

ROBOTROLLING  
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# ROBOTROLLING

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# Executive Summary

Robotic activity is highly dynamic. The online discussion about the NATO presence in Poland and the Baltics shows sharp changes in focus and intensity. The current reporting period August–October has been comparatively free of large-scale, politically motivated robotic interventions. In contrast, the period March–July stands out as one in which content was heavily promoted online.

Political actors use bot accounts in the social media space to manipulate public opinion about regional geopolitics. According to our estimate, such accounts produced 5–15% of the activity about the NATO presence in Latvia and Estonia in the period March–July 2017. Bot-generated messages differ depending on the target audience. Messages aimed at the West suggested that Russian exercises pale in comparison

with NATO operations. Messages targeted to the domestic audience rarely mentioned the Russian exercises.

Russian-language bots create roughly 70% of all Russian messages about NATO in the Baltic States and Poland. Overall, 60% of active Russian-language accounts seem to be automated. In comparison, 39% of accounts tweeting in English are bots. They created 52% of all English-language messages in the period August–October. Our data suggest Twitter is less effective at removing automatically generated Russian content than it is for English material. Nonetheless, we have seen improvement in social media policing by the platform. A ‘cleaner’ social media is good not only for individual users, but also for businesses. Pressure should continue in order to ensure further improvements. ■

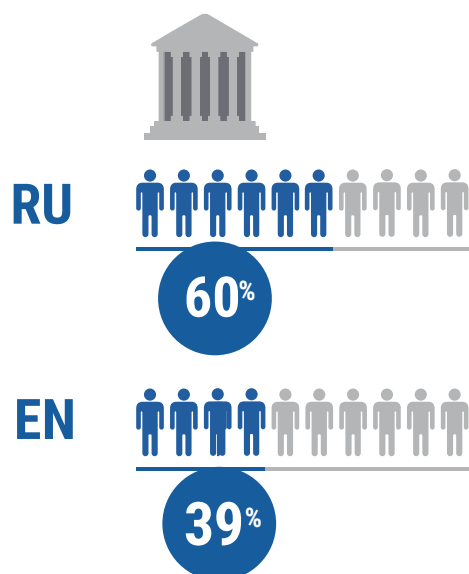
## The Big Picture

Since March 2017 we have observed sharp changes in focus and intensity of robotic activity. The period August–October is comparatively free of large-scale, politically motivated robotic interventions. In contrast, the period March–June stands out as one in which content about NATO in the Baltics and Poland was heavily promoted online. Given the lower levels of activity, observations for the current quarter may offer a snapshot of what ‘normal’ levels of automation look like. During the nine months we have monitored to date, we have yet to observe any attempt to flood the space with messages to suppress organic discussion. Even so, this picture of ‘normal’ remains bleak—the majority of messages about the keywords we have selected are from mainly or fully automated accounts.

Russian-language bots created roughly 70% of all Russian messages about NATO in the Baltic States and Poland. Overall, 60% of accounts active in Russian were predominantly automated. In comparison, 39% of accounts tweeting in English are bots. They created 52% of all English-language messages in the period August–October. Compared to the first issue of Robotrolling, we find a sharp drop in bot activity this quarter for Russian language bots. Bot activity declined by 13 percentage points.<sup>1</sup>

This issue of Robotrolling analyses Twitter-mentions of NATO and one or more of the host countries Estonia, Latvia, Lithuania, and Poland. The period considered is 1 August–31 October 2017. The total number of posts considered is 6 200, of which 1 in 3 are in Russian. The number of active users is 3 500. In this issue we

compare current levels to those observed during the previous six months as reported in the first issue of Robotrolling. Compared to Spring 2017, the current level of activity in both language spaces is muted, but this is especially pronounced for Russian. In the first issue of Robotrolling we found Russian users were more active; data for this quarter shows almost exact parity between English and Russian language activity.<sup>2</sup> ■



<sup>1</sup> According to our latest estimates for automated activity, we under-reported the levels of automated English-language activity in the first issue of Robotrolling. Our current estimates are 36 % for the previous 6 months, and 39% for the period August–October.

<sup>2</sup> Please see our online FAQ for updated methodology and important caveats: [stratcomcoe.org/Robotrolling-faq](http://stratcomcoe.org/Robotrolling-faq)

## Country Overview

In mid-September the Russian military conducted its 'Zapad' exercises in Western Russia and Belarus. The official dates for the war games were 14–20 September, though there was heightened military activity either side of those dates. English-language content about NATO in the Baltics and Poland was heavily promoted by RT and Sputnik during this time; on social media their messaging was amplified by bots, resulting in a number of peaks. The Russian language space saw no major peaks in attention for the period August–October. English-language material averaged 1 400 mentions per month, compared to 3 400 per month during our baseline period March–July 2017. Russian-language content was also muted, at merely 680 mentions per month.

