Form Approved REPORT DOCUMENTATION PAGE OMB No. 0704-0188 The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS. 3. DATES COVERED (From - To) 1. REPORT DATE (DD-MM-YYYY) 2. REPORT TYPE 04-09-2020 Master of Military Studies (MMS) thesis AY 2019-2020 4. TITLE AND SUBTITLE 5a. CONTRACT NUMBER Active Measures: How Social Media Enables N/A Russia to Influence the American People **5b. GRANT NUMBER** N/A 5c. PROGRAM ELEMENT NUMBER 6. AUTHOR(S) 5d. PROJECT NUMBER VanderWaal, Gerard W. (Major) N/A 5e. TASK NUMBER N/A 5f. WORK UNIT NUMBER N/A 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 8. PERFORMING ORGANIZATION REPORT NUMBER **USMC** Command and Staff College N/A Marine Corps University 2076 South Street Quantico, VA 22134-5068 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) 10. SPONSOR/MONITOR'S ACRONYM(S) N/A 11. SPONSOR/MONITOR'S REPORT NUMBER(S) N/A 12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited. 13. SUPPLEMENTARY NOTES 14. ABSTRACT Political polarization is increasing in the United States at a rate faster than previously observed. This increased tempo aligns with the creation and pervasiveness of social media in the lives of many Americans. More significantly, maligned actors like Russia are using social media to influence the American public and sow dissonance among the population. A look at the human qualities of how individuals gather and share information provide insight into the methods in which social media companies design their platforms to maximize profit. The expansiveness and ease of access that social media affords, then, becomes both an expansion of traditional social behaviors and an opportunity for exploitation. Russia has formalized their "active measures" strategy of influence operations and invested in organizations and processes to capitalize on the vulnerabilities of social media behavior and design. Previous reporting and current analysis indicate that Russia will continue to utilize social media as an opportunity structure to exacerbate existing grievances in the US. Many countries are exploring proposed solutions to combat this growing threat; however, the solution will likely take a coordinated effort by all stakeholders involved. 15. SUBJECT TERMS Social Media, Russia, Influence Operations, Active Measures

17. LIMITATION OF

ABSTRACT

UU

PAGES

c. THIS PAGE

Unclass

16. SECURITY CLASSIFICATION OF:

b. ABSTRACT

Unclass

a. REPORT

Unclass

18. NUMBER 19a. NAME OF RESPONSIBLE PERSON

USMC Command and Staff College

(703) 784-3330 (Admin Office)

19b. TELEPHONE NUMBER (Include area code)

United States Marine Corps Command and Staff College Marine Corps University 2076 South Street Marine Corps Combat Development Command Quantico, Virginia 22134-5068

MASTER OF MILITARY STUDIES

TITLE: Active Measures: How Social Media Enables Russia to Influence the American People

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MILITARY STUDIES

AUTHOR: Major Gerard W. VanderWaal

$\Lambda \mathbf{V}$	201	19-2	Λ
Δ	40.	レフニム	U

Mentor and Oral Defense Committee Member: <u>Dr. Craig Hayden</u> Approved://signed//
Date: _04092020
Oral Defense Committee Member: <u>Dr. Claire M. Metelits</u>
Approved: //signed//
Date: 04092020

Executive Summary

Title: Active Measures: How Social Media Enables Russia to Influence the American People

Author: Major Gerard VanderWaal, United States Marine Corps

Thesis: Russia exploits social media to influence US domestic politics and instigate social and political conflict to destabilize American governance and advance its own national strategy. The affordances of social media provide Russia access to US audiences and make the public more susceptible to foreign influence campaigns. Specifically, social media may be contributing to political polarization, a key objective for Russian social media influence operations in the U.S.

Discussion: Political polarization is increasing in the United States at a rate faster than previously observed. This increased tempo aligns with the creation and pervasiveness of social media in the lives of many Americans. More significantly, maligned actors like Russia are using social media to influence the American public and sow dissonance among the population. A look at the human qualities of how individuals gather and share information provide insight into the methods in which social media companies design their platforms to maximize profit. The expansiveness and ease of access that social media affords, then, becomes both an expansion of traditional social behaviors and an opportunity for exploitation. Russia has formalized their "active measures" strategy of influence operations and invested in organizations and processes to capitalize on the vulnerabilities of social media behavior and design. Previous reporting and current analysis indicate that Russia will continue to utilize social media as an opportunity structure to exacerbate existing grievances in the US. Many countries are exploring proposed solutions to combat this growing threat; however, the solution will likely take a coordinated effort by all stakeholders involved.

Conclusion: While Russian influence operations in the United States is not the only cause for increased social and political polarization, it is logical to conclude that Russian efforts have contributed to the problem. Through deliberate efforts to take advantage of easy and cost-effective access to American social networks, Russia has and will continue to exploit the affordances provided by social media.

DISCLAIMER THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT. QUOTATION FROM, ABSTRACTION FROM, OR REPRODUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.

Table of Contents

	Page
PREFACE	i
INTRODUCTION	1
THE PROBLEM OF POLITICAL POLARIZATION AND THE SIGNIFICANCE OF ECHO CHAMBERS	2
KEY SOCIAL AND PSYCHOLOGICAL QUALITIES THAT INFLUENCE SOCIAL MEDIA	5
HOW SOCIAL MEDIA DESIGN CREATES OPPORTUNITY FOR INFLUENCE	7
WHAT RUSSIA IS DOING TO INFLUENCE THE AMERICAN PEOPLE	12
WHY RUSSIAN ACTIVITIES MAY BE A KEY FIGURE IN POLITICAL POLARIZATION IN THE U.S.	17
HOW TO ADDRESS THE CHALLENGES OF RUSSIAN SOCIAL MEDIA INFLUENCE	18
CONCLUSION	21
CITATIONS AND FOOTNOTES	22
BIBLIOGRAPHY	25

Preface

In the wake of the Department of Justice's investigation into 2016 presidential election interference, I was intrigued by the idea that Russia could have such a profound influence on US political processes. As an admitted outsider to social media, that aspect of Russia's efforts to influence the American population provided the greatest opportunity to expand my knowledge and understanding of how these pervasive social media platforms could be exploited to target our military forces and families. After attending several lectures that included ominous warnings of the threat of social media, and reading the book LikeWar, I decided to explore this topic in greater detail. While conducting my research for this project, I found that the problem was relatively nascent and that the academic literature was continuing to evolve in real time.

