Vaccine Disinformation Part Two

January 13, 2021

Company Brief

Cyabra offers an AI-driven platform to detect disinformation in order to protect consumer brands and government agencies from malicious fake accounts and social media campaigns. Developed by information warfare and cybersecurity experts, Cyabra's patented technology uses machine learning to detect disinformation, such as deepfakes, avatars, and bots. Breaking down the billions of conversations taking place across social media, Cyabra measures impact and determines the authenticity of profiles in order to provide a deeper understanding of that which is hidden within these conversations.
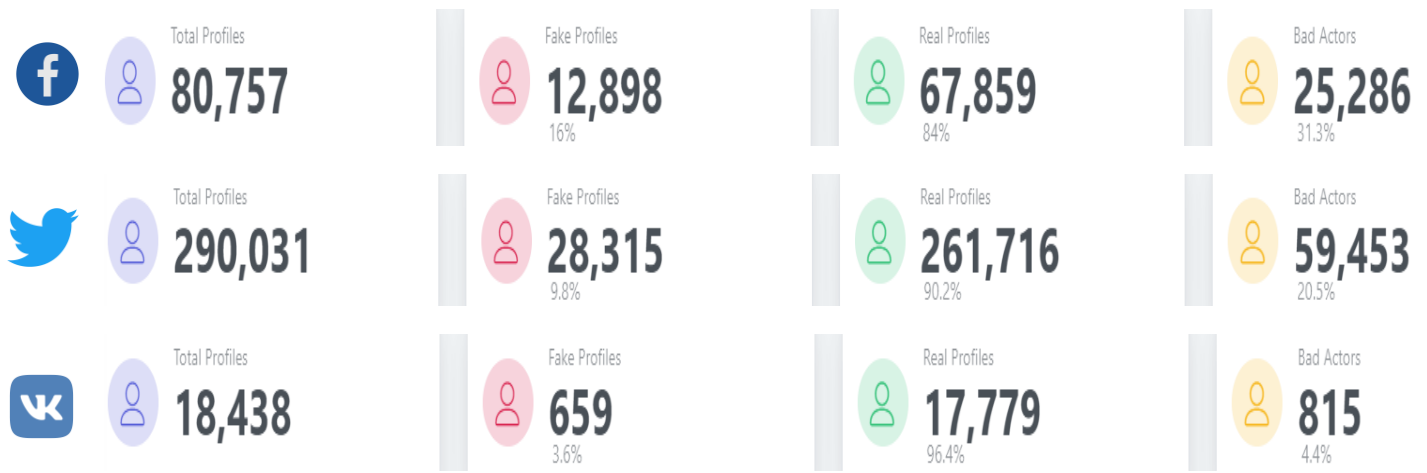
Executive Summary

- Cyabra scanned almost 390,000 profiles that engaged in discussions relating to the COVID-19 vaccines on Twitter, Facebook, and VK.

- Cyabra discovered that almost 11% of these 390,000 profiles are fake profiles.

- Among these 390,000 profiles, Cyabra detected a fake online community spreading positive content about AstraZeneca's vaccine.

- Cyabra scanned almost 2,000 profiles spreading tweets about a Boston doctor who had an allergic reaction to Moderna's vaccine.

- Cyabra found a community of highly engaged profiles criticizing "Sputnik V," the Russian vaccine.

Findings

The segmentation of the 390,000 profiles that Cyabra scanned for this report is presented below. Profiles that used negative sentiment text are labeled as "Bad Actors" by Cyabra. Facebook is the social media platform with the highest percent of fake profiles that referenced the COVID-19 vaccine. Facebook also has the highest percent of profiles that used negative sentiment language in referencing the vaccine. However, a greater number of coordinated online campaigns were could be found on Twitter in comparison to Facebook.

