

“Made in China”: disinformation and Sinophobia on Facebook during the Covid-19 pandemic in Brazil

“Made in China”: desinformação e sinofobia no Facebook durante a pandemia de Covid-19 no Brasil

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Abstract: In this study, we analyze Facebook posts to explore the role of disinformation and Sinophobia in the context of the Covid-19 pandemic in Brazil. Although Sinophobic discourse is not new, it has been frequently associated with disinformation about Covid-19 in the country (Recuero; Soares, 2022). After collecting posts related to China from public groups on Facebook, we used Social Network Analysis to explore the networks and further analyze the most posted links. Connected Concept Analysis (CCA – Lindgren, 2016) was employed to examine the Facebook posts containing links that were posted at least 10 times from each cluster (n= 2,302 posts) and a qualitative deep reading was performed in order to make sense of the connections identified in the CCA. We identified three trends in the pro-Bolsonaro cluster: (1) blaming China for the pandemic, (2) reproducing conspiracy theories about China intentionally creating the virus, and (3) reinforcing a political framing of the pandemic (created by Communists). Sinophobic discourse was used to reinforce these claims. In addition to posts with overt Sinophobic discourse, other posts contained covert Sinophobia when blaming China for the pandemic.

Keywords: covid-19; Facebook; sinophobia; disinformation.

Resumo: Neste estudo, analisamos postagens no Facebook para explorar o papel da desinformação e da sinofobia no contexto da pandemia de Covid-19 no Brasil. Embora o discurso sinofóbico não seja novo, tem sido frequentemente associado à desinformação sobre a Covid-19 no país (Recuero; Soares, 2022). Depois de coletar postagens relacionadas à China de grupos públicos no Facebook, utilizamos a Análise de Redes Sociais para explorar as redes e analisar melhor os links mais postados. A Análise de Conceitos Conectados (CCA – Lindgren, 2016) foi empregada para examinar as postagens do Facebook contendo os links postados pelo menos 10 vezes em cada cluster (n = 2.302 postagens) e uma leitura qualitativa profunda foi realizada para dar sentido às conexões identificados no CCA. Identificamos três tendências no cluster pró-Bolsonaro: (1) culpar a China pela pandemia, (2) reproduzir teorias da conspiração sobre a China ter criado intencionalmente o vírus; e (3) reforçar um enquadramento político da

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pandemia (criada pelos comunistas). O discurso sinofóbico foi usado para reforçar essas afirmações. Além de postagens com discurso sinofóbico explícito, outras postagens continham sinofobia implícita ao culpar a China pela pandemia.

Palavras-chave: covid-19; Facebook; sinofobia; desinformação.

Introduction

Among the many issues raised by the initial outbreak of the coronavirus at the beginning of 2020, a salient one was its origins. As the first cases came from Wuhan, a province in central China, and the alarm was sounded by Chinese authorities in December 2019, the coverage of the new virus was from the onset closely connected with the country, despite recommendations issued in February 2020 by the World Health Organization (WHO) discouraging naming the disease or its agent linked to a given location (Who, 2020).

In March 2020, when the virus had already spread to several continents at great speed due to its airborne transmission, the former president of the United States Donald Trump tweeted about the pandemic and referred to it as the *Chinese virus*. Hsuen *et al.* (2021) demonstrated how the debate sparked by this single tweet boosted the hashtag #chinesevirus over #covid19. In addition to that, there was an increase in anti-Asian hashtags, such as #chinaliedpeople, #burnwuhan and #bombchina.

The role of authorities in disseminating (dis)information about the virus has also been attested in the Brazilian context (Amaral *et al.*, 2022). Publications from the support base of President Jair Bolsonaro on social media helped to spread disinformation related to the pandemic and the president's speeches on open television contributed to the increase in the circulation of disinformation in the first months of the pandemic (Soares *et al.*, 2021).

The *Chinese virus* narrative resonated in Brazil, at the time led by the former far-right President Jair Bolsonaro. As of October 2022, Brazil had a death toll of 688,770 people, which made it the second highest-ranking country in covid-related deaths, just after the USA⁴. This calls for studies concerning the many aspects that contributed to the spread of the virus throughout the country and the way it dealt with this unprecedented health crisis. Previous research has pointed out the role played by far-right populist governments and their communication strategies in (mis)managing the pandemic around the world (Calvillo *et al.*, 2020; Casarões; Magalhães, 2021; Stecula; Pickup, 2021). Brazil, under Bolsonaro's rule, was no exception. For example, one lasting effect of disinformation and the political framing of the

⁴ Disponível em: <https://www.worldometers.info/coronavirus/>. Acesso em: jun. 2022.

pandemic is the increase in vaccine refusal and hesitancy in a country with a strong vaccination record as Brazil used to be (Sato, 2018). When it comes to Covid-19 immunizers, Brazilian vaccine refusal involves an evidently Sinophobic behavior by the then president Jair Bolsonaro (Gramacho; Turgeon, 2021), who has repeatedly attacked China and disqualified the vaccine produced in the country⁵.

