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The ways racism emerged in the era of president Donald Trump and its impact on Asian-Americans during COVID-19: A sentiment analysis

¹Ani Windarti, ^{1,3}Zanuwar Hakim Atmantika*, ¹Clarissa Bella Ambar Kusuma, ¹Kasiyarno, ¹Ulaya Ahdiani, ²Didik Murwantono

¹ English Literature Department, Faculty of Literature, Culture and Communication Universitas Ahmad Dahlan (UAD), Indonesia

² English literature department, faculty of language and communication science Universitas Islam Sultan Agung Semarang, Indonesia

³ School of Foreign Languages, Northeast Normal University, China

*Corresponding Author

Email: zanuar.atmantika@enlitera.uad.ac.id

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Abstract

An increase in racist acts of violence against people of Asian descent, ranging from verbal abuse to physical violence, with victims of young children to the elderly in various states. Although not the first in US history, the various cases of post-Donald Trump racist attacks are very worrying for their development, because they occur so frequently and threaten the lives of those who are targeted, particularly Americans of Chinese descent. This widespread racist attack that occurred in almost all US states is unprecedented in the country's long history, following racist acts that have been directed against black people. This article aims to find out how racism became commonplace in the United States under President Trump. Are there factors behind the increase in racism in the United States, especially during a pandemic? To identify the problem, the authors conducted a literature study and observations on social media. The authors used a qualitative approach with sentiment analysis in this study. The result of this study is that Donald Trump's leadership during the pandemic had a massive impact on America and the world, namely racial discrimination against Asia-America.

Keywords: Americans; Donald Trump; COVID-19; Asia-America; Discrimination

INTRODUCTION

Humans are born with physical differences of each individual. Such as face shape, skin color, gender, nose, etc. They also consist of various types of social backgrounds ranging from various races, ethnicities, cultures, nations, and religions. We can learn and know each other so that a harmonious life can be realized. We were created differently to complement each other (Rhizky, 2020). If these differences lead to prejudice, it can lead to the disruption of our social functioning. These feelings and prejudice about advantages and differences are formed and tend to create racism.

Racism can generally be understood as an attack on attitudes, tendencies, statements, and actions for or against groups of people, especially based on racial identity. The act of racism is interpreted as a rejection of community

groups that come from other races. The rejection can be verbal or attitude toward community groups (Salam, 2016 as cited in Rhizky, 2020). Frequently, this attitude is accompanied by the belief that one's race is superior to others. Racism is those who support and practice racist acts or behavior. Those who practice racism believe that their race is mentally, physically, morally, or culturally superior to other races. Because racist regard themselves as superior and believes he has rights and privileges. Racism can also be defined as a racial issue rooted in the lives of multicultural societies worldwide. Racism is rapidly increasing in one country as technology and trade develop, resulting in the development of a degree of pluralism in the country. This desire for a better life provided by a country with a favorable business climate is what prompts the emergence of people from various racial groups. Racist acts can occur in various areas of social life, such as education, health services, entertainment, etc.

This definition of racism allows us to understand the different types of racism while avoiding the reductionism of many existing definitions. We must realize that every country in the world has a different historical background. Moreover, in terms of racism, a person can use signs of different races to establish hierarchy, superiority, or even inferiority along human lines. Although each country's history of racism is different, it cannot be denied that differences in skin color, language, ethnicity, religion, and culture can be used to interpret the true equality of racism around the world (Maher & Parker, 2018). Racism has existed since colonial times, racism that offends skin color has become the most dominant sign in much of the world, but it is not the only sign of a racist form. We often forget the more specific signs of social racism in different parts of the world by thinking of it as an exclusive or universal definition of racism. (Maher & Parker, 2018) has argued that if we deconstruct specific expressions of racism or social indicators of racism that exist in areas or nations of the world where we have socialized (such as skin color) to make them comparable or equivalence to the widely accepted definition of racism, we will forget that different signs of racism are not necessarily the same in different parts of the world.

The racial hierarchy in society can determine who is superior or inferior. There are many ways to construct and define this hierarchy. For example, the Westernized Third World Elite consists of members (Africa, Asia, or Latin America) who continuously practice racism against the ethnic/racial groups that make up the region; depending on local/colonial history, those deemed "lower" in the social hierarchy can be identified or judged on criteria related to religion, ethnicity, culture or skin color.

According to (Jones, 2000) racism exists at three levels: institutionalized, personally mediated, and internalized. Institutionalized racism is defined by racial disparities in access to society's products, services, and opportunities. First, racism is institutionalized, even legislated, and frequently manifests as an inherited disadvantage. It is structural, having been entrenched in our institutions of tradition, practice, and law, thus no identified offender is required. Indeed, entrenched racism is frequently manifested as inactivity in the face of adversity. Institutionalized racism presents itself in both material conditions and power. In terms of material conditions, examples include unequal access to excellent education, safe housing, gainful employment, adequate medical care,

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and a clean environment. Differential access to information (including one's personal history), resources (including wealth and organizational infrastructure), and voice are examples of access to power (including voting rights, representation in government, and control of the media). It is vital to emphasize that in the United States, the relationship between socioeconomic class and race has its origins in discrete historical events but endures due to modern structural elements that perpetuate those past injustices. In other words, there is a link between social level and race in this country due to systemic racism. Then, the terms prejudice and discrimination are used to define personally mediated racism. Prejudice is defined as having different opinions about the abilities, motivations, and intentions of others based on their race, while discrimination is defined as having different treatment of others based on race. Most people instinctively conjure up this image when they hear the word "racist." The racism that is personally mediated can take the form of both intentional and inadvertent acts of commission and omission. Disrespect, mistrust, undervaluation, scapegoating, and dehumanization are the forms. Last, Internalized racism is the acceptance by members of the stigmatized races of messages that are disparaging about their inherent value and potential.

Moreover, the formation of a pattern of behavior that has taken root in the US in the form of avoidance, exception, physical harassment, and even worse it can lead to the extinction of a race (Banda, 2020). Therefore, in recent years many social movements have emerged to prove the injustice of racist behavior, one of which is the Stop Asian Hate Social Movement. The Stop Asian Hate Movement is a social movement that takes place against all forms of racial crime and hereditary discrimination in the United States, which is in line with the COVID-19 pandemic in 2020. Apart from the COVID-19 pandemic, this movement was also triggered by racist rhetoric made by the former President of the United States Donald Trump. Speaking at a rally in Tulsa, said that this virus was claimed to be the "China Virus" and "Kung Flu" which indirectly blamed Asian descent as the main cause of the outbreak of this virus in the United States.

