



Anti-Asian Prejudice on Twitter during the COVID-19 Pandemic

Johnny Hudson, Victor Garcia, Brittany Wheeler,
Maria Camila Nardini Barioni, Yasin Silva, Deborah Hall



INTRODUCTION

- The COVID-19 pandemic is a global event that has been accompanied by a marked increase in prejudice and discrimination against those of Asian descent (Grover et al., 2020; Tessler et al., 2020).
- Anti-Asian prejudice in the U.S. has a historical basis, with much of the racism occurring in face-to-face interactions (AAPI Hate, 2020).
- Throughout the current pandemic, anti-Asian prejudice has also appeared to increase in communications via social media (Yang et al., 2020).

Proposed Study

- This study will examine the prevalence of anti-Asian content on Twitter since the start of COVID-19, with a primary objective of exploring spatial and temporal patterns in anti-Asian prejudice in relation to global events.

DATA COLLECTION & PROPOSED ANALYSES

- We will analyze over 2 million tweets on Twitter posted between January 31, 2020 and January 6, 2021.
- Data were collected using the standard and premium Twitter API. Geolocation was generated using location information in the raw data, with approximate matches made using FuzzyWuzzy Python library and Levenshtein distance function
 - Only user reported data were used to collect geolocation information
- For each date for which data were collected, we will examine the number of times the following hashtags and keywords reflecting anti-Asian prejudice appeared:
 - ✓ **Racist hashtags:** #Chinavirus, #Chinesevirus, #Chineseplague, #Wuflu, #Kungflu, #Chingchong, #Makechinapay, #CCPvirus, #Chinaliedpeopledied
 - ✓ **Racist keywords:** Bat soup, go back to China, gook, bioweapon
- We will also examine the frequency of the following positive hashtags:
 - ✓ **Positive hashtags:** #washthehate, #racismisavirus, #Iamnotavirus, #hateisavirus

Proposed Analyses

- Conditional growth curve modeling to estimate the frequency of each hashtag over time
- Content evolution to identify similar words and how the similarity changes over time
- Sentiment analysis to determine the most prevalent emotion shared by posters who use racist hashtags and posters who use positive hashtags.

ACKNOWLEDGEMENTS

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PRELIMINARY FINDINGS

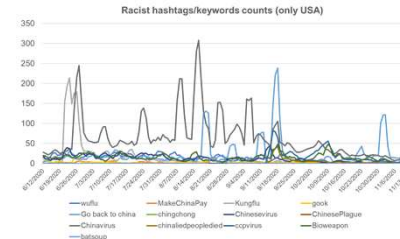


Figure 1 shows a frequency chart of all racist keywords/hashtags used over the data collection period

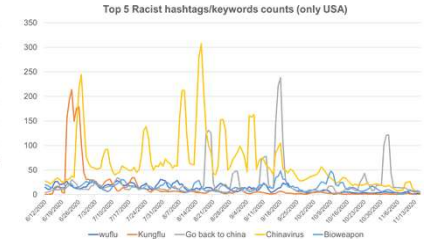


Figure 2 is a comparison of the top 5 most frequently used racist keywords/hashtags over the data collection period

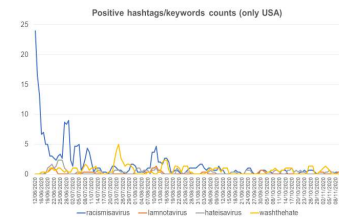


Figure 3 shows a frequency chart of all positive hashtags used over the data collection period

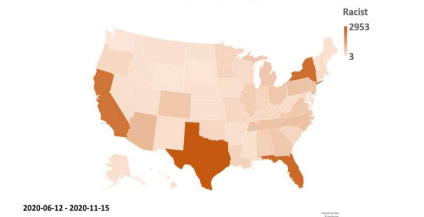


Figure 4 shows the frequency of racist keywords/hashtags per state

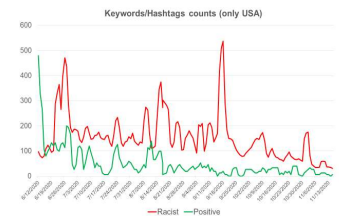


Figure 5 shows a frequency chart of the combined frequency of racist and positive hashtags over the data collection period.

- The data in these figures are comprised of tweets from June 12th, 2020 to November 15th, 2020
- Out of all the tweets collected 17,692 contained racist hashtags, 31,490 contained racist keywords, and 349 contained positive hashtags
- The prominent peaks included in the frequency charts coincide with real life COVID-19 related events (e.g., widely-shared tweets of political leaders).

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