

Visited on 08/26/2020

CYBER SWARMING, MEMETIC WARFARE AND VIRAL INSURGENCY:

How Domestic Militants Organize on Memes to Incite Violent Insurrection
and Terror Against Government and Law Enforcement

A CONTAGION AND IDEOLOGY REPORT

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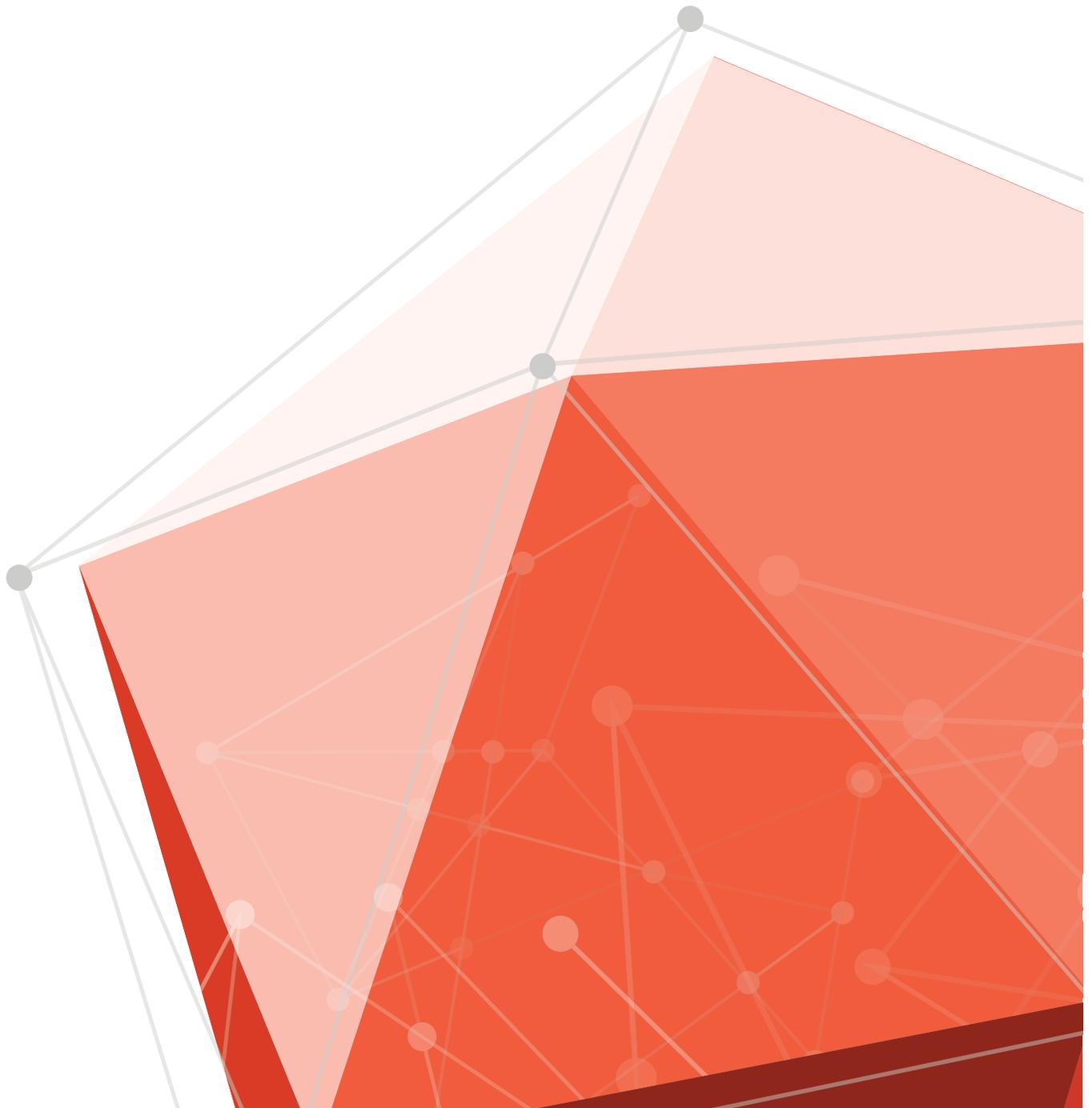
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FOREWORD

