

How does bias on Reddit impact user exposure to world news?

Metis, New York

10/11/2018

Emma Huang

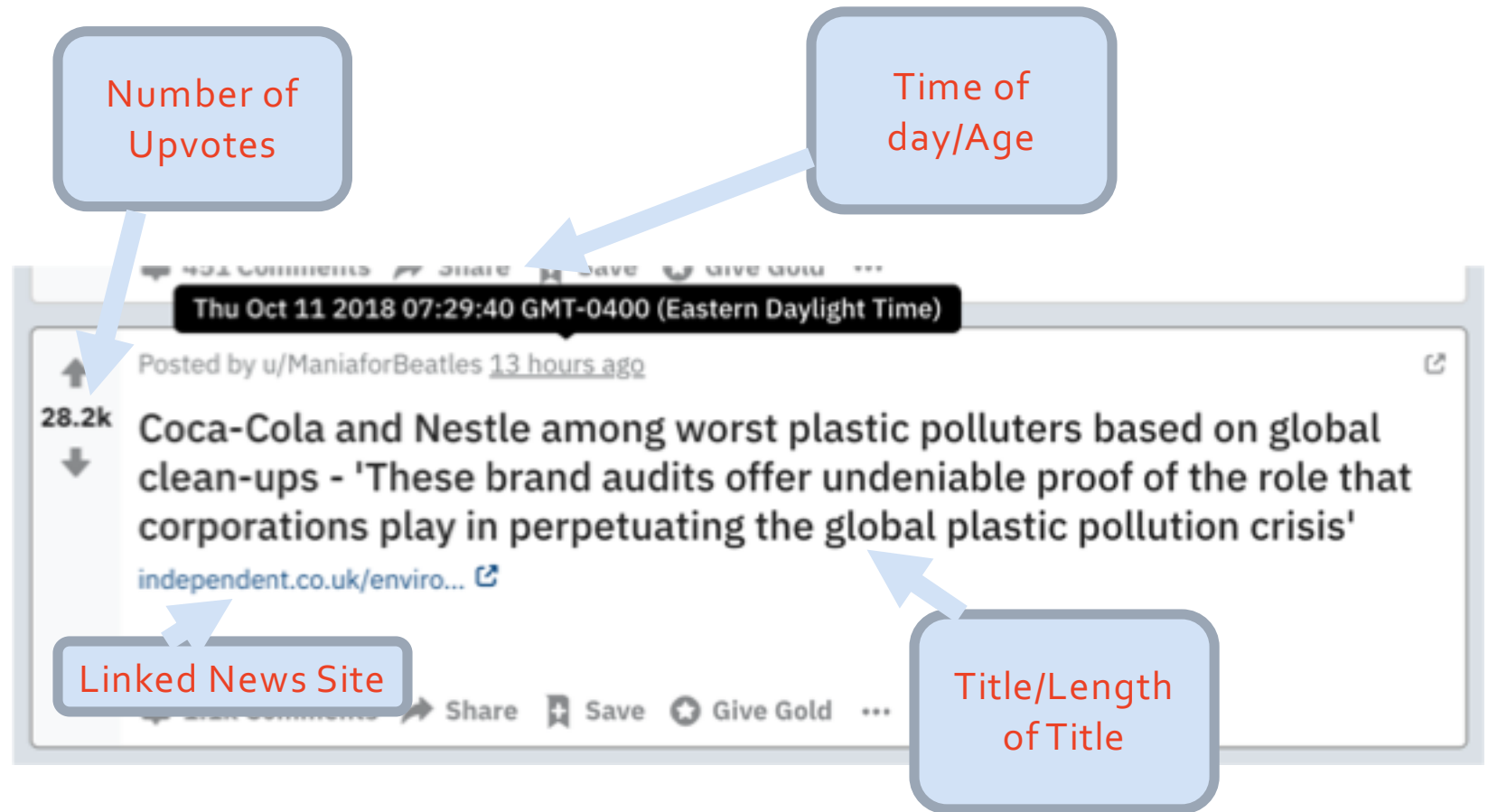


What is Reddit?

