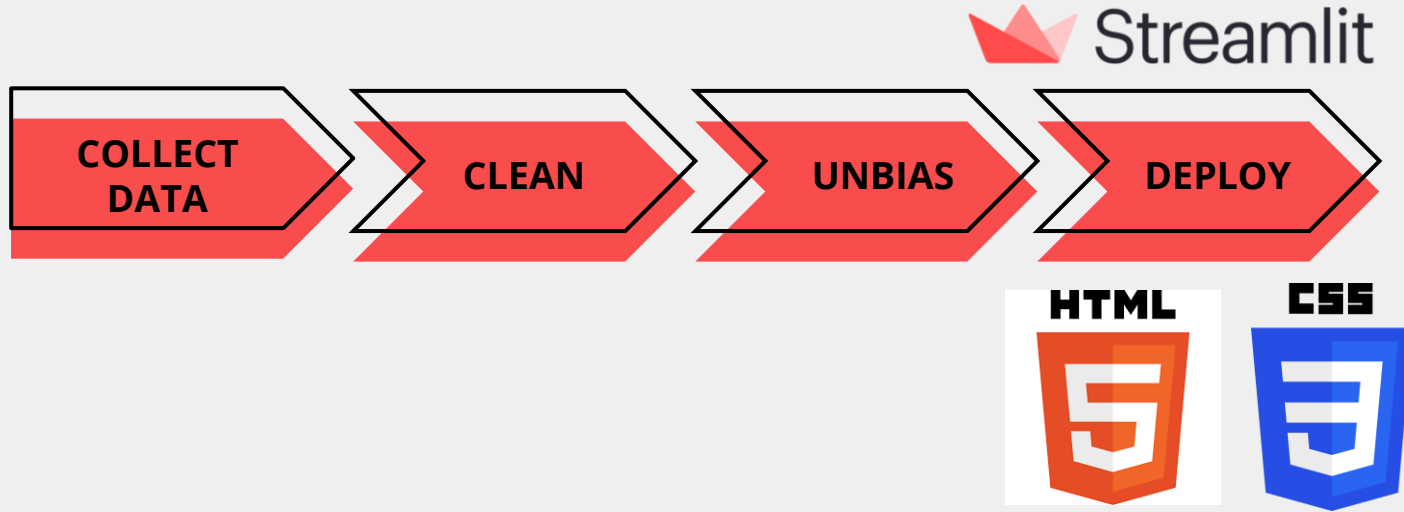
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spaCy