While some studies about the Covid-19 pandemic in Brazil focus on disinformation (Soares *et al.*, 2021) or Sinophobia (Rodrigues de Andrade *et al.*, 2021) separately, the present research conceives them as intertwined phenomena that work conjointly in hate and disinformation campaigns in social media, in accordance with studies conducted in the United States (e.g. Nguyen *et al.*, 2020). To this end, we collected 24,141 posts containing the words China, chinesa or chinês (Chinese in Portuguese) from public groups and pages on Facebook, as this is the most used social media channel in Brazil. In what follows, we present a discussion about Sinophobia, focusing on its occurrence during the Covid-19 pandemic, and describe the procedures for data collection and analysis. We analyse how Sinophobic discourse was used to reinforce political framings and conspiracy theories. Our results show that, in addition to posts with overt Sinophobic discourse, other posts contained covert Sinophobia when blaming China for the pandemic.

Sinophobia and hate speech

Since the beginning of the Covid-19 pandemic, a very specific form of hate speech⁶ has spread around the world and gained political platforms: speech targeting Asian people, especially Chinese (Tahmasbi *et al.*, 2020). Interspersed with sayings demanding *justice* and *accountability of the alleged culprits*, the attacks on China and the Chinese people quickly escalated into a witch hunt, which went on to condemn an entire culture and its eating, hygiene, and social habits. Sinophobic discourse is not a new phenomenon (Armony; Velásquez, 2015). According to Horton (2020), there have been many concerns voiced by the Western world about China, ranging from human rights issues to commercial and technological advances. However, the Covid-19 pandemic has offered a new chance to exacerbate anti-Chinese sentiment, given it was the place where the first cases of the virus were reported. Studies have shown that China's response to the early outbreak has been portrayed by the Western press in a negative light (Chen,

⁵ Disponível em: <https://oglobo.globo.com/politica/veja-10-vezes-em-que-bolsonaro-criticou-coronavac-24843568/>. Acesso em: jun. 2022.

⁶ We understand here as hate speech the polarizing expression that defames, humiliates or promotes intolerance and violence against groups of people by explicit or indirect reference to their race, nationality or ethnic origin, religion, gender, sexual orientation, age, disability or other shared identity (Reppell; Shein, 2019).

2021), with newspapers stressing a lack of confidence in official numbers due to state censorship, which would be a side effect of an authoritarian government (ZHANG; XU, 2020).

Social media studies have highlighted an increasing negative bias toward China during the pandemic (Vidgen *et al.*, 2020; Li *et al.*, 2020; Tahmasbi *et al.*, 2020). This ranges from criticism displaying a negative judgment about China to conspiracy theories according to which, for example, SARS-CoV-2 is a man-made virus intentionally manufactured in a lab, to hostility, hate speech, and slurs, including new words such as *batsoup* and *kungflu* (Tahmasbi *et al.*, 2020). Many of these discourses can even be characterised as disinformation, as they include completely false or distorted content that aims to deceive individuals and harm the public debate on certain topics (Wardle; Derakhshan, 2017).

Gao (2021) points out that Sinophobia during the coronavirus presents itself as a social phenomenon supported by a triad of conceptions: the health issue of Covid-19, the racial element of the Chinese people, and the Chinese political aspect. Thus, understanding the racial and political aspects of these discourses is essential to fully grasp the phenomenon of Sinophobia during the Covid-19 pandemic.

The Sinophobic discourse during the Covid-19 pandemic was aggravated by the phenomenon of disinformation. In Brazil, the Sinophobic discourse was reinforced with statements based on misinformation and disseminated by public authorities, such as ministers of state and parliamentarians. Santoro (2022) points out that, while there has been some recognition of the extent to which Brazil is dependent on China (for medical supplies, for example), the pandemic also fostered anti-Chinese feelings, which were encouraged by the leaders of the nationalist right and their use of social media.

Political discourse and Sinophobia

Gao (2021) proposes that in order to understand the political dimension of Sinophobia that makes up the popular imagination about the coronavirus, it is essential to observe the political and national identities of the Chinese. Considering the political aspect of Sinophobic discourses is a fundamental condition for understanding the discursive construction of the pandemic and the attacks on China and its people. The first publication by the American president calling coronavirus the *Chinese Virus*⁷ started a wave in the political world that would

⁷ Disponível em: <https://www.cnnbrasil.com.br/internacional/trump-gera-mal-estar-ao-usar-termo-virus-chines-para-se-referir-ao-coronavirus/>. Acesso em: jun. 2022.

take advantage of the pandemic to attack the country that stood out as one of the greatest world powers⁸.

In the Brazilian context, discriminatory speech toward China is a relatively new occurrence, as it has been shown to be dependent on the rise of a far-right nationalist discourse strengthened by Bolsonaro's rise to power (Santoro, 2022). This discourse encompasses worries about China's economic dominance, threats to the national security of Brazil, and negative cultural influences, particularly when it comes to Western Christianity and communism. While the first two topics have been present in the debate about China's relationship with Brazil prior to Bolsonaro's government, the latter aspect and its current prominence in popular discourse reflects the government's standing on the issue of China and closely mirrors the American alt-right ideology.

In addition to the directly cited attacks on China, political opponents have also suffered attacks from politicians and supporters of the Bolsonaro government. This was the case of the former president of the Chamber of Deputies, Rodrigo Maia⁹, and the former governor of São Paulo, João Dória¹⁰. Both were touted as allies of the Chinese government and mocked on social media for allegedly bowing to the Communist Party.