Completion of this paper would not have been possible without the dedicated support of Dr. Craig
Hayden, Associate Professor of Strategic Studies at Marine Corps University. The guidance and direction
I received from him, in private mentorship sessions, Gray Scholars seminar, and his elective on Routes to
Influence, were critical to understanding and organizing the various aspects of this project. Additionally,
I would like to acknowledge the contributions of both Dr. Claire Metelits and Dr. Lon Strauss for their
facilitation of the Gray Scholar Program on Social and Political Conflict. The instruction provided during
this program and the collaborative environment that was fostered among the students helped to
expand my understanding of both the theoretical and historical drivers of conflict, and the opportunities
or obstacles for political actors instigating change.

Introduction

In March 2018, The House Permanent Select Committee on Intelligence released a report that identified, among other things, the scope of Russian "Active Measures" to influence the American public and how wide-spread their messages were among US social media users. The report detailed that when Facebook conducted an internal review following the 2016 elections, the company found that the Russian Internet Research Agency had created over 120 unique accounts that produced over 80,000 posts. Through both the deliberate activity of likes and shares, and Facebook's algorithm, these messages that were directly intended to influence Americans reached over 129 million people in the United States; a pattern that was repeated on several other social media platforms. Additionally, Russia utilized the advertising functions on multiple platforms to "promote divisive social and political messages across the ideological spectrum."

Two years after this report from Congress, Russia continues to utilize social media to influence US domestic politics and instigate social and political conflict to destabilize American governance and advance their own national strategy. The affordances of social media make publics more susceptible to foreign influence campaigns. Specifically, social media may be contributing to political polarization, a key objective for Russian social media influence operations in the U.S.

The first section of this paper will describe the problem posed by political polarization in the United States, and discuss why the effects of political polarization would be a goal of Russian influence operations. This section will also introduce a common understanding of the significance of echo chambers. Throughout the paper, there will be discussion of key elements of social media design that enable the development of echo chambers, and how they potentially

contribute to Russia's effectiveness. The next section of this paper will focus on the social and psychological qualities of human behavior that drive how people gather and share information, both traditionally and within social media. This will provide a foundation for understanding how social media platforms are designed to reinforce those qualities, and what risks may be involved; specifically, how social media design creates opportunities for influence. The business model and computational algorithms of social media platforms work together to maximize profits, but also create an environment where Russia can manipulate the system to gain greater access to the American public. Next, the paper will provide examples of how Russia has organized its influence operations and provide some examples of how it exploits the design of social media to covertly infiltrate American social networks. The following section will tie all of these concepts together and explain why Russian activities may be a key figure in the growth of political polarization within the US. And, lastly, the paper will discuss how to address the challenges posed by Russian social media influence campaigns by providing some research and analysis on what can be done to limit or mitigate the effectiveness of Russian active measures in the United States.

The Problem of Political Polarization

Political polarization refers to the divergence of political attitudes to ideological extremes. A Pew Research Center study conducted in 2014 on the political polarization in the American public found that although there has been a growing trend in ideological polarization over the last several decades, the rate of divergence and lack of common political interests has significantly increased within the last 10 years.² Beyond the mere ideological differences between individuals subscribing to one party or the other, the real challenge of political

polarization can be found in how Republicans and Democrats are increasingly viewing individuals from the other party with animosity. Another Pew study conducted in 2019 evaluated the growth in partisan antipathy, a deep seeded feeling of dislike or aversion, and compared the responses against similar questions asked in 2016. The results showed an increase in both parties viewing individuals from the other party as having unfavorable characteristics such as being closed-minded, immoral, and un-patriotic.³ This has the potential result of increased social conflict among the population, and has certainly led to a decrease in political will within the federal government to work towards bipartisan solutions to national challenges. Continued polarization will have both a paralyzing effect on governance and a destabilizing effect on society. As the two parties continue to move farther apart, there is growing concern that echo chambers will only compound the problem.

Echo chambers are "an environment in which a person encounters only beliefs or opinions that coincide with their own, so that their existing views are reinforced and alternative ideas are not considered." Most scholars seem to agree that echo chambers do exist in some capacity. Given this fact, an understanding of how echo chambers work provides insight into the level of vulnerability for exploitation that exists. The foundation of echo chambers lies in a feeling of security, or belief that one can share information with relative safety. As such, echo chambers develop around specific social or identity-based groups that share ideological beliefs. The lack of exposure to alternative viewpoints assists in creating an us versus them environment where individuals from the other group are viewed as being an obstacle to collective beliefs on the way things should be. While the most prevalent echo chambers likely exist in our traditional social networks of friends and family, online spaces and social media in particular are becoming increasingly more influential to how we obtain and share information that influences our beliefs.

There is debate among scholars regarding the prevalence or importance of echo chambers in social media environments. In his report titled, "Filter Bubbles, Echo Chambers, and Online News Consumption", author Seth Flaxman studied data from over 50,000 US social media and internet browser users to evaluate the relevancy of echo chambers on political polarization. He concluded that there is evidence to both support the existence of echo chambers in social media and to argue that social media has the opposite effect; exposing users to a wider array of political ideologies over traditional news outlets. The latter is due to a finding that more of the users studied visited social media sites outside of their political ideology while limiting their consumption of news from traditional online media outlets (e.g., CNN, Fox News, etc.) to those that were aligned with their existing ideology.