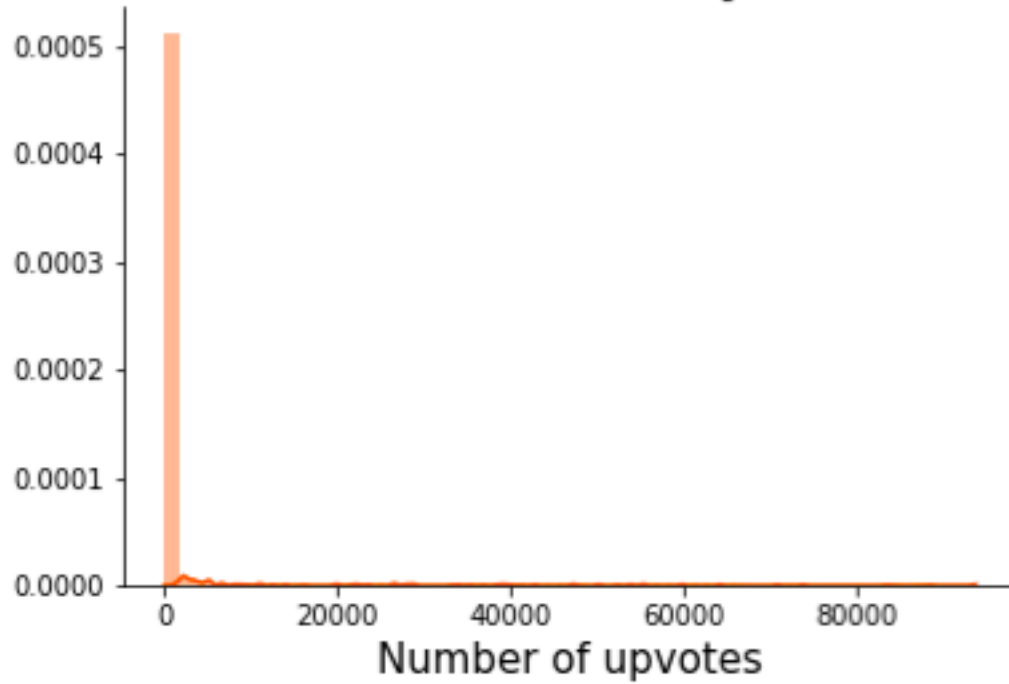
The screenshot shows the top of the Reddit interface for the r/worldnews subreddit. At the top, there's a header with the Reddit logo, the subreddit name 'r/worldnews', a search bar, and a 'LOG IN' button. Below the header, a list of posts is displayed. Each post includes an upvote/downvote arrow, a score, a link icon, the post title, a snippet of the post content, the source (if applicable), the poster's username, the time since posting, and a comment count. The fifth post is highlighted with a blue bar on the left. It is a promotional post for Triplebyte, signed by Mike, a software engineer at Triplebyte, offering users a quiz to see if they qualify for job offers from top tech companies. A 'LEARN MORE' button is visible at the bottom right of this post. The bottom of the image shows the start of another post about human microbes.

Score	Post Title	Source	Posted by	Time	Comments
7.8k	The Nobel Peace Prize has been awarded to Nadia Murad and Denis Mukwege, for their work to end the use of sexual violence in war	bbc.co.uk/news/w...	u/bbcnews	6 hours ago	324
30.9k	Canadians will be allowed to travel with 30 grams of marijuana on domestic flights, the Transport Ministry said. Domestic flyers on Canadian airlines will legally be allowed to carry up to 30 grams of cannabis, a statement from the Transport Ministry said Thursday.	telesurtv.net/englis...	u/madazzahatter	8 hours ago	1.5k
2.3k	The head of Interpol disappears whilst visiting China	bbc.co.uk/news/w...	u/throw_away_17381	3 hours ago	175
0	Hey Reddit – I'm Mike, one of the software engineers at Triplebyte. We get you offers from top tech companies and exciting startups. Sign up & take our quiz to begin.	PROMOTED - u/Triplebyte_official 17 days ago from triplebyte.com	u/Triplebyte_official	17 days ago	0
2.6k	Scientists say halting deforestation 'just as urgent' as reducing emissions: Protecting and restoring forests would reduce 18% of emissions by 2030 and help to avoid global temperature rise beyond 1.5C.	theguardian.com/enviro...	u/madazzahatter	5 hours ago	116
86.2k	Girl, 8, pulls a 1,500-year-old sword from a lake in Sweden	bbc.com/news/w...	u/sixthsheik	17 hours ago	4.5k
687	Teacher crisis hits London as nearly half quit within five years - Conservatives criticised as retention rates drop and pupil numbers increase	theguardian.com/educat...	u/ManiaforBeatles	4 hours ago	192
402	Public servants in positions of authority who refuse to remove religious symbols will be assigned to different jobs or dismissed, a spokeswoman for the Coalition Avenir Quebec transition team said Wednesday.	thestar.com/news/c...	u/madazzahatter	5 hours ago	138
8.4k	Trump: Russian Official Linked to Natalia Veselnitskaya, the Trump Tower Lawyer, Is Dead	thedailybeast.com/russia...	u/slakmehl	21 hours ago	541
299	Scientists call for 'Noah's Ark' of human microbes to prevent 'growing global health crisis' 'We owe future generations the				24

