

## DeZurdaTeam: A Twitter network promotes pro-Cuba hashtags

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October 7, 2020



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## 1 Introduction

On October 8, 2020, Twitter announced a takedown of 526 accounts attributed to the Federación de Estudiantil Universitaria, a Cuban nationwide student union based at the University of Havana and affiliated with the Communist Party of Cuba, Cuba's ruling party since 1965. Twitter shared this network with the Stanford Internet Observatory on September 24, 2020. The network includes 4,802,243 tweets dating back to 2010. The network's activity primarily occurred between January 2019 and May 2020, when a large number of the accounts were removed by Twitter. The accounts used coordinated tactics organized by a central account, @DeZurdaTeam (translated as LeftHandedTeam or LeftistTeam), to push pro-Cuba hashtags at regular intervals.

Key Takeaways:

- While this network was medium sized (526 accounts), it was highly active, posting 4,802,243 tweets, most of which were shared in the last two years.
- The accounts pushed patriotic, pro-Cuba and anti-U.S. content, especially discussing the ongoing U.S. trade embargo against Cuba.
- Tweets also supported Pan-American unity, particularly with other Socialist regimes such as Venezuela, Nicaragua, and Bolivia.
- With the emergence of COVID-19, there were an increasing number of Tweets focused on Cuba's medical diplomacy. Content related to COVID-19 promoted the quality of Cuban doctors and the Cuban medical system.
- The largest network unified around "DeZurdaTeam" – both an account and a hashtag – also had a linked Facebook Page, Facebook Group and Instagram page. Users included the hashtag in their profile description along with emojis that may have been used to organize groups within the network.
- DeZurdaTeam used their platform and network to push weekly hashtags encouraging users to share their thoughts on a topic. While the hashtags themselves were generally apolitical, the responses were strongly patriotic in nature.
- Many profiles used stock images, memes or photos created via Generative Adversarial Networks (GANs), a technology that allows users to create realistic-looking unique human faces, for their profile pictures – characteristics they shared with members of the "DeZurdaTeam" Facebook Group.
- Several of the primary accounts have been restored on Twitter and many more have respawned since the takedown. A Twitter search for #DeZurdaTeam yields hundreds more accounts that use the hashtag in their profile description.

## 2 Background

Cuba lags behind most of the Caribbean and Latin America in its internet connectivity due largely to the United States' ongoing trade embargo (also referred to within Cuba as the “bloqueo” or “blockade”). In-home internet is rare and expensive. In December 2018, the state-run telecommunications utility, ETECSA, introduced 3G service to the island, dramatically increasing connectivity. The service is expensive. When it was introduced in 2018 it cost roughly \$7 a month against an average monthly salary of \$44.<sup>1</sup> However, à la carte plans allow citizens to buy data per megabyte if their phones support 3G. Despite the cost, high demand exceeds the system’s capacity, slowing down service.<sup>2</sup>

Many Cubans alternately or additionally access the internet through various public or semipublic access points. Citizens can purchase a phone card to get an hour or day of connection in one of the hundreds of public wifi parks around the country. Students and university employees can access the internet on campus by logging in through their school user accounts. Joven Clubs (Youth Clubs) teach computer classes and grant access to young people at their computer centers.

Cuba’s government censorship does not limit access to social media via Facebook, Twitter or Google (or their partner products), but the panopticon-style options for connection promote self-censorship. Internet use at Universities or Joven Clubs requires log-in that links browsing history to an individual user’s school or membership ID. Outside of these centers, most users have to access the internet in public parks or other public places. The lack of private in-home access points means that self-censorship is likely high.<sup>3</sup>

Cuba’s greatest regional ally is Venezuela, a country known for its success in organizing hashtag trends and manipulating the social media conversation in the country. According to an analysis by the Digital Forensic Research Lab, a ministry in the Venezuelan government pushes out daily hashtags through Telegram channels and pays users for using or retweeting hashtags by transferring money into their government digital wallets.<sup>4</sup> These efforts are successful in controlling the Twitter trending topics in Venezuela. According to cubanet.org, a Miami-based online newspaper, Cuba may be following this model — offering data packets, cell phone credit and even upgraded cell phones to users willing to create “ciberclarias” (or cyberscatfish) accounts that promote pro-regime messaging.<sup>5</sup>

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<sup>1</sup><https://www.independent.co.uk/news/world/americas/cuba-protests-facebook-twitter-telegram-mobile-internet-prices-a8993611.html>

<sup>2</sup><https://freedomhouse.org/country/cuba/freedom-net/2019>

<sup>3</sup><https://ooni.org/post/cuba-internet-censorship-2017/>

<sup>4</sup><https://medium.com/dfrlab/influenceforsale-venezuelas-twitter-propaganda-mill-cd20ee4b33d8>

<sup>5</sup><https://www.cubanet.org/destacados/ciberclarias-un-ejercito-que-invade-las-redes-sociales-con-cuentas-falsas/>

### 3 Summary Statistics

The network that Twitter shared with the Stanford Internet Observatory included 526 accounts, 503 of which wrote at least one tweet included in the dataset. Most of the activity began in January 2019 and continued to grow until May 2020, when many of the accounts in the network were suspended (see Figure 1). The network contained 4,802,243 total tweets; 63.7% (3,058,193) of those were tweeted on or after January 1, 2019. Cuba's dramatic expansion of 3G access access in December 2018 likely contributed to the growth of activity. Given the small size of this network, however, the volume of tweets is particularly notable.