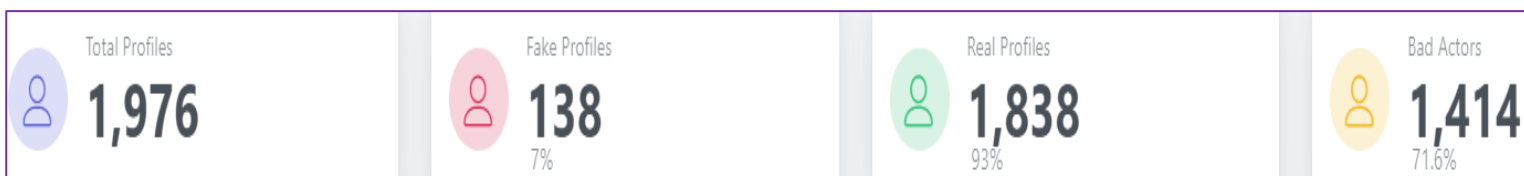|	Total Profiles	Fake Profiles	Real Profiles	Bad Actors
Facebook	80,757	12,898 16%	67,859 84%	25,286 31.3%
Twitter	290,031	28,315 9.8%	261,716 90.2%	59,453 20.5%
VK	18,438	659 3.6%	17,779 96.4%	815 4.4%

Figures 1.1, 1.2,1.3 – Sum of profiles scanned by Cyabra for the project, segmented into real profiles, fake profiles, and profiles that have used negative sentiment language, otherwise known as bad actors.
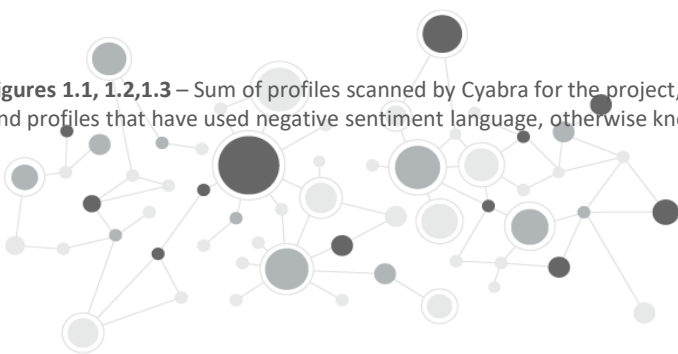
Cyabra analyzed the content of both real and fake profiles and detected several tweets discussing the same topic. The tweets refer to a case in Boston where a doctor who took Moderna's vaccine had allergic reactions. Cyabra sampled 1,976 profiles that participated in this discourse, 7% of which are fake profiles. Below are examples of the retweets by fake profiles Cyabra scanned.

	Total Profiles		Fake Profiles		Real Profiles		Bad Actors
	1,976		**138** 7%		**1,838** 93%		**1,414** 71.6%

Figures 2.1 – Sum of profiles that took part in the online discourse referring to the Boston doctor, segmented into real profiles, fake profiles, and profiles that have used negative sentiment language, otherwise known as "Bad Actors".

Image	Author	Authenticity	Post	Sentiment	Max Exposure
	MCMXIWWG1WGA	FAKE PROFILE	RT @Mareq16: Boston doctor says he almost had to be INTUBATED after suffering severe allergic reaction from Moderna Covid vaccine https://...	NEGATIVE	403,380
	NwoArchive	FAKE PROFILE	RT @RealCandaceO: Boston doctor has anaphylactic reaction to the new Moderna vaccine. His tongue became numb, his blood pressure plummeted...	NEGATIVE	68,483,256
	omosamok	FAKE PROFILE	RT @toddstarnes: Boston doctor suffers severe reaction to Chinese virus vaccine. https://t.co/KE5xC4IdUW	NEUTRAL	77,672

Figures 2.2 - Examples of the retweets by fake profiles, and the way it shown on the system.