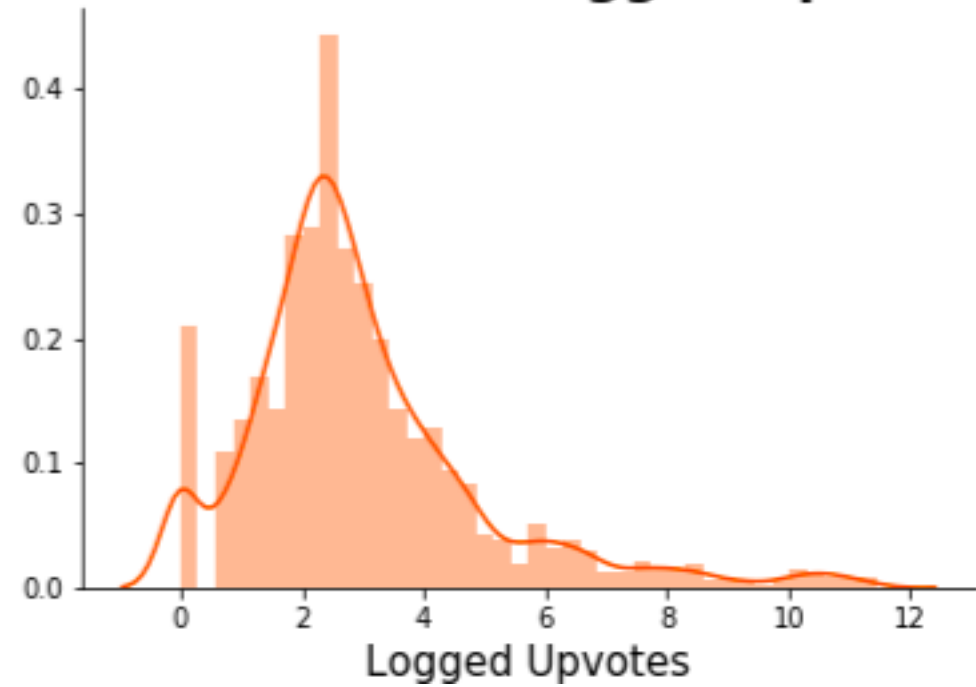
Analysis of the world news subreddit can give insight to Reddit's bias