This finding, however, only evaluates whether an individual visited a particular site and does not explore the cognitive differences between exposure and consumption of information. Additionally, it ignores the primary difference between traditional media sites and social media; the ability to engage in real-time debate. The idea that echo chambers in social media expose individuals to politically homogenous information necessitate that users wishing to debate the merits of their position must visit social sites outside of their own network. This desire for discourse would not require the user to actually consume information present in the visited network, and would support a separate finding in a study by Christopher Bail at Duke University that demonstrated an overall increase in political polarization among participants exposed to non-aligned social media sites. Unlike our traditional social networks, the globally interconnected nature of social media offers foreign actors, such as Russia, an opportunity structure to covertly enter these digital social networks and exploit existing grievances and animosity that lead to greater polarization.

Key Social and Psychological Qualities that Influence Online Social Behavior

Studies show that a majority of US adults get their news from social media sources.⁷ In doing so, many unknowingly expose themselves to information bias through a number of active and passive ways; confirmation bias, selective exposure, and social networking. While these forms of information bias also exist in traditional media environments, the vast quantity of information, rapid access, and complex algorithms working in concert on social media platforms may exacerbate the level of influence these biases have on the information that an individual is exposed to.

Information bias is an epidemiological term defined as a process where key information is either measured, collected, or interpreted inaccurately. A John's Hopkins report further clarifies that it occurs when information is collected differently between two groups, leading to an error in the conclusion of the association. Within the context of obtaining news and information online, information bias refers to the process in which individuals from different ideological perspectives are exposed to a narrow set of the total available information, leading to different interpretations of the facts. How social media platforms are designed to reinforce this process will be covered in another section of this paper, but to understand why they work, it is important to explore key social and psychological qualities of individuals interacting in these digital spaces.

Confirmation bias occurs from the direct influence of desire on beliefs. When people would like a certain idea or concept to be true, they end up believing it to be true. This error leads the individual to stop gathering information when the evidence gathered so far confirms the views or prejudices one would like to be true. Once an opinion is formed, the individual will embrace information that confirms that view while ignoring, or rejecting, information that casts

doubt on it. Confirmation bias suggests that individuals don't perceive circumstances objectively, rather they pick out the bits of data that make them feel good and avoid the data that doesn't. The tendency to be more receptive to information that confirms existing views, and is therefore easier to cognitively process, makes information consumers more vulnerable to false or misleading information. Additionally, acting on those preferences and continually accessing specific news sites or other types of content that are ideologically consistent with existing beliefs results in selective exposure of available news and information sources.

According to a report titled "Selective Exposure Theories" published in the *Oxford Handbook of Political Communication*, "Selective exposure is the motivated selection of messages matching one's beliefs." The report goes on to highlight that selective exposure may exist for several reasons including confirmation bias, as well as ease of cognitive processing, emotional factors, and perceived quality of the information source. ¹⁰ Simply put, selective exposure represents the act of making choices that limit the types of information an individual is exposed to. In social media, selective exposure is actively manifested and reinforced by routinely reading, liking, or sharing information that is desirable while ignoring or rejecting information that is undesirable.

Social networking, or "the use of dedicated websites and applications to interact with other users, or to find people with similar interests to oneself", is the foundation of social media platforms. As such, it is perfectly understandable that most people online tend to seek out and interact more frequently with others who are closely aligned with their own personal and political views. While social media offers the user an opportunity to connect with people outside of their geographic network, and potentially exposes them to a broad range of ideologies, the psychological characteristics above often play a role in creating limited social network groups

that conform to traditional social patterns. These smaller, more ideologically aligned networks provide a comfortable space for individuals to express themselves.

The same feeling of security that allows social group members to share their ideas freely also has an effect on the level confidence they have in messages they are receiving. Individuals are more likely to trust information they receive from someone within the group, even if it is suspected to be false or misleading. That confidence allows the user to not only consume the information with relatively little reservation or critique, but it also makes them more likely to share the information with other members of their larger social networks, and the cycle starts again. Cascading activation, a process coined by Robert Entman in 2003, involves the selective sharing or dissemination of information that is consistent with the way someone already views a given event or topic. Sharing information like twitter posts, hashtags, and links exposes additional individuals to the information and allows them to make a choice to share. When members within a common social group have high confidence in the information they receive from other members, and already share a common viewpoint, information can be shared very rapidly.

How Social Media Design Creates Opportunity for Influence

Like all previous advances in communication technology, social media has increased the capacity for people to communicate with one another. However, social media differs from previous communication technologies in several distinct ways. First, social media shifts control of production of mass media information from a few government and media elites who control traditional media outlets, and places control into the hands of the general population.

Notwithstanding the current debate regarding content moderation, anyone with a Facebook,

Twitter, or YouTube account has the ability to create and share material that could go viral and be viewed by millions of people. Second, it allows multi-directional mass communication among participants globally; greatly increasing the speed of communication and generating a continuous information cycle. Lastly, technological advances have paved the way for the creation of complex social media platform algorithms and content feedback mechanisms, such as likes and shares. These provide consumers more options to be selective of the information they receive and, in-turn, generate real-time feedback to information producers about how well, or how poorly, their messages are being received.

As with any new technology, there is the potential for both good and ill effects. In their book *Liberation Technology: Social Media and the Struggle for Democracy*, editors Larry Diamond and Marc Plattner highlight the value to pro-democracy movements that these social media communication changes have had in countries that are ruled by repressive regimes, such as Iran and China. They also acknowledge that there is a parallel debate regarding the value of social media in democratic countries that are becoming more fragmented and polarized, and propose that social media is both "improving [and] diminishing the quality of democratic politics." The qualities that make social media useful to both businesses and democratic-minded grassroots organizers, also leave the platforms vulnerable to exploitation by authoritarian regimes.

An understanding of the business model of social media platforms helps illuminate how they are designed in a way that is easily exploited through influence operations. First and foremost, social media companies are for-profit organizations. Although a social media company may promote all of the benefits that it provides to the consumer, the corporate decision makers have a responsibility to shareholders and employees to ensure that the platform is profitable.