Racism has frequently happened, particularly in the form of treatment discrepancies between blacks and whites, and has a negative influence on the economy, education, and health in the US. Additionally, the media as a whole is crucial in the dissemination of information. Information and technology advanced incredibly swiftly in the fourth industrial revolution (Banda, 2020). Racism is also inseparable from the Anglo-Saxon Protestant (WASP) culture. WASP is the notion that the Protestant Anglo-Saxon race is a race that has all the dominant power in society and is also included in the political circle. At that time, Anglo-Saxons were living in the United States. The Anglo-Saxon race is people from the territory of England. This is what makes racism a political issue where the structure in America is dominated by the white Anglo-Saxon race according to Protestantism, which then creates racism in the United States.

Donald Trump's resounding victory as president has put racism at the heart of American politics. Donald Trump will remain in American history as the president who brought tragedy to his country. It said Trump was "bringing" the

tragedy caused by "excessive pride and arrogance" rocking the United States with the new coronavirus and the tragedy of racism.

According to CNBC Indonesia records, hate crimes against Asians and their descendants are on the rise in the United States. Since the global coronavirus (COVID-19) pandemic began in early 2020, this has taken place. The reason for this is that the COVID-19 outbreak was discovered in Wuhan, China. The attitude of former President Donald Trump who came to power at the time even described it as a Chinese virus, increased racism against Asians in Uncle Sam's country. In the first two months of 2021, Asian Americans and Pacific Islanders are the targets of hate crimes and discrimination, according to the group Data Stop AAPI Hate, which recorded at least 500 incidents. The number was higher the previous year, with 3,795 complaints. Most of the reports found that 68% were verbal abuse and 11% involved physical assault.

For example, the shooting and death of eight persons on Tuesday, March 16, 2021, in the Atlanta spa area by Americans. Six of them are women of Asian-American descent. Next, the murder of an Asian immigrant in the United States. Vichar Ratanapakde, an 87-year-old Thai immigrant, was murdered as one of them. A 67-year-old man in San Francisco who was not publicly identified was subjected to a vicious attack. In Koreatown, Los Angeles, a man named Denny Kim, 27, was beaten. Denny said his assailants shouted, "You have the Chinese Virus, Go back to China." In 2020, According to data from the New York City Police Department (NYPD), 29 racially motivated attacks against Asian Americans occurred in New York City. Twenty-four of the cases were classified as "coronavirus motivated." After news of the Atlanta area killings spread across the country, many people attributed the violence to racial motives.

As quoted by (*Racial Discrimination*, 2022) In the United States, racial discrimination is a serious issue that affects all aspects of human rights. For example, disproportionately harsh penalties for all types of crimes, including violent crimes, have led to disproportionate imprisonment for Blacks and Latinos, failed drug wars, law enforcement practices and bail policies that require guilty pleas, surveillance of certain political activist groups like Muslims and other ethnically or religiously distinct minorities, immigration laws that serve as scapegoats for immigrants, or surveillance of asylum seekers and refugees. Depending on their country of origin, they receive a variety of treatments. Human Rights Watch has gathered evidence of, looked into, and assessed human rights abuses that are "purpose or effect" related to racism. violations that exacerbate racial imbalances without intending to discriminate, and they urge the US to abdicate all racial discrimination-related commitments under international law.

With easy access to social media at this time, the hashtag Stop Asian hate has become a trending topic in various countries. This social movement was carried out with the aim that the government could immediately take action to protect Asian citizens in the United States and was also used to show disapproval of Trump's treatment of hate speech at that time. Twitter, a social networking platform with a hashtag, displays disagreements on #StopAsianHate. Researchers have made it easier to record public reactions to attacks against

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Chinese and other Asians in the US after COVID-19 by using data from Twitter users. They specifically look at public perceptions of the hashtags #StopAsianHate and #StopAAPIHate as well as websites that offer services, information, locations to donate, and places to report hate crimes.

During the COVID-19 pandemic, Twitter hashtags like #coronavirus, #COVID19, #pandemic, and others exploded as people started debating, talking about, and learning about the COVID-19 reality. Twitter has developed into a potent instrument for world leaders to communicate with their constituents and spread information on public health (Wang et al., 2021). In addition to more conventional media like television, radio, and newspapers, Twitter might be a potent public health instrument for international leaders to rapidly and effectively notify the public about COVID-19. With 152 million daily users, Twitter is a free microblogging social networking website. Additionally, more than 500 million individuals access Twitter each month without creating an account. (Rufai & Bunce, 2020)

This article aims to find out how racism became commonplace in the United States under President Trump. Are there factors behind the increase in racism in the United States, especially during a pandemic?

Literature review

Following the author's research and observations, research on racial discrimination is taking place in the United States as a result of the COVID-19 pandemic. However, several studies on social media analysis have been conducted, which can be used as supporters and references in the completion of this research

Sentiment analysis is a methodology or approach for determining how sentiment is communicated through text and how these feelings can be classified as positive or negative (Nurrin Muchammad Shiddieqy et al., 2016). In addition, according to (Nurrin Muchammad Shiddieqy et al., 2016) content analysis is a thorough examination of the content of written or printed information in the mass media. This type of analysis is commonly employed in qualitative research

The research was done on how world leaders used Twitter in reaction to the COVID-19 pandemic: a content analysis (Rufai & Bunce, 2020). In this study, content analysis was combined with a qualitative study. The following criteria applied to the data: G7 world leaders sent a trending tweet with the phrase "COVID-19" or "coronavirus" between 17 November 2019 and 17 March 2020 that received at least 500 likes. To classify tweets into the right categories, the researchers used content analysis, and they also looked at related Twitter data. According to the outcome, eight out of the nine G7 world leaders (88.9%) had verified, active Twitter accounts with a combined following of 85.7 million. Out of 203 viral tweets in total, 166 (82.8%) were deemed to be "Informative," 48 (28.5%) contained links to authoritative government websites, 19 (9.4%) were deemed to be "Morale-boosting," and 14 (6.9%) were deemed to be "Political." There was no correlation between the number of popular tweets and the number of followers. Therefore, Twitter may be a useful medium for global leaders to

quickly alert the public about public health issues. We advise exercising caution while accessing Twitter for health-related information and giving official government-based information sources preference.