Distribution of Upvotes



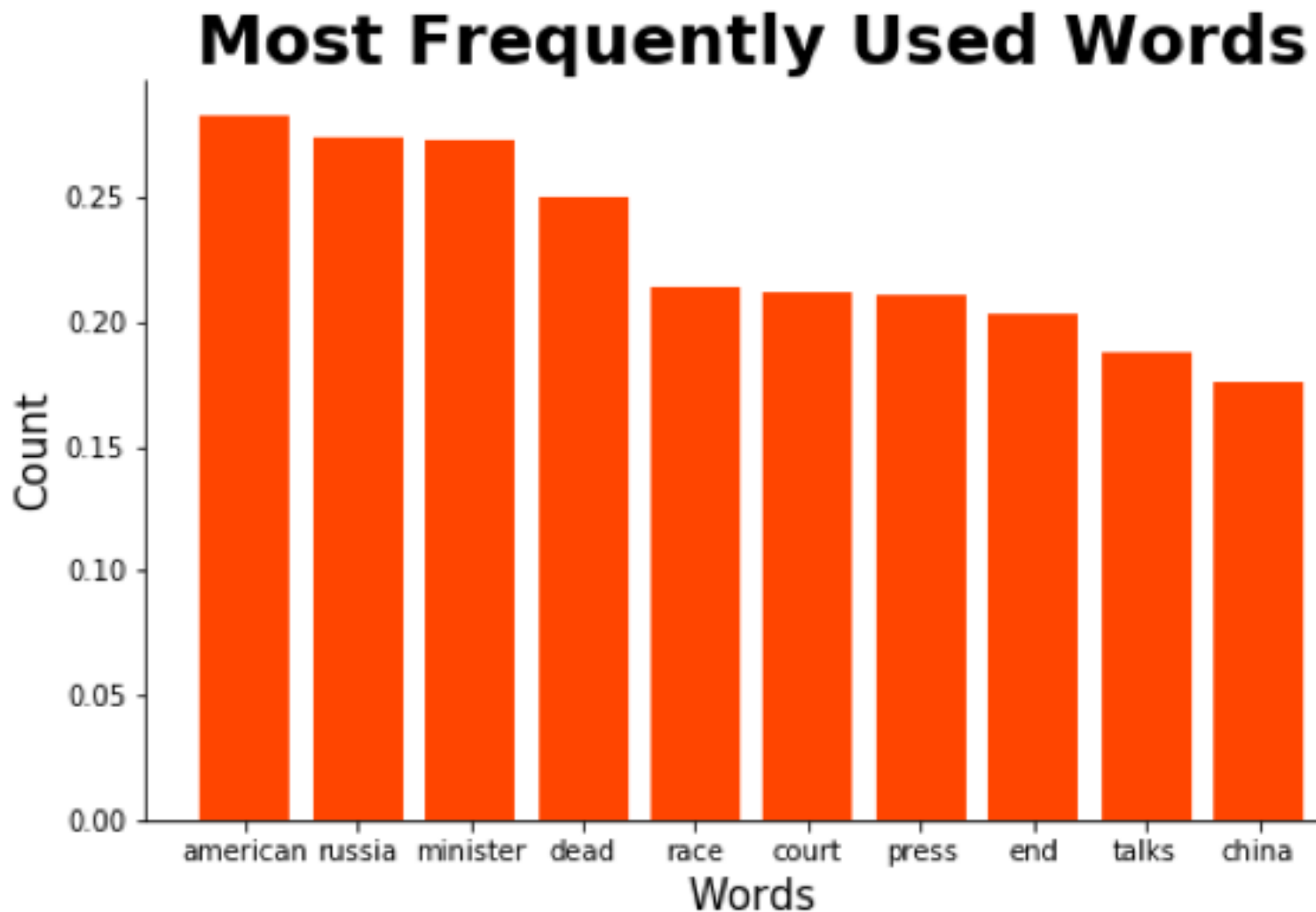
Distribution of Logged Upvotes



Upvotes as a Target

Dealing with text data

- Says: 176
- China: 141
- New: 128
- Saudi: 107
- UK: 96
- Russian: 86
- Russia: 79
- Said: 77
- India: 72
- Trump: 70
- Court: 68
- Climate: 66