In the predawn hours of September 12, 2001, on board a helicopter heading from Liberty State Park to State Police Headquarters, I had my first opportunity since the terrorist attacks the previous morning to wonder, "how the hell did they pull this off?" It was inconceivable to me, with the trillions of dollars our nation had spent on a global early warning system to prevent another Pearl Harbor surprise attack, that we were unable to prevent the 9/11 attacks or, with the exception of the heroism of the passengers and crew of United 93, to stop them in progress. The question haunted me for the remainder of my term as New Jersey's Attorney General and beyond until, as Senior Counsel to the 9/11 Commission, I was able to help piece together precisely how the terrorists managed to succeed.

At every turn, they hid in plain sight. They traveled openly and freely among the Americans they despised, then disappeared when circumstances warranted. Specifically, on the day of 9/11 itself, the first thing the hijackers did once they secured the cockpits was to turn off the transponders that identified the aircraft to military and civilian controllers. This had the effect of making the planes' radar signals disappear into the clutter of raw radar data, making it extremely difficult to track the planes.

A lot has changed in the years since the 9/11 attacks happened and the 9/11 Commission Report was issued. There were no smart phones then, no Twitter or Instagram, no Google or Snapchat. The revolution in communication technology since has transformed both the way we live and the tactics employed by the extremists who want to kill us. What has remained constant, however, is the extremists' strategy of using the instrumentalities of freedom recursively in order to destroy it, and the challenge to governments to anticipate the new generations of tactics in order to frustrate their employment.

The Report you are about to read, "Cyber Swarming: Memetic Warfare and Viral Insurgency," represents a breakthrough case study in the capacity to identify cyber swarms and viral insurgencies in nearly real time as they are developing in plain sight. The result of an analysis of over 100 million social media comments, the authors demonstrate how the "boogaloo meme," "a joke for some, acts as a violent meme that circulates instructions for a violent, viral insurgency for others." Using it, like turning off the transponders on 9/11, enables the extremists to hide in plain sight, disappearing into the clutter of innocent messages, other data points. It should be of particular concern, the authors note, for the military, for whom "the meme's emphasis on military language and culture poses a special risk."

Because most of law enforcement and the military remain ignorant of "memetic warfare," the authors demonstrate, extremists who employ it "possess a distinct advantage over government officials and law enforcement." As with the 9/11 terrorists, "they already realize that they are at war. Public servants cannot afford to remain ignorant of this subject because as sites, followers, and activists grow in number, memes can reach a critical threshold and tipping point, beyond which they can suddenly saturate and mainstream across entire cultures."

This Report is at once an urgent call to recognize an emerging threat and a prescription for how to counter it. As such, it offers that rarest of opportunities: the chance to stop history from repeating itself.

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February 7, 2020

INTRODUCTION

Even as law enforcement and intelligence begin to map how social media can rapidly radicalize individuals to commit acts of domestic terror, they remain challenged to understand how social media empowers entirely new groups to self-organize radicalized militant cells and incite violence. The ability of extremist groups to self-organize creates a new and poorly understood theater for emerging threats in the cyber domain.

In this briefing, we document a recently formed apocalyptic militia ideology which, through the use of memes—coded inside jokes conveyed by image or text—advocates extreme violence against law enforcement and government officials. Termed the “boogaloo,” this ideology self-organizes across social media communities, boasts tens of thousands of users, exhibits a complex division of labor, evolves well-developed channels to innovate and distribute violent propaganda, deploys a complex communication network on extremist, mainstream and dark Web communities, and articulates a hybrid structure between lone-wolf and cell-like organization. Like a virus which awakens from dormancy, this meme has emerged with startling speed in merely the last 3–4 months.