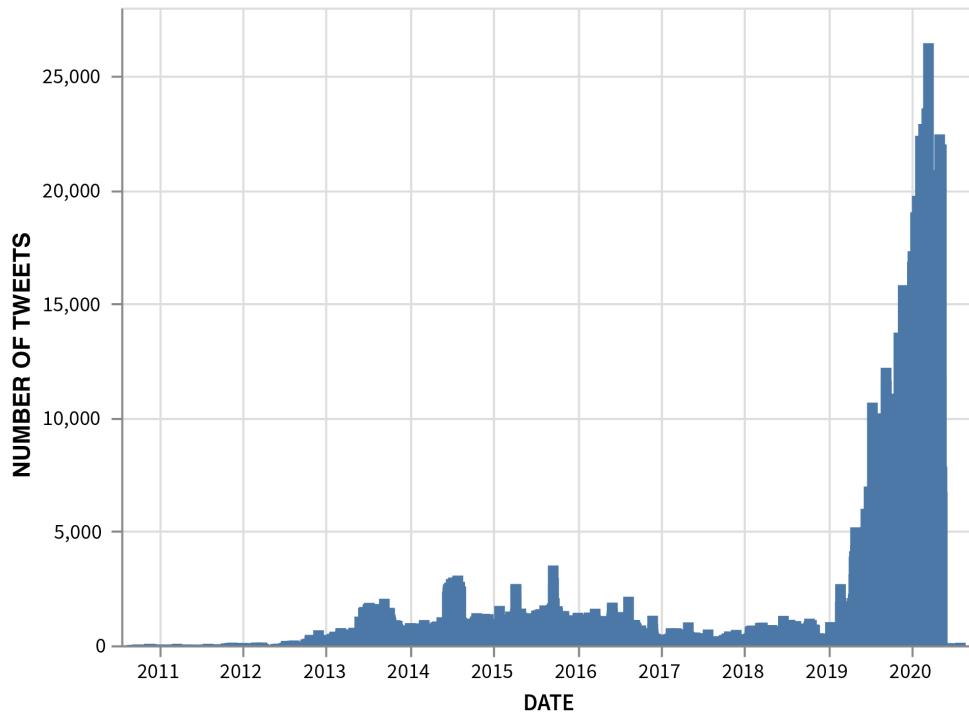


Figure 1: Number of tweets over time. Activity grew significantly starting in January 2019.

We define in-network as the engagement between two accounts in the takedown, and engagement as the total sum of quote tweets, reply tweets, retweets and likes for all tweets in the dataset. The accounts with the highest in-network engagement can be seen in Table 1 on the next page. With one exception, these accounts all affiliate themselves with the DeZurdaTeam, which we discuss further in Section 5.2 on page 11.

The account most mentioned by users in the takedown dataset, @DiazCanelB, belongs to Cuba's president, Miguel Díaz-Canel Bermúdez, who joined Twitter in August 2018. He received 859,081 mentions.

| User Name and Screen Name                 | Profile Description (Original and Translation)   | Account Creation Date | Follower Count | Engagement |
|---|--|-----------------------|----------------|------------|
| YanetDCuba 🇨🇺<br>@YanetDCuba              | Nacida en la ciudad del #CHE⭐, mi SantaClara querida, y criada en #LaHabana500 🇲🇽 . Deseo para mi #Cuba🇨🇺 🌈 #NoMasBloqueo!! #DeZurdaTeam 🐸 🐳 🐴<br><i>Born in the city of #CHE⭐, my beloved SantaClara, and raised in #LaHabana500 🇲🇽 . I wish for my #Cuba🇨🇺 🌈 #NoMoreBlockade!! #DeZurdaTeam 🐸 🐳 🐴</i>                                  | 4/19/2019             | 10,846         | 233,545    |
| Raúl Palmero 🇨🇺<br>@rpalmero1             | Joven revolucionario. Diputado. Licenciado en Derecho. Martiano y Fidelista hasta siempre.<br><i>Revolutionary youth. Deputy. B.A. in Law, Martiano and Fidelista forever.</i>   | 9/3/2016              | 27,793         | 233,413    |
| Frank Rguez 🇨🇺<br>@Frankcuba2019          | Promotor cultural, hijo de #Cuba🇨🇺 defendiendo la #PatriaGrande<br>Cuenta alterna @Frankcuba2020<br><i>Cultural promoter, son of #Cuba🇨🇺 I defend the #GreatHomeland<br/>Alternative account @Frankcuba2020</i>  | 9/16/2019             | 8,851          | 228,092    |
| Alina Rubio 🇨🇺<br>@Alinarubio30           | Vivo en 🇺🇸 y defiendo con mi ❤️ la Patria #FidelCastro, #HugoChávez 🇻🇪 y #DanielOrtega 🇸🇻 con la Revolución todo, sin ella nada. #DeZurdaTeam 🐸 🐳<br><i>I live in 🇺🇸 and defend it with my ❤️ the Homeland #FidelCastro, #HugoChávez 🇻🇪 and #DanielOrtega 🇸🇻 With the revolution everything, with it nothing. #DeZurdaTeam 🐸 🐳</i>       | 9/10/2015             | 14,591         | 215,818    |
| Geronimo Prado 🇨🇺<br>@GeronimoPrado3      | Pinareño, Ingeniero Electronico, Revolucionario y Fidelista.<br>#SigueMeTeSigo #DeZurdaTeam 🐸 🐳<br><i>Pinareño, Electrical Engineer, Revolutionary and Fidelista.<br/>#FollowForFollow #DeZurdaTeam 🐸 🐳</i>  | 9/17/2019             | 12,928         | 203,213    |
| DeZurdaTeam 🇨🇺<br>@DeZurdaTeam            | #DeZurdaTeam 🇺🇸 🇩🇪 🇪🇸 🇵🇷 🇩🇴 🇧🇷 🇲🇽 🇸🇻 🇸🇮 🇲🇽 🇲🇽 La unidad dentro de los principios. Esa es nuestra línea! 🇺🇸 dezurdateam@gmail.com<br><i>#DeZurdaTeam 🇺🇸 🇩🇪 🇪🇸 🇵🇷 🇩🇴 🇧🇷 🇲🇽 🇸🇻 🇸🇮 🇲🇽 🇲🇽 Unity within the principles. This is our line! 🇺🇸 dezurdateam@gmail.com</i>   | 12/26/2019            | 12,316         | 202,822    |
| ::PandaWera 🐾 ::<br>@ipandawera           | Tapatya 🐾 🐱 🐶 🐹 K-Brita #Chivas 🍷 soy 🍷 Mamá de los Pandas 🐾 #PandaGoals 🐾 #TwittererosAliados #Dodgers 🍷 No Porno 🍷 #LaWeraDeGdl #TheBestTeam #SigueMeYTeSigo Guadalajaran 🐾 🐱 Little-goat #Chivas 🍷 I am 🍷 Mother of the Pandas 🐾 #PandaGoals 🐾 #AlliedTweeters #Dodgers 🍷 No Porno 🍷 #BlondieFromGdl #TheBestTeam #FollowForFollow    | 10/5/2010             | 33,707         | 197,225    |
| Onel Gutierrez (^_-)<br>@gutierrez_onel   | 📌 Nuestra Patria es una, empieza en el Río Grande, y va a parar en los montes fangosos de la Patagonia. #Cuba #ClanPussicats #DeZurdaTeam 🐸 🐳<br>📌 Our homeland is one, it starts at the Rio Grande, and it will end in the muddy mountains of Patagonia. #Cuba #ClanPussicats #DeZurdaTeam 🐸 🐳  | 4/5/2019              | 15,445         | 190,256    |
| ♥ AlejandraSuarez 🇨🇺<br>@alejandrasuarez4 | !!!!Soy pediatra, Dedico mi vida a los niños porque son el futuro del Mundo, Disfruto Reír, Bailar y Leer #Cuba 🇸🇻 Líder General #DeZurdaTeam 🐸 🐳<br>!!!!I'm a pediatrician, I dedicate my life to the children because they are the future of the World, I Enjoy Laughing, Dancing and Reading #Cuba 🇸🇻 General Leader #DeZurdaTeam 🐸 🐳 | 2/22/2019             | 9,788          | 178,720    |
| Greys Gomez 🇨🇺<br>@GreysGomez23           | 🇨🇺 Revolucionaria sin límites, Fidelista hasta la médula, Cubana 🇨🇺 % 🇨🇺<br>🇨🇺 Revolutionairy without limits, Fidelista to the core, Cuban 🇨🇺 % 🇨🇺<br>#SomosCuba #SomosContinuidad #DeZurdaTeam 🐸 🐳<br>#WeAreCuba #WeAreContinuity #DeZurdaTeam 🐸 🐳  | 4/21/2019             | 13,187         | 160,495    |