The Brazilian case is but one in a series of political attacks that have used the Covid-19 pandemic to attack China and its citizens. These attacks have different foundations, based on prejudice and misinformation, such as insinuations against citizens who would supposedly act as agents of the Chinese government and the disqualification of all Chinese people due to the policies of the communist party. As shown by Recuero *et al.* (2021), the disinformation discourse about Covid-19 had a strong political and xenophobic character. Not only in considerably public spaces, such as the mainstream media (Gao, 2021) and social media platforms, but in more private spaces of communication, such as WhatsApp, it was observed that disinformation, particularly of a political nature, was used to reinforce xenophobic discourses about China (Soares *et al.*, 2021).

⁸ Disponível em: <https://forbes.com.br/forbes-money/2021/06/china-se-prepara-para-assumir-a-lideranca-mundial/>. Acesso em: jun. 2022.

⁹ Disponível em: <https://veja.abril.com.br/politica/o-ataque-da-seita-bolsonarista>. Acesso em: jun. 2022.

¹⁰ Disponível em: <https://veja.abril.com.br/politica/bolsonaristas-ameacam-doria-nas-redes-em-faixas-nas-ruas-e-pelo-celular>. Acesso em: jun. 2022.

Materials and methods

Data collection

We used CrowdTangle to collect posts from public groups and pages on Facebook, as this is one of the most used social media channels in Brazil (Newman, 2021)¹¹. Although the tool only provides data from pages, verified profiles, and public groups, data from CrowdTangle is useful to analyze the role of influential pages and groups in public discussions. We filtered our search to collect only posts in Portuguese containing links and the words *China* or *Chinese* (*chinês* and *chinesa* in Portuguese). After cleaning the data, the final dataset comprised 24,141 Facebook posts (18,263 in March and 5,878 in November). In total, these posts generated over 8 million interactions on Facebook (shares, likes, comments, reactions) - 6,8 million in March and 1,4 million in November.

We collected posts from March 17 to 23, 2020, and November 23 to 29, 2020. In March the *Chinese virus* term was reproduced by Brazilian politicians, in particular by the former President Jair Bolsonaro's son and congressman, Eduardo. Supporters and politicians of the base of President Jair Bolsonaro who saw Trump as a model for their behavior followed suit in framing the virus as a Chinese threat, which quickly escalated to a diplomatic crisis. Two days after Trump's tweet, Bolsonaro's son and congressman Eduardo Bolsonaro tweeted that China was to blame for the spread of the virus, as its actions were akin to the Soviet Union's measures following the Chernobyl disaster. According to his worldview, China's fault lies in its being a communist dictatorship, to which the only solution would be freedom. China's ambassador to Brazil, Yang Wanming, quickly repudiated the message and demanded an apology. The embassy also said that these words sounded familiar (since they resembled Trump's words) and accused Eduardo of having contracted a *mental virus* in his recent trip to Miami¹².

In the meantime, many other political figures joined the conversation, showing both support for and disapproval of Eduardo's words. The relationship between the countries was already shaken by the numerous crises caused by the son and supporters of the president and the situation would still get worse.

In November, an intense campaign based on disinformation, conspiracy theories, and xenophobia tried to disqualify the Chinese immunizer Coronavac. On November 23, 2020, Eduardo Bolsonaro published on his Twitter account that the Brazilian government has declared

¹¹ According to "DIGITAL 2022: APRIL GLOBAL STATSHOT REPORT", Facebook is one of the most used social media platforms in Brazil (as of 2022), with almost 50% of visits. Brazil is also the fourth country with the largest Facebook audience in the world. Disponível em: <https://datareportal.com/reports/digital-2022-april-global-statshot>. Acesso em: jun. 2022.

¹² Disponível em: <https://www.bbc.com/portuguese/brasil-51963251>. Acesso em: jun. 2022.

support for a "global alliance for a secure 5G, without China spying". The parliamentarian also stated that "This occurs with the repudiation of entities classified as aggressive and enemies of freedom, such as the Communist Party of China"¹³. The next day, he deleted the publication, but the diplomatic crisis was already taking place. In a note, the Chinese embassy in Brazil responded that the parliamentarian's statements were totally unacceptable to China and expressed "strong dissatisfaction and vehement repudiation of this behavior." The Chinese side has already formally managed the Brazilian side through diplomatic channels. After the episode, Chinese authorities in Brazil spoke out and reaffirmed the importance of the strategic partnership between Brazil and China.

Considering the relevance of the position of president of Brazil, occupied by Bolsonaro during the Covid-19 pandemic and specifically during the two selected episodes, and the expressive public debate that such situations implied, especially in the president's support base, we consider that the selection is relevant to the analysis proposed here.

Data analysis

We used a mixed-methods approach to analyze the data. Our data analysis is composed of three steps going from a more quantitative approach to a more qualitative one. For that, we used Social Network Analysis (Wasserman; Faust, 1994), Connected Concept Analysis (Lindgren, 2016), and a qualitative approach inspired in Grounded Theory (Lai; To, 2015).

