



Covid-19 Vaccine Sentiments: TikTok vs. Twitter

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INTRODUCTION

- Hesitancy to vaccinate oneself is one of the top ten global health risk factors.
- Research suggests that most anti-vax content derives from Twitter bots or activist organizations, while pro-vax content comes from individuals and public organizations.
- Studies suggest that 80% of people trust vaccines.

The purpose of this study was to determine the differences between Covid-19 Vaccine sentiments on Twitter and TikTok.

- It is important to understand the general public's sentiments toward the Covid-19 Vaccine as these biases possess the ability to sway public opinion and impact global health.

METHOD

Design: Content Analysis

Setting: TikTok and Twitter

Search Strategy:

Twitter:

- Top 50 Tweets under #CovidVaccine were collected.

TikTok:

- Top 5 comments from the top 10 videos were collected using #CovidVaccine.

Posts from verified users were excluded.

Data: The variables featured in the codebook were anti-vax, pro-vax, neutral, evidence, and demographic variables (likes, shares, and responses).

| Variables | Examples of Key Words/Phrases |
|--------------|---|
| Anti-Vax (1) | "The vaccine doesn't work!" "There are microchips in the vaccine." "Say no to vaccination!" |
| Pro-Vax (2) | "Just got vaccinated." "Now fully vaccinated." "Go get vaccinated." |
| Neutral (3) | "Can you repost?" "Post more updates." "I laughed harder than I should have." |
| Evidence | Whether or not the content provides evidence (links) to support their claims. (Yes or No) |

Analysis Plan: Variables were analyzed using descriptive statistics. T-Tests and Chi-Square tests were conducted to determine results of the content analysis.

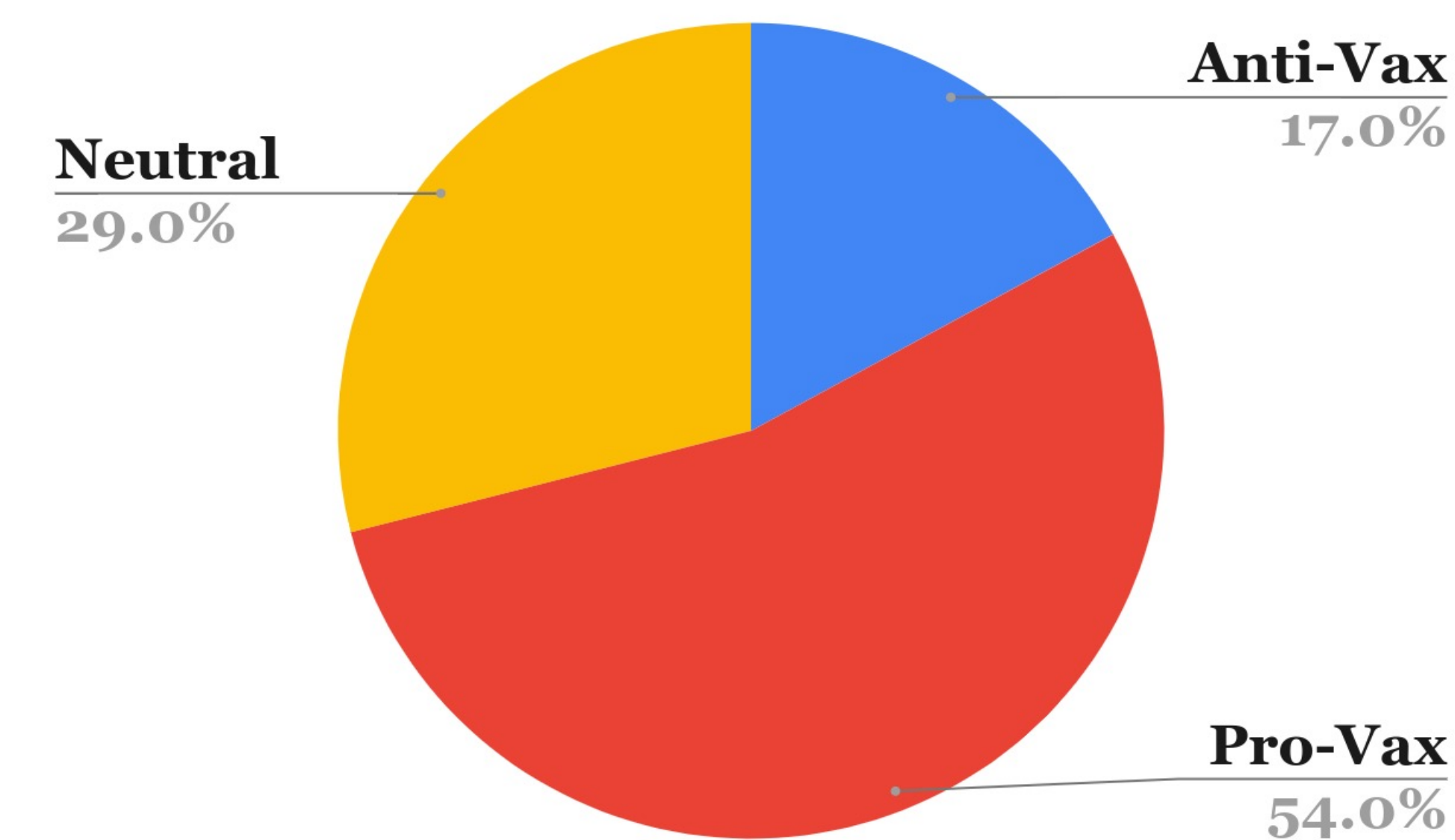
RESULTS

Subject Information:

The subjects for this study were TikTok and Twitter users.