Most social media companies produce revenue through hosting in-platform advertising and selling user preference data to external companies. The latter assists the advertising companies with creating content that more accurately targets the specific audience for a given message or product. The social media company then sells advertisement space on the platform where that specific message can be viewable by all users or only the ones that meet the desired consumer profile. This business model has the effect of creating several information distribution and consumption consequences that make the consumer vulnerable to false or misleading information, and will be discussed throughout this section.

Social media platforms have designed algorithms to enhance the user experience by analyzing the user's selection preferences and prioritizing additional sites or news articles that match their profile, providing a passive assist to selective exposure. The improved user experience is important for retaining consumers on the social media platform, and is the result of the social media company's deliberate effort to make the consumer's browsing experience enjoyable by exposing people to information they want to see. For instance, if a user were to be consistently presented with disagreeable information, the user would be less inclined to return to the platform in the future. In contrast, if the user is presented with material that is consistent with existing beliefs, and is therefore easier to cognitively process, the user will be inclined to return.

This is where the individual's active choice is supplemented by the passive modelling software imbedded in the social media platform. That repetition of interaction with certain sites and users has the effect of prioritizing posts and shares from the people viewed or contacted most often. It also informs the recommendations for new friends or contacts within the platform, further building the network of like-minded users. Information shared among these networks tend to be consistent with the pre-existing views or opinions of the members¹⁵.

This process is not altruistic. By identifying consumer profiles, analyzing selective exposure patterns, and delivering relatable material, social media companies set the conditions for targeted advertising and profit. Unfortunately, the same conditions that make for favorable profit margins also serve as critical gateways for foreign influence into the political narrative, seeking out networks of like-minded users that will help distribute polarizing messages. Russian actors have the ability to purchase user preference data and then tailor messages that target a specific audience. The messages are sent from fake social media accounts that are cultivated within the security of an existing social group. Again, the level of inherent credibility within social groups presents another vulnerability for foreign actors to exploit. Once a mal-aligned actor is inside a social group, false information that is consistent with the group's existing beliefs can be introduced and disseminated with little scrutiny. Furthermore, due to the low cost and effort of information production in social media, many versions of the same information can be introduced to find the one that resonates best and leads to cascading activation.

Virality not veracity is a better determinant for what information is shared on social media. Virality is "the tendency of an image, video, or piece of information to be circulated rapidly and widely from one internet user to another" while veracity represents "conformity to facts [or] accuracy". While some social media sites have built-in algorithms to identify the intentional spread of false information, the sheer volume of information being shared and the skillful ways that actors manipulate trending information quickly bypass these safeguards. Furthermore, posts from individuals and fact-checking sites that are disputing false information can have the effect of contributing to the information's virality by increasing exposure and elevating the trending material. That is not to say that all trending information online is false.

Rather, the comparison is intended to highlight that truth is not the strongest determinant for what information is trending and therefore mass distributed to users worldwide.

A report produced for the State Department describes, "Social media and news platforms are designed to deliver information to mass audiences quickly, optimizing for viral content that generates clicks and thus revenue. As a consequence, they are inherently vulnerable to sensationalist disinformation that seeks to catch the eye and be shared."18 In his article titled, "Commanding the Trend: Social Media as Information Warfare", US Air Force Lieutenant Colonel Jarred Prier stated, "social media sites like Twitter and Facebook employ an algorithm to analyze words, phrases, or hashtags to create a list of topics sorted in order of popularity. This 'trend list' is a quick way to review the most discussed topics at a given time." This platform generated list of recommended topics is what pulls information being circulated at high volume and speed within a social network, and exposes the information to the rest of the platform's users, and potentially traditional journalists and media outlets. While different platforms use various weighted variables, such as Twitter weighting speed of retweets heavily²⁰, they all have the same effect of expanding exposure to trending material. These 'trend list' features are once again offered to social media consumers to grab their attention and get them back on the sites where they can be exposed to additional advertisements. In contrast, there is no such 'trend list' for information that is most truthful or conforming to facts.

As expected, all of the discussed design elements resident in social media are exploited by opportunistic entrepreneurs, professional marketing agencies, political or social organizations, and governments. Most of those exploits are limited in scope and duration. However, as a continuation of an on-going information warfare campaign that has spanned decades, Russia has evolved its organization and tactics to influence American democracy through the deliberate

manipulation of social and political discourse by exploiting opportunities in social media platform design.

What Russia is Doing to Influence the American People

On 18 April 2019, United States Department of Justice released Special Counsel Robert Mueller's investigative report on Russian interference in the 2016 US election. Volume One of the report outlined Russia's "active measures" including a deliberate social media campaign "targeted at large U.S. audiences with the goal of sowing discord in the U.S. political system." While the report's scope was limited to efforts to interfere in the 2016 US election, Russia continues to exploit opportunities for influence presented by social media. Ultimately, Russia desires to instigate social and political conflict to destabilize American governance and advance their own national strategy. The following section will outline how Russia has organized its resources and what techniques are commonly employed to achieve the goal of frustrating American society and politics.

Investing in Information Warfare

Speaking to Russian parliament in 2017, Defense Minister Sergei Shoigu announced that Russia was formally creating a branch of the military that specialized in information warfare. This was not the initiation of information warfare operations funded by the Russian government, but rather the formalization of an un-official industry that had been operating inside Russia for years. Known by other names such as troll farms and web brigades, companies, like the Internet Research Agency identified by the Mueller report, have been operating in Russia for over a decade. These organizations actually got their start as volunteer groups of youth that were dissatisfied with democratic activism spreading on Russian social media sites.²² They took to

social media in force to slander democratic leaning political leaders and praise President Putin.

