



# Fake News Challenge

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# Fake News - “a made-up story with an intention to deceive”

## Not having accurate facts is DANGEROUS!

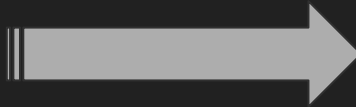
- “When Surgeons cut off the wrong body part” [NY Times](#)
- Pizzagate - “a fake news story...moved one man to shoot up a pizzeria that was linked by bogus statements to human trafficking and a presidential candidate...” [NY Times](#)
- “Fake News affects American politics” [The Verge](#)

## Disinformation is not new:

Ever since Octavian’s fabricated archaic ‘tweet’s’ on coins helped to dominate Mark Antony’s fate...

However,

Speed, Breadth and Depth have accelerated



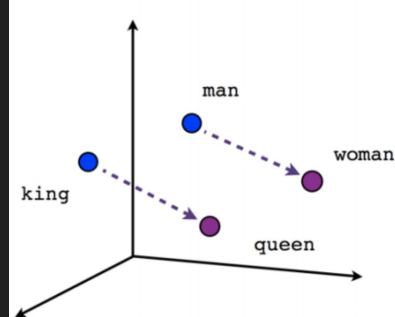
# Project methodology

## Vocabulary:

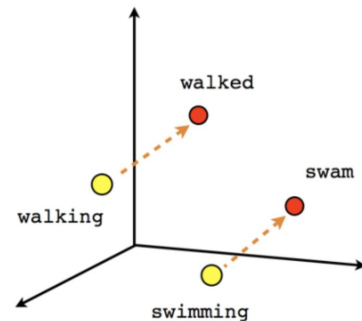
Man, woman, boy,  
girl, prince,  
princess, queen,  
king, monarch



	1	2	3	4	5	6	7	8	9
man	1	0	0	0	0	0	0	0	0
woman	0	1	0	0	0	0	0	0	0
boy	0	0	1	0	0	0	0	0	0
girl	0	0	0	1	0	0	0	0	0
prince	0	0	0	0	1	0	0	0	0
princess	0	0	0	0	0	1	0	0	0
queen	0	0	0	0	0	0	1	0	0
king	0	0	0	0	0	0	0	1	0
monarch	0	0	0	0	0	0	0	0	1

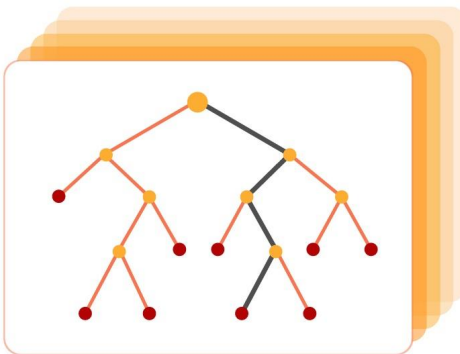


Male-Female



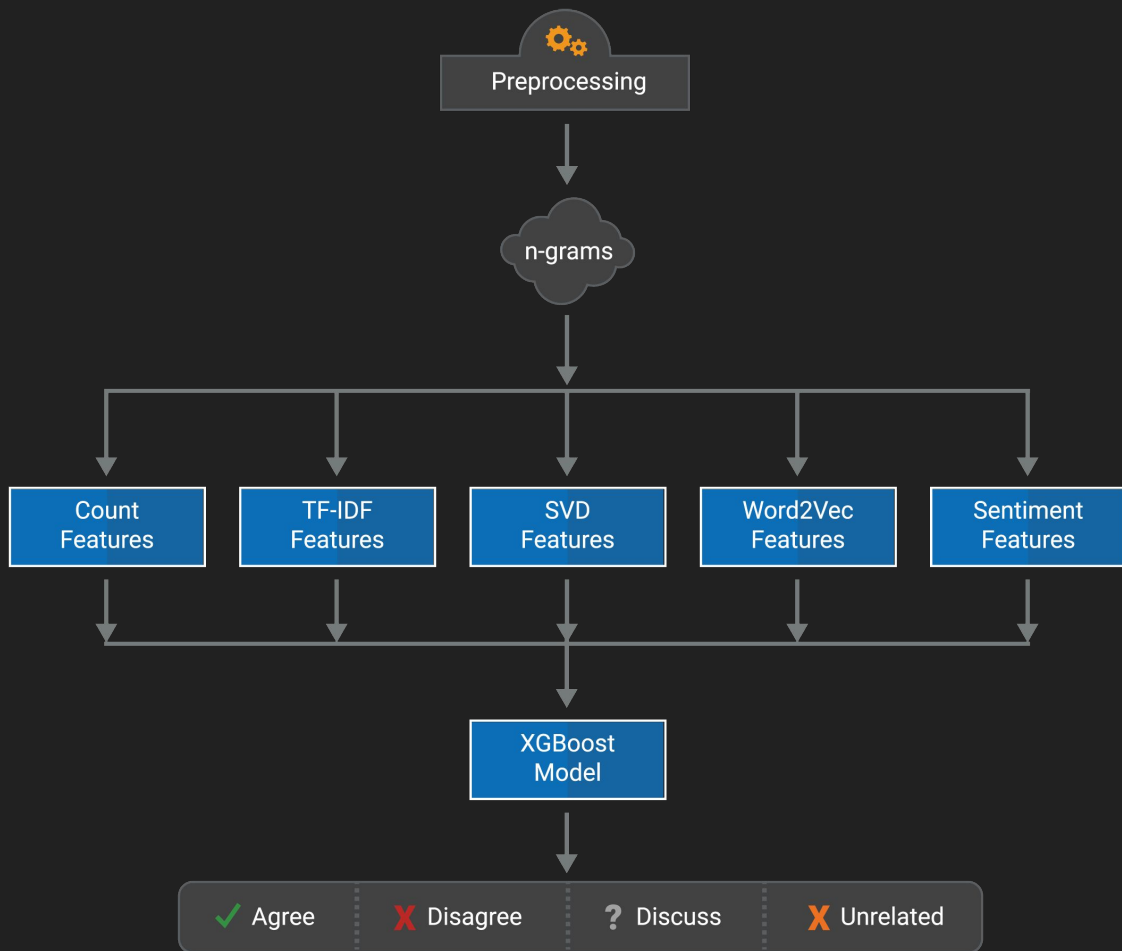
Verb tense

## RANDOM FOREST



# Tree Model

Predict stance with 93% accuracy



# Future work

- Improve model performance
  - Different preprocessing
  - Model parameters
  - Explore
  - Feature importance - which help most and why?
- Model visualizations
- Build Convolutional Neural Network
- Begin real world application
  - Scrape news sites, archive data
  - Build a working record of sources and reliability

*Thank you!*