Step 1 - Social Network Analysis

To make sense of a moderately large dataset of over 20k Facebook posts, we created two bipartite networks, one for each collection (March 2020 - Figure 1 and November 2020 - Figure 2). Bipartite networks are characterized by the presence of two different types of nodes. As our goal with the Social Network Analysis was to identify clusters of Facebook pages/groups that shared similar links, the nodes from our networks represented (1) Facebook groups/pages and (2) links, and ties represented when a post in a group/page contained a particular link. We used Social Network Analysis to explore both networks, focusing on modularity to identify clusters, indegree to identify the most posted links, and outdegree to identify the most active groups/pages.

¹³ Disponível em: <https://g1.globo.com/politica/noticia/2020/11/24/embaixada-da-china-repudia-postagem-que-eduardo-bolsonaro-publicou-e-depois-apagou.ghtml>. Acesso em: jun. 2022.

In both networks, we identified two polarized clusters. We qualitatively explored the most shared links in each cluster, as well as the most active pages/groups sharing these links. Based on this analysis, we identified in both networks that one cluster was aligned with Jair Bolsonaro's discourse and the other shared a more general anti-Bolsonaro sentiment, as we will further discuss in the results section.

Step 2 - Connected Concept Analysis

To better understand the discourse produced by each cluster about China and the pandemic, we used Connected Concept Analysis (Lindgren, 2016) to analyze the Facebook posts containing links that were posted at least 10 times from each cluster (n=2302 posts) – excluding posts without text and removing duplicates. Connected Concept Analysis is a useful approach to identifying emerging framing of topics and events based on a large dataset. It uses Social Network Analysis metrics to analyze keywords and their co-occurrence in a given dataset

We created one visualization based on posts from the pro-Bolsonaro cluster (n=1609) and another one based on posts from the anti-Bolsonaro cluster (n=693). We explored the key connections between the concepts of each cluster and qualitatively explored the posts to make sense of them. Based on our analysis, we identified that posts from the pro-Bolsonaro cluster reproduced disinformation about the pandemic and particularly targeted China by reproducing Sinophobic discourse. Therefore, we decided to further analyze the posts from this cluster.

Step 3 - Qualitative deep reading

The final step of our data analysis aimed to better understand how posts framed China in the discussion about the Covid-19 pandemic and reproduced disinformation discourse. We used a qualitative approach for a deep reading of the posts from the pro-Bolsonaro cluster (n=1609). We decided to look at messages from this particular cluster due to their connection to disinformation and Sinophobia. We used an approach inspired in Grounded Theory to qualitatively and inductively annotate and categorize the posts.

In an initial analysis of the posts from the pro-Bolsonaro cluster, we jointly read and created over 20 codes to make sense of the data. This first step of qualitatively annotating the posts aimed to identify general patterns in the data. Then, we reviewed the posts and this first attempt at classification to refine the initial coding. After having discussed these findings in relation to results from other studies and other sources of data available, we ended up with nine final codes. Out of these, five were mutually exclusive categories to describe the topic and frame of the posts, which included (1) conspiracy theories: messages that reproduced narratives

that China intentionally created the virus, for example; (2) politics: posts that focused on Brazilian politicians and their relationship with China, as well as posts about political ideologies (such as Communism); (3) Covid-19: posts that generally mentioned the pandemic, such as the number of deaths in each country; (4) media: posts that focused on the mainstream media and how they reported news about China and the pandemic; (5) religion: posts that included religious messages.

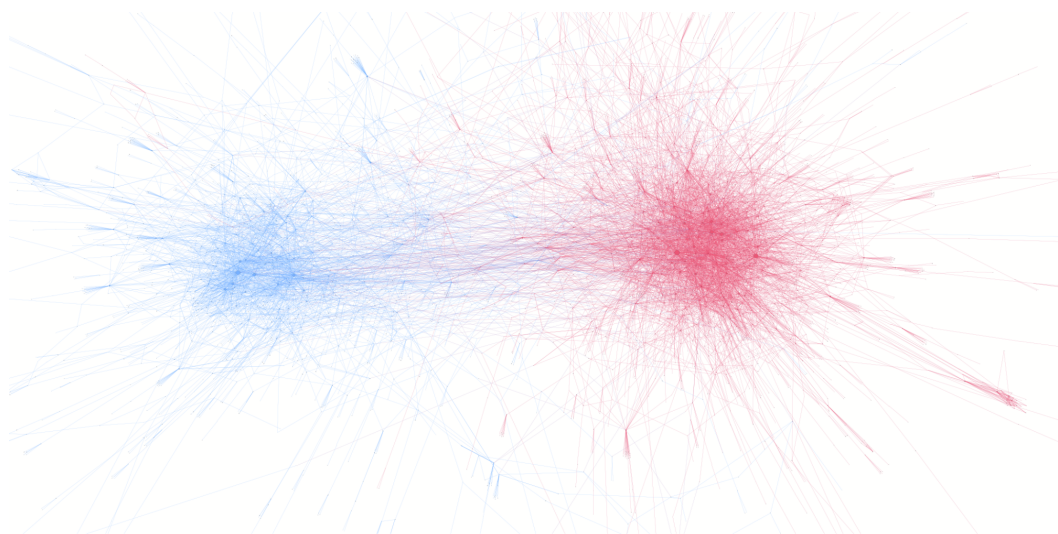
The other four codes were binary codes used to identify if a post: (1) mentioned Communism, (2) blamed China for the pandemic, (3) reproduced some type of Sinophobic discourse, and (4) negatively framed China.