Table 1: The ten accounts by total engagement.

## 4 Themes

The thematic dialogue overall aligned with the Cuban government's political and ideological stances. Accounts generally tweeted content supportive of President Miguel Díaz-Canel and former presidents Raúl Castro and Fidel Castro. They further celebrated national heroes, especially Ernesto "Che" Guevara and the nineteenth-century poet José Martí. The profile descriptions shared patriotic messages, with many users identifying as "revolutionary youth," "100% Cuban" or "Faithful follower of Fidel/Martí/Che." Many accounts self-identified as students, professors, engineers, doctors, and lawyers.

The accounts in the dataset primarily tweeted about patriotic and pro-Cuba themes. Many of the top hashtags included "Cuba" or "Fidel" (see Table 2 on the next page).

| Rank | Hashtag           | Hashtag<br>(translation) | Total Uses |
|------|-------------------|--------------------------|------------|
| 1    | #Cuba             | #Cuba                    | 2,548,146  |
| 2    | #CubaVa           | #CubaVa                  | 264,331    |
| 3    | #SomosCuba        | #WeAreCuba               | 236,886    |
| 4    | #SomosContinuidad | #WeAreContinuity         | 217,976    |
| 5    | #CubaSi           | #CubaYes                 | 179,253    |
| 6    | #YoSoyCuba        | #IAmCuba                 | 157,596    |
| 7    | #EEUU             | #TheUnitedStates         | 150,519    |
| 8    | #YoaniFraude      | #YoaniFraud              | 111,052    |
| 9    | #Fidel            | #Fidel                   | 100,313    |
| 10   | #Venezuela        | #Venezuela               | 94,332     |
| 11   | #Twitter          | #Twitter                 | 78,762     |
| 12   | #COVID19          | #COVID19                 | 65,567     |
| 13   | #DeZurdaTeam      | #DeZurdaTeam             | 63,384     |
| 14   | #ClanPussicats    | #PussycatClan            | 60,748     |
| 15   | #TuitUtil         | #UsefulTweet             | 59,542     |
| 16   | #PatriaGrande     | #GreatHomeland           | 58,061     |
| 17   | #FidelCastro      | #FidelCastro             | 57,090     |
| 18   | #CubaSalvaVidas   | #CubaSavesLives          | 52,254     |
| 19   | #Bolivia          | #Bolivia                 | 47,713     |
| 20   | #NoMasBloqueo     | #NoMoreBlockade          | 45,737     |
| 21   | #CubaPorLaSalud   | #CubaForHealth           | 42,676     |
| 22   | #TeamPussicats    | #TeamPussycats           | 41,888     |
| 23   | #TenemosMemoria   | #WeHaveMemory            | 40,676     |
| 24   | #FidelVive        | #FidelLives              | 39,963     |
| 25   | #FidelPorSiempre  | #FidelForever            | 34,918     |

Table 2: Top 25 most used hashtags in the dataset.

#### 4.1 Pan-Americanism

Many of the accounts used emojis or hashtags to share messages of pan-American unity, especially aimed at other Latin American countries with socialist governments such as Venezuela, Nicaragua, and Bolivia. The profile description for the account @AnaGabr41794089 included, “Mi sangre a la Revolucion 🇨🇺, por la memoria de Martí, Fidel y los mártires. Solidaria ➔ 🇻🇪 🇪🇨 🇲🇽 🇧🇷 🇸🇻” (“My blood for the [Cuban] Revolution, to the memory of [José] Martí, Fidel [Castro] and the martyrs. Solidarity with [Venezuela, Ecuador, Guatemala, Brazil, El Salvador]”), and the bio for @AbrahamDeCuba reads, “Fiel defensor de la justicia, las ideas y de los pueblos de nuestra región ❤️ 🇨🇺 🇻🇪 🇺🇸 🇦🇷 🇷🇼” (“Faithful defender of justice, ideas, and of the people of our region ❤️[Cuba, Venezuela, Puerto Rico, Argentina, Nicaragua, Bolivia]”). Figure 2 on the following page shows two tweets from the suspended account @Frank201919 supporting protest movements aimed at pushing out conservative presidents in Chile and Argentina.



Figure 2: Left: A tweet from [October 25, 2019](#) praises the anti-government protesters in Chile, starting the tweet with “Let’s make it go viral.” Right: A tweet from [October 27, 2019](#) celebrates the victory for the left-wing party in Argentina’s presidential election. Both tweets call on citizens from across the region to join in the support.

## 4.2 Medical Diplomacy

Cuba has long prided itself in its public healthcare system, having one of the highest numbers of doctors per capita of any country in the world.<sup>6</sup> The country’s medical missions have been used as soft power for decades, sending doctors to over 60 countries in the world, offering emergency relief either for free or as a paid service to countries in critical need of trained medical personnel.<sup>7</sup> As COVID-19 grew into a global pandemic in March 2020, Cuba dispatched over 2,000 doctors from its Henry Reeve International Medical Brigade around the world to aid with treatment and relief. This positive patriotic story gained rapid traction in the dataset. One of the highest engagement tweets in the takedown, shared on March 22, 2020, celebrated Cuba’s first dispatch of medical missions (see Figure 3 on the next page).

In further celebration of the medical missions, many of the accounts also tweeted that the Henry Reeve Brigade deserved the Nobel Peace Prize for their work. One tweet translated to: “#TheFirstThingIWillDo when #COVID19 😷 ends, is propose that they give the Cuban medical contingent Henry Reeve 🙏🏾 🙏🏾 the Nobel Peace Prize 🌟 #Cuba @DiazCanelB 🇨🇺 @DeZurdaTeam 🤍”.<sup>8</sup> Discussion of COVID-19 contributed to much of the activity between March and May 2020, with tweets largely focusing on positive messages, such as praise for first responders, and encouraging people to stay home. Hashtags like #CubaSalvaVidas (#CubaSavesLives) trended in Cuba,<sup>9</sup> which was reflected in the dataset (see Figure 4 on the following page).

