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1 Summary

On March 26, 2020 Twitter announced a takedown of accounts targeting Serbian Twitter users. Twitter reported that this network—consisting of approximately 8,500 accounts and more than 43 million tweets—acted in concert to cheerlead for President Aleksandar Vučić and his party, to attack his opponents, and to boost the popularity and visibility of other content serving these ends. In this paper, we describe the contours of this operation and the tactics it used to achieve its aims.

2 Background

Serbian politics have reached a new inflection point in recent years. Aleksandar Vučić, who was elected president in 2017, has been accused of using authoritarian means to entrench himself in power—in particular, by using state resources, including public media and the justice system, against his opponents and by moving to concentrate power in the office of the presidency. In response, many Serbians have taken part in an ongoing protest known as “1 of 5 Million,” after Vučić’s claim that he “would not fulfill a single demand... even if there were five million of you.” (The population of Serbia is a little over seven million.) As the protests have shifted and fluctuated in response to political events in Serbia—including violence against prominent members of the opposition and a plagiarism scandal—Vučić has maneuvered to sap their energy, including by arranging an elaborate state visit by Vladimir Putin and by organizing a counter demonstration called “The Future of Serbia.”
3 Operation Overview

Against this backdrop, a large network of Twitter accounts worked steadily to legitimate Vučić’s policies and undercut public support for his opponents, including those involved in the “1 of 5 Million” movement. This network was extensive: 8,558 accounts tweeted more than 43 million times (over 85% of which were retweets).

Figure 1: While some accounts were active as early as 2009, the network began ramping up in mid-2018, right before the “1 of 5 Million” protests began. We found no evidence that preexisting accounts were purchased or reused for the purposes of this operation.
These accounts reached approximately 2,356,000 followers in total (with an undetermined number of duplicates), but the median account had only 66 followers; the top 500 accounts accounted for more than half of the network’s total number of followers. Two of the most popular accounts in the network—@belilav11 and @1kujovic—had 12,167 and 10,867 followers and attracted 331,691 and 393,356 total engagements (quotes, replies, likes, and retweets) across the lifetime of their accounts.
Jeremić ima sličan problem kao što ima Dilas. Obojica misle da je naš narod toliko zaboravan da se ne seća koliko su mu zla njih dvojica naveli dok su bili na vlasti.

Figure 3: An archived tweet by @belilav11 attacking the opposition politicians Vuk Jeremić and Dragan Djilas. “Jeremic has a similar problem to the one Djilas has. They both think that our people are so oblivious that they do not remember how much harm they have inflicted on them while in power.” The original tweet also linked to an article on informer.rs criticizing Jeremić. Via archive.org.

Just as the accounts did not tend to gain many followers, their content did not tend, on the whole, to attract much engagement from other Twitter users. The top-performing accounts did manage to get some traction:

<table>
<thead>
<tr>
<th>Account</th>
<th>Follower Count</th>
<th>Profile Description</th>
<th>Mean Engagement/Tweet</th>
</tr>
</thead>
<tbody>
<tr>
<td>@1kujovic</td>
<td>10,867</td>
<td>Profesor srpskog jezika, borac za Srbiju i srpstvo</td>
<td>11.2</td>
</tr>
<tr>
<td>@grofodValjeva</td>
<td>11,416</td>
<td>[none]</td>
<td>9.4</td>
</tr>
<tr>
<td>@belilav11</td>
<td>12,167</td>
<td>[none]</td>
<td>6.4</td>
</tr>
<tr>
<td>@Ugljesa_d</td>
<td>10,764</td>
<td>Nasmej se zato ako ti kažu da si mali čovek. Nema maloga prijatelja i male tajne. Nema maloga čoveka i male ljubavi...</td>
<td>1.8</td>
</tr>
<tr>
<td>@Atenjanin89</td>
<td>9,353</td>
<td></td>
<td>1.0</td>
</tr>
</tbody>
</table>

But they were the exception rather than the rule. The median account in this network received only four reactions (like, retweet, quote, or reply) in its entire lifetime. Out of 8,558 accounts, 3,244 did not receive a single reaction over the course of their existence. As we describe below, this is partially due to the fact that many of these accounts were engaged only in retweeting @avucic and other pro-Vučić accounts.