In the country-sections below, we compare Russian-language bot-promoted content to the data for the baseline period. Figure 2 shows that most posted content was about Poland. Figure 3 shows that the proportion of bot activity was about 10 percentage points higher during the earlier period for each of the countries under consideration.

### Estonia

Whereas in early 2017 Estonia was the main target of Russian-language bot activity, it received little attention during August–October. The violation of Estonian airspace by Russian aircraft in early August, and the Sibul 2017 drills that took place during September 30–October 1, were the main events commented upon. In total, for the period, there were 400 posts about Estonia, of which 77% were created by bots. Though this represents a reduction compared to the earlier period, Estonia remains the country with the highest proportion of bot activity.

### Latvia

Latvia, like Estonia, experienced much lower levels of bot activity compared to the baseline period. Of the 470 Twitter posts about Latvia, 72% were made by bots. Automated content about Latvia focused on the exercises Steadfast Pyramid 2017 and Steadfast Pinnacle 2017 held in Riga from 11–22 September.

### Lithuania

Automated Russian language content about Lithuania remains less common than for the other two Baltic States: 350 mentions, of which 68% were from bots. The main incidents receiving social media commentary were civil disturbances involving German NATO soldiers, the death of a journalist, and drills conducted by American aircraft.

### Poland

Poland saw the highest levels of activity by far, both by humans and by bots. Of the almost 1000 mentions, 66% came from bot accounts. Poland remains the country with the lowest density of bot messages. The Dragon 17 exercises in September drew considerable attention, especially in the English language space. Other events of note that drew bot attention include Secretary General Jens Stoltenberg visit and his declaration that battlegroups were now fully operational, statements by the Polish President and Minister for Foreign Affairs, the decision to increase defence spending, and the opening of a Counter Intelligence Centre of Excellence in Krakow. Though these events were widely promoted by Russian-language bots, the volume output by English-language bots was greater. See Figure 4 for an overview of English-language bot activity during the period August–October 2017. ■

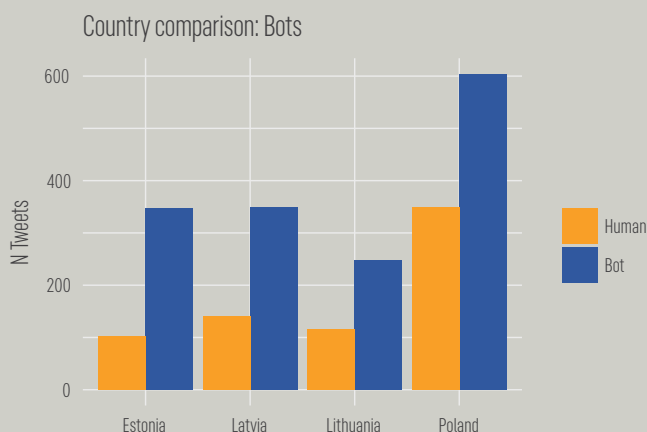


Figure 2: Distribution of Russian-language tweets mentioning NATO and Estonia, Latvia, Lithuania, or Poland.

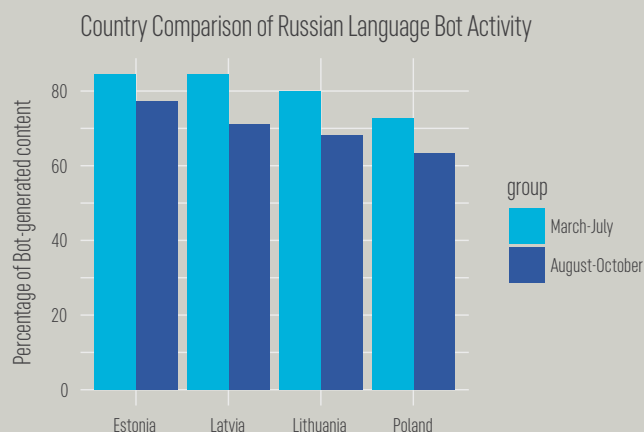


Figure 3: Comparison of the proportion of bot-generated Russian-language content per country.

# Themes

This quarter, the focus within NATO-related conversations in traditional Western media was Zapad 2017. The hype did not extend to social media. It is striking how little mention there was of Zapad in the Russian-language space. Of the hundreds of Russian articles about NATO mentioned on Twitter, only one, a single report from the news agency TASS, mentions Zapad in conjunction with the NATO presence. The handful of other Russian-language mentions all originate from Ukrainian, Belorussian, or Baltic news outlets.