<sup>6</sup><https://data.worldbank.org/indicator/SH.MED.PHYS.ZS>

<sup>7</sup><https://www.theguardian.com/global-development/2020/feb/11/trump-puts-cuban-doctors-in-firing-line-as-heat-turned-up-on-island-economy>

<sup>8</sup>[https://web.archive.org/web/20200408024551if\\_/https://twitter.com/YanetDCuba/status/1247717009535774720](https://web.archive.org/web/20200408024551if_/https://twitter.com/YanetDCuba/status/1247717009535774720)

<sup>9</sup><https://www.atlanticcouncil.org/content-series/alertavenezuela/alertavenezuela-march-31-2020/>



Figure 3: Tweet by @Dianacuba20191 on March 22, 2020 reads, “#Cuba sends doctors to complete missions in #Suriname, #Granada, #Venezuela, #Nicaragua, #Jamaica, and #Lombardia, Italy to help combat #COVID19. The Cuban solidarity in service of the people of the world. #CubaSaves #CubaIsHealth #forcealex @DeZurdaTeam.” Source: Twitter/archive.org.

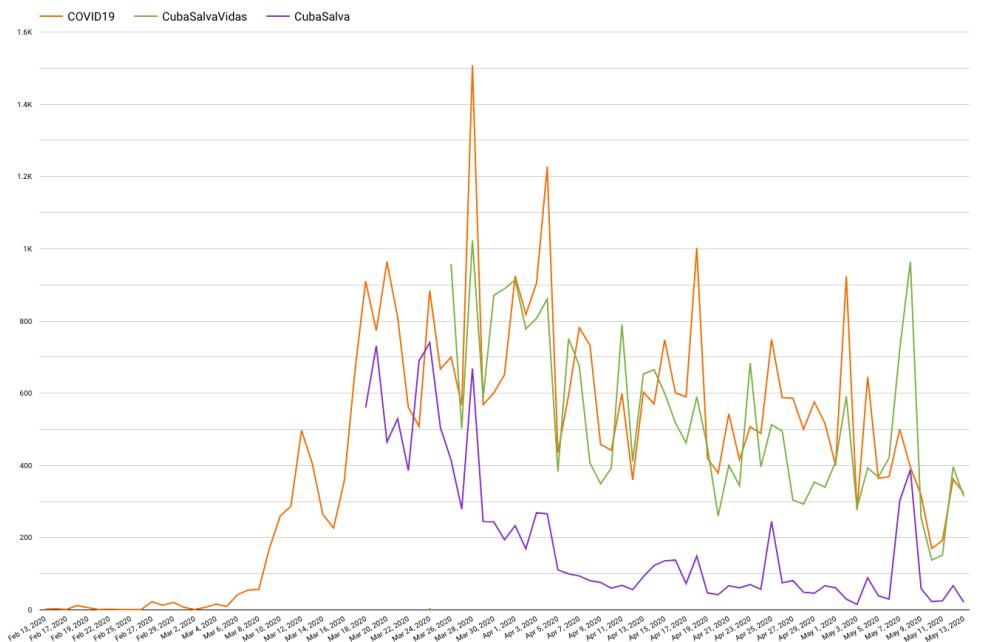


Figure 4: Number of tweets in the dataset using the hashtags #COVID19, #CubaSalvaVidas (#CubaSavesLives) and #CubaSalva (#CubaSaves) from February 13 to May 13, 2020.

### 4.3 Anti-Blockade

The U.S. trade embargo against Cuba is a common topic of discussion on the island and one of Cuba's largest international relations concerns. The Cuban government has long condemned the trade embargo and used it as proof that Cuba's revolutionary struggle is still ongoing. The embargo is used as both an explanation for the country's ongoing economic struggles and as a rallying cry condemning U.S., or "Yanqui," imperialism. The frequent use of the embargo in the dataset reflects this ongoing nationalistic rhetoric.

The Cuban government and pro-government groups prefer to refer to the embargo as the Blockade ("bloqueo" in Spanish). While not one of the primary topics of discussion in the dataset, the hashtag #NoMasBloqueo (#NoMoreBlockade) was shared 45,737 times. Other hashtags like #CubaVsBloqueo (#CubaVsBlockade), #BloqueoEEUU (#USABlockade), #QueMisHijosNazcanSinBloqueo (#IHopeMyChildrenAreBornWithoutABlockade) and #ElBloqueoMata (#TheBlockadeKills) accompanied tweets critical of the embargo and the United States. In all, after removing obvious spelling mistakes, the accounts in the dataset used over 300 distinct hashtags containing the word "Bloqueo."



Figure 5: A tweet from the suspended account @IsmaelCuba4. Above a quote from Fidel Castro, the tweet reads "Bolsonaro, not the people of Brazil, and the lackey Israel vote against #Cuba, 187 countries vote against the blockade. Yet again it shows that the U.S. is alone. We won again in the UN. #TheBlockadeIsReal." The tweet was a response to the annual United Nations resolution adopted on November 7, 2019, calling on the United States to end its trade embargo.<sup>10</sup> Source: Twitter/archive.org.

## 5 Tactics

### 5.1 Follower Growth Teams

The accounts in the Cuba network used hashtags to unite and grow accounts. Many accounts used conventional follow-for-follow tactics, such as putting the hashtag #SiguemeYTeSigo, or #FollowForFollow, in their profile descriptions and tweets. However, many more used teams or groups to help grow followers. Largest among the groups was #DeZurdaTeam (#LeftHandedTeam or #LeftistTeam), which we discuss in depth in Section 5.2. Smaller but still significant were groups like #ClanPussicats, #PandaGoals and #TwitterosAliados (#AlliedTweeters). Many users included these hashtags or the link to a primary account such as @ClanPussicats in their profile descriptions. It appears from changes in individual users' profile descriptions that several accounts moved from participating in #ClanPussicats to #DeZurdaTeam in late 2019 or early 2020. A search on Twitter shows still-live accounts using these hashtags in their profile descriptions. Based on their Twitter behavior, it appears that these accounts use the hashtags to build out follower networks by inviting users to join their twitter families.