We collectively classified all the posts from the pro-Bolsonaro cluster based on these categories. We removed some posts (n=386 - 24%) from our qualitative analysis because they were either too short or did not provide the context necessary for the coding.

Results

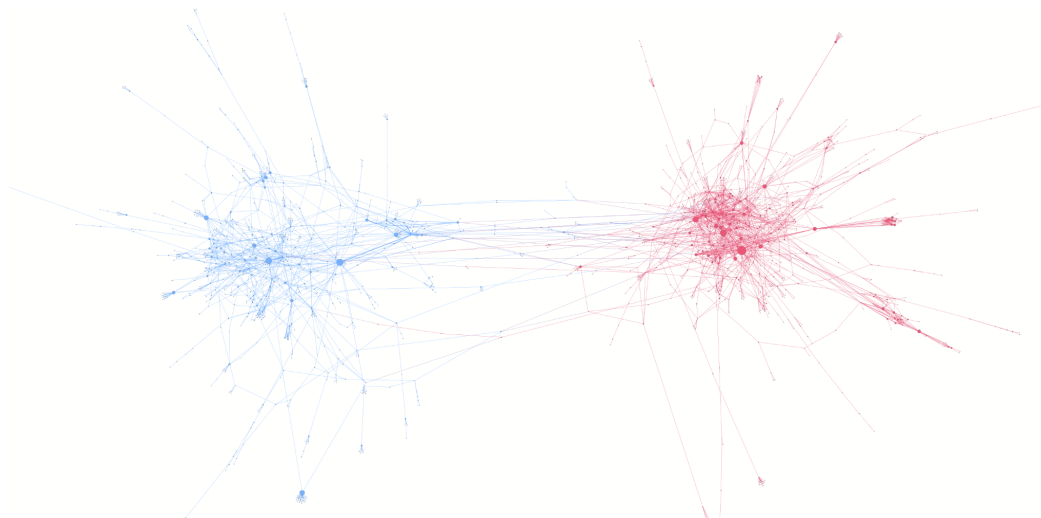
The community detection algorithm used in the Social Network Analysis and the visualization software Gephi (Bastian *et al.*, 2009) helped us identify that both networks (from March 2020 and November 2020) have a polarized structure, with two opposed groups (Figures 1 and 2). This indicates that the pages/groups from each cluster share different URLs - what is shared by pages/groups in one cluster is usually not shared by pages/groups in the other cluster.

Figure 1 - Bipartite network - March 2020



Source: by the authors

Figure 2 - Bipartite Network - November 2020



Source: by the authors

As we further examined the clusters, we identified that the cluster represented in blue in both networks displayed an anti-Bolsonaro sentiment. It included pages from hyperpartisan outlets with a progressive ideology as well as from mainstream media outlets. It also includes groups such as *Anti-Bolsonaro, We are 70 percent* (a reference to the number of Brazilians who did not approve of Bolsonaro's government¹⁴), and groups that support leftist politicians (*Guilherme Boulos*, for example). The most shared URLs in these clusters mainly criticized Bolsonaro and his supporters for the political crisis with China.

The red cluster, on the other hand, showed a pro-Bolsonaro sentiment. Some of the most active pages/groups within the cluster include many groups with the name *Alliance for Brazil* (the name of the party Bolsonaro tried to create) and others such as *Bolsonaro 2022* (referring to the Brazilian presidential election), and pages from far-right hyperpartisan outlets. Some of the most shared links also reinforce Bolsonaro's discourse, such as supporting his son Eduardo's argument with the Chinese ambassador in Brazil and claiming that China is responsible for the pandemic.

To better understand how the pro-Bolsonaro and anti-Bolsonaro clusters framed their discourse about China and the pandemic, we created the networks of the most used concepts in each cluster (Figures 3 and 4). For this analysis, we combined posts from the Anti-Bolsonaro cluster from March and November 2020 (blue cluster in Figures 1 and 2). We also combined posts from the Pro-Bolsonaro cluster from March and November 2020 (red cluster in Figures 1

¹⁴ Disponível em: <https://noticias.uol.com.br/ultimas-noticias/bbc/2020/06/02/o-que-e-o-movimento-somos-70-e-outras-iniciativas-contr-a-o-governo-bolsonaro.htm>. Acesso em: jun. 2022.

and 2). Specifically, we looked at the Facebook posts from the pages/groups. This analysis aimed to identify popular topics and keywords from each cluster in order to identify how they were framing the discussion. Therefore, this step of the analysis relied on a more quantitative approach to understand textual data. We also explored posts containing co-occurrences of central nodes in these networks of concepts to further understand their use. Based on this exploration, we identified that most posts reproduced similar content to the most shared URLs in each cluster.

Figure 3 - Network of concepts - Anti-Bolsonaro.