Individual tweets did not do particularly well, either. The best-performing tweet in the dataset, which consisted of “#Autumn” and what appeared to be a video of an autumnal scene—this video was not included in the data provided
by Twitter and was not reviewed for this report—received 1,044 retweets, 1,283 likes, 23 quote tweets, and 13 replies, for a total engagement of 2,363.

Figure 4: The highest performing tweet in the dataset. The profile @RadicKosta, the profile picture for which was stolen from the Wikipedia page for Ayrton Senna, tweeted English-language content like this alongside pro-government commentary. Via archive.org.

But in general the tweets taken down by Twitter did not receive substantial engagement. In fact, 41,495,932 out of 43,067,074 tweets (96.3%) received no likes; 42,064,826 (96.7%) received no retweets; 42,350,531 (98.3%) received no replies; and 43,016,124 (99.9%) were not quoted.
Figure 5: Over 96% of the tweets received zero likes.

The low engagement of the content overall suggests a spam-like quality; and indeed, while the political dimension of their content is clear, the majority of accounts created after mid-2018 did not serve as content creators, but simply retweeted others or latched on to existing trends. As a result, as the network began ramping up, the number of accounts engaging in spam-like behavior and receiving zero likes increased, driving the network's average like count down:

Figure 6: As the number of accounts tweeting increased, the average likes received per day decreased.
Of course, many of these accounts were not intended to generate engagement with other Twitter users; instead, they existed primarily to boost retweet and reply counts for other accounts. This was consistent with the political aims of this network, which revolved around artificially boosting Vučić and his allies on Twitter.

4 Political Aims

Above we mentioned that these accounts were primarily invested in three things:

1. Cheerleading for Vučić and his party, SNS (The Serbian Progressive Party)

2. Boosting Vučić-aligned content

3. Attacking the opposition

Next we’ll look at each of these functions.

4.1 Promoting Vučić and SNS

In general, the accounts worked steadily to boost Vučić and SNS on Twitter—retweeting and replying with positive messages to their tweets—and to cheerlead for Vučić and his party through the political unrest unfolding in Serbia. A summary of the mentions and retweets in the dataset shows the degree to which this operation was centered around Vučić, his party (SNS), and news sources friendly to him. The accounts retweeted Vučić-aligned accounts liberally. They retweeted @avucic 1,700,122 times, but they retweeted pro-Vučić news sources even more often:

![Figure 7: Mentions of @avucic from 2015-2019.](image-url)
<table>
<thead>
<tr>
<th>Account</th>
<th>Mentions</th>
<th>Retweets</th>
<th>Replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>@avucic (Aleksandar Vučić)</td>
<td>6,156,226</td>
<td>1,700,122</td>
<td>133,486</td>
</tr>
<tr>
<td>@sns_srbija (official account of SNS)</td>
<td>5,920,209</td>
<td>4,522,455</td>
<td>111,331</td>
</tr>
<tr>
<td>@InformerNovine (SNS-aligned website)</td>
<td>2,107,067</td>
<td>1,806,597</td>
<td>40,555</td>
</tr>
<tr>
<td>@MilenkoJovanov (Vice President of SNS)</td>
<td>1,502,324</td>
<td>1,071,396</td>
<td>27,169</td>
</tr>
<tr>
<td>@markodjuric (Director of the Office for Kosovo and Metohija)</td>
<td>1,437,248</td>
<td>469,041</td>
<td>11,005</td>
</tr>
<tr>
<td>@TanjugNews (state news agency)</td>
<td>978,217</td>
<td>849,521</td>
<td>18,942</td>
</tr>
<tr>
<td>@ALOnovine (SNS-aligned website)</td>
<td>783,637</td>
<td>665,560</td>
<td>14,113</td>
</tr>
<tr>
<td>@VucevicM (Mayor of Novi Sad)</td>
<td>682,818</td>
<td>427,666</td>
<td>9,843</td>
</tr>
<tr>
<td>@KancelarijaKiM (Government of Serbia in Kosovo and Metohija)</td>
<td>649,425</td>
<td>557,924</td>
<td>13,058</td>
</tr>
<tr>
<td>@SerbianPM (Ana Brnabić, Prime Minister of Serbia)</td>
<td>519,474</td>
<td>431,846</td>
<td>5,846</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20,736,645</strong></td>
<td><strong>12,502,128</strong></td>
<td><strong>385,348</strong></td>
</tr>
</tbody>
</table>
The accounts weren’t just mentioning @avucic (and other SNS-aligned accounts) directly; they were also pumping pro-Vučić hashtags: #Vucic was tweeted over 2 million times.