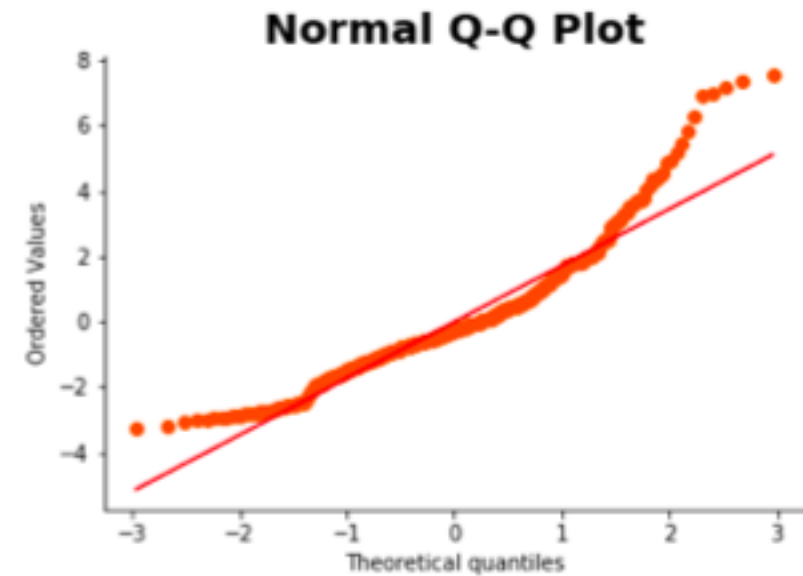


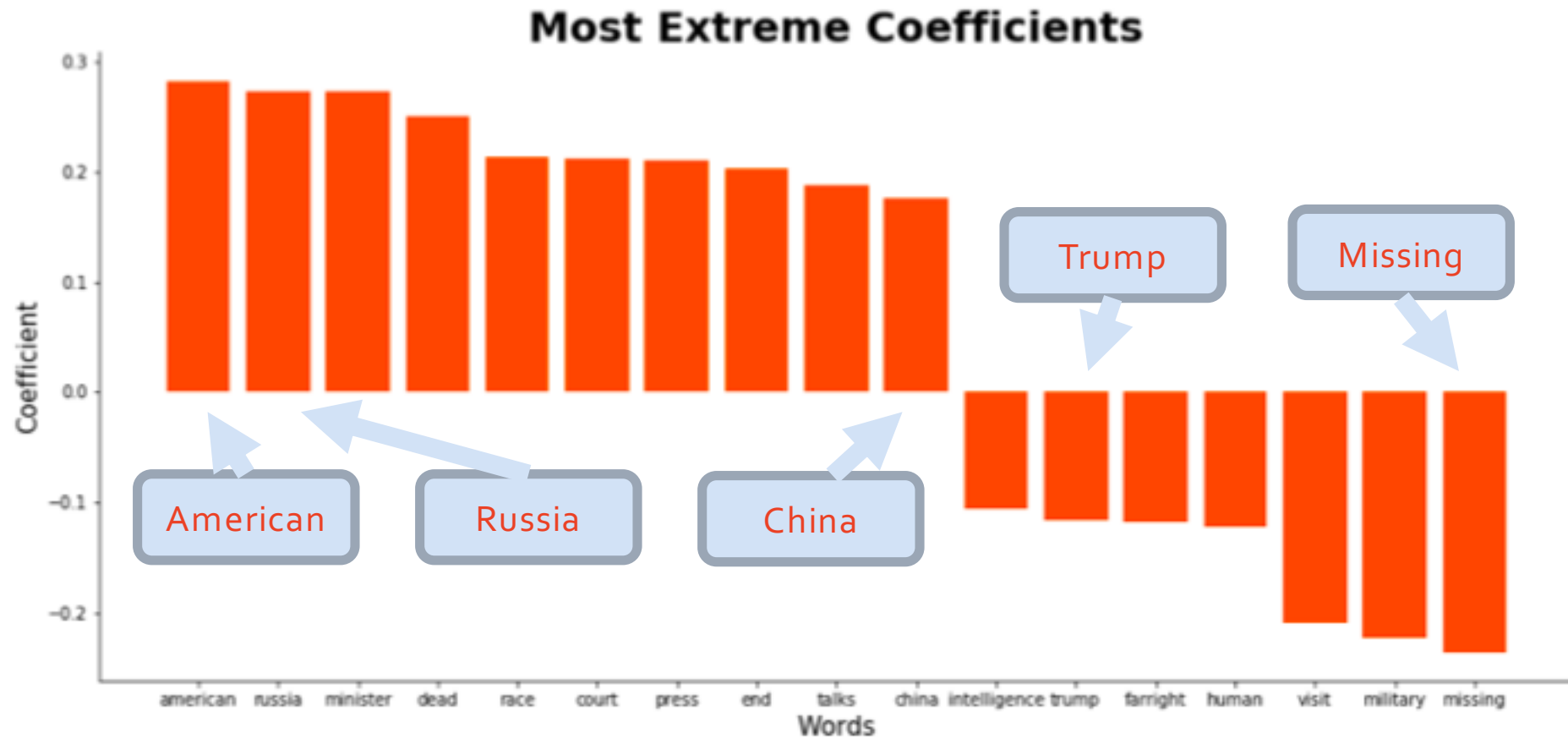
Modeling

- Cross Validation with Ridge
- Final Model Features:
 - Logged upvotes (target)
 - Restricted count word dummies
 - Length of the title (in words)
 - Age of the post (in seconds, excluding posts under 3 hours)