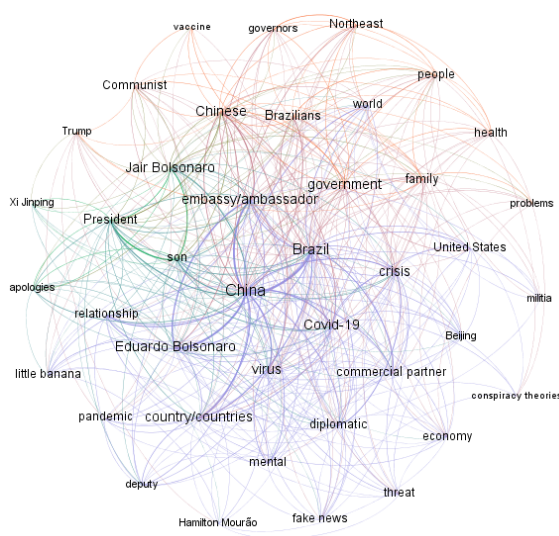
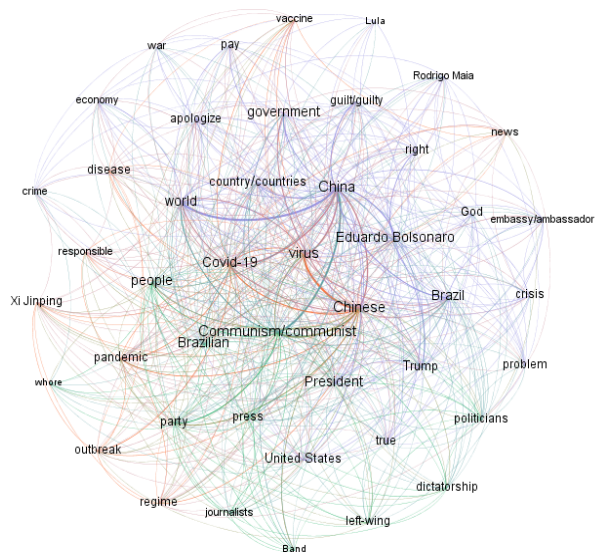


Figure 4 - Network of concepts - Pro-Bolsonaro



Source: by the authors

The posts from the anti-Bolsonaro cluster (n= 693 - Figure 3) highlighted China’s long-standing commercial relations with Brazil and clearly referred to the spread of fake news and conspiracy theories coming from the government. Some of the most central concepts include *commercial partner*, *relationship*, and *diplomatic*, indicating that many posts focused on the political crisis started by Bolsonaro and his son Eduardo, while others claimed that the Bolsonaro family should apologize (*apologies*) for their claims about China. Other central concepts include *fake news* and *conspiracy theories*, indicating the framing that Bolsonaro’s administration was engaged in spreading disinformation about the pandemic.

In posts from the pro-Bolsonaro cluster (n= 1609), we identified strong connections between *Chinese* and *virus* (used to claim that Coronavirus is a *Chinese virus*) and *China* and *Communism* (political framing). The association between China and the pandemic, particularly within a frame that blames the country for starting it, suggests that the posts from pro-Bolsonaro pages/groups reproduced conspiracy theories about the topic. In the exploration of posts

containing these co-occurrences of concepts, we identified that disinformation about China was reproduced, similarly to what was observed in the most popular URLs shared by these Facebook pages/groups.

To further understand how the pro-Bolsonaro cluster reproduced disinformation and engaged in Sinophobic discourse, we proceeded with a qualitative analysis, as described in the methods section. First, we looked at how pages/groups framed the discussion in their posts (Table 1). For this analysis, we identified five general categories. Some posts (n=386, 24%) were too short or did not provide enough context, so we removed them from the qualitative analysis.

Table 1 - Framing categories (n=1223 posts)

Category	Number of messages (%)
Conspiracy Theories	585 (48%)
Politics	410 (34%)
Covid	139 (11%)
Media	62 (5%)
Religious	27 (2%)

Source: by the authors

As described in table 1, almost half of the posts reproduced conspiracy theories, the most popular being that China intentionally created and spread the virus, either to decimate the global population or to have economic gains by creating a global economic crisis. Example # 1 illustrates a simple claim demanding help while assigning China the blame for the virus and the pandemic:

(1) Help to fight “death made in China”¹⁵

Posts about politics mainly target Brazilian politicians who were part of Bolsonaro’s opposition. Some of these posts claimed that these politicians were associated with Communist China, such as # 2. *Xing-ling* is an adjective often used derogatorily in Brazil to refer to China-manufactured products that imply poor quality. In this case, it was used to describe a representative who, in a submissive position, allies himself/herself with China. Other posts

¹⁵ All messages have been translated by the authors.

focused specifically on China and claimed that the lack of transparency of the Chinese regime caused the Covid-19 outbreak.

(2) *Xing-ling representative bows to the Chinese, but not to his own people*

Chinese politicians and/or government officials were also attacked in texts such as # 3, 4 and 5. In # 3, due to the similarity in their pronunciation, the word *Xi* (as in Xin Jinping) is replaced by *xixi*, a colloquial expression to refer to urine (akin to *wee wee*) that can be understood negatively. Both texts 4 and 5 refer to Yang Wanming and use imperative forms to demand his expulsion from Brazil. In # 4, the association with dirtiness is kept by the assumption that bat-eating habits were responsible for the virus spreading to humans. In # 5, there is also a clear derogatory tone as the *r* letter in the words *frango* and *frito* is replaced by the *l*, in a reference to the perceived mispronunciation of these sounds by Asians.

(3) *Wee Wee ping has screwed the world. He deserves to go to trial for crimes against humanity*¹⁶.