The National Leaders' Use of Twitter in Response to COVID-19: A Sentiment Analysis was the study conducted by (Wang et al., 2021). The authors of this paper examined how the Five Eyes leaders' use of Twitter to deflect attention from the COVID-19 virus. Four specific research questions were investigated: 1) In 2020, how many times did each leader tweet about COVID-19? 2) What themes emerged from each leader's tweets regarding COVID-19? 3) How did each leader's overall sentiment about COVID-19 come across in their tweets? 4) To identify frames and contrast the leaders' statements, they employed data from natural language processing (NLP) and sentiment analysis performed with Python. According to the results, President Trump tweeted the most frequently among the political leaders, while Prime Minister Morrison sent out the fewest. Most of the tweets from each leader were positive, with President Trump having the most critical ones. The prediction of tweet behavior was remarkably accurate.

The research was done on the Sentiment Analysis of Donald Trump and Jokowi's Twitter on COVID-19 Dissemination by (Dwianto et al., 2021). The top five popular topics on Twitter during that period were #COVID19, #jokowi, #miglobal, #trump, and #donaldtrump, hence those dates were chosen as the data collection period for this study. Therefore, this is the ideal time to gather information and talk about how Jokowi and Trump handled COVID-19. The findings indicate that both Trump and Jokowi had more unfavorable feelings than favorable ones over the period. Regarding how COVID-19 was handled, Trump said something that caused division. The policies stated by the US and Indonesian governments via the Twitter handle @jokowi and @realDonaldTrump are the only ones that are the subject of this study. The dataset given in this study was collected and examined using The Brand24, a software-automated sentiment analysis.

Another researcher conducted racial discrimination against Asian descent in (Meningkatnya Aksi-Aksi Terhadap Warga Keturunan Asia di Amerika, 2021).

A study on how the situation in the United States at the start of the Joseph Biden administration was marked by an increase in racist violence against people of Asian descent, ranging from verbal abuse to physical violence, with victims of young children to elderly people in various states, was conducted by (Nainggolan, 2021). Although this type of incident has occurred before in American history, he emphasized that the numerous post-Donald Trump racist attacks are a very concerning development because they frequently target US citizens of Chinese descent and pose a threat to their lives. His research resulted in the fact that the racist attack was widespread and happened in almost all US states this never happened earlier in the country's long history, following the racist acts that have been aimed at people of black descent. This condition threatens existence. The United States is a pluralistic country that guarantees equality and human rights based on democracy. Furthermore, the study shows that America's future is at risk and the steps President Biden must take, including lowering tensions with China in a variety of areas.

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METHOD

A research method is a strategy, process, or technique used in collecting data or evidence for analysis to discover new information or create a better understanding of a topic. There are different types of research methods that use different tools for data collection. Based on the type of data collected, the research approach used in this study is qualitative. Research methods are the most important components of research. The method is the entire scientific step used to information. (Sugiyono, 2013) has argued that the research method is a scientific way to obtain data and information with a purpose and objective. A qualitative research methodology was applied in this study. Qualitative research aims to understand and explain what phenomena are experienced by research subjects such as behavior, perceptions, motivations, and actions holistically and through descriptions in the form of words and language in certain natural contexts to show the depth and detail of the data being studied (Moleong, 2016:6, as cited in Satria, Sugandi, & Dwiayani, 2021, p. 129).

Based on the data, the research approach used in this study is qualitative with sentiment analysis. The purpose of qualitative research is to obtain complete results about a subject from the point of view of the person being studied. Qualitative research focuses on the people being studied's ideas, perceptions, opinions, or beliefs, which cannot be quantified.

Qualitative research can only be used when the factors in the study cannot be quantified or calculated, so the variables cannot be expressed numerically but in the form of opinions, perceptions, and assumptions. To produce quality research, primary and secondary data are needed in it. However, in this research, the data used by the researcher is secondary data.

Qualitative research aims to understand phenomena experienced by research subjects as a whole by describing them in the form of words and language, in specific contexts, and using scientific methods (Moleong, 2007: 6). Because there are no numerical data in this study, a qualitative approach was chosen. Therefore, the qualitative approach in this study is research that produces descriptive data in the form of words spoken by people, as well as observed behavior (Moleong, 2011: 4).

This article's research focuses on a tweet from @realDonaldTrump on Twitter. Being a frequent user, Donald Trump can use Twitter for political communication. We select Twitter because it is a free medium and candidates may utilize it without worrying about running out of resources. A fair playing field, gives Twitter a wealth of information on campaign messaging (Gross & Johnson, 2016 as cited in Muqsith et al., 2021).

While in this process the research was done, we used as materials relevant books, articles and essays collected from internet sources. We collected those materials in printed form as well. Then necessary data were obtained and duly analyzed to reach our findings and draw a conclusion.

President Trump is a frequent user of Twitter, using it to interact with his team and bring up significant concerns like democracy and public health. Social

media has been utilized to advance COVID-19 in several ways, including helping or hurting public health activities, according to previous studies. This article analyzes President Donald Trump's actions using sentiment analysis to see how he presented COVID-19. Future real-time public policy and crisis communications will benefit from knowing how political leaders engage on social media platforms like Twitter.

RESULTS AND DISCUSSION

After collecting and analyzing the data, the writer found several points that matched the purpose of writing this paper. The discovery of these points is accompanied by the authors discussion of the statements presented. Here are the bound points

Asian American Discrimination, Racial Violence, and Discrimination Against Immigrants

Wuhan, a Chinese city, was the epicenter of the COVID-19 virus. Since the outbreak occurred and began to spread to all parts of the world, people of Asian or Asian American ethnicity and race have become scapegoats for carrying the virus. One example is Donald Trump's tweet on March 21, 2020, in which he referred to the virus as the "China virus." Blaming China for the COVID-19 disease outbreak the public opinion of many Americans, which former President Donald Trump strongly emphasized, was one of the factors that intensified these attacks. As a result, Americans of Asian descent have experienced an increase in cases of discrimination, which are often described as carriers of the disease (Angeles, 2020), for example, (Angeles, 2020) launched a website for Asian Americans during the COVID-19 to report incidents of discrimination. With that, they received 1497 reports of workplace discrimination in the first eight weeks, with 57% of incidents occurring in California and New York, the two hardest-hit states.