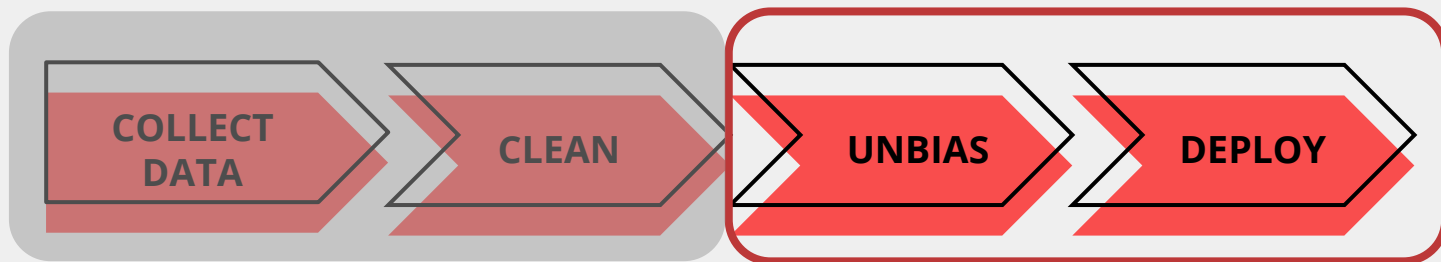
# WORKFLOW



# WORKFLOW

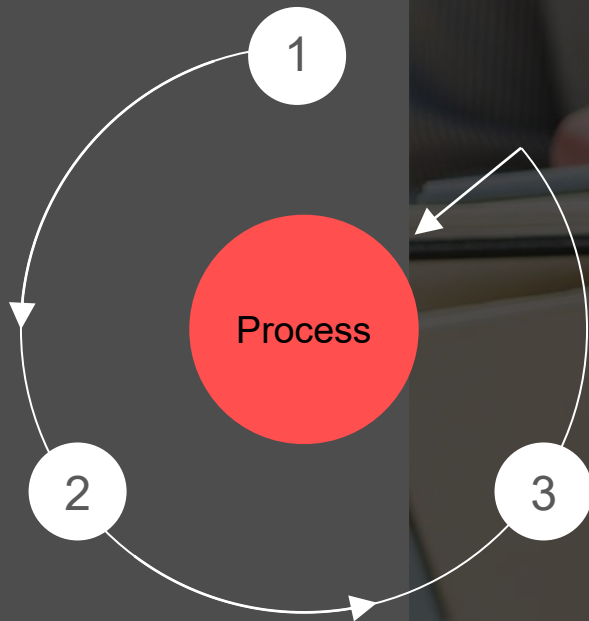


# WORKFLOW

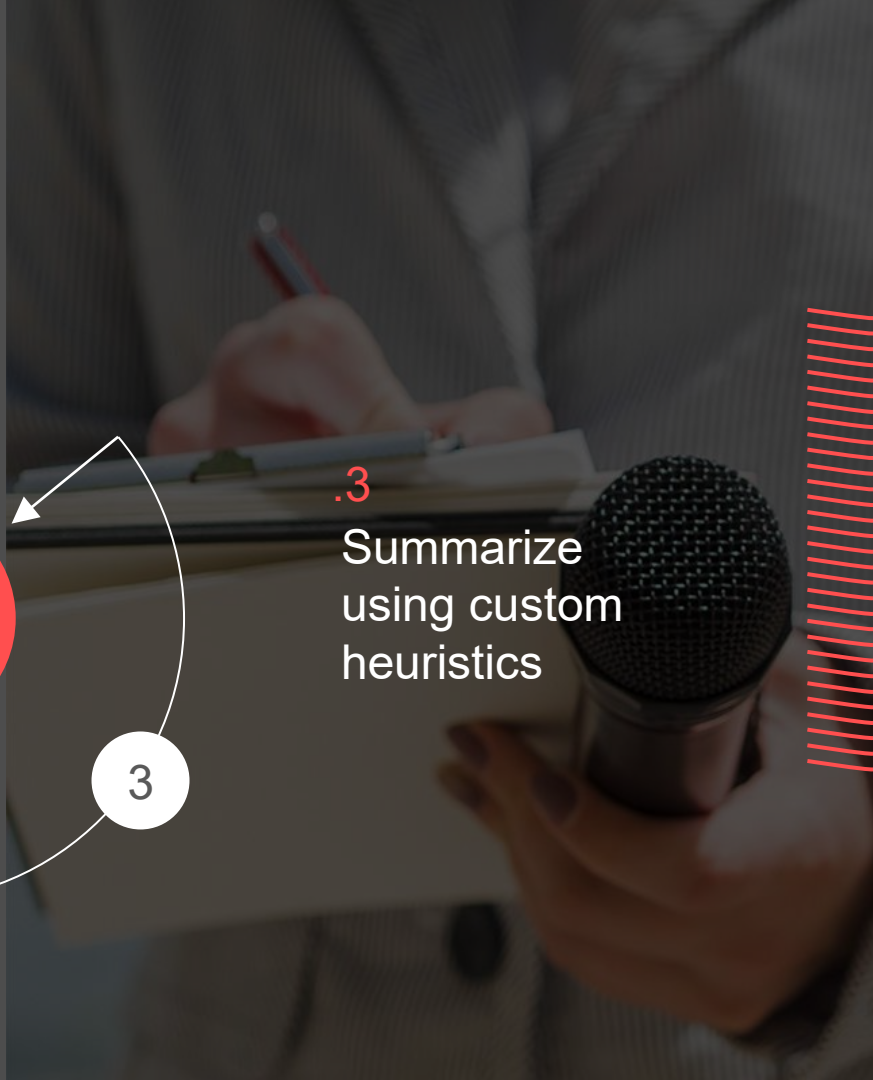


# Unbiasing

- .1 Sentences to embeddings
- .2 Found most similar sentence pairs using cosine similarity



- .3 Summarize using custom heuristics



# Unbiasing

## 1. Sentences to embeddings

"This will be one of the first opportunities for Dr. Fauci to tell the American people the unvarnished truth without the president lurking over his shoulder. Dr. Fauci, let it rip," he added.