### 5.2 De Zurda Team

The largest network in the dataset was united around the hashtag #DeZurdaTeam. The term “De Zurda Team” is used in the profile descriptions of 126 of the accounts, and 366 of the 526 accounts either mention De Zurda Team in at least one of their tweets or retweet a tweet using the phrase (Table 3 on the following page).

#DeZurdaTeam was launched on Twitter on December 13, 2019. @GreysGzl, one of the users in the dataset, tweeted “#DeZurdaTeam 🤍 los invita a participar en su Gran Estreno con el HT: 🎉 🎉 #UnTuitZurdoParaDisfruta la experiencia junto a esta familia tuitera. Recibe muchos Favs, RTs y aumenta tus seguidores. ❤️ 🎉” (#DeZurdaTeam invites you to participate in their Big Premier with the HT: #AZurdoTweetToCelebrate the experience together with this twitter family. Receive many Favs, RTs and grow your followers).

The account @DeZurdaTeam was created on December 26, 2019. It was suspended as part of this takedown but was later restored. As of October 4, 2020, the pinned tweet on its active profile invites people to follow its [Facebook Page](#), [Facebook Group](#) and [Instagram account](#) (Figure 6 on the next page).

Calling its followers “una familia tuitera” (a Twitter family), @DeZurdaTeam’s Tweets echo the general themes of the dataset, including pro-Cuba patriotic content and frequent inspirational quotes from Fidel Castro and José Martí. The account’s content promotes the idea that the followers, or the #DeZurdaTeam as they call themselves, are a family based around love, loyalty and the defense of Cuba. It also posts content supportive of socialist leaders and neighboring so-called revolutionary countries such as Nicaragua and Venezuela.

| User Name and Screen Name                 | Profile Description (Original and Translation)  | Account Creation Date | Follower Count |
|---|---|-----------------------|----------------|
| Onel Gutierrez (^_-)<br>@gutierrez_onel   | 📍 Nuestra Patria es una, empieza en el Río Grande, y va a parar en los montes fangosos de la Patagonia. #Cuba #ClanPusscats #DeZurdaTeam 🙏 🥰<br>📍 Our homeland is one, it starts at the Rio Grande, and it will end in the muddy mountains of Patagonia. #Cuba #ClanPusscats #DeZurdaTeam 🙏 🥰   | 4/5/2019              | 15,445         |
| Alina Rubio<br>@Alinarubio30              | Vivo en 🇺🇸 y defiendo con mi ❤️ la Patria #FidelCastro, #HugoChávez 🇻🇪 y #DanielOrtega 🇲🇽<br>I live in 🇺🇸 and defend it with my ❤️ the Homeland #FidelCastro, #HugoChávez 🇻🇪 and #DanielOrtega 🇲🇽 With the revolution everything, with it nothing. #DeZurdaTeam 🙏 🥰   | 9/10/2015             | 14,591         |
| Greys Gomez<br>@GreysGomez3               | 🇨🇺 Revolucionaria sin límites, Fidelista hasta la médula, Cubana 💯 % ❤️<br>#SomosCuba #SomosContinuidad #DeZurdaTeam 🙏 🥰<br>🇨🇺 Revolutionary without limits, Fidelista to the core, Cuban 💯 % ❤️<br>#WeAreCuba #WeAreContinuity #DeZurdaTeam 🙏 🥰  | 4/21/2019             | 13,187         |
| Gerónimo Prado<br>@GerónimoPrado3         | Pinareño, Ingeniero Electrónico, Revolucionario y Fidelista.<br>#SigueMeTeSigo #DeZurdaTeam 🙏 🤝<br>Pinareño, Electrical Engineer, Revolutionary and Fidelista.<br>#FollowForFollow #DeZurdaTeam 🙏 🤝   | 9/17/2019             | 12,928         |
| DeZurdaTeam<br>@DeZurdaTeam               | #DeZurdaTeam 🇺🇸 🇩🇴 🇧🇷 🇵🇷 🇸🇻 🇨🇷 🇳🇮 🇲🇽 🇲🇽 🇲🇽 La unidad dentro de los principios. Esa es nuestra línea! 📲 dezurdateam@gmail.com<br>#DeZurdaTeam 🇺🇸 🇩🇴 🇧🇷 🇵🇷 🇸🇻 🇨🇷 🇳🇮 🇲🇽 🇲🇽 🇲🇽 Unity within the principles. This is our line! 📲 dezurdateam@gmail.com   | 12/26/2019            | 12,316         |
| YanetDCuba🇲🇽<br>@YanetDCuba               | Nacida en la ciudad del #CHE⭐, mi SantaClara querida, y criada en #LaHabana500 🇪. Deseo para mí #Cuba🇲🇽 🌟 #NoMasBloqueo!! #DeZurdaTeam 🙏 🥰<br>Born in the city of #CHE⭐, my beloved SantaClara, y raised in #LaHabana500 🇪. I wish for my #Cuba🇲🇽 🌟 #NoMoreBlockade!! #DeZurdaTeam 🙏 🥰  | 4/19/2019             | 10,846         |
| Ana Gabriela<br>@AnaGabriela41793089      | ❤️ Optimista. Mi sangre a la Revolución 🇺🇸, por la memoria de Martí, Fidel y los mártires. Solidaria 🇺🇸 🇩🇴 🇧🇷 🇵🇷 🇸🇻 🇨🇷 🇳🇮 🇲🇽 . Sígueme y te sigo #DeZurdaTeam 🙏 🦸<br>❤️ Optimist. My blood for the Revolution 🇺🇸, for the memory of Martí, Fidel and the martyrs. Solidarity 🇺🇸 🇩🇴 🇧🇷 🇽🇷 🇸🇻 🇨🇷 🇳🇮 🇲🇽 . Follow me and I'll follow you #DeZurdaTeam 🙏 🦸 | 4/11/2019             | 10,264         |
| ♥ AlejandraSuarez🌟🇲🇽<br>@alejandrasuarez4 | !!!!Soy pediatra, Dedico mi vida a los niños porque son el futuro del Mundo, Disfruto Reír, Bailar y Leer #Cuba 🇺🇸 Líder General #DeZurdaTeam 🙏 🥰<br>!!!!I'm a pediatrician, I dedicate my life to the children because they are the future of the World, I Enjoy Laughing, Dancing and Reading #Cuba 🇺🇸 General Leader #DeZurdaTeam 🙏 🥰              | 2/22/2019             | 9,788          |
| Marcos A. Pupo Guerrero<br>@MarcosApupo   | Soldado de la #PatriaGrande 🇺🇸 🇩🇴 🇧🇷 🇽🇷 🇸🇻 🇨🇷 🇳🇮 🇲🇽 #SoyContinuidad<br>#NoMasBloqueo #DeZurdaTeam 🇺🇸<br>Soldier of the #GreatHomeland 🇺🇸 🇩🇴 🇧🇷 🇽🇷 🇸🇻 🇨🇷 🇳🇮 🇲🇽 #AmContinuity<br>#NoMoreBlockade #DeZurdaTeam 🇺🇸  | 4/24/2019             | 9,371          |
| "PaolaCuba2020 ❤️🇲🇽 🌺<br>@PaolaCuba2020"  | Amo a la revolución cubana. Fidelista y Chavista. Soy una cubana q sigue las ideas de Raul y mi presidente Diaz-Canel. #DeZurdaTeam 🙏 🤝<br>Amo a la revolución cubana. Fidelista y Chavista. Soy una cubana q sigue las ideas of Raul and my president Diaz-Canel. #DeZurdaTeam 🙏 🤝   | 8/22/2019             | 8,796          |