↻ **NWO Archive Retweeted**

Candace Owens ✔ @RealCandaceO · Dec 26, 2020
Boston doctor has anaphylactic reaction to the new Moderna vaccine.
His tongue became numb, his blood pressure plummeted— and he self-administered an epi-pen (acquired for his pre-existing shellfish allergy).
💬 975   ↻ 6.5K   ♡ 14.7K   ⬆

↻ **Mel Gibson OP Retweeted**

MaReQ ⭐⭐⭐ @Mareq16 · Dec 27, 2020
Boston doctor says he almost had to be INTUBATED after suffering severe allergic reaction from Moderna Covid vaccine
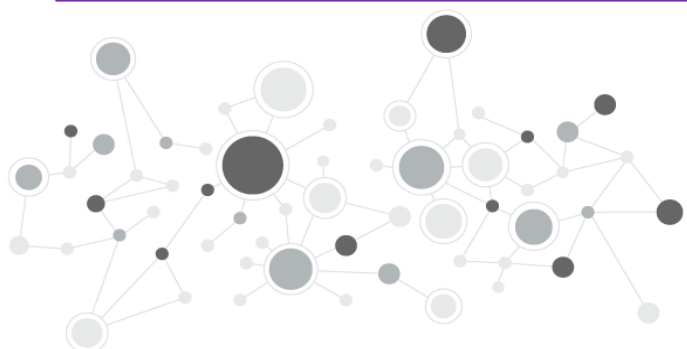💬 10   ↻ 350   ♡ 417   ⬆

↻ ⋔⊟𝖪⅀𝖳𝖱𝖷𝖷𝖳 ☦ **Retweeted**

toddstarnes ✔ @toddstarnes · Dec 27, 2020
Boston doctor suffers severe reaction to Chinese virus vaccine.

Figures 2.3,2.4,2,5 – Examples of the content created by fake profiles.

Cyabra also analyzes the connections between real and fake profiles and divides them into communities. Cyabra's "community" function highlights profiles that are highly connected in various forms. Cyabra analyzed the behavior of the scanned profiles and divided them into communities that contain profiles with similar behavior. The division of the profiles is based on many reasons, such as the number of friends and followers, the profile creation date, and the absence of picture profiles.

Cyabra found one community of fake and real profiles with similar behavior tweeting positively about AstraZeneca's vaccine. The community contains 165 profiles, 94% (155 profiles total) within it are fake. The images below show the community of the fake and real profiles spreading positive content about AstraZeneca's vaccine and a few examples of said
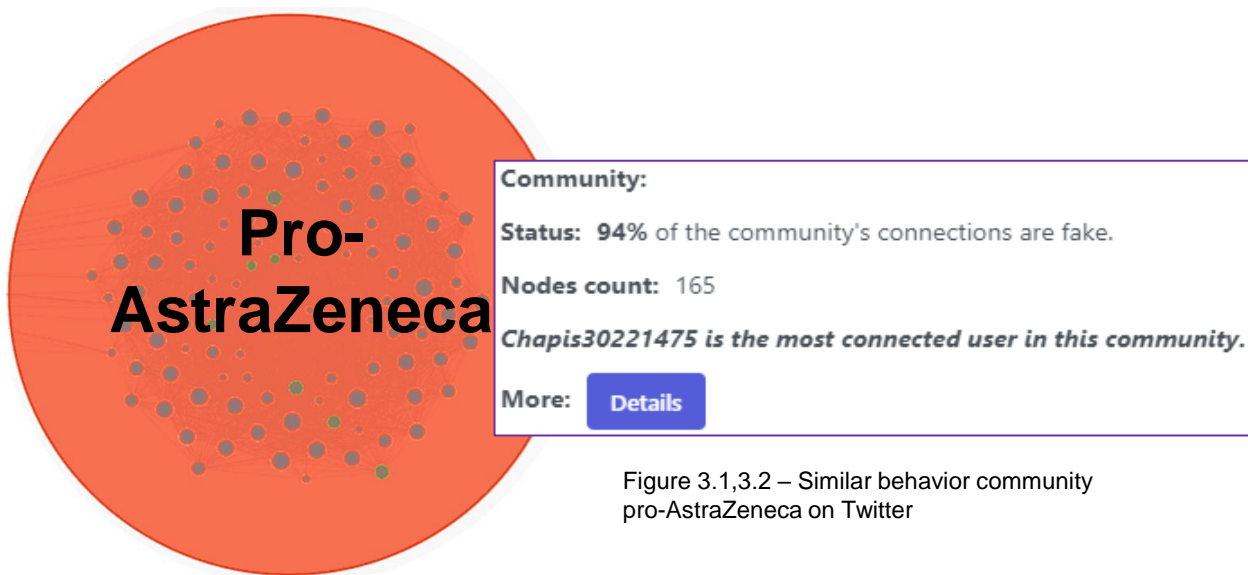

Pro-AstraZeneca

Community:

Status: **94%** of the community's connections are fake.