Impressed by their patriotism and effectiveness, the Russian government began to subsidize their efforts by financially supporting oligarchs who would eventually corporatize these grassroots collectives.²³

Sock Puppets

Every day thousands of Russian citizens go to work in cubicle farms where they are closely supervised and tasked to meet specific production quotas. While this may sound like a typical urban occupation, some of these employees are more like actors or puppeteers. The common term for the role these individuals play is sock puppets, where they manage multiple un-authentic social media profiles simultaneously. Their task is to blend in and work their online characters or organizations into real networks of social media users; to gain their trust and acceptance. The more they post, the more followers or the larger the network they have, the more valuable they become to the company and to Russian influence operations.

Sock puppets operate along one of three lines of effort. The first is to pretend to be a trusted source of official information like a news outlet, adopting profile names and images to portray themselves as an American source of information. To achieve their goal, the majority of news articles shared will be in line with mainstream stories and conform to existing narratives. Over time, readers will begin to trust these sites as reliable and will either isolate their news consumption to these sites, as previously discussed, or integrate them into their viewership. When a specific narrative is desired to shape public opinion, the outlet will disseminate articles that are grounded in truth, but seeded with misinformation. The objective is to create doubt and generate conspiracy theories that cause readers to distrust other traditional news outlets and public figures.

The second line of effort is to carry on the work of the organization's founders, posing as grassroots organizers of various movements and special interest groups or mirroring accounts of actual organizations. The Mueller report noted, "[Internet Research Agency] created accounts in the names of fictitious U.S. organizations and grassroots groups and used these accounts to pose as anti-immigration groups, Tea Party activists, Black Lives Matter protestors, and other U.S. social and political activists." The goal of these efforts is two-fold; to build actual support for a cause that is viewed to be divisive or controversial, and to project false or misleading information into a movement so as to polarize the issue. As an example, Russian sock puppets pretending to be anti-immigration activists from a group called Secured Borders posted messages that were pro-Trump and supported immigration crackdowns. These messages were amplified by existing anti-immigration organizations and Trump supporters. Although not necessarily false, the messages served to stoke an already heated issue within American politics that further polarized the electorate.

Lastly, Russian sock puppet operatives pose as everyday US citizens; veterans, college students, factory workers, and professionals. Their objective is to become a seemingly innocuous, trusted member of an existing network of like-minded individuals. Frequently posting innocent information and plenty of likes and praise for fellow group members ensure that the friendship algorithms keep these accounts front and center in members' profiles. Once imbedded, they study the group and identify key interest areas where messages can be developed to persuade opinion or create doubt. As with the other two lines of effort, these personas attempt to infiltrate both sides of the political spectrum so that they have a voice in every conversation.

The question then becomes, how are these Russian-managed false profiles successful at integrating into American society? Looking back at the social and psychological qualities

resident in social media activities, as discussed previously in this paper, it is not difficult to understand how a goal-oriented individual can exploit the human tendencies and software functionality inherent in social media platforms. Utilizing the same data sold to marketing companies to build tailored advertisement campaigns, Russian actors identify and isolate social groups that are vulnerable to a particular message. After carefully crafting that message in various forms for redundancy, the sock puppet operator simply provides the community a message that they are already inclined to accept due to confirmation bias. After that, the relatively closed social networks and echo chamber effect ensure that the message is shared with little or no challenge to the narratives presented. Multiple messages are released into a community at once. The ones that don't resonate die off and the ones that do are subjected to cascading activation. Relying on the trust-based relationship within social media networks, these fabricated narratives begin to take on a whole new level reliability as they are shared and retweeted by other members of the community who are part of a more closely tied network of family members and co-workers. As an added form of insurance to ensure the American public will be exposed to the intended messages, Russian agents employ an additional tool in the form of social media bots.

Social Media Bots

Bots are generally defined as "an autonomous program on the Internet or another network that can interact with systems or users." The first recorded internet bots were developed by American academic researchers to explore and catalog the expanses of the nascent world wide web, eventually maturing into popular search engines like Google that are used worldwide. 28 Utilizing programming technology and machine computing, these bots were able to complete

daunting tasks at record speed and precision. As social media evolved within the internet, bots became useful tools for tracking online user data and improving user experiences.

Eventually, due to advances in programming technology and machine learning, automated bots began to live a life of their own on social media. Russian programmers used captured photos from internet sites, built fake profiles, and programed bots to interact in social media. These bots share their opinions, respond to posts and shares within the network, and friend other users, just like anyone else on social media. They are programmed to appear as real people and it often takes professional investigators to identify when an account is fake. In addition to their value in generating and disseminating narratives favored by Russia, social media bots have an exponential power, the ability to provide mass.

In *LikeWar: The Weaponization of Social Media*, the authors explain the expansiveness and influence of bots while describing the activities of a fake account under the name Angee Dixson;

Dixson was one of at least 60,000 Russian accounts in a single botnet (networked army of bots) that infested Twitter like a cancer, warping and twisting the US political dialogue. This botnet, in turn, belonged to a vast galaxy of fake and automated accounts that lurk in the shadows of Twitter, Facebook, Instagram, and numerous other services. These machine voices exist because they have power – because the nature of social media platforms gives them power.²⁹

The real value in social media bots lies in their ability to enable Russian actors to coordinate amplified visibility by rapidly liking, sharing, and commenting on a given narrative.

This vast network of (fake) users demonstrating interest in a single topic skyrockets the target message through the platform's viral trend algorithms and exposes the narrative to a much greater segment of the population. Even traditional media outlets attempting to stay ahead of the social media news cycle may pick up the narrative and run with it before fact checkers and analysts can effectively evaluate its veracity. Once the narrative is presented, it is very difficult to issue a correction and change the dialog. Research has suggested that even when information is proven to be false or misleading, individuals are not inclined to change their minds, either due to confirmation bias or selective exposure.³⁰

Why Russian Activities May Be a Key Figure in Political Polarization in the U.S.