Table 3: The ten most followed accounts in the dataset affiliated with De Zurda Team. Note the repeated use of “#DeZurdaTeam 🤍” in the profile descriptions.

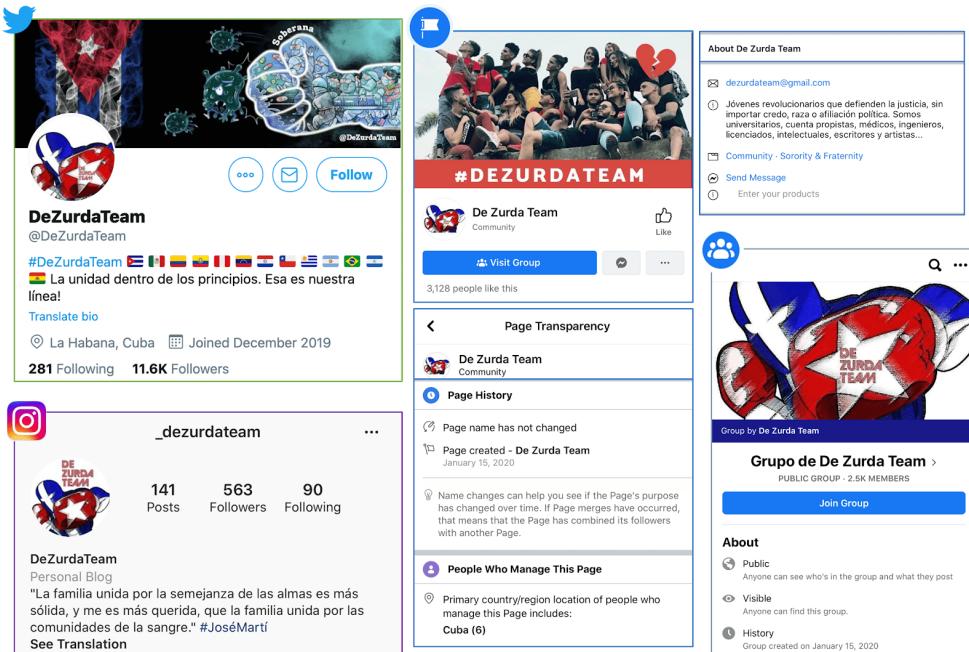


Figure 6: The Twitter, Instagram and Facebook assets for DeZurdaTeam as they appeared on October 6, 2020.

Many of the names of public administrators and members of the DeZurdaTeam Facebook Group match names on accounts in the takedown. Around the time @DeZurdaTeam was created, many of the other accounts in the dataset changed their profile descriptions to include the hashtag #DeZurdaTeam (Figure 7).



Figure 7: Profiles from the dataset added the hashtag #DeZurdaTeam to their bios in or after December, 2019. Screenshot dates are limited by availability in archive.org. (Sources: 1, 2, 3, 4, 5, 6)

### 5.2.1 Promoted Hashtags

As @DeZurdaTeam gained followers, it began to invite #DeZurdaTeam participants to push hashtags on particular dates and times. To understand this behavior, we focused on tweets between January 1, 2020 and May 31, 2020. We found spikes of activity at regular intervals showing drastic changes in the number of tweets per day. These spikes occurred weekly, usually on Saturdays.

Certain common hashtags were prevalent throughout the period, especially #Cuba, #SomosCuba (#WeAreCuba) and #SomosContinuidad (#WeAreConti-

nuity). However, we found specific, new hashtags emerging at nearly every spike in activity. Each spike followed a pattern. The account @DeZurdaTeam would tweet out a message encouraging team members to use the new hashtag at a specific time, pushing these hashtags minutes before use began, after which use of the hashtag, primarily as retweets, spiked for one day. The new hashtags themselves were largely apolitical, instead inviting users to complete a phrase starting with a hashtag. The responses, however, were largely patriotic. For example, the hashtag #GritaríaAlMundoQue (#IWouldShoutToTheWorldThat) first appeared in a March 13 tweet from #DeZurdaTeam (see Figure x). The tweet read, “#DeZurdaTeam invites you to participate in their hashtag: #IWouldShoutToTheWorldThat / 7pm Méx | 8pm Col Per / 9pm Cub Vzl | 10pm Arg Uru / Enjoy the experience together with this twitter family. Receive many favs, RTs and grow your followers/visibility.”



Figure 8: A tweet from March 13, 2020 calling on team members to use the hashtag #GritaríaAlMundoQue at 7pm GMT-6 / 8pm GMT-5 / 9pm GMT-4 / 10pm GMT-3. The timestamp on the screenshot is in GMT-7.

Subsequent tweets using the hashtag included patriotic messages such as (in translation):

- #IWouldShoutToTheWorldThat our health system is a model for the world. In #Cuba you can see the efforts in vaccination rates, childcare, quality and expectancy of life, and in any other indicator, that the country sits in the highest place on the planet. @DeZurdaTeam 🌈
- #IWouldShoutToTheWorldThat that we live proudly to have been born, raised, and to live in this green alligator called #Cuba. To be a pixel in this image where you can appreciate the people united in support of its Revolution. @DeZurdaTeam 🌈

- Today March #13 #IWouldShoutToTheWorldThat the continuation of the #Cuba Revolution is marked by the youth with the same ideals as José Antonio Echevarría and his comrades in arms. @DeZurdaTeam 🤍

Within 24 hours, the hashtag had been used over 16,000 times by accounts in the dataset. Only around 400 of those uses were original tweets, while the rest were retweets. This pattern was repeated for each of the hashtags listed below.