On behalf of the Center for Public Editorial Journal of Vocational Behavior 119, IPSOS recently surveyed over 1000 persons (2020). A third (32%) of Americans have observed someone blaming Asians for the pandemic, with about 30% of Americans attributing COVID-19 to China or the Chinese (Chris et al., 2020). Together, these studies demonstrate that prejudice against Asians and Asian Americans is rising in the US. Janet Dhillon, chair of the United States Equal Employment Opportunity Commission, stated in response to the rise in discrimination urging employers and staff to be alert to instances of workplace bias against people of Asian descent as this can result in illegal workplace discrimination.

Asian Americans who are experiencing workplace discrimination because of COVID-19 are concerned, not only because their civil rights are being infringed, upon but also because a study found evidence that Asian Americans experienced workplace prejudice before the pandemic. An experimental research study from 2012 found that Asian Americans are thought to have inferior social abilities and are less likely to be selected and promoted for jobs requiring social skills (Lai & Babcock, 2012). One in four Asian-American individuals, according to recent research, experience workplace discrimination, including in job

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applications and terms of pay or promotions. One in four Asian-American individuals, according to recent research, experience workplace discrimination, including in job applications and terms of pay or promotions (McMurtry et al., 2019). When comparing Asian-American respondents (25%) to white respondents (13%), the results of discrimination related to equal pay are nearly double.

It makes sense that job discrimination has grown throughout the pandemic given the well-documented rise in overall discrimination against individuals of Asian-American heritage during COVID-19. The way Americans live is changing as a result of social distance, and many Asian Americans are being forced to adjust to new methods of working and living while also having to deal with more prejudice. Asian Americans may not have the resources to handle growing tensions as a result of this increased stress, particularly at work. Investigating how Asian Americans manage job discrimination while also coping with other forms of prejudice requires more investigation. Additionally, additional study is required to examine the immediate and long-term effects of this discrimination.

Racial violence and discrimination continue to be serious and widespread problems in American society, with many immigrants and people of color being severely attacked. This is the umpteenth time that immigrants from various countries, including Asians and people of color, are victims.



Figure 1 Asian hate action in America

Racism itself can evoke powerful emotional responses, especially from those who have experienced oppression and exploitation due to racist attitudes and behavior in the United States. For African Americans, Asian Americans, Native Americans, and Latinos (Hispanics), racism has created a social history of prejudice and discrimination. Today, even these racist activities take the form of intimidation, physical violence, socioeconomic segregation, and even the destruction of private property. (Banda, 2020)

The resistance in the form of demonstrations is not without reason, it is done because the Asian American also gets racism because of his Asian face and the food he eats. Just a simple thing like that can make Americans easy to judge and bully. In this pandemic, Asians getting more bullied than before, it's very rude actually. American always say to get out of here and go back to their home, even though America is their home how can they leave their house, it confuses me. They say that he wants everyone to be brave and stand up, which

means they do not lose and never stop for justice and equality between Americans and Asians.

The issue of racism and anti-immigrant violence is not new in America. People of color and immigrants find themselves in a more difficult situation as the COVID-19 pandemic continues. They also face widespread discrimination in access to coronavirus vaccinations, medicines, care, medical services, and even funerals.

However, white racist thinking, written and unwritten discrimination laws, the impact of veiled oppression on immigrants and blacks, lack of access to institutions such as education and welfare, and punitive measures for racists have created groups of immigrants and people of color to keep the pressure on. The abolition of discrimination can be said to be the sole basis of a political slogan. Democrats and Republicans during the election campaign. Violence against immigrants by civilians has increased with the outbreak of the coronavirus, and in the current crisis, only legal action by the authorities seems to be able to defuse the situation to some extent.

Numerous anti-immigrant laws and regulations in the US foster mistrust and prejudice against immigrants and naturalized Americans. Immigration discrimination has a long history in America. The Chinese Exclusion Act, Immigration Act of 1924, Alien Registration Act, and Executive Order 9066 are just a few examples of US laws that have made it difficult for immigrants to integrate into American society. People who feel like a threat to American security are criminally stigmatized, even immigrants and naturalized citizens. Jobs, housing, well-being, and the advantages that Americans want are all threatened by immigration.

The Rise of American Racism in the Trump Era

The victory of the 45th US President, Donald Trump, shocked Americans, and even the world. Trump was widely judged to be racist and discriminatory during his campaign, which prompted many responses from various parties, such as the re-emergence of white supremacist groups and fears that it would increase sentiment towards immigrant minorities, Muslims, and black citizens. Since his victory as president in 2016, Trump has publicly declared provocative speeches that have fueled xenophobia and racism. His attacks were aimed at immigrants, Latinos, and African Americans.

The phenomenon of racism and racial supremacy in America tends to increase and get a new spirit after the ascension of Donald Trump in the 2016 presidential election. Bloody clashes in the city of Charlottesville, Virginia between the pro and counter-white supremacist camps, are very similar to the racist conflicts in America in the middle of the last century. During the clashes in Charlottesville, the far-right, made up of Neo-Nazis, white supremacists, extreme nationalists, and supporters of Donald Trump, chanted slogans in support of racial superiority in America, the white race, and anti-immigrants. One racist even crashed his car into the anti-racist crowd. As reported by the media, a 32-year-old woman was killed and 19 others were injured as a result of the incident.

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The majority of Americans consider Donald Trump to be the cause of these kinds of incidents. They say Trump and his advisers directly or indirectly support the racism movement and, in every statement, he emphatically uses racist terms to trigger incidents of this kind. Inevitably, Donald Trump is recorded in US history as the president who brought tragedy to his country. Said to be "bringing" tragedy because of Trump's "excessive pride (jumawa) or overconfidence" has caused the US to be reeled by the tragedy of COVID-19 and racism.