Russian sources did not ignore the Zapad exercises, but their messaging targeted external audiences only. English-language content from the pro-Kremlin outlets RT and Sputnik continuously referenced 'Western hysteria over Zapad' in articles shifting attention to NATO exercises, primarily in Poland. RT and Sputnik were the only sources of note to link Zapad 2017 with the NATO presence. Such articles were promoted on social media by a combination of bots, trolls, and sympathisers. Crucially, the message was projected only to a Western audience.

The content of bot-generated messages differs depending on the target audience. Messages aimed at the West suggested that Russian exercises pale in comparison with NATO operations, both in scale and intent. Messages targeted to the domestic audience rarely mentioned the Russian exercises. For this reason, we observe in September an anomaly in our dataset: for the first time we found more automatically created content from English than from Russian-language bots.

Consequently, the numbers we see for Russian-language bot activity are markedly low. The starkest illustration of this comes from Estonia. During March 2017 more than 2 000 bot messages

about Estonia and NATO were posted to social media; the figure for October 2017 was only 52. During the Zapad exercises in September, not a single daily spike reached 100 Twitter posts. However, during the period March–July there were 23 days in which 100 or more unique messages were posted. For English, three spikes of 100+ posts occurred during August–October, compared to 18 in the five months previous. This comparison illustrates how high the volume levels were in early 2017, and that the levels were especially elevated in the Russian-language social media space.

Robotically generated content continues to correlate heavily with events related to military exercises, statements by politicians, and the arrival of NATO troops to bases in the area. There is a clear trend to use stories from Russian media outlets emphasising actions and exercises involving American and British military personnel in the English language space, although the international character and diversity of the exercises are glossed over. There are few mentions of the more than a dozen other NATO member states contributing to the exercises. The main exception here are soldiers from Germany, who consistently provoke headlines for historical reasons.

Figure 4 shows robotically-generated English-language social media activity on a timeline, with key events labelled. Note the upsurge in content in the second half of August and for the duration of September. During this period, links to content on a single domain, RT.com, account for 16% of all English-language content. The analogous figures for July and August were 0.05%. These percentages exclude all derivative news sites, and aggregators and blogs that copy or re-write RT's articles, meaning the true proportion is even higher. ■

Timeline of bot-generated English language activity on Twitter

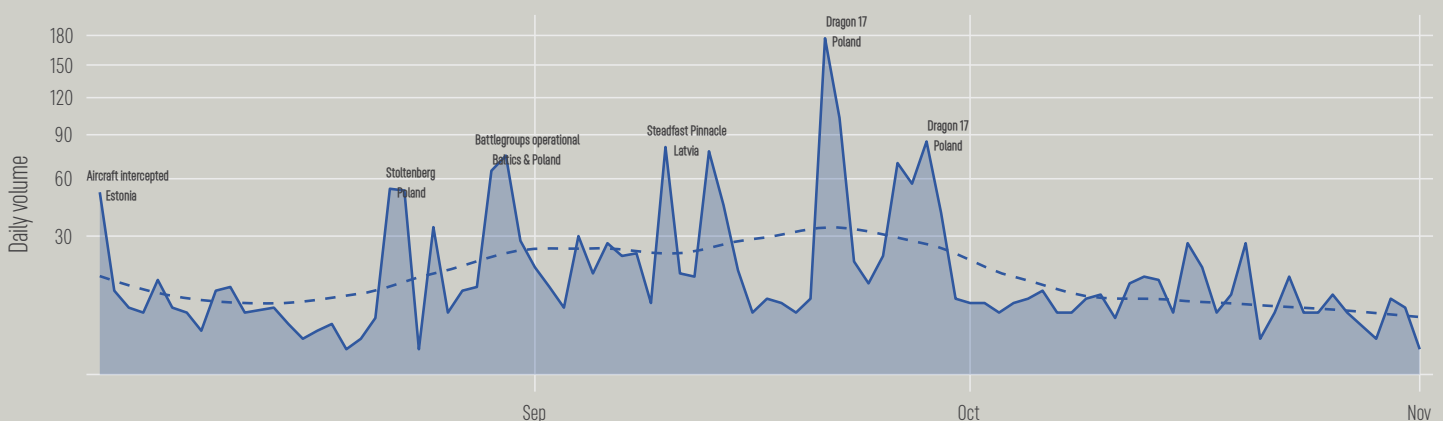


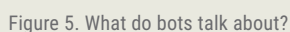
Figure 4: Timeline of activity by English-language bot accounts on Twitter.



