

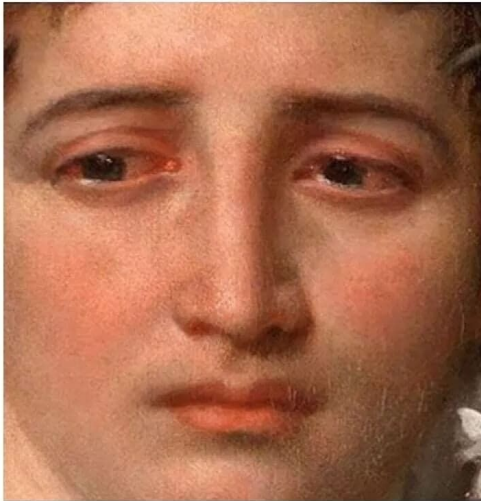
# Reddit Sentiment Analysis

News vs Uplifting News

# The Question

Is constant overexposure to negative news increasing despondency and nihilism?

when i think about my life for more than  
30 seconds



**Adulthood**  
@adultprobs

Follow

Adulthood is like looking both ways before  
crossing the street and then getting hit by an  
airplane

7:15 pm - 11 Jun 2018

How close I am to

having an absolute emotional meltdown for no reason





r/news

16.6m

Subscribers

34.4k

Online



r/UpliftingNews

13.5m

Subscribers

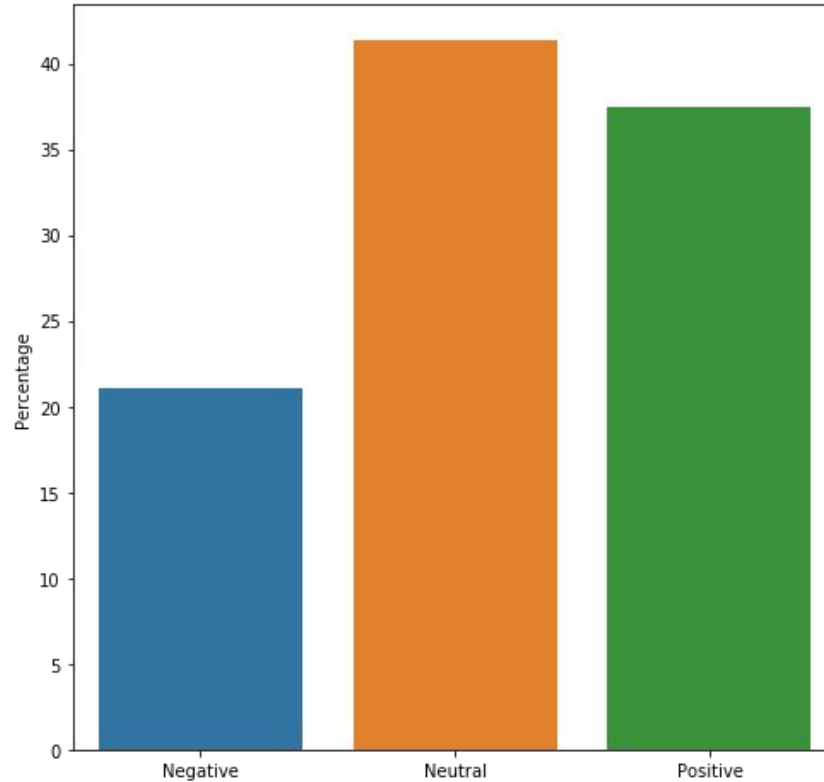
4.0k

Online

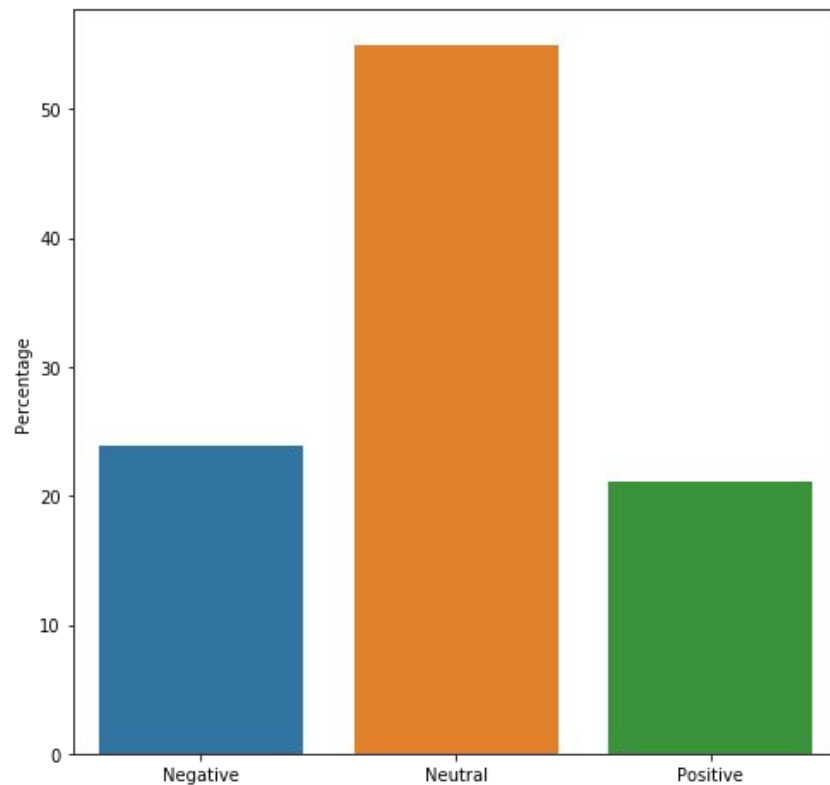
# Methodology

- Gathered 2000 datapoints from each subreddit
- Cleaned posts via stopwords and BeautifulSoup, then vectorized using CountVectorizer and tf-idf.
- Classifiers
  - RandomForest
  - MultinomialNB
- Test predictions against model

# Sentiment Analysis - Uplifting News



# Sentiment Analysis - News



## Negative

	word	count
0	trump	1149
1	man	1065
2	us	1053
3	police	953
4	says	810
5	dead	768

## Positive

	word	count
0	best	1857
1	support	918
2	trump	731
3	top	682
4	news	601
5	free	593

# Subreddits

- 450 predicted negative (-1), and was negative (-1). **True Negative.**
- 446 predicted positive (+1), and was positive (+1). **True Positive.**
- 141 predicted negative (-1), but was positive (+1). **False Negative.**
- 152 predicted positive (+1), but was negative (-1). **False Positive.**

# Sentiment

- 810 predicted negative (-1), and was negative (-1). **True Negative.**
- 622 predicted positive (+1), and was positive (+1). **True Positive.**
- 190 predicted negative (-1), but was positive (+1). **False Negative.**
- 162 predicted positive (+1), but was negative (-1). **False Positive.**



# Conclusion

- The model can be used to predict by subreddit with a 75% accuracy
- The model can be used to predict sentiment with a 80% accuracy
  - The sentiment is not trained properly

# Improvements

- Evaluate comments inline with posts
- Increase n-grams
- Experiment with different sentiment libraries
- Additional classifiers/ensemble methods