Figure 8: The accounts tweeted #Vucic and #vucic more than 2 million times.

The tweets with these hashtags that got the most engagement were all cheerleading tweets:

- “Serbia is with Vučić! #Vucic #SNS” [“Srbija je uz Vucica!”] - 191 total engagement (October 27, 2019)

- “The laws enforced by the yellows were to the detriment of the citizens, and played into the hands of criminals. Today, we are fighting for a better and healthier society, for the victory of law and justice over crime. #kzn #Vucic @avucic.” [“Zakoni koje su sprovodili žuti su bili na štetu građana, a isli su na ruku kriminalcima. Mi se danas borimo za bolje i zdravije društvo, za pobedu prava i pravde nad kriminalom.”] - 172 total engagement (January 12, 2019)

- “The opposition has no right to constantly accuse the authorities of what they themselves have done. When the Democratic Party leaders were in power they allowed Serbia’s borders to be diminished and let Albanians to declare Kosovo independent. #WEFDavos #wef2019 #Vucic.” [“Opozicija nema pravo da konstantno optužuje vlast za ono što su uradili oni. Lideri DS kad su bili na vlasti su dozvolili da se prekrajaju granice Srbije, da Albanci proglose nezavisno Kosovo.”] - 159 total engagement (January 24, 2019)

Likewise, the accounts tweeted #brzejacebolje and #BrzeJaceBolje (“Faster, Stronger, Better”—Vučić’s slogan in the 2017 election) more than 897,000 times:
Naturally, tweets featuring these hashtags were supportive of President Vučić’s efforts:

- “Our retirees appreciate President Vučić, see that he is sincerely fighting like a lion for Serbia! #vucic #brzejacebolje.” [“Naši penzioneri cene predsednika Vučića, vide da se iskreno i lavovski bori za Srbiju!”] - 103 total engagement (January 29, 2019)

- “The hard work and effort he has put in to preserving peace in the region has paid off. Congratulations to President Vučić!” #vucic #brzejacebolje.” [“Naporan rad i uložen trud da se sačuva mir u regionu se isplatio. Čestitke predsedniku Vučiću!”] - 102 total engagement (December 1, 2018)

- “We won today, and the Albanians need to understand that the only solution is in agreement with Belgrade. #vucic #brzejacebolje.” [“Pobedili smo danas, a Albanci treba da shvate da je jedino rešenje u dogovoru sa Beogradom.”] - 97 total engagement (November 20, 2018)

### 4.2 Boosting Pro-Vučić Content

Another major function of the accounts was to push out links to content on SNS-aligned news websites. In all, they circulated over 14.8 million links, more than 65% of which went to five pro-Vučić websites: sns.org.rs and vucic.rs (official sites of Vučić and his party, SNS); informer.rs and alo.rs (popular pro-government tabloids); and pink.rs (a top Serbian tv station).
4.3 Attacking the Opposition

Finally, the accounts included in the takedown consistently attacked opposition politicians and parties. These attacks came in the form of a) derisive tweets that tried to co-opt established hashtags and b) dogpiling onto opposition-related tweets in order to dominate the replies.