With the re-strengthening of racism in the US in the new millennium in 21st century, it shows a different development from the previous era, especially in the 1960s, when the struggle of a black figure, Martin Luther King, had not yet reached its peak and succeeded in influencing power in the country. Anti-China racist sentiments began to emerge and spread widely in society following Floyd's death, ahead of the November 2020 presidential election. President Trump's White House statement commenting on the threat of the COVID-19 pandemic spreading in the US is not a serious threat because he is only a 'Kung Flu' trigger. Without the emergency steps he takes to prevent and respond to the emergence and spread of the COVID-19 virus throughout the United States, Trump consciously created it as a new issue of racism to avoid accusations of wrongdoing and shift his weak responsibilities. Because this pandemic originated in the Chinese area, Wuhan City, Hubei Province, reports of 'Kung Flu' spread like wildfire.

The US's increasingly cornered position in the international world in the escalating rivalry with China due to the two countries' insurmountable trade dispute, combined with Trump's increasingly cornered chances of winning the US presidential election due to declining support from immigrants, has prompted Trump to run a new racist politics. Meanwhile, because of working hard for a long time, Americans of Chinese descent themselves are now living more prosperously than the black immigrants who have lived and worked there. Not surprisingly, Chinatown with its community cultural life as a symbol of success for Chinese citizens overseas appears in the states.

Trump, COVID-19, and Racism

Acceptance of the fact that COVID-19 is a virus that originated in China has made local people physically and emotionally start controlling Asians in a form of self-protection from the spread of the deadly virus. The action is generalized to all people who are of the same race as Chinese people. Thus, it is undeniable that throughout 2020-2021 there will be an increase in cases of Anti-Asian racism in the US. The acts of racism that were carried out were of various kinds, namely verbal and non-verbal. Social media also has become a field for hate speech against Asians. The racism that has occurred so far has forced people to carry out anti-Asian Campaigns.

This increase in hate crimes then urged the US government to take immediate action. At the time of Donald Trump, it can be said that there was no effort because it all started with hate speech from the US leader at that time. Trump's indifference to the COVID-19 case has led to public opinion that Trump's attitudes and statements are not just fantasies that cannot be accepted

with common sense. They wonder how the virus will go away on its own. Trump is getting into a dangerous delusion by saying as many as 15 times recorded in the third week of May 21, 2020, reported by CNN saying "that the virus will go away", he also said, "one day the virus will go away". In contrast to the fact that at that time, the number of COVID-19 victims in America was 2,010,634 people, and 112,576 people in the United States died. As a result, not only have more than 100 thousand people died, but until the third week of May, unemployment in the US has risen to 40 million for two months. And it is estimated that the peak of unemployment in May-June will rise by 20 percent to 25 percent. This high unemployment rate has not occurred since the malaise era, in the 1930s. Trump's character, is considered unfit to be president.

The public views the President of the United States negatively as a result of this figure. Furthermore, Donald Trump is in the midst of a campaign to be re-elected as President of the United States. However, the effects of COVID-19, such as school closures, unemployment, and a halt in economic activity, worried some Trump supporters that he would not be re-elected. "The economic ramifications of the coronavirus are increasingly likely to weigh heavily on Trump's re-election chances and quite possibly could cost him re-election," said Dan Eberhart, a Republican donor. (Bennet, 2020 as cited in Muqsith et al., 2021)

To overcome this obstacle and maintain his presidential election, Trump must focus on how to resolve COVID-19. Making a story on the social media site Twitter is one of the techniques employed. Donald Trump offered a positive appraisal of the developing health catastrophe in the early stages of the pandemic in the US, even as the mortality rate and the number of cases rose. He said things like, "work well, 'That the epidemic spread' very slowly in the US," and "highly managed." (Muller, 2020 as cited in Muqsith et al., 2021).

One of Trump's narratives is that China is the mastermind behind COVID-19. In some instances, Trump damaged China's reputation in the media by bringing up COVID-19. The US President dubbed this coronavirus the "Chinese virus" in March. "Because it is from China. It's not racist at all, no, no at all. That's why it's from China. I want it to be accurate." (Vazquez & Klein, 2020 as cited in Muqsith et al., 2021). This claim certainly does not have an incorrect justification and indicates that China has brought this virus into the global realm. This phenomenon is interesting, particularly at this critical time in Donald Trump's campaign when he must deal with COVID-19. When the US is experiencing pandemics, Trump starts to place the entire blame for US cases of COVID-19 on foreign actors like China and the WHO. For instance, on 7 April, President Trump said that the US could impose a "very powerful" funding freeze on the organization. He was criticizing WHO for its decisions regarding COVID-19. (Mahase, 2020 as cited in (Muqsith et al., 2021). He had a quasi-belief that COVID-19 will just dissipate on its own and that it is comparable to, if not milder, than the flu.

In the beginning, Donald Trump much appreciated how China acted in handling this COVID-19 using his Twitter account. In January, Trump tweeted said that he appreciates China's efforts.

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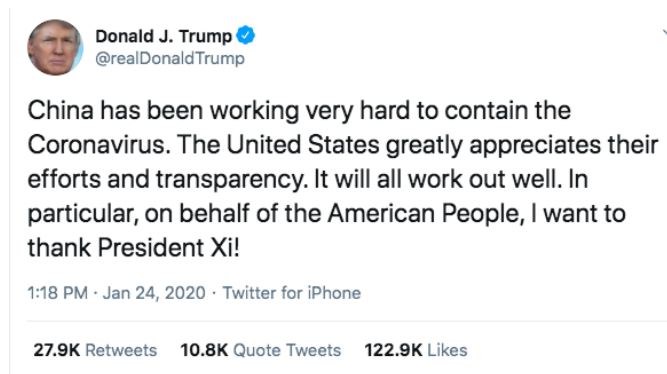


Figure 2 Trump's tweet on January 24, 2020

A tweet that received 27,000 retweets, 10,000 quote tweets, and more than 100,000 likes prompted a good response from the public. Donald Trump has a warm and grateful attitude toward Xi Jinping for his efforts in combating the coronavirus.