A NATO STRATCOM Centre of Excellence report states that Russia's strategy "has no direct target other than destabilization and weakening the target society." In short, Russia's goal is to use America's existing divide in ideological beliefs to hyper-polarize public opinion through deliberate propagation of disinformation that appeals to each side of any debate. Furthermore, Russia intends to flood the network with so many alternative theories which undermine traditional reputable news sources, that individuals will lose faith in their accuracy and journalistic integrity, and turn to any source of information that will confirm their existing beliefs. A RAND article published in 2016 calls this method the "Firehose of Falsehoods". The authors argue that the "contemporary Russian information warfare model" uses "rapid, continuous, and repetitive" application of mis- and dis-information to entertain, confuse, and overwhelm the audience." Contrary to traditional wisdom on how to influence people, there is no requirement for authenticity, accuracy, or authority in an environment flooded with competing narratives and devoid of universally respected media institutions. In an update to

Facebook's ongoing review of information operations on its platform, the Chief Security Officer stated that "[Russian] ads and accounts appeared to focus on amplifying divisive social and political messages across the ideological spectrum — touching on topics from LGBT matters to race issues to immigration to gun rights."³³

As a result, the Pew Research Center found that the growing political divergence "translates into a growing number of Republicans and Democrats who are on completely opposite sides of the ideological spectrum, making it harder to find common ground in policy debates."³⁴ The advancing polarization is important because it allows for increased dissonance within the population and effective framing of us versus them grievances that lead to increased social and political conflict. More research is needed to successfully ascertain the complete scope of Russia's ability to influence American public discourse and its effects on democracy, however, many politicians and traditional news outlets are already framing America's growing political divide as a result, at least in part, of Russian influence operations.

How to Address the Challenges of Russian Social Media Influence

The question remains, as the United States and other Western democracies have improved their ability to identify the organization, goals, and techniques of Russian information operations, why haven't they been able to stop it? As opposed to authoritarian regimes, Democracies that value the freedoms of expression and information exchange are reluctant to engage in outright censorship to prevent unwanted influence. Politicians in the US are seeking a more nuanced approach to identify and eliminate misleading or false information, but that solution has proven allusive.

It is also important to remember that social media platforms are designed to gain and maintain a user's attention so that they can profit from advertisements tailored specifically for their pre-determined preferences; a business model that Russian information operatives have used against the American public with incredible expertise. Attempts to restrict Russia's use of these platforms is in direct contradiction to the companies' objectives of making profit and growing the business. It is no surprise, then, that very few effective attempts have been made by the technology companies to restrict user or advertiser content, even if it is misleading or false. Though, as the threat continues and the technology companies become increasingly targeted by public officials, it is likely they will begin to take additional steps to self-regulate content and more strictly enforce user agreements to avoid additional government regulation.

Some experts have advocated for rebuilding trust in traditional media outlets³⁶ or attempting to counter the false or misleading narratives through traditional counter-propaganda efforts³⁷. Several studies, including a comprehensive report conducted for the Council of Europe by Dr. Claire Wardle and Hossein Derakhshan outline an integrated strategy that focuses on "source checking" as "a faster way of encouraging skepticism in the audience than debunking the fact itself." This method would require identification of what country the original information product (article, meme, etc.) originated from, being displayed clearly for the reader. In the "Firehose of Falsehoods" report discussed previously, the authors propose that, "Forewarning is perhaps more effective than retractions or refutation of propaganda that has already been received." This is an area where the government could provide useful regulation to mandate the display of source country information without restricting the content itself. If this method were used in conjunction with the growing appearance of fact checker databases, it would give the population a tool to self-regulate the truthfulness of the information being presented, and

potentially lead to rebuilding trust in media outlets that adhere to the traditional journalistic code of ethics.

The concept or approach of individual self-regulation highlights other efforts that could be useful; public service announcements and media literacy education. Prior to their occupation and annexation of parts of Eastern Ukraine, Russia conducted a targeted information operations campaign against the Ukrainian public. This campaign was effective in influencing the population to distrust Ukrainian government institutions and foster a separatist movement. In response, Ukrainian efforts to combat Russian influence have included multiple strategies to educate its citizens on media literacy. One such effort was conducted by the International Research and Exchanges (IREX) Europe non-profit organization. During this six-month project, they educated over 15,000 people, and followed up a year later to evaluate the results. The final report highlighted two major achievements; "Enhanced citizen capacity to discern the reliability of news sources and their content" and "increased demand for truthful reporting". 40 Within the capacity to discern reliability achievement, the report noted, "an observed 24% increase in participants' ability to distinguish trustworthy news from fake news, a 22% increase in those who cross-check the information in the news they consume, and a 26% increase in participants' confidence in analyzing news."41 Further research would be required to document the effectiveness of these mitigation strategies over time, however, combatting the challenges of Russian information warfare will likely take a coordinated effort between the government, the public, and social and traditional media companies. While a comprehensive solution may take time to develop, many of these individual stakeholder efforts should be explored to limit the effects of Russian influence as soon as possible.

Conclusion

Undoubtedly, social and political disagreements have existed in the United States since the founding of the Nation. While certain issues have always been polarizing, research indicates that the rate of political polarization has greatly increased during the same timeframe that social media has evolved to be the leading source of news and information for over half of the US population. Social media is certainly not the only explanation for the increased polarity, as many of the social and psychological qualities that contribute to social media's influence are also resident in the traditional ways that individuals gather and share information. However, several intended and unintended consequences of social media design amplify those existing qualities.

The business model of social media encourages habitual, if not persistent, use of the platforms so that users can be exposed to as much online marketing as possible; the primary revenue for the industry. This design takes advantage of vulnerabilities in human subconscious and cognitive behavior, and strives to provide users with the most agreeable content possible in order to keep them on the site. Additionally, the companies augment the naturally selective behaviors of users with machine learning algorithms that narrow the scope of content provided to what likely meets the users previously expressed desires. Combined, these two selective exposure processes, active and passive, create an environment that could lead to limited access to information that contradicts previously held beliefs, and reinforces existing grievances with opposing viewpoints. While these processes alone are likely leading to greater polarization, the ability for Russian actors to easily infiltrate American political discourse and influence the conversation, is a phenomenon that did not exist on this scale prior to social media.