Nodes count: 165

Chapis30221475 is the most connected user in this community.

More: **Details**

Figure 3.1,3.2 – Similar behavior community pro-AstraZeneca on Twitter

Solomon @rightstockpicks · Dec 28, 2020

$azn ASTRAZENECA CEO: COVID VACCINE EFFECTIVE AGAINST NEW STRAIN This is a great news for the world. Will $azn show green tomorrow? #stocks #StocksToWatch #robinhood #Webull #marketwatch #SPACs

♡ 1

기린아 **Retweeted**

Eric Feigl-Ding ✔ @DrEricDing · Dec 27, 2020

BREAKING—95%—new data from Oxford/AstraZeneca vaccine shows 95% efficacy & is "100% effective" in preventing severe 🤒illness, says AZ CEO. That's on par w/ Moderna & Pfizer. No official data yet, but UK 🇬🇧 said to likely approve in days. HUGE📊. #COVID19 thetimes.co.uk/article/covid-...
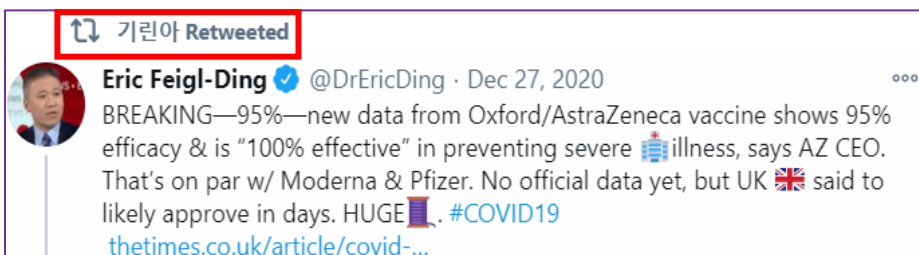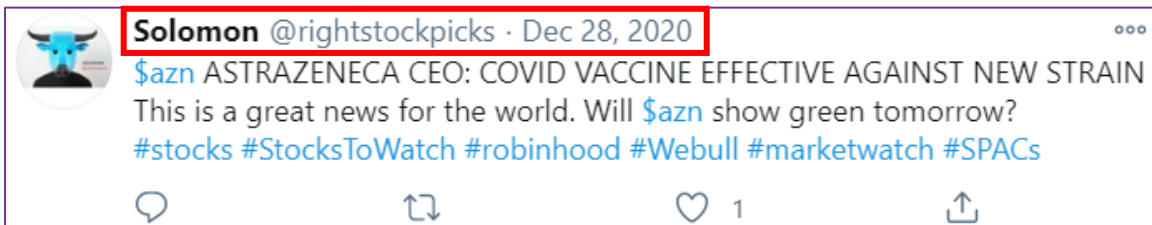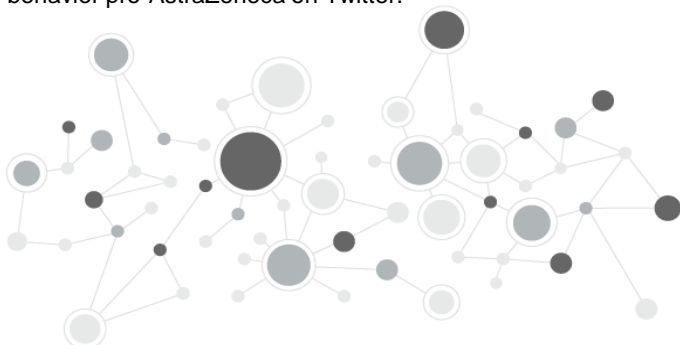
Figure 3.1,32,3.3 – examples of fake content from the community of similar behavior pro-AstraZeneca on Twitter.