- N = 50 TikTok comments
- N = 50 Tweets

Total: 100 posts



Engagement:

T-Tests: compared the average number of likes on anti-vax and pro-vax posts on Twitter and TikTok.



| Variables | N | Mean | Standard Deviation |
|--------------|----|--------|--------------------|
| Anti-vax (1) | 4 | 507.75 | 368.278 |
| Pro-vax (2) | 42 | 70.33 | 49.865 |

Significance: $p = .321$ | T-statistic = 1.177, df = 3.11

On Twitter, pro-vax content was most prevalent. Therefore, the average number of likes on anti-vax and pro-vax content did not differ significantly.



| Variables | N | Mean | Standard Deviation |
|--------------|----|----------|--------------------|
| Anti-vax (1) | 13 | 18787.69 | 9933.981 |
| Pro-vax (2) | 12 | 58448.83 | 19557.137 |

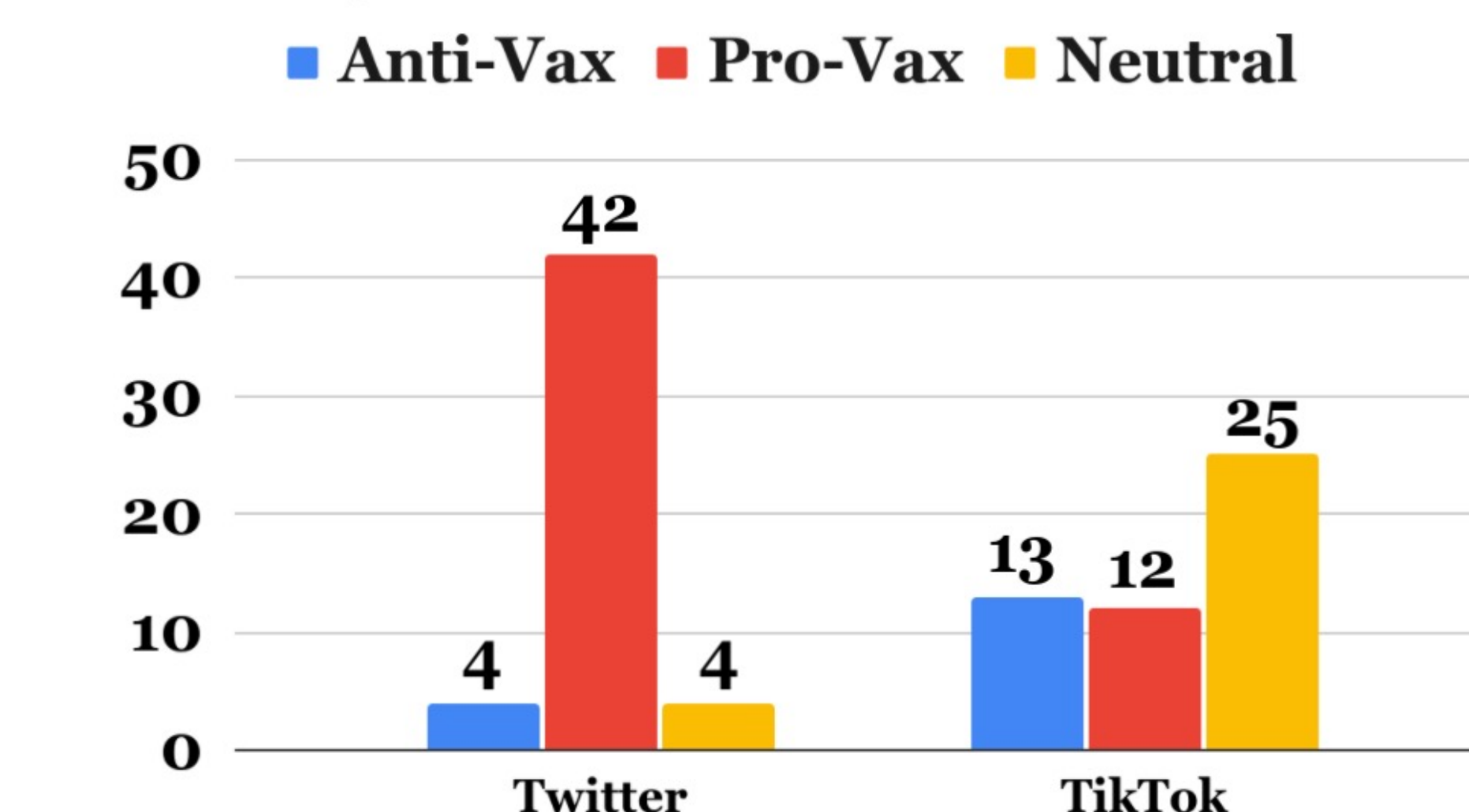
Significance: $p = .089$ | T-statistic = 1.808, df = 16.407

On TikTok, anti-vax and pro-vax content was more balanced, however, the average number of likes on each comment varied greatly. Therefore, the mean did not differ significantly.