However, recent events have changed Trump's perspective. On March 3, there were almost 90,000 confirmed cases and 2946 deaths. Because this case is growing by the day and generating significant casualties, the WHO declared COVID-19 a global pandemic on March 11, 2020. Many governments enacted a lockdown policy (stopped all activity) in response to the global pandemic, as well as an incentive to save their country from the virus. As a result of this occurrence, Donald Trump's mentality transformed substantially. He began blaming China for the difficulties. The reason for this is that China is not being forthcoming about the pandemic. As a result, the epidemic exploded out of control, infecting every country without exception. He changed the name of the COVID-19 virus to "Chinese virus" on multiple occasions because the infection originated in China. (Muqsith et al., 2021)

On the other hand, new research has found a link between a tweet by former President Donald Trump referring to COVID-19 as the "China Virus" and "Kung Flu," and a rise in anti-Asian content on Twitter. This comes as pressure mounts in the US for immediate action to be taken against rising crime rates. Many people attribute racism and acts of violence committed toward Asian Americans during the pandemic to the harmful language employed by politicians.

Then, the hashtag "Kung Flu" became popular on Twitter. Trump's usage of the word drew criticism from several users who labeled it racist. Twitter user @PhilipRucker provided updates on Trump's speech, writing: "Trump informs his rally crowd there are many names for COVID-19.

Then he says one that many deem racist: "Kung Flu." In a consecutive tweet, @PhilipRucker wrote: "To be clear, calling COVID-19 'Kung Flu' is racist, period."



Figure 3 Philip Rucker tweet on Jun, 21, 2020

A second tweet was posted by Ted W. Lieu, @tedlieu, a US representative for California's 33rd congressional district since 2015. He used Twitter to share his opinions on the subject: "Dear @realDonaldTrump & @GOP: Asian Americans make up 11 percent of the electorate in Nevada; 5.5 percent in Texas; and 4.7 percent in Georgia, enough to be the margin of victory. Continue referring to racists as "Kung Flu." Asian Americans are now leaning more toward Democrats due in part to your prejudice. #TrumpRally".

American actor, Chris Evans, @ChrisEvans, was left "speechless": "Did the president of the United States just say 'Kung flu' at his rally? He made a racist joke. He made. A racist. Joke. To applause. I'm speechless."



Figure 4 Chris Evans tweet on Jun 21, 2020

The study Association of #COVID19 Versus "#Chinesevirus" With Anti-Asian Sentiments on Twitter: March 9-23, 2020 by (Hswen et al., 2021) found that around 1 in 5 #COVID19 hashtags were anti-Asian, compared to 50% of #chinesevirus hashtags. The hashtag #COVID19 gained greater traction than #chinesevirus during the week beginning March 9, 2020. Additionally, there weren't many anti-Asian hashtags associated with these terms, and they were quite stable.

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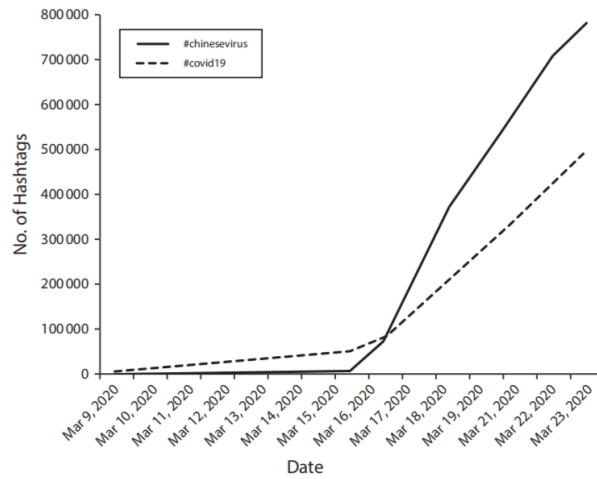


Figure 5 Timeline of Anti-Asian Twitter Hashtags Under #COVID19 and #chinesevirus (n=391957): March 9-23, 2020 (Source: Hswen et al., 2021)

However, the president's tweet on March 16 coincided with several significant improvements both the volume and number of tweets for the #COVID19 and #chinesevirus groups increased dramatically. During the study period, both hashtags grew from around 53000 to 1.2 million. Trump's tweet appeared to raise awareness of the pandemic in general.

The Coronavirus emerged in China at the end of 2019 and quickly spread over the world, with the United States currently in first place in terms of death rates. In some of his tweets, Donald Trump referred to the coronavirus as the "Chinese Virus," which is disrespectful to the people of China and moves him closer to political incorrectness because he is addressing a non-white ethnic race. He is not just employing an insulting tone, but he is also accusing China of provoking an international crisis by naming it after the country rather than the globally accepted name. The tweet that success pays attention public, with more than 200.000 likes, and 60.000 retweets. Consequently, this term faced a lot of backlash in the media due to its racial portrayal.



Figure 6 Trump tweet on March 17, 2020

On the other hand, Americans in October in America have negative opinions on Twitter about how Trump has handled COVID-19, which has a dangerous tendency. Trump posted several contentious tweets. In his tweets, he expressed his mistrust towards COVID-19 and his propensity to underrate it.

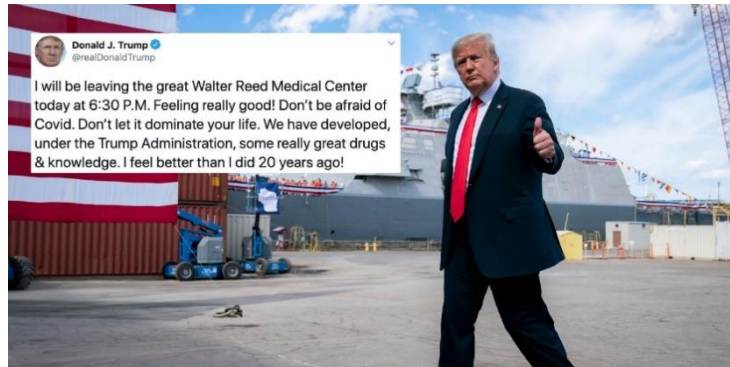


Figure 7 Trump's Controversial Tweet on October

On October 12, 2020, several of his provocative tweets were covered by the US daily newspaper Sky News. Trump's tweets will lead his supporters to believe whatever Trump says. However, this proclivity to underestimate COVID-19 has sparked public debate. Trump's 88.9 million followers managed to spike trending on Twitter in response to Trump's message.