Using a combination of quantitative and qualitative approaches to our investigation, we chart this contagion as it metastasizes across Facebook, Instagram and the chans. We document how boogaloo enthusiasts strategize, share instructions for explosives and 3-D printed firearms, distribute illegal firearm modifications, and siphon users into encrypted messaging boards en masse. Perhaps most alarmingly, we observe how the boogaloo is specifically marketed, through merchandise and memes, towards current and former members of the American Armed Forces. As we document this new structure and capability, we provide recommendations for how policy makers and officials examining unlawful acts or perceived threats may better investigate, prepare and operationally integrate for memetic warfare, an evolving threat domain.

The Boogaloo Meme, Origins and Current Context

On January 20th, thousands descended on Richmond, Virginia, for the Virginia Citizens Defense League’s annual Lobby Day. In attendance were traditional gun-rights supporters as well as militia groups, conspiracy theorists, and far-right extremists ranging from ethnic supremacists to extreme libertarians. One particular group of interest, identified as the Patriot Wave, donned Pepe the Frog patches entitled “Boogaloo Boys,” as well as patches evocative of the American flag emblazoned with an igloo in place of the 50 stars. Some members wore a skull balaclava, which according to the SPLC, is considered the face of 21st-century fascism and is a key symbol of the Atomwaffen Division¹. One member of the Patriot Wave during a podcast posted on the Patriot Wave Facebook page boastfully declared, “Some of the guys we were with aren’t exactly out of the military yet, so they had to keep their faces covered.”

The boogaloo catchphrase, or meme, is based on the 1984 movie sequel Breakin’ 2: Electric Boogaloo, which critics panned as a shockingly unoriginal, near-mirror copy of the original film. As adopted by meme culture, the term is often used by libertarians, gun enthusiasts, and anarchists to describe an uprising against the government or left-wing political opponents that is a near-mirror copy, or sequel to, the American Civil War. While the reference has been around for years, recent iterations have caught on and spread quickly over the past few months. While many still use the boogaloo meme jokingly, an increasing number of people employ the phrase to incite an apocalyptic confrontation with law enforcement and government officials

¹ Staff, Hatewatch. “Donning the Mask: Presenting ‘The Face of 21st Century Fascism.’” Southern Poverty Law Center, 20 June 2017, www.splcenter.org/hatewatch/2017/06/20/donning-mask-presenting-face-21st-century-fascism.

or to provoke ethnic warfare. This ambiguity is a key feature of the problem: Like a virus hiding from the immune system, the use of comical-meme language permits the network to organize violence secretly behind a mirage of inside jokes and plausible deniability. Evolving threats, from this vantage, can emerge all at once, undetected and with no top down organization at all. Traditional qualitative analysis methods, by themselves, fall short in the capacity to detect such self-organized genocidal violence over massive scales of data, through inside jokes and unknown dog whistles.

DEMYSTIFYING THE MOVEMENT: MACHINE LEARNING ANALYSIS DISSECTS THE BOOGALOO MEME VIRAL DYNAMICS AND THEMES

We thus used *Contextus*, the Network Contagion Research Institute’s massive data ingestion and machine learning/semantic analytic platform to index all of the topics and code words for the boogaloo meme at scale, in order to better resolve the meaning of the term. Our quantitative methods, described [here](#),² for analysis of the boogaloo meme, unveil a slew of cryptic code-words, relevant topics, and reveal how the meme migrates to charged political events and exposes activity and underlying dynamics of its use.