Dragan Đilas, the Mayor of Belgrade and president of the Party of Freedom and Justice (SSP), was a particularly frequent target of these accounts. One popular tweet (127 total interactions) shows the tack many of the accounts took: “Here, since unfortunately Đinđić [former Prime Minister of Serbia and Mayor of Belgrade] is not alive and can’t ask you, I’m here to ask you @DraganDjilas, how does one become a millionaire in ten years in power and how do you think he looks at you all from above? @SavezZaSRB #PočeloJe #izbori #Srbija #BuducnostSrbije #opozicija #1od5Miliona.” The hashtags #PočeloJe (“It has begun”) and #1od5Miliona (“1 in 5 million”) are associated with the protests and typically used by the opposition. In all, @DraganDjilas was mentioned 342,348 times (including retweets); @SavezZaSRB (Alliance for Serbia, the coalition of opposition parties), was mentioned 310,781 times; @jeremic_vuk (Vuk Jeremić, the former Minister of Foreign Affairs and another prominent opposition politician), was mentioned 235,354 times.

Another tactic the network used was dogpiling on to opposition tweets and leaving critical replies to give users the impression of unpopularity. A May 23 tweet by the Democratic Party, for example, was replied to by 25 accounts in the dataset (at time of writing, this tweet has 47 replies). All of these replies were critical: “@demokrate @draganarakich @OnlineDad If you continue like this, you will surely remain eternal losers, and I sincerely hope that you do.”
Figure 11: Pro-Vučić accounts reply to a tweet by the Democratic Party. All of these accounts are now suspended. Via archive.org.

In other cases, the accounts would dogpile onto anti-opposition tweets to give them the appearance of greater resonance. A tweet from Dragan Vučićević crudely attacking the opposition politician Borko Stefanović (an assault on whom was the immediate cause for the “1 of 5 million” protests) was replied to 64 times by the accounts. Vučićević’s tweet still suggests the degree to which the replies were made up of tweets from accounts in this network:
Figure 12: A tweet attacking the opposition politician Borko Stefanović showing replies from now-suspended accounts.

The 64 replies were uniform in their opprobrium for Stefanović and his allies:

- “The evil, violence and insult in the brains of Bosco, Borko, Sergei and other opposition minds do not sleep. These attributes are always at their disposal and thus they would rule over the people.” [“Zlo, nasilje i vredjanje u mozgovima Boska, Borka, Sergeja i ostalih opozicijnih umova ne spava. Tim atribitima uvek raspolazu i time bi vladali nad narodom.”]
• “SzS [Alliance for Serbia] are common bullies, sectarians, abusers and miserable bullies.” [“SzS su obicni nasilnici, sektasi, zlostavljaci i bedni zastrasivaci.”]

• “Borko is a hero on twitter, in his soul the most ordinary c***... a nothing of a man. It’s their politics, threats, violence, lies!” [“Borko junacina na tvitetru, u duši naj obicnija p... ništak od coveka. To je njihova politika, pretnje, nasilje, laz!”]

Weighing in on Twitter disputes and dogpiling onto opposition tweets did not just alter the Twitter landscape in favor of SNS-aligned figures and to the detriment of the opposition; in some cases, these tweets would get taken up by web publications as “organic” critical content:

Figure 13: A piece on espreso.rs quoting @1kujovic’s disparaging tweet about Jeremić. The tweet reads: “They’re doing something, but they can’t accomplish anything. Jeremic and Pajtić have departed for history.”