Dra. Fiestocitos **Retweeted**

Alejandro Macias ✔ @doctormacias

Pascal Soriot, director en AstraZeneca declaró que creen tener resuelta la eficacia de su vacuna Covid y esperan su pronta autorización en UK. Buen noticia para México: la @Fund_CarlosSlim tiene un contrato para tener esta vacuna en gran volumen.

Translated from Spanish by Google

Pascal Soriot, director at AstraZeneca stated that they believe they have resolved the efficacy of their Covid vaccine and await its prompt authorization in the UK. Good news for Mexico: the @Fund_CarlosSlim has a contract to have this vaccine in large volume.

Cyabra

5

Below is another example of a Cyabra community; this one is based on followers. The profiles inside this community follow each other to a high degree. Often, a community of profiles following each other indicates they are spreading the same message. Most profiles in this community expressed criticism of the Russian vaccine "Sputnik." Cyabra analyzed the connections, behavior, and text of these profiles and discovered many Bad Actors (profiles that used negative sentiment language). The Twitter community contains 647 profiles spreading negative content about Sputnik's vaccine, claiming it's dangerous. Below is an image of the community against Sputnik and examples of content shared by its profiles.
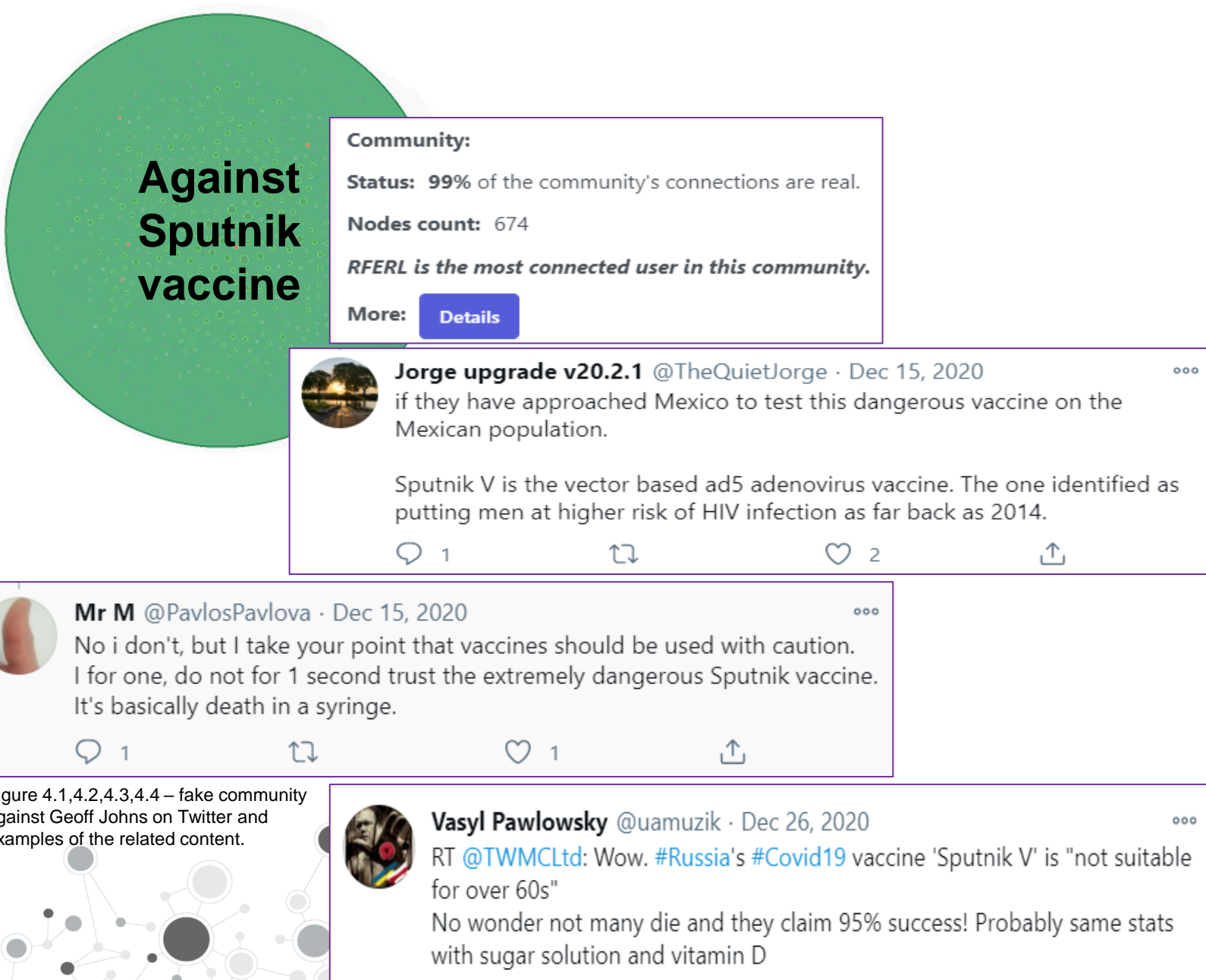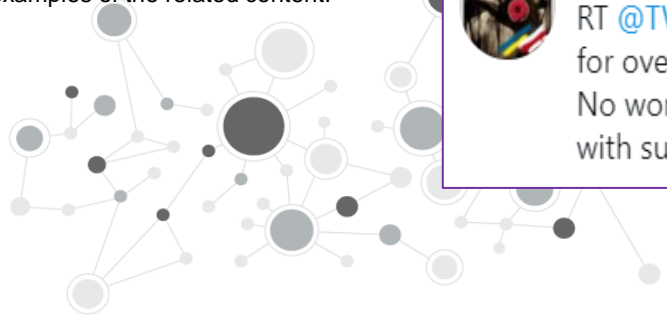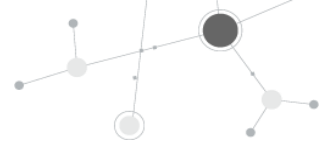