Trump openly questions the efficiency of using a disinfectant to "cure" the SARS-CoV-2 virus. In the past, Trump had said something controversial about how COVID-19 was handled. He previously decided to stop funding the World Health Organization (WHO) from the US because he believed the organization was too China-centric and had made incorrect recommendations about how to handle COVID-19 from the start.

The findings of research conducted by (Wang et al., 2021) three stages were used to classify the sentiment level. First, they established a column containing the results of each tweet's good or bad attitude. Second, they processed the tweets, categorizing them as good or negative. Finally, they trained the sentiment analysis model by labeling each tweet as favorable or negative based on the popularity of the opinion. They also classified good terms as having an emotional level more than or equal to 0, and negative words as having a sentiment level less than 0. All research data will be used for this study solely from President Donald Trump.

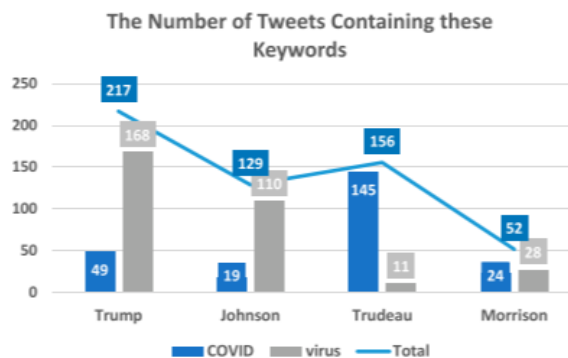


FIGURE 2 | The Number of Tweets Containing "Covid" and/or "virus".

Figure 8 The number of tweet containing "COVID" and/or "Virus" (Source: (Wang et al., 2021))

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Figure 8 displays the number of tweets containing the terms COVID and virus, both of which are specifically related to the COVID-19 pandemic. Trump used these two phrases 217 times in 2020, more than any other one of the four national leaders. He did not, however, tweet these two terms the most frequently per tweet when compared to the other three leaders and the total number of tweets made throughout the year in the cleaned dataset. On Twitter, Johnson and Trudeau frequently used the terms "COVID" and "virus".

The decision to use positive language here may be partially explained as an effort to steer the national conversation away from assigning "blame" for the pandemic and toward a cooperative approach required to support the public health strategies required to manage a pandemic.

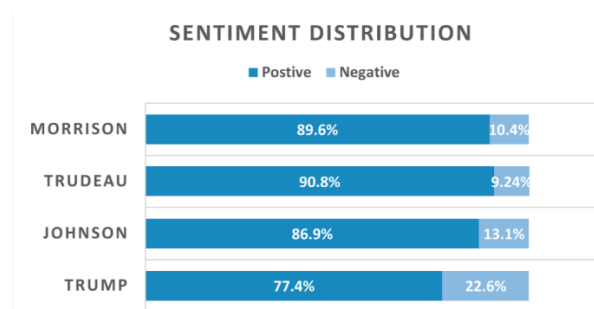


FIGURE 3 | Sentiment distribution.

Figure 9 Sentiment Distribution (Source: Wang et al., 2021))

The four national leaders' emotional distribution is shown in Figure 9. Trudeau contributed 9.24% of the tweets with the most positive sentiment. The majority of the negative tweets (22.6%) were posted on Trump's account on Twitter. The other three leaders shared tweets that were more than 85% positive, except Trump. Table 9 elaborates on the sentiment analysis by displaying the most frequent words in the tweets from these four leaders when emotional value is scaled from positive to negative. The 10 most frequently used positive and negative words by the four leaders are displayed in Figure 9. It is noteworthy that the top 10 derogatory words used by Morrison, Trudeau, Johnson, and Trump, respectively, are "bushfire", "today,", "us,", and "fake". The fact that the word "us" was automatically classified by NLP as negative is interesting. Similarly, "Australia" and "today" were labeled as positive words.

The findings showed that Morrison posted the fewest tweets, while Trump tweeted the most (RQ1). Each leader's tweets contained a mix of positive and negative frames, with the majority of each leader's tweets being positive (RQ2). But President Trump sent out the most derogatory tweets (RQ3). The accuracy of predictive modeling in predicting future tweets about COVID-19 from these leaders ranges from 73.91 to 92.54%. (RQ4).

Trump's tweets stood out in the data, especially considering how frequently the words "COVID" and "virus" were used in comparison to other tweets and how many messages overall had a negative sentiment. One explanation is that Trump was using different terminology to change the conversation away from this more objective, scientifically based terms. Another explanation is that by

using a negative frame, he was attempting to counter scientific advice by eliciting a stronger sense of certainty and support.

The use of positive frames here may be explained in part as an attempt to guide the national debate away from blaming the epidemic and toward the collective approach required to support the public health initiatives required to manage a pandemic. According to research on political leaders' framing of COVID-19, leaders' framing of the virus considerably impacts how the public understands the virus (Rufai & Bunce, 2020). Apart from Trump, their data indicate that most leaders used frames that emphasize social cohesiveness and positively convey compliance with often stressful social demands such as lockdowns as the norm. While leaders used social media to frame the virus in a variety of ways, the usage of Twitter, which allows for direct discussion with world leaders, highlights social media's tremendous capacity to impact public thoughts and attitudes on topics. Future research should go beyond identifying these frames to investigate how they influence how the public, including other Twitter users and mainstream media actors like journalists, perceive/understand situations like COVID-19.

After doing this research, the researchers can see that America under Trump's leadership has had a huge impact starting from the increasing number of racism, public opinion, and in the field of government. It can be seen that previous researchers have produced accurate data so that they can be trusted. On the other hand, social media is currently very influential in a country, both in America and in other countries.