This section investigates what Russian-language bots talk about when they are not focusing on the NATO presence in the Baltics and Poland. Figure 5 presents a snapshot of words used by Russian-language Twitter users in addition to those regarding NATO's presence in the area. The figure visualises samples of timeline activity from each user active during August–October. The keywords in the figure are positioned based on co-occurrence patterns. The colours map onto the proportion of mentions originating from automated accounts. Keywords predominantly mentioned by bots are coloured in blue; those predominantly mentioned by humans are in yellow. The manual annotations in black indicate the general subject of terms in that part of the figure. Figure 5 here shows only a subset of the most common words. The full image can be seen in high resolution on our website.<sup>3</sup>

Terms more typically associated with human users than with bots relate to ideology, America and the West, the Ukraine crisis, and Russian politics. Humans are much more likely to use insults or racial slurs than are bots. Humans are also much more likely to promote stories about Russian domestic politics. Keywords pointing to the Russian opposition, such as 'Navalny' or 'protest' are typically found in human-created content. Based on the keyword map, we see that bots are used to promote select types of content, especially material about chaos abroad. Content about Russia itself tends to be innocuous. Whether or not this was the bot-maker's intent, these accounts amplify the positions of loyal Kremlin media.

Whereas the bulk of the conversation is situated within geopolitics and international relations, to the left of the graph are two keyword clusters only peripherally connected. The lower of these contains terms that point to various dating services and links to download (illegal) content. The upper relates to financial services, astrology, travel, weather, and various local news stories. These clusters indicate the presence of monetized social media accounts. These accounts, typically associated with spam marketing, have also tweeted about the NATO presence. ■



<sup>3</sup> Full image can be seen in high resolution on our website: [www.stratcomcoe.org/news/BotsTalk](http://www.stratcomcoe.org/news/BotsTalk)

## In Depth: Bots in the Baltics?

Political actors use robotic trolling in campaigns to manipulate and dominate the social media conversation. By comparing activity levels in a before–after analysis, in conjunction with a comparison of such activity between countries, we estimate what proportion of bot activity is the product of a of a polluted social media environment, and to what degree our keywords are targeted by online campaigns.

Geopolitical struggles over Ukraine attract most of the attention. The Russian language space is more diverse than it appears at first glance: no doubt the bulk of material shared originates from within the Russian Federation, but there are Russian language outlets also in Belarus, Ukraine, the Baltic States, and further afield also. All these actors contest the Russian-language space.

Russian-language Twitter space is thoroughly polluted by various types of spam. Our data also point to the possibility that bots have been commissioned to execute political activity. The proportion of bot activity for Russian-language content about all three Baltic States is consistently higher than it is for Poland, with Estonia and Latvia receiving the most mentions. These states not only have large Russian populations, but the language is widely understood and spoken. It is striking therefore that automated activity outweighs human activity.

The increased interest by Twitter and other social media companies in tackling state-sponsored trolls and bots may offer an explanation for the low levels of activity in the current observation window. However, the continued large presence of spam marketing accounts in our dataset suggest new methods introduced to tackle bots still have room for improvement. If these accounts are available for hire, their presence in this conversation points to paid-for political spam being used to target NATO efforts. There are no comparable focus areas for English language material,

showing that the spam marketing community is only minimally active in the English space. Turning to the Russian content, we find that the bots in these clusters were less active during the period August–October than during March–July, the period in which activity appears artificially elevated. Moreover, they were more likely to speak about Latvia and Estonia than about Poland and Lithuania.

Some bots serve valuable functions. The high proportion of accounts identified as bots is partially explained by the fact that many media outlets and institutional accounts use bots to automatically post links to news stories. Additionally, any number of accounts copy-paste news headlines, seemingly indiscriminately. Such bots we would expect to find evenly distributed among subject areas. Yet, we have consistently observed higher proportions of Russian-language bot activity about Latvia and Estonia than for Poland and Lithuania. Compared to the baseline period, the levels of bot-activity were 10 percentage points lower during the current observation window. The bot accounts are first and foremost trained on Ukraine and questions of regional hegemony. Neighbouring states are also drawn into this online contestation. By comparing activity levels in March–July with those of August–October, the variation observed for the four states hosting NATO troops, and the evidence of bots-for-hire being active in our dataset, we estimate politicised bots accounts for 5–15% of the total volume of Twitter messaging about NATO troops in Latvia and Estonia.

Caveats: the study is based on a sample of Twitter-data about military activity in the Baltics and Poland. This sample is not representative for Twitter as a whole. Findings will not necessarily hold for other social media platforms. Future issues of Robotrolling will consider more representative data samples and other social networks. ■

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