Classifications of Posts:

Chi-square test: measured the frequencies of anti-vax, pro-vax and neutral content on TikTok and Twitter.

Anti-Vax, Pro-Vax and Neutral



Significance: $p < .001$ | Pearson Chi-Square value = 36.638, df = 2

There is a significant difference in the frequencies of anti-Vax, pro-vax, and neutral content on TikTok and Twitter.

Posts Under #CovidVaccines

Got my #CovidVaccine !

You guys this is the mark of the beast pls don't get this I'm warning you

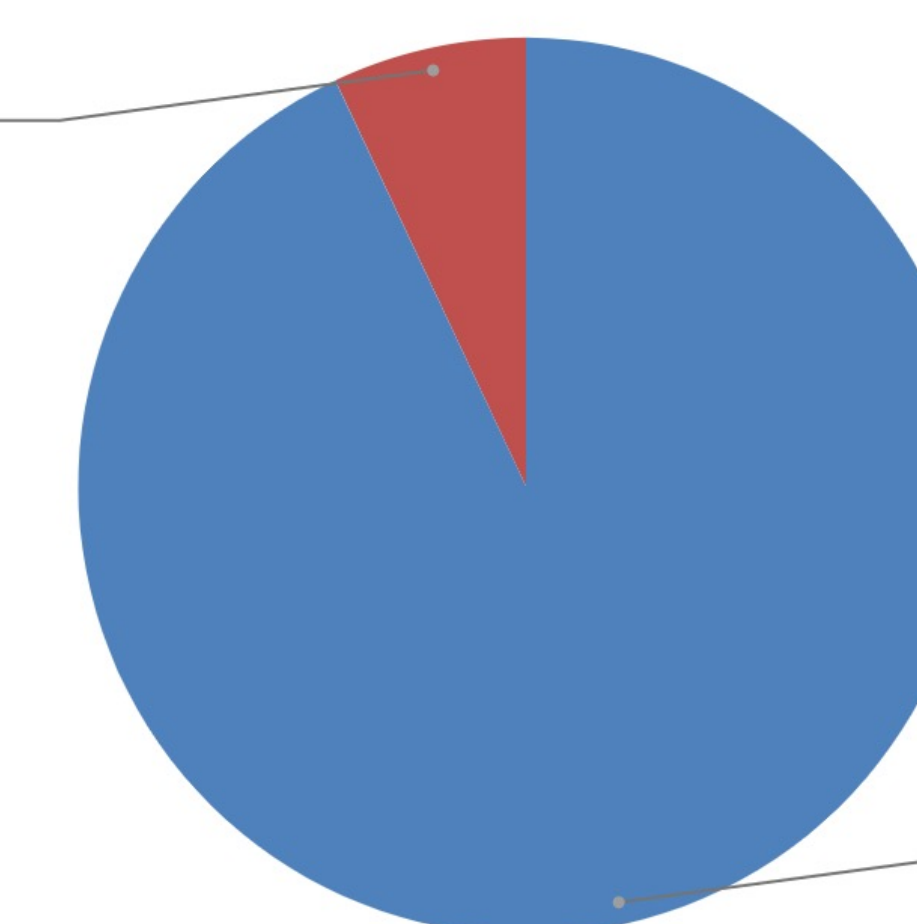
why am i watching a google ad on purpose

- Pro-vax content was more prevalent on Twitter.
- Anti-vax content was more prevalent on TikTok.
- Neutral content was more prevalent on TikTok.

Evidence:

Evidence on TikTok and Twitter

Yes 7.0%



- Out of 100 posts across TikTok and Twitter, only 7% provided evidence.

100% of the evidence was provided by Twitter users.

CONCLUSIONS

Dynamic of Platforms:

Twitter

- Focused on the trajectory of vaccines and the development of the pandemic, inciting pro-vax content.
- The only platform in this study whose users provided evidence when publicly discussing the Covid-19 Vaccine.

TikTok

- Focused on personal topics: relationships, aesthetics, and entertainment, inciting neutral content.
- TikTok users exhibited far more anti-vax sentiments than Twitter users.

Limitations:

- To gain a broader understanding of the sentiments and biases surrounding vaccines, researchers should collect more posts across multiple platforms.

Future Action:

- Fact checking the information spread regarding Covid-19 Vaccines is dire in ensuring the public is well-informed regarding all aspects of healthcare.

ACKNOWLEDGEMENTS

- Thank you to my mentors: Maggie Bushman, Lekha Pillarisetti, Reese Hyzer, Brad Kerr, Grainne McDonagh, Ethan Kaji, Anjali Mathur, and all other program coordinators.
- Thank you to all who have contributed to the founding and development of the Summer Research Scholars program.
- Thank you to my peers; I am honored to have worked with you all.

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