Preying on existing political fragmentation, Russian active measures have exploited social media platforms to further polarize the united states. They have adeptly manipulated social

media companies' business models and algorithms to ensure that their messages reach as many people as possible within targeted social groups. Additionally, they have utilized decades of experience in propaganda and influence operations to effectively attack the social and cognitive qualities of human behavior in the social media environment. The full scope of the impact of Russia's ability to influence American public opinion and discourse is hard to measure. However, the data suggests that America is becoming increasingly more polarized, and at a much faster rate, than was previously observed. Democratic nations around the world, including the United States, are attempting to find solutions to combat this challenge. Until effective countermeasures are put in place, Russia has shown that it will continue to use social media to influence US domestic politics and instigate social and political conflict to destabilize American governance and advance their own national strategy.

¹ House Permanent Select Committee on Intelligence, *Report on Russian Active Measures*, 115th Cong., 2018, 33, https://docs.house.gov/meetings/IG/IG00/20180322/108023/HRPT-115-1_1-p1-U3.pdf.

² Carroll Doherty, "Key takeaways on Americans' growing partisan divide over political values", October 5, 2017, https://www.pewresearch.org/fact-tank/2017/10/05/takeaways-on-americans-growing-partisan-divide-over-political-values/

³ Pew Research Center, *Partisan Antipathy: More Intense, More Personal*, (Washington, DC: October 2019), 6, https://www.people-press.org/2019/10/10/partisan-antipathy-more-intense-more-personal/

⁴ Oxford LEXICO Online Dictionary, s.v. "echo chamber," accessed December 23, 2019, https://www.lexico.com/definition/echo chamber

⁵ Seth Flaxman, Sharad Goel, and Justin M. Rao, "Filter bubbles, echo chambers, and online news Consumption," *Public Opinion Quarterly* 80, no. S1 (January 2016), 319.

⁶ Christopher A. Bail, Lisa Argyle, Taylor W. Brown, John Bumpus, Haohan Chen, Fallin Hunzaker, Jaemin Lee, Marcus Mann, Friedolin Merhout, and Alexander Volfovsky, "Exposure to Opposing Views can Increase Political Polarization: Evidence from a Large-scale Field Experiment on Social Media," *Proceedings of the National Academy of Sciences*, (Washington, DC; Sep 2018), 9219.

⁷ Jeffrey Gottfried, and Elisa Shearer, *News Use Across Social Media Platforms 2016*, (Washington, DC: Pew Research Center, May 2016), 3, https://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/

⁸ Sukon Kanchanaraksa, *Bias and Confounding*, (Baltimore, MD: Johns Hopkins Bloomberg School of Public Health, January 2008), 26.

⁹ Natalie Jomini Stroud, "Selective Exposure Theories," *In The Oxford Handbook of Political Communication*, (Oxford, UK: August 2017), 1.

 $[\]underline{\text{https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199793471.001.0001/oxfordhb-9780199793471-e-009}\\$

¹⁰ Ibid,3.

- ¹¹ Oxford LEXICO Online Dictionary, s.v. "social networking," accessed December 23, 2019, https://www.lexico.com/definition/social networking
- ¹² Claire Wardle, and Hossein Derakhshan, "Information disorder: Toward an interdisciplinary framework for research and policy making," Council of Europe report 27 (2017), 43.
- ¹³ Robert M. Entman, "Cascading activation: Contesting the White House's frame after 9/11," Political Communication, 20, no. 4 (October 2003), 418,

https://www.tandfonline.com/doi/pdf/10.1080/10584600390244176

- ¹⁴ Larry Diamond, and Marc F. Plattner, eds., Liberation Technology: Social Media and the Struggle for Democracy (Baltimore, MD: JHU Press, 2012), 121.
- ¹⁵ Michael D. Conover, Bruno Gonçalves, Alessandro Flammini, and Filippo Menczer, "Partisan Asymmetries in Online Political Activity," EPJ Data Science 1, no. 1 (June 2012), 6.
- ¹⁶ Oxford LEXICO Online Dictionary, s.v. "virality," accessed December 23, 2019, https://www.lexico.com/definition/virality
- ¹⁷ Oxford LEXICO Online Dictionary, s.v. "veracity," accessed December 23, 2019, https://www.lexico.com/definition/veracity
- ¹⁸ Christina Nemr and William Gangware, Weapons of Mass Distraction: Foreign State-Sponsored Disinformation in the Digital Age, (Washington, DC: Park Advisors, March 2019),2, https://www.state.gov/wpcontent/uploads/2019/05/Weapons-of-Mass-Distraction-Foreign-State-Sponsored-Disinformation-in-the-Digital-
- ¹⁹ Jarred Prier, "Commanding the Trend: Social Media as Information Warfare." Strategic Studies Quarterly 11, no. 4 (2017): 52, https://www.jstor.org/stable/26271634?seq=1#metadata info tab contents
- ²⁰ Sarah Needle, "How Does Twitter Decide What Is Trending?," ReThink Media Blog (blog), July 13, 2016, https://rethinkmedia.org/blog/how-does-twitter-decide-what-trending
- ²¹ Robert S. Mueller III, Report On The Investigation Into Russian Interference In The 2016 Presidential Election (Washington, DC: US Department of Justice, March 2019), 14.
- ²² Peter Warren Singer and Emerson T. Brooking, LikeWar: The Weaponization of Social Media (New York: Eamon Dolan Books, 2018), 111.
- ²³ Ibid.
- ²⁴ Robert S. Mueller III, Report On The Investigation Into Russian Interference In The 2016 Presidential Election (Washington, DC: US Department of Justice, March 2019), 23.
- ²⁶ Peter Warren Singer and Emerson T. Brooking, *LikeWar: The Weaponization of Social Media* (New York: Eamon Dolan Books, 2018), 112.
- ²⁷ Oxford LEXICO Online Dictionary, s.v. "bot," accessed December 23, 2019, https://www.lexico.com/definition/bot
- ²⁸ Peter Warren Singer and Emerson T. Brooking, *LikeWar: The Weaponization of Social Media* (New York: Eamon Dolan Books, 2018), 40.
- ²⁹ Ibid, 138-139.
- ³⁰ Claire Wardle, and Hossein Derakhshan, "Information disorder: Toward an interdisciplinary framework for research and policy making," Council of Europe report 27 (2017), 47.
- 31 Keir Giles, The Next Phase of Russian Information Warfare, Vol. 20 (Riga, Latvia: NATO STRATCOM Centre of Excellence, May 2016), 6, https://www.stratcomcoe.org/next-phase-russian-information-warfare-keir-giles
- ³² Christopher Paul and Miriam Matthews, "The Russian "Firehose of Falsehood" Propaganda Model: Why It Might Work and Options to Counter It" (Santa Monica, CA: RAND Corporation, 2016), 1,
- https://www.rand.org/content/dam/rand/pubs/perspectives/PE100/PE198/RAND_PE198.pdf
- ³³ Alex Stamos, "An Update On Information Operations On Facebook" Facebook News (blog), September 6, 2017, https://about.fb.com/news/2017/09/information-operations-update/
- ³⁴ Carroll Doherty, "Key takeaways on Americans' growing partisan divide over political values" (Washington, DC: October 2017) https://www.pewresearch.org/fact-tank/2017/10/05/takeaways-on-americans-growing-partisandivide-over-political-values/
- ³⁵ Claire Wardle and Hossein Derakhshan, "Information Disorder: Toward an interdisciplinary framework for research and policy making," (Strasbourg, France: Council of Europe Report September 27, 2017), 58, https://rm.coe.int/information-disorder-toward-an-interdisciplinary-framework-forresearc/168076277c
- ³⁶ Claire Wardle and Hossein Derakhshan, "Information Disorder: Toward an