| Date      | Hashtag                | Hashtag (translation)      | Total Tweets |
|-----------|------------------------|----------------------------|--------------|
| 1/4/2020  | #en2020TeDeseo         | #in2020IHopeForYou         | 8,469        |
| 1/11/2020 | #TeQuieroMostrar       | #IWantToShowYou            | 9,344        |
| 1/18/2020 | #UnTuitLlenoDe         | #ATweetFullOf              | 10,029       |
| 1/25/2020 | #ConMiTuitQuiero       | #WithMyTweetIWant          | 10,582       |
| 2/1/2020  | #UnTuitLatinoPara      | #ALatinTweetFor            | 8,791        |
| 2/8/2020  | #MeHaceFelizDecirte    | #ItPleasesMeToTellYou      | 12,945       |
| 2/22/2020 | #AMisHijosQuiero       | #ForMyChildrenIWant        | 16,206       |
| 2/29/2020 | #SeMeAntojaDecirte     | #ImDyingToTellYou          | 16,188       |
| 3/7/2020  | #XTuAlmaDeMujer        | #ForYourWomanlySoul        | 10,622       |
| 3/14/2020 | #GritaríaAlMundoQue    | #IWouldShoutToTheWorldThat | 16,660       |
| 3/21/2020 | #ElCorazónMeLatePor    | #MyHeartBeatsFor           | 9,561        |
| 3/28/2020 | #ConUnManoAmiga        | #WithAHelpingHand          | 8,481        |
| 4/4/2020  | #HoyQuieroAplaudir     | #TodayIWantToApplaud       | 11,612       |
| 4/11/2020 | #CuandoCeseLaTormenta  | #WhenTheStormStops         | 10,516       |
| 4/18/2020 | #YoEnCasaTeInvito      | #FromMyHomeIInviteYou      | 13,174       |
| 4/25/2020 | #TengoUnAbrazoGuardado | #IHavenAHugSavedFor        | 14,235       |
| 5/2/2020  | #DedicaréEsteMayo      | #IDedicateThisMay          | 14,297       |
| 5/9/2020  | #PorTiMadreYo          | #ForYouMotherl             | 13,220       |

Table 4: Hashtags pushed by the DeZurdaTeam network from January 4 to May 9, 2020.

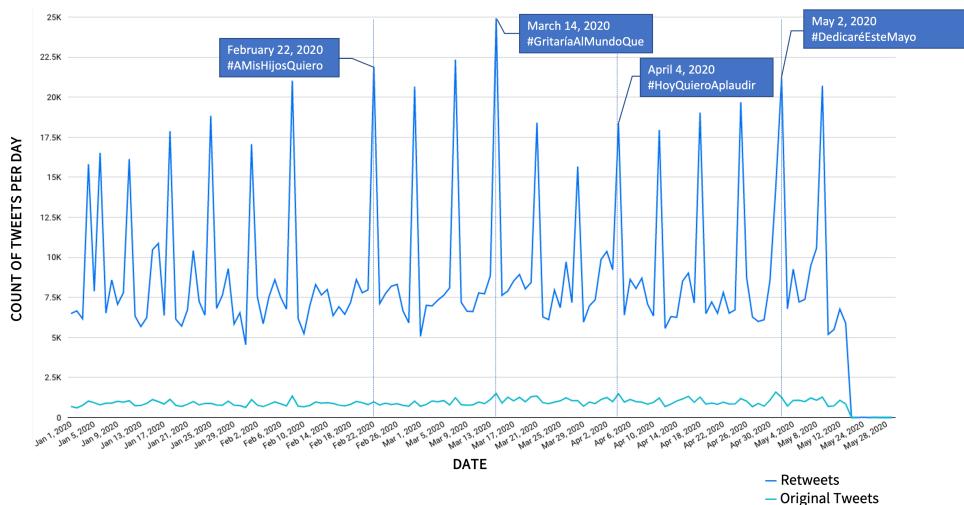


Figure 9: Tweets per day from January 1 to May 31, 2020. Twitter suspended most of the accounts around May 13, resulting in the drop in activity. Common hashtags are labeled.

Of the 1,341,637 tweets over the five month period, 1,215,295 (90.6%) were retweets and only 126,342 (9.4%) were original tweets.

Many hashtags aligned with current events. #PorTiMadreYo (#ForYouMotherI), for example, was posted two days before Mother's Day. The April 4 hashtag, #HoyQuieroAplaudir (#TodayIWantToApplaud), which was posted as COVID-19 became more serious, prompted many Tweets thanking medical workers. Similarly, on April 18 the hashtag #YoEnCasaTeInvito (#FromMyHomeIInviteYou) promoted positive thoughts during the COVID-19 lockdown.

### 5.2.2 Stolen Images

Many accounts in the De Zurda Team network used stolen profile pictures or GAN-generated images, such as those found on [www.thispersondoesnotexist.com](http://www.thispersondoesnotexist.com). The use of artificial intelligence – specifically, generative adversarial networks (GANs) – to create profile pictures is increasingly common in information operations. Graphika noted the use of AI-generated profile pictures in an operation attributed to individuals in China,<sup>11</sup> while a Graphika-DFRLab collaboration observed GANs in an operation linked to “The Beauty of Life” and Epoch Media Group.<sup>12</sup> GANs have significantly improved in their ability to create as-if images of human beings. However, they can still often be identified when inspected carefully (see Figures 10 on the next page and 11 on the following page).

Other profiles used stolen or reappropriated images for their profiles. One such example is the user Greys Gomez (@GreysGomez3). The profile picture for both the Facebook and Twitter account is stolen; a reverse image search using TinEye shows the image in an Adobe Stock Image database (Figure 12 on page 18).

The Twitter account, created in April 2019, listed #DeZurdaTeam in the profile description at the time it was suspended. Over the approximately 13 months the account was active, it posted 6,773 tweets and 44,431 retweets. This retweet pattern also reflects the dynamic of the overall dataset, with spikes corresponding to the weekly hashtag campaigns (Figure 13 on page 18).

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<sup>11</sup>[https://public-assets.graphika.com/reports/graphika\\_report\\_naval\\_gazing.pdf](https://public-assets.graphika.com/reports/graphika_report_naval_gazing.pdf)

<sup>12</sup><https://graphika.com/reports/operationffs-fake-face-swarm/>



Figure 10: Eight accounts created in April 2019 that all appear to use GAN-generated images. When the accounts were suspended, all had engaged with #DeZurdaTeam at least once, and most had added #DeZurdaTeam to their profile description. Source: archive.org.



Figure 11: Annotations of the profile pictures in Figure 10 highlighting indications of GAN-generated images, such as offset teeth, asymmetric ears or earrings, or confusing blending between hair or clothes and backgrounds. The image for @LlorensRoxy has additionally been altered to include sunglasses.