Against Sputnik vaccine

Community:

Status: 99% of the community's connections are real.

Nodes count: 674

RFERL is the most connected user in this community.

More: **Details**

Jorge upgrade v20.2.1 @TheQuietJorge · Dec 15, 2020
if they have approached Mexico to test this dangerous vaccine on the Mexican population.

Sputnik V is the vector based ad5 adenovirus vaccine. The one identified as putting men at higher risk of HIV infection as far back as 2014.

♡ 1   ⟲   ♡ 2   ↥

Mr M @PavlosPavlova · Dec 15, 2020
No i don't, but I take your point that vaccines should be used with caution.
I for one, do not for 1 second trust the extremely dangerous Sputnik vaccine.
It's basically death in a syringe.

♡ 1   ⟲   ♡ 1   ↥

Figure 4.1,4.2,4.3,4.4 – fake community against Geoff Johns on Twitter and examples of the related content.

Vasyl Pawlowsky @uamuzik · Dec 26, 2020
RT @TWMCLtd: Wow. #Russia's #Covid19 vaccine 'Sputnik V' is "not suitable for over 60s"
No wonder not many die and they claim 95% success! Probably same stats with sugar solution and vitamin D

Conclusion

Cyabra continues to monitor the online discourse surrounding the COVID-19 vaccine on several social media networks with its proprietary AI-powered platform. This report is a part of an ongoing effort to map potentially harmful social media orchestrations, and discussed initial results found by Cyabra on Facebook, Twitter, and VK. Cyabra identified over a hundred fake profiles contributing to an online discussion about a Boston doctor who experienced a harsh response to Moderna's vaccine. Additionally, Cyabra also found several interactive online communities using fake profiles to spread their message. One community of fake profiles is spreading claims favorable to AstraZeneca and its COVID vaccine. Another community discussed the possible dangers of the Russian vaccine, "Sputnik." Cyabra will monitor the response to the vaccines rollout on social media on an ongoing basis and pinpoint and report on inauthentic behavior online.

More Than Listening