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- Final Model Features:
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- Training $R^2 = 0.139$, test $R^2 = 0.121$



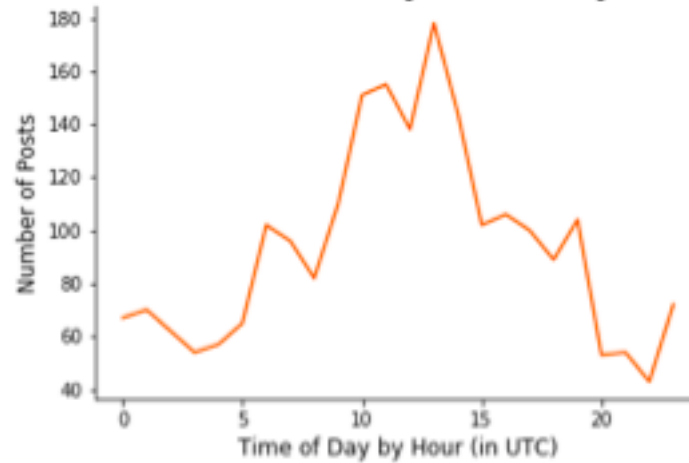


Certain Words do have bias on Reddit



Appendix 1

Post Volume by Time of Day



Upvote Stats Summary

Mean: 853.191898

STD: 5967.414542

Min: 0.000000 2

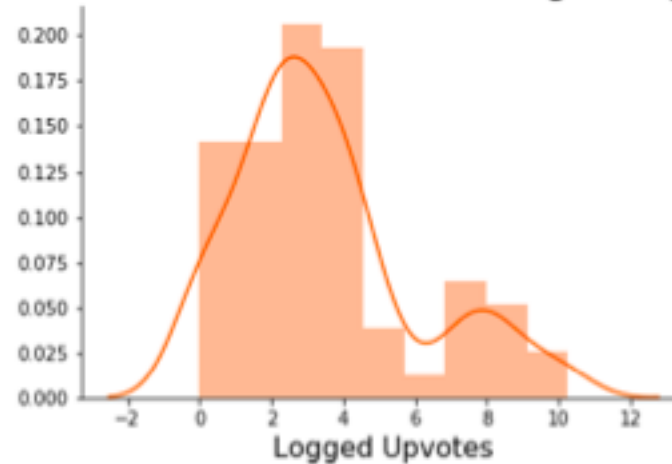
5%: 5.000000

50%: 12.000000

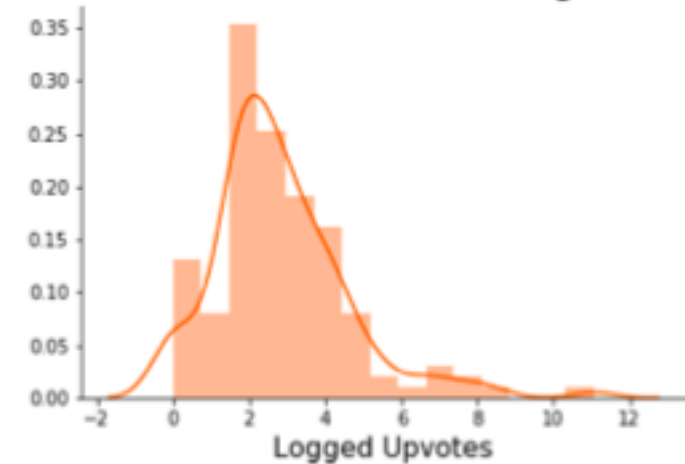
75%: 37.000000

Max: 93700.000000

Distribution for Posts Containing "Trump"



Distribution for Posts Containing "China"





Appendix 2

↑

13

↓

U.S. tightens controls on China imports of nuclear components

↑

13

↓

r/worldnews

· Posted by u/metisexperient 17 hours ago

U.S. tightens controls on China imports of nuclear components

reuters.com/articl... [↗](#)

Comment

Share

Save

Hide

...