CONCLUSION

Acts of racism that occurred in the United States during the leadership of President Donald Trump brought a lot of influence. It can be concluded that the influence is not only on public opinion but also on the rules in a country. With the influence of modernization, social media greatly affects how the public reacts. Through social media, President Donald Trump made the public in an uproar with what he said through his tweets. The controversial tweet blaming China for the virus generated an unfavorable public response. In America, cases of racism are common. On the other hand, America at the time of the pandemic experienced a spike in racism, causing Asian Americans who live in America to experience verbal and nonverbal violence. Moreover, under the leadership of President Trump with the American people who adhere to various ideologies, the public has different opinions from what Trump has conveyed through Twitter. Previous researchers have revealed how sentiment towards the COVID-19 pandemic has resulted in data that at the time political leaders framing COVID-19 showed a positive response to how the public understood the virus

AUTHOR STATEMENT

Windarti, Atmantika: collecting data, transcribing data, and analyzing data, conducting meta-analysis, writing the abstract, introduction section, method, results and discussion and conclusion. **Kusuma:** conceptualizing the design of manuscript, proofreading, refining the manuscript, and corresponding author. **Kasiyarno, Ahdiani, Murwantono:** Supervising, validating the analysis,

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advising, and providing critical and conceptual feedback in research design and analysis.

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REFERENCES

- Angeles, L. O. S. (2020). In Six Weeks, STOP AAPI HATE Receives Over 1700 Incident Reports of Verbal Harassment, Shunning and Physical Assaults. www.a3pcon.org/stopaapihate.
- Banda, O. (2020). Diskriminasi Ras dan Hak Asasi Manusia di Amerika Serikat : Race Discrimination and Human Rights in the United States : Case Study of George Flyod Assassination. *Jurnal Sosiologi Pendidikan Humanis*, 5(2), 120–133.
- Chris, J., Berg, J., & Yi, J. (2020). New Center for Public Integrity/Ipsos Poll finds most Americans say the Coronavirus Pandemic is a Natural Disaster. *Ipsos*, 1–7. <https://www.ipsos.com/en-us/news-polls/center-for-public-integrity-poll-2020>
- Dwianto, R. A., Nurmandi, A., & Salahudin, S. (2021). The Sentiments Analysis of Donald Trump and Jokowi's Twitters on Covid-19 Policy Dissemination. *Webology*, 18(1), 389–405. <https://doi.org/10.14704/WEB/V18I1/WEB18096>
- Hswen, Y., Xu, X., Hing, A., Hawkins, J. B., Brownstein, J. S., & Gee, G. C. (2021). Association of “#covid19” Versus “#chinesevirus” With Anti-Asian Sentiments on Twitter: March 9-23, 2020. *American Journal of Public Health*, 111(5), 956–964. <https://doi.org/10.2105/AJPH.2021.306154>
- Jones, C. P. (2000). Levels of racism: A theoretic framework and a gardener's tale. *American Journal of Public Health*, 90(8), 1212–1215. <https://doi.org/10.2105/AJPH.90.8.1212>
- Lai, L., & Babcock, L. C. (2012). Asian Americans and Workplace Discrimination: The Interplay Between sex of Evaluators and the Perception of Social Skills. *Journal of Organizational Behavior*, 34(3), 310–326.
- Maher, M. J., & Parker, I. (2018). What is racism? *Racism and Cultural Diversity*, 22(1), 7–15. <https://doi.org/10.4324/9780429479380-2>
- McMurtry, C. L., Findling, M. G., Casey, L. S., Blendon, R. J., Benson, J. M., Sayde, J. M., & Miller, C. (2019). Discrimination in the United States: Experiences of Asian Americans. *Health Services Research*, 54(S2), 1419–1430. <https://doi.org/10.1111/1475-6773.13225>
- Muqsith, M. A., Kuswanti, A., Pratomo, R. R., & Muzykant, V. L. (2021). *Trump's Twitter Propaganda During Covid -19*. 13(3), 223–237. <https://doi.org/10.26623/themessenger.v13i3.3991>
- Nainggolan, P. P. (2021). Meningkatkan Aksi-Aksi Rasis Terhadap Warga Keturunan Asia Di Amerika Serikat. *Pusat Penelitian Badan Keahlian DPR RI*, 13(9), 7–12.
- Nurrun Muchammad Shiddieqy, H., Paulus Insap, S., & Wing Wahyu, W. (2016). Studi Literatur Tentang Perbandingan Metode Untuk Proses Analisis Sentimen Di Twitter. *Seminar Nasional Teknologi Informasi Dan Komunikasi*, 2016(March), 57–64.
- Racial Discrimination*. (2022). Human Right Watch. <https://www.hrw.org/united-states/racial-discrimination>

- Rhizky, D. P. (2020). Wacana Rasisme dalam Film “Blindspotting.” In *Jurnal Ilmu Komunikasi* (Vol. 2, Issue 2).
- Rufai, S. R., & Bunce, C. (2020). World leaders’ usage of twitter in response to the COVID-19 pandemic: A content analysis. *Journal of Public Health (United Kingdom)*, 42(3), 510–516. <https://doi.org/10.1093/pubmed/fdaa049>
- Rutledge, P. E. (2020). Trump, COVID-19, and the War on Expertise. *The American Review of Public Administration*, 50(6–7), 505–511. <https://doi.org/10.1177/0275074020941683>
- Ugarte, D. A., Cumberland, W. G., Flores, L., & Young, S. D. (2021). Public Attitudes About COVID-19 in Response to President Trump's Social Media Posts. *JAMA network open*, 4(2), e210101. <https://doi.org/10.1001/jamanetworkopen.2021.0101>
- Sugiyono. (2013). Metode Penelitian Kualitatif dan R and D. In *Bandung: Alfabeta* (Vol. 3, Issue April).
- Wang, Y., Croucher, S. M., & Pearson, E. (2021). National Leaders’ Usage of Twitter in Response to COVID-19: A Sentiment Analysis. *Frontiers in Communication*, 6(September), 1–9. <https://doi.org/10.3389/fcomm.2021.732399>
- Yamey, G., & Gonsalves, G. (2020). Donald Trump: a political determinant of COVID-19. *BMJ (Clinical research ed.)*, 369, m1643. <https://doi.org/10.1136/bmj.m1643>
- Yang, Chia-chen & Tsai, Jiun-Yi & Pan, Shuya. (2020). Discrimination and Well-Being among Asians/Asian Americans during COVID-19: The Role of Social Media. *Cyberpsychology, Behavior, and Social Networking*. 23. 10.1089/cyber.2020.0394
- Yeasmin, F. (2018). ‘A Doll’s House’ is the backlash of feminism. *International Journal of English Literature and Social Sciences (IJELS)*, 3(3). 334-338. <https://dx.doi.org/10.22161/ijels.3.3.7>

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