We began by analyzing over 100 million comments on 4chan’s /pol/, a radical Web community that our previous work has shown to be highly influential for the origin and spread of memes,³ and therefore an important source for contextualizing new viral memes such as the boogaloo. In figure 1, a comprehensive topic map of the term shows that the boogaloo communicates a suddenly emergent (yellow) inevitable (blue-green) apocalyptic event (blue). Terms such as “hopefully” and “someday,” migrate toward “quickly” and “overnight” and confirm that the viral-like emergence of the boogaloo is self promoted by radical communities. Language on 4chan seems to associate the term to “racewar” and more coded conspiracies such as “dotr,” or day of the rope, a fantasy to instigate a civil war and murder race traitors. These acts would presumably be accomplished by “rwds,” a code for Right Wing Death Squads, such as the “atomwaffen” division, a neo-Nazi domestic terror organization. Other coded associations such as “shtf” stand for “shit hits the fan,” a slang for the end of civilization, and a term that appears near topics of doomsday preparation, “ammo” and “stockpile.”

Conclusions

The boogaloo, a joke for some, acts as a violent meme that circulates instructions for a distributed, viral insurgency for others. The topic network for boogaloo describes a coherent, multi-component and detailed conspiracy to launch an inevitable, violent, sudden, and apocalyptic war across the homeland. The conspiracy, replete with suggestions to stockpile ammunition, may itself set the stage for massive real-world violence and sensitize enthusiasts to mobilize in mass for confrontations or charged political events. Furthermore, the meme’s emphasis on military language and culture poses a specific risk to military communities due to the similar thematic structure, fraternal organization, and reward incentives.

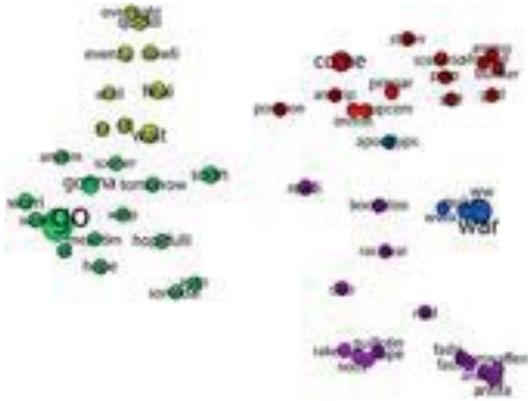


Fig 1. A topic network over the term “boogaloo” performed on over 100 million posts from 4chan’s /pol/. suggests that the term associates most closely “imminent” and violent “war,” or “apocalypse” themes.



Photo of a Boogaloo gathering in Richmond Virginia on Jan. 20th. Patriot Wave militia members reported in the “Roads To Liberty” Podcast that active military personnel covered their faces with skull masks. These masks are emblematic of atomwaffen division, a right wing neo-nazi murder cult. This suggests that “rwds,” or right wing death squads and “atomwaffen” track the topic network for the “boogaloo” meme both in the virtual and in the real world.

² Zannettou, S. Finkelstein, J., Bradlyn, B. and Blackburn, J., 2018. A quantitative approach to understanding online antisemitism. arXiv preprint arXiv:1809.01644.

³ Zannettou, S., Caulfield, T., Blackburn, J., De Cristofaro, E., Sirivianos, M., Stringhini, G. and Suarez-Tangil, G., 2018, October. On the origins of memes by means of fringe web communities. In Proceedings of the Internet Measurement Conference 2018 (pp. 188-202). ACM.

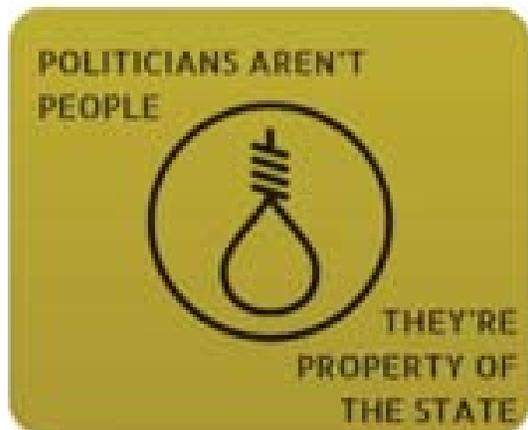


Image of a "dotr" or day of the rope meme discovered in Boogaloo Facebook group. Noose also appears in the Boogaloo topic network.