(4) *It's simple ... Oust this Chinese parasite from our country ... Let him go back to eating bats in his land.*

(5) *Kick this motherf****'s ass and sent him back to the flied chicken*¹⁷

Posts about Covid mainly mentioned numbers of deaths and cases around the world and Covid-19 vaccines, sometimes reproducing anti-vax discourse. These messages often reinforce stereotypes and hate speech against Chinese people and their supposed unsanitary habits, as in example # 6. In this example, it is also possible to notice how China is blamed for having intentionally created the virus to benefit from selling the vaccines developed to prevent it, as is the case of Coronavac/Sinovac, the first vaccine to be used in Brazil.

(6) *"I've always been disgusted about the food habits of the Chinese... I'm starting to feel disgusted by these people... they get what they want it creates a disease to sell the vaccine!"*

Posts about media followed a similar pattern to those related to politics, but instead of focusing on politicians, these posts were targeting the Brazilian mainstream media. Finally, there were a few religious posts that reproduced biblical messages and asked for God's help to

¹⁶ "Xixi ping ferrou o mundo!! Merece ser julgado por crime contra a humanidade" (texto original, em que o autor da publicação faz um trocadilho infame com o nome o presidente chinês).

¹⁷ "DA UM PÉ NA B..... DESSE VAGAB.... E MANDA DE VOLTA LA PRO FLANGO FLITO" (texto original, em que o autor da publicação ironiza a suposta troca de "r" por "l" na fala do povo chinês).

end the pandemic. The text below (example # 7) is an example that combines both the media and the religious topics:

(7) *Band TV channel has a Chinese show called China world. After killing millions of people, the world shuts up regarding the atheist communist dictatorship. It is something really devilish. May God have mercy on our sinful humankind.*

We also examined how these posts portrayed China negatively, blamed the country for the pandemic, reproduced Sinophobic discourse, and highlighted the Communist regime in the country. Table 2 provides a breakdown of how these (non-mutually exclusive) categories appeared in the qualitative analysis.

Table 2 - Framing China categories (n=1223 posts)

Category	Number of messages (%)
Negatively framed China	712 (58%)
Blamed China for the pandemic	553 (45%)
Reproduced Sinophobic discourse	467 (38%)
Mentioned Communism	226 (18%)

Source: by the authors

More than half of the posts from pages/groups within the pro-Bolsonaro cluster negatively framed the country, many of them blaming it for the pandemic. Among posts with conspiracy theories, 92% negatively framed China, 80% blamed the country for the pandemic, and 66% reproduced some type of hate speech and Sinophobia. To reinforce the negative framing of China in the Brazilian context, conspiracy theories were also the category that mentioned Communism the most (22%), closely followed by posts about politics (19%). This indicates that disinformation about the pandemic, especially in the form of conspiracy theories, and Sinophobic discourse were strongly associated on Facebook posts in Brazil.

Examples 8 to 10 show how the pandemic was linked to the communist regime. While the first (# 8) is a very short text containing only one word, it displays a neologism merging the words *comuna* (short for communist, often derogatory) and *virus*, which sounds like *coronavírus*. The other two texts (# 9 and # 10) make an explicit and causal connection between the virus and communism.

(8) *Commievirus*

(9) *China is a communist government, surely responsible for the chaos that is happening all over the world. They need to be held accountable and pay for what they've done.*

(10) *The Chinese communist party is entirely to blame for this pandemic that has ravaged the world.*

Text # 11 marks a very clear opposition between the communist regime promoted by China and capitalism, whose greater representative would be the United States, which would bring a solution to the problem caused by the former:

(11) *What's up motherfuckers ... And where does the good news come from? Communist China spreads terror. Capitalist US brings the cure.*

Some posts frame China negatively and clearly attribute an intention on China's part in wreaking havoc worldwide, such as examples # 12 and # 13:

(12) *China started and ended World War III without firing a single shot. Biological warfare. This is the name.*

(13) *China wants to take over the world. The dragon showing its claws!*

There are also examples of more abusive language and expressing hatred toward China. They refer to many stereotypes related to China: eating habits, appearance, and political regime.

(14) *Chinese Communist virus indeed!! Race from hell*

(15) *China is that sluttish, dumb, and arrogant woman who made a lot of money prostituting herself to her enemies and became powerful. Now it wants revenge and full dominion over everything. If we allow it, we will be enslaved by the worst people on Earth.*

(16) *China is to blame for the pandemic. Communists and pigs eat everything in front of them and this is due to the hunger the Chinese government makes the people endure*

(17) *"China is not to blame" ... bunch of dog-eating slant-eyed motherfuckers. Damned reds!*

Some of the texts in our dataset also express an outright desire for an attack on China as an act of possible revenge for the creation and spread of the virus. In examples # 18 and 19, users argue that the country deserved an atomic bomb, even citing Hiroshima and Nagasaki - one of the greatest tragedies of humankind, which marked the end of World War II - as an example of what should happen to the country.

(18) *"may God forgive the innocent, but an atomic like Hiroshima in China would be fair."*

(19) *You deserve another Eurochina nagasak*

As for other types of posts, posts about Covid-19 also often negatively framed China (39%) and blamed the country for the pandemic (35%). Posts about politics and media mostly focused on Brazil, so they portrayed China negatively less frequently (18% and 23%, respectively). Religious posts reproduced biblical and other religious messages, so they did not directly focus on China.