Searches for other usernames in the dataset show that it was not unusual for tweets like this one to get picked up by online outlets; some pieces cite tweets from multiple accounts in the network. Nor were Serbian websites the only to notice their work; in reporting on Putin’s visit to Serbia in 2019, a Russian publication cited one of the tweets as evidence of the warm reception Putin received. This kind of propagation suggests that the network’s influence
extended beyond Twitter—although it is impossible to assess the extent of this influence with much precision.

4.4 #Minhen

It is clear that, by pumping up pro-Vučić hashtags, disseminating SNS-aligned content, and attacking the opposition, these accounts could hope to tilt the Twitter landscape generally in the administration’s favor. But a narrower example might illustrate how this operation engaged with daily political life in Serbia and pursued the pressing issues of the moment. In February 2019, Vučić attended the Munich Security Conference. One of his priorities was to demonstrate to US and EU leaders that he was prepared to compromise with Kosovo without giving up any of Serbia’s leverage in the conflict. While the Conference produced little progress on these issues, the network of Twitter accounts kicked into gear to assure Serbian Twitter users that Vučić was taking all the necessary steps. These accounts coalesced around #Minhen (“Munich”):

![Figure 14: Number of tweets featuring #Minhen per hour, February 15-22, 2019](image)

Some of the first tweets supported Vučić’s appeals for compromise: “We are not griping to anyone, we are looking for a sustainable solution #Minhen @avucic,” tweeted @bixi_86. At the same time, @mastilo11 tweeted: “A solution for KiM [Kosovo and Metohija] must be sought through compromise. #Minhen @avucic.”

Others praised Vučić’s leadership: “With @avucic Serbia is represented in the world in the best possible light. #Minhen.” Still others worked to reinforce the idea that tariffs imposed by Kosovo on goods from Serbia—one of the main sticking points in the tit for tat that has prevented a compromise—would be the real reason for any failure to reach an agreement: “We have fulfilled all our
obligations and until Pristina does what it signed in the Brussels Agreement and abolishes the tariffs, there can be no more dialogue. #Minhen @avucic.”

The network continued to cheerlead Vučić over the course of the Conference, producing over 4,000 such tweets and retweets with the hashtag #Minhen. After a panel in which Vučić and Hashim Thaçi, President of Kosovo, failed to make progress on the issue, one of the tweets with the most engagement (99 total interactions) summarized the event for readers: “Yesterday, the public heard the truth about Serbia’s unequal struggle to preserve Kosovo. The public could see @avucic’s struggle with the truth and arguments that Kosovo is not a state but is part of Serbia and no compromise can be found without us. #BudocnostSrbije #Minhen.”

Other Munich-related tweets attacked Serbia’s opposition parties for undermining Vučić’s efforts: “The constant struggle of @avucic to attract investors, to strengthen the economy, to strengthen cooperation with countries around the world, to solve the issue of Kosovo with a clear attitude, while some Serbs, those in opposition, whistle, stroll about, and spit on their country #minhen.”

The accounts’ activity around #Minhen illustrates how the network could use a comparatively minor event in Serbian political life in support of its general goals. The dataset provided by Twitter contains many such examples—evidence that, while the network resembled spam in some ways, it also displayed a high level of political engagement.
5 Conclusion

The data provided by Twitter reveals an extensive campaign to influence Serbian Twitter users. More than 8,500 accounts worked over the course of several years—ramping up their activity in mid-2018 and 2019 in particular—to boost the SNS and its leader, Aleksandar Vučić. They did this by retweeting and posting cheerleading replies to Vučić-aligned tweets (more than 12.5 million retweets of pro-Vučić accounts); by sharing links to content on Vučić-aligned websites (more than 14.8 million links); and by attacking Vučić’s opponents, especially the Alliance for Serbia. While a precise connection between this network and SNS has not been established, there can be no doubt, given the content these accounts shared and the time period in which they were active, that this network was intended to boost Vučić’s election chances in early 2017 and to combat the “1 of 5 Million” protests in 2018-2020.
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.