Fig 2. Trend analysis on 4chan's /pol/, a radical and trend setting Web community, shows ramping and spikes in the frequency of "Boogaloo" comments and synonyms such as "igloo" and "boog." Two of the change points our algorithms detected on "boogaloo" (red line) occur within 24 hours to two key events: the "Whiskey Warrior" standoff and the impeachment of Donald Trump.

Recommendations

1. Tracking and indexing maliciously encoded conspiracies through meme images and language is a critical element for the purpose of better understanding and dissecting the status of viral-security threats from the cyber domain. Law enforcement can evolve to develop large scale and data-driven approaches and central information sharing capacity to develop a coherent framework to decrypt these massive and rapidly evolving threats.
2. The military community, in particular, may merit special consideration in risk evaluation and social-climate research because seditious memes are now tailored for infection among veterans and active service members.

TIME SERIES AND CHANGEPOINT ANALYSIS SHOW TACTICAL MOB DEPLOYMENT IN BOOGALOO DYNAMICS

We next deployed *Contextus* to perform time series analysis and change point detection for the comments with the term boogaloo and its other coded synonyms: "boog" and "igloo" which we unveiled through more detailed analysis on our platform. Our analysis, as depicted in figure 2, shows significant peaks in the use of the term during two key events marked by red lines. The November 24th event marks the "Whiskey Warrior" episode, a standoff with law enforcement in New York from a former infantryman, who referenced the boogaloo while live streaming the confrontation on Instagram. The December 19th peak comes within 24 hours of the official house impeachment of Donald Trump, showing how charged political events attract the meme.

The "Whiskey Warrior" Event Suggests "Cyber Swarming" Capability for "Boogaloo" During Confrontation With Law Enforcement

Just as swarming insects elicit signals that can recruit entire colonies to converge on either enemy or prey rapidly, the "Whiskey Warrior" event, on November 24th in New York, demonstrates how the boogaloo meme can tactically alarm recruit followers to simultaneously deploy en mass in both cyber, and, potentially, real-world domains. When Alexander Booth posted images and videos of an ongoing standoff with police on his pro-gun Instagram handle "Whiskey Warrior 556," the former infantryman appeared in full camo and body armor with a knife clipped to his chest. Booth claimed the officers were employing red flag laws to strip him of munitions and posted memes on social media to merchandize the standoff specifically as a "boogaloo" triggering moment. These posted memes, with powerful ingroup signaling, immediately went viral on the chans (figure 1) and amongst several extreme boogaloo sites and right-wing militia groups on social media. From this point, followers began to obstruct police operations through targeted phone calls and online campaigns and incited armed resistance from social media, and the posts even succeeded in attracting one dedicated follower who claimed to be Facebook streaming from the scene of the standoff itself. Though Booth's Instagram account only held several thousand followers at the start of the event, it boasted over 130,000 by the time the standoff ended.

Conclusions

Understanding timeline and change point dynamics provides a window into the strategic deployment of viral conspiracy theories and can do so in close to real time. One deployment our tools unearthed, The "Whiskey Warrior" event in particular, details the ways that social-media conspiracies can now spread at the speed of light to obstruct fundamental operations of law enforcement in real time. These conditions incentivize bad actors seeking fame or

| Top Boogaloo Instagram Pages (Link Provided) | Followers |
|--|-----------|
| Dr. Boogaloo | 13,000 |
| Boogalooobi | 12,000 |
| Deathbyboogaloo | 8,586 |
| Boogaloo_accelerationist | 2,169 |
| Boogaloo_boyz | 3,008 |

Conclusions

Exposure to the boogaloo meme has increased sharply on mainstream social media communities and many users in these communities could be at risk of indoctrination at a large scale. Our qualitative examination shows Facebook and Instagram harbor large boogaloo groups with tens of thousands of users. Promotional memes and commercial material, links to more radical communities, or invitations to encrypted messaging services, all surface on mainstream communities for the boogaloo ideology and act as potential access points for exposure and radicalization.