interdisciplinary framework for research and policy making," (Strasbourg, France: Council of Europe Report September 27, 2017), 64, https://rm.coe.int/information-disorder-toward-an-interdisciplinary-framework-for-researc/168076277c

³⁷ Christopher Paul and Miriam Matthews, "The Russian "Firehose of Falsehood" Propaganda Model: Why It Might Work and Options to Counter It" (Santa Monica, CA: RAND Corporation, 2016), 9, https://www.rand.org/content/dam/rand/pubs/perspectives/PE100/PE198/RAND_PE198.pdf

³⁸ Claire Wardle and Hossein Derakhshan, "Information Disorder: Toward an interdisciplinary framework for research and policy making," (Strasbourg, France: Council of Europe Report September 27, 2017), 67, https://rm.coe.int/information-disorder-toward-an-interdisciplinary-framework-for-researc/168076277c

³⁹ Christopher Paul and Miriam Matthews, "The Russian "Firehose of Falsehood" Propaganda Model: Why It Might Work and Options to Counter It" (Santa Monica, CA: RAND Corporation, 2016), 9, https://www.rand.org/content/dam/rand/pubs/perspectives/PE100/PE198/RAND PE198.pdf

⁴⁰ Tara Susman-Peña and Katya Vogt, "Ukrainians' self-defense against disinformation: What we learned from Learn to Discern," IREX, last modified June 12, 2017, https://www.irex.org/insight/ukrainians-self-defense-against-disinformation-what-we-learned-learn-discern
⁴¹ Ibid.

Bibliography

- Bail, Christopher A., Lisa Argyle, Taylor W. Brown, John Bumpus, Haohan Chen, Fallin Hunzaker, Jaemin Lee, Marcus Mann, Friedolin Merhout, and Alexander Volfovsky. "Exposure to Opposing Views can Increase Political Polarization: Evidence from a Large-scale Field Experiment on Social Media." *Proceedings of the National Academy of Sciences*. Washington, DC; Sep 2018, 9216-9221.
- Conover, Michael D., Bruno Gonçalves, Alessandro Flammini, and Filippo Menczer. "Partisan Asymmetries in Online Political Activity." *EPJ Data Science* 1, no. 1 (2012): 6.
- Diamond, Larry, and Marc F. Plattner, eds. *Liberation Technology: Social Media and the Struggle for Democracy*. JHU Press, 2012.
- Doherty, Carroll. "Key Takeaways on Americans' Growing Partisan Divide Over Political Values." Pew Research Center (2017). https://www.pewresearch.org/fact-tank/2017/10/05/takeaways-on-americans-growing-partisan-divide-over-political-values/
- Entman, Robert M. "Cascading activation: Contesting the White House's frame after 9/11." *Political Communication*, 20, no. 4 (2003): 415-432.
- Flaxman, Seth, Sharad Goel, and Justin M. Rao. "Filter Bubbles, Echo Chambers, and Online News Consumption." *Public Opinion Quarterly* 80, no. S1 (2016): 298-320.
- Giles, Keir. *The next phase of Russian information warfare*. Vol. 20. Riga: NATO Strategic Communications Centre of Excellence, 2016. https://www.stratcomcoe.org/next-phase-russian-information-warfare-keir-giles
- Gottfried, Jeffrey and Elisa Shearer. *News Use Across Social Media Platforms 2016*. Washington, DC: Pew Research Center, May 2016. https://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/
- Kanchanaraksa, Sukon. *Bias and Confounding*. Johns Hopkins Bloomberg School of Public Health. Baltimore, MD: January 2008.
- Nemr, Christina and William Gangware. Weapons of Mass Distraction: Foreign State-Sponsored Disinformation in the Digital Age. Washington, DC: Park Advisors, March 2019. https://www.state.gov/wp-content/uploads/2019/05/Weapons-of-Mass-Distraction-Foreign-State-Sponsored-