Discussion

Santoro (2022) claims that the pandemic ignited the anti-China far-right nationalist discourse in Brazil, amplified by the use of social media by some of the most influential people representing this current. While some of the posts show resentment toward Chinese economic power and how it would benefit from the pandemic, many of them explicitly mention communism as an intensifier of negative feelings toward the country and its people. Most of the posts seem to imply that China is too powerful and must be contained so that it does not exert more influence on countries such as Brazil.

As stated earlier, some studies conducted outside Brazil already pointed out the link between disinformation and Sinophobia, particularly in the form of conspiracy theories. However, research on the social media repercussion of the pandemic in Brazil focused either on the dissemination of disinformation about the disease, its treatments and the vaccines, and the role that public figures played in this or on the sentiments of people posting on Twitter, of which an important part is related to prejudice against China (Rodrigues de Andrade *et al.*, 2021). According to the authors, "the '*Chinese virus*' and/or '*virus from China*' stigma was observed in 54% of the 50 most retweeted tweets" (Rodrigues de Andrade *et al.*, 2021, p. 7). By conducting a careful analysis of the Facebook posts during two moments when the relationship between Brazil and China was strained, we were able to show how Sinophobia was a major intensifier of anti-Asian feelings in the dissemination of disinformation related to the virus.

The study of Vidgen *et al.* (2020) presents an adequate framework for differentiating between social media comments showing criticism or hostility towards East Asian entities. The authors claim that the former is related to "a negative judgment about an East Asian entity,

without crossing the line into abuse”, while the latter displays “intense negativity against an East Asian entity, primarily by derogating or attacking them” (Vidgen *et al.*, 2020, p. 4).

Initially, we agreed with the study’s coding and planned on carrying out a similar classification. However, when examining our data, we faced the following question: is it only criticism when a negative attitude or opinion towards China is being used to reinforce conspiracy theories? Therefore, we decided to consider that even some posts with no explicit abusive language or strong negative feelings associated with China would be classified as Sinophobic since they alluded to common misconceptions related to political and ideological framings and may foster prejudice against the Chinese people as well as spread disinformation. Thus, hate speech, in this case, manifested as Sinophobia, and disinformation fuelled each other in online discussions about the pandemic.

Our results are in accordance with Nguyen *et al.*’s (2020) study, which claims that

Tweets expressing racism and blame towards Asians for the pandemic were commonly interwoven. [...] This locating of blame to the Chinese government or Chinese people was the primary justification for racist rhetoric that included not only prejudicial language, but calls to bomb China or attack Chinese people (Nguyen *et al.*, 2020, p. 8).

Thus, we can see that Sinophobia manifested in three different ways. In the first instance, we had covert examples, in which China was to blame for the pandemic, which was seen as a direct consequence of either the political regime of the country or the bad habits of its people and were, in most cases, related to common topics being addressed in disinformation discourses around the Covid-19 pandemic. In the second instance, we could spot messages displaying abusive language towards the country and its inhabitants. Lastly, some messages went as far as to suggest direct violent action in China as an act of revenge for the spread of the coronavirus.

Final remarks

In the context of the Covid-19 pandemic, the origins of the virus were highly instrumentalized in the public discourse of politicians such as former US President Donald Trump and his Brazilian follower, the then President Jair Bolsonaro. In these discourses, the phrase *Chinese virus* was not construed as stating a fact, but rather attributing blame and demanding accountability from the country where the virus was first discovered. This was an important tool in a context where far-right politicians of some Western countries have manifested Sinophobia for a while. With the affordances of social media platforms, this

message spread as quickly as the virus and fuelled prejudice and hatred toward people of Asian descent both online and offline (Viladrich, 2021).

As other studies have shown (*e.g.* Recuero *et al.*, 2021), the Covid-19 pandemic in Brazil has been an extremely polarized phenomenon since its beginning, with an important role played by politicians and other public figures in spreading disinformation about the virus, the treatments and the vaccine. In the present work, our aim was to investigate how Sinophobia was a major aspect in the discursive unfolding of the pandemic, particularly in connection with conspiracy theories and disinformation. Our 3-step analysis allowed us to understand the dissemination of content in different groups and clusters and enabled a closer look at how China and the pandemic were being framed in two important moments in 2020.

Our results show a resemblance with those of other studies when highlighting the close connection between Sinophobia and the spread of disinformation about the pandemic (Nguyen *et al.*, 2020, Vidgen *et al.*, 2020). Particularly, messages containing conspiracy theories that blamed China within a political frame were important vehicles for conveying more or less explicit Sinophobia. While the number of texts that were analyzed can be relatively low when compared to other studies, it allowed us to hand-code the data with a scheme that emerged from our readings of the texts, rather than trying to fit the posts in an existing framework that might not account for their uniqueness. This can help illuminate other types of data emerging from the pandemic. An interesting follow-up study would be to analyze how China was framed after it was one of the main providers of one of the vaccines used in Brazil from 2021 onward. As Donald Trump lost the presidential election in the US and Bolsonaro's popularity reached new lows in the wake of vaccination efforts, it can be reasonable to expect a decrease in the quantity and virulence of attacks on China.

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