Recommendations

1. Civil society must deploy big-data approaches to monitor and track the pathways for radicalization—indexing links, users, and groups as viral ideologies infect mainstream communities.
2. Mapping specific pathways to the mainstream for these ideologies can help facilitate more-focused collaboration from mainstream platforms that seek to be good Samaritans, such as Twitter and Reddit, and help provide signals for better moderation as needed.
3. Time series analysis can signal an extremism climate and facilitate a “weather station” for trends in extremism on a meme by meme basis. Such a station is needed to create alerts and notifications which can be adapted for the use of information vaccines, strategic counter messaging, and campaigns for better moderation.

SUMMARY AND CONCLUSIONS

Here we characterize the spread of the boogaloo, a conspiracy that self organizes across multiple Web communities on social media. Our topic models show that the meme acts as a meaningful vector to organize seditious sentiment at large. Using time series analysis, we detect change points in the dynamic activity of the meme and show how it deploys strategically to effect chilling new capabilities, such as cyber swarming, and strategically attaches apocalyptic alarm to political events, such as the impeachment. Finally, we examine the worrying growth of the meme into mainstream communities. We show how Facebook and Instagram (see Appendix) in particular, engender cell-like activity to the boogaloo in the form of group pages.

These pages allow the boogaloo to expand and spread illegal ammunition, print 3-D guns, concoct and share recipes for napalm, post links to dark Web groups, network locally, and even sell boogaloo badges and commercial/military paraphernalia targeted toward former and active military service members. Far from a marginal influence, our research exposes platforms and conspiracies that exert a powerful influence on public opinion, with users who aim to demoralize and destabilize public trust. Of note, the individuals and groups that leverage meme culture in their violence have been keenly selective to target vulnerable religious and ethnic segments of the American population.

SUMMARY AND CONCLUSIONS, CONTINUED

Memes such as the boogaloo appear as either cryptic jargon or recreational subcultures to both Web users and security experts and thus, at first glance, seem an unlikely source for large-scale national security risks. But it is precisely this unfamiliarity that should signal profound concern: Facing a similarly alien subculture of enthusiasts, national security pundits, the US Military, and intelligence and defense agencies, were entirely caught off guard at the rapid mobilization of ISIS and creation of the caliphate. Foreign fighters from all corners of the world having little knowledge of ISIS ideologies, religion, or cause—were quickly recruited from flash to bang through savvy social media outreach. The strategy facilitated a contagious, new, hybrid, social media operation that allowed Jihadis to crowd-source terror and propaganda outside the guidelines of every national security or military analyst's playbook. According to our research, boogaloo enthusiasts, who refer to themselves as the "Boojihadeen" may have stolen a page from the Islamic State's playbook.

Uniformly, the recommendations in this report converge on two key suggestions. Firstly, law enforcement and policy makers should consider that memetic warfare has evolved from mere lone-wolf threats to the threat of an entire meme-based insurgency. Efforts to combat memetic warfare should include projects to develop the capacity to share information centrally and resources to develop the real-time analytic tools and approaches described in the subsections above. Developing these resources will permit greater insight, dexterity, and actionable counter-strategy in the cyber domain as these threats continue to evolve and become compounded by bad actors. Indeed, evidence suggests that adversarial nations such as Iran and Russia, have already begun to exert manipulation through conspiratorial memes to exacerbate these very forces opportunistically and incite domestic unrest.

Secondly, a civil messaging/information vaccine approach against weaponized information and malicious memes is merited by the methods we have outlined here. Quantitative tools can index the DNA of the most dangerous and threatening memetic ideologies on social media. Understanding these pathways and how memes and information inspire people to radicalize and rally to calls for violence would allow us to better understand the radicalization process from flash to bang. Such insights also leverage an optimal counter message, strategy, and information vaccine to fight contagion. As we have shown in this report, these approaches can be used to map "red zones" of hateful-memetic contagion, which shows where polarized communities reside, both on social media and/or in the real world. Such information could inform where and how civil counter messages and information vaccines are deployed. The very tools which map the epidemic can repeatedly assess the success of civil campaigns and calibrate counter messages adaptively. These methods not only provide novel solutions when addressing challenges of terrorism and targeted violence—but do so while respecting individual and civil rights, privacy, and civil liberty.