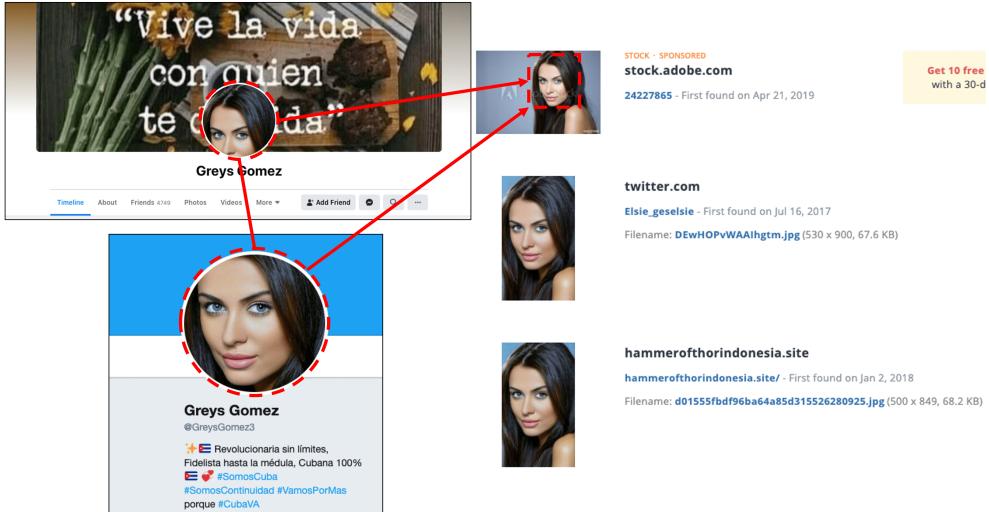


Figure 12: Facebook (top) and Twitter (bottom) profiles for Greys Gomez used a stock photo of a model for their profile picture. Source: Facebook, Twitter/[Archive](#), TinEye.

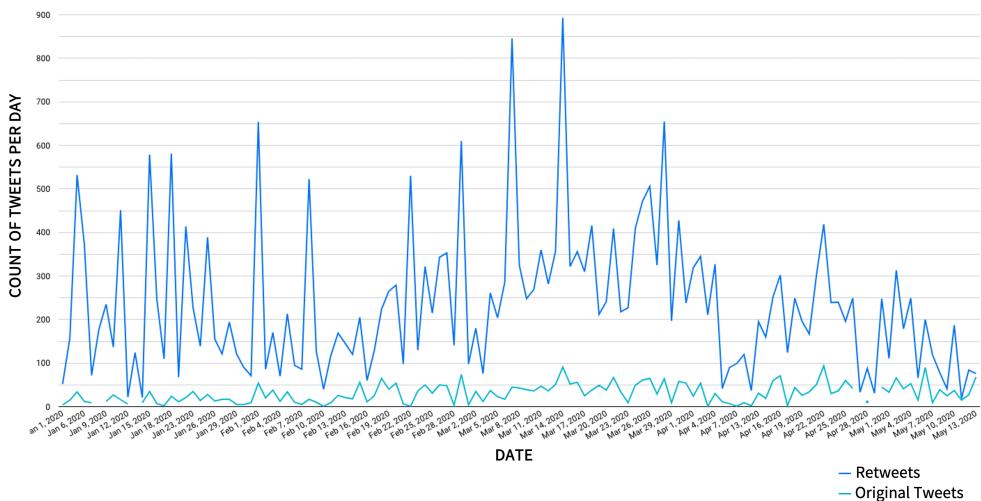


Figure 13: @GreysGomez3 Twitter activity from January - May 2020.

### 5.2.3 Respawn

A large number of the DeZurdaTeam accounts were suspended on or near May 13, 2020. On May 14, the Facebook Page for De Zurda Team posted a meme using the hashtag #NoMasBloqueo and a picture of the twitter logo with the words “Blocked!” (Figure 14 on the next page). The post likens Twitter’s takedown to the ongoing “blockade” of Cuba. The post goes on to say that the suspensions prove that “today we need more [DeZurdaTeam members], so that everyone knows what is really happening, and not what the enemies of the Revolution want you to know.” The post referenced an April 30, 2020 shooting at the Cuban Embassy in Washington, and the May 12 comments by Cuban Foreign Minister Bruno Eduardo Rodriguez Parrilla criticizing the U.S. response to the incident. A user, whose accounts (@YanetDCuba and @yanetdcuba2019) were in the Twitter takedown, echoed the minister’s remarks by saying “Twitter blocked us because they knew that we were going

to saturate the network denouncing the lack of shame and immorality of the U.S. government, by staying complicitly silent in the face of the terrorist attack on the Cuban Embassy in Washington.” These comments suggest that the suspension anticipated a planned campaign by the network.



Figure 14: Messages on Facebook equating the Twitter suspension to another blockade and suggesting that the May 13 suspension of many accounts in the network prevented a planned campaign critical of the United States's policies towards Cuba.

A large number of the #DeZurdaTeam accounts were suspended on or near May 13, 2020. On May 22, the primary account @DeZurdaTeam tweeted about the suspension, saying “Many messages were generated when @DeZurdaTeam was suspended. Some incited hatred and doubted my authenticity, but others proudly assumed the role the Homeland needs,” followed by the hashtag #DeZurdaTeamReborn and a screenshot of a Trendsmap showing the hashtag over Cuba.



Figure 15: A May 22, 2020 tweet with a screenshot from Trendsmap showing #DeZurdaTeamReborn trending in Cuba.

## 6 Conclusion

In the last several years, Cuba has leveraged its expanded internet connection to develop its cyber campaign capabilities. Many of the accounts in the dataset employ follow-for-follow tactics coupled with hashtags to build teams and successfully coordinate to promote hashtags and patriotic messaging. A search for the hashtag #DeZurdaTeam on Twitter yields hundreds of still active accounts that use the hashtag in their name or bio. An interesting avenue for further research is the emoji usage following the #DeZurdaTeam hashtags, which may be part of an effort to build out sub-groups within the network. Many of the accounts in the dataset have already respawned with slightly altered names.

Behavior in the dataset indicates that the users may be following patterns from Venezuela that have been documented by other researchers. As Cubans' social media use continues to grow and as connectivity increases, it will be interesting to watch for coordinated campaigns aimed at promoting a sense of Cuban patriotism and unity in the face of "Yankee Imperialism."



*The Stanford Internet Observatory is a cross-disciplinary program of research, teaching and policy engagement for the study of abuse in current information technologies, with a focus on social media. The Observatory was created to learn about the abuse of the internet in real time, and to translate our research discoveries into training and policy innovations for the public good.*