**Sentence  
Transformers**



**Using Roberta  
Large model**

**[0.233, 0.102, .... 0.455] → 1024 Features**

**# of Sentences = # of embedding rows**



# Unbiasing

## 2. Comparison



The New York Times

*Using article with fewer sentences..*

Highest Similarity Score - Pair

Second Highest Similarity Score - Pair

*(So on...)*



# Unbiasing -

## 3. Custom Heuristics

*Cosine Similarity > 0.55*

*Summary =*

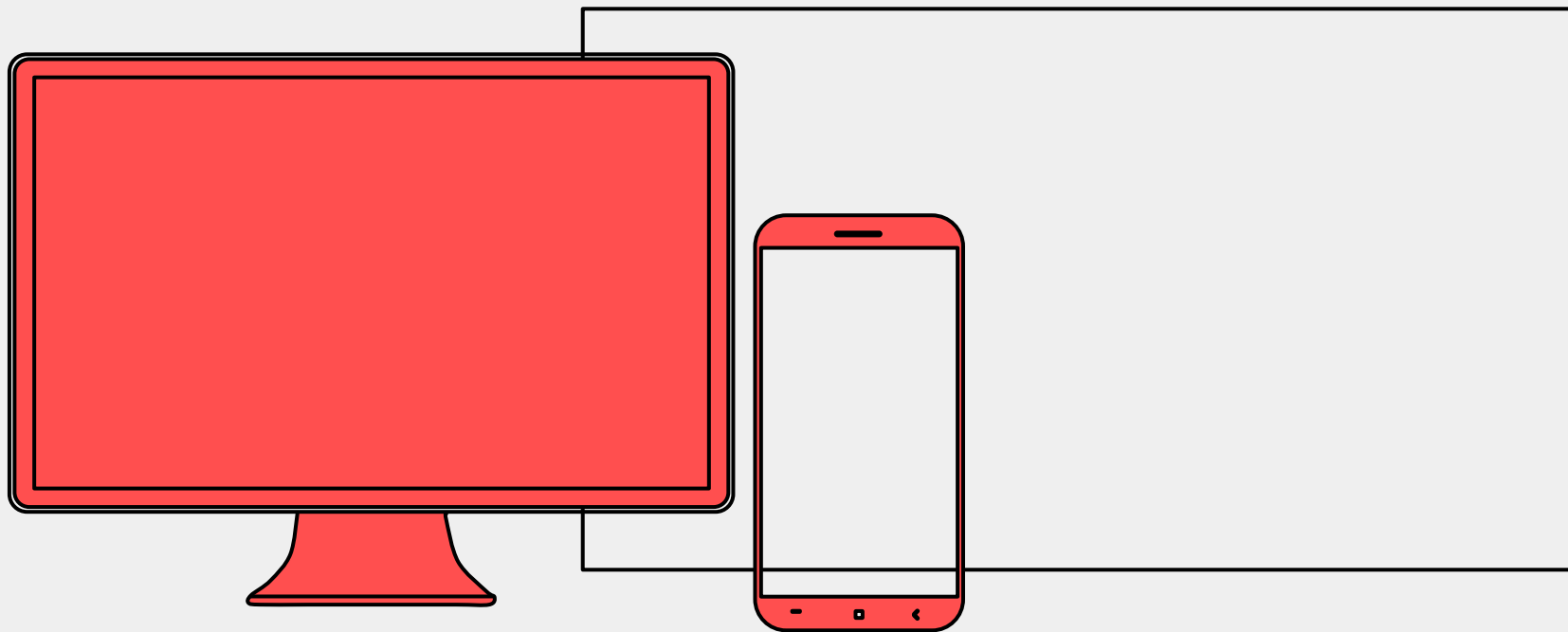
***half of smaller article's length or  
max of 10 sentences***

*Use **longer sentences** in each pair.*





# Live App



# Future Work



- Lighter pre-trained model
- Use Transfer learning to fine-tune model further
- Expand to compare > 2 news sources

# Thank You

**Do you have any questions?**

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