Memetic warfare is still very much a mystery to both policy makers and officials working within the American law enforcement community. In this ignorance, the worst actors amongst boogaloo groups possess a distinct advantage over government officials and law enforcement: They already realize that they are at war. Public servants cannot afford to remain ignorant of this subject because as sites, followers and activists grow in number, memes can reach a critical threshold and tipping point, beyond which they can suddenly saturate and mainstream across entire cultures.

APPENDIX

THICC BOOG LINE (TBL) AND PATRIOT WAVE, A BURGEONING ANTI-GOVERNMENT MILITIA: GROUPS, EVENTS AND MEMES



November 3rd screenshot from ThiccBoogLine YouTube video titled "Welcome to ThiccBoogLine!"

One anti-government boogaloo group, the Thicc Boog Line (TBL), has been expanding rapidly and has acquired over 11,000 followers since the creation of their page on October 15th, 2019. During their first YouTube video posted on November 3rd, 2019, the founders advocate for a "peaceful separation of the United States," and said that they intend to build a "mutual assistance group" to train and prepare for an upcoming civil war. They refer to members of TBL as Boojahadins, which is a clear play on the Mujahedin, an Islamist insurgent group.

On November 18th, TBL formed separate groups on their page corresponding with different regions in an effort to foster community among Boojehadins. In a [video](#) posted that day, one of the founders urged followers to use these groups to create regional chapters with chapter heads, and use the localized groups as an opportunity to share content relating to combat medic procedures, tactics, and weapons load-outs. He also emphasized the importance of communicating on encrypted messaging systems. Some regional Boog groups boast thousands of followers already. The founder also stated in the video, that "if you don't think you're on a watch list for following our page, your head's in the sand. Collect those watch lists like merit badges... this is 1775 shit, join or die." The next day, TBL announced an official partnership with a libertarian network called the New Sons of Liberty, which underlines this particular boogaloo network's rapid expansion and cell-like organization.

While TBL leaders claim it is not their intention to incite violence, the rhetoric of their products, language, and memes are startlingly apocalyptic and violent. Most of the violent rhetoric is directed towards law enforcement and government officials.

THICC BOOG LINE (TBL): MEMES AND MERCHANDISE

In addition to the distribution of violent propaganda, the TBL page provides a link to a merchandise page. Their product line sells big igloo badges, hats captioned "Make Politicians Scared Again," t-shirts, and 30-count 5.56x45 AR/M4 magazines that are laser engraved with popularized memes. While 30-count magazines are illegal in a number of states, TBL explicitly says that the product will ship anyway.



Followers responded to this particular post with comments and memes captioned, "The 2A is for shooting cops," "Politicians aren't people," "Government NPCs aren't people," and more.

The Patriot Wave

The Thicc Boog Line is closely associated with the [Patriot Wave](#). The Patriot Wave Facebook page was established in January of 2019, and currently has 14,000 followers. Like TBL, the Patriot Wave page is frequented by 2A activists, and the propaganda shared on the page is heavily anti-government, anti-law enforcement, and followers are seemingly fluent in chan culture. Notably, Patriot Wave admins often encourage the proliferation of firearms and explosives.

The Patriot Wave's activity is not exclusive to the online world. Members of the group assembled on January 20th for the Richmond, Virginia rally in full-tactical gear and live streamed to their followers during the event. Members of the group wore TBL igloo and Pepe the Frog patches, as well as skull-masks often associated with Atomwaffen and The Base.



The TBL page provides a link to a merchandise page.

Memes of Interest Found on Boogaloo Groups



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