827 Views · 87% Upvoted

Comment as metisexperient

What are your thoughts?

B

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[↗](#)

[↻](#)

[</>](#)

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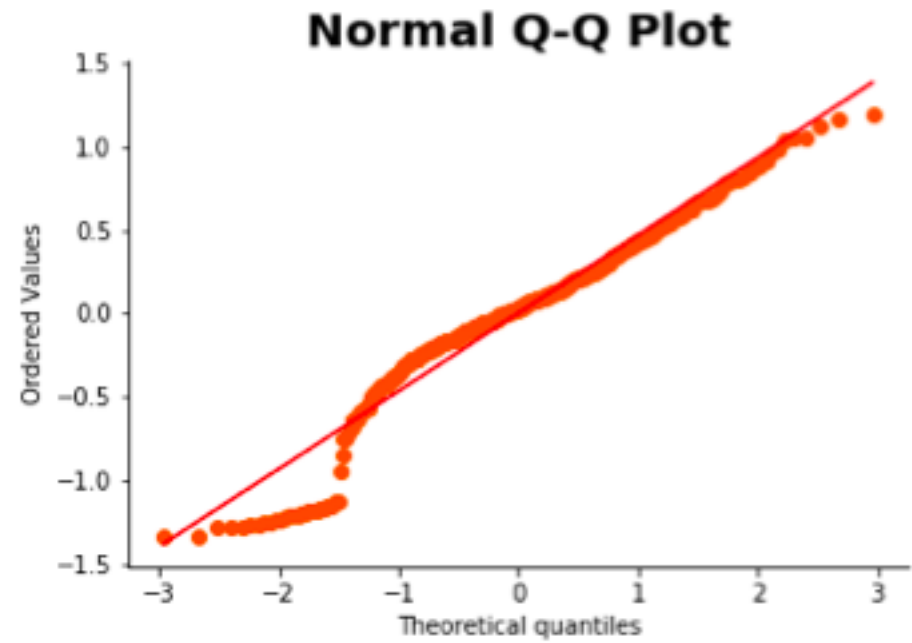
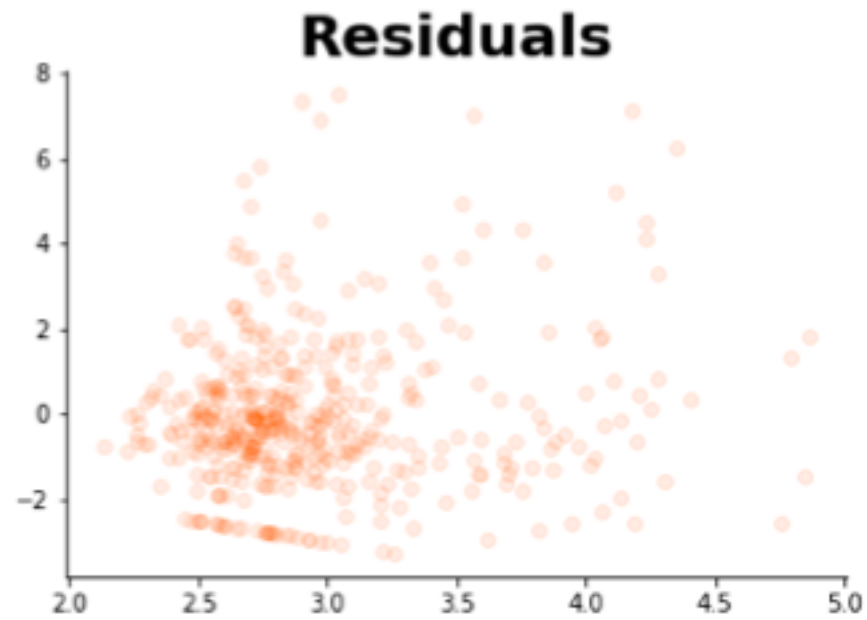
Switch to markdown

COMMENT

SORT BY

BEST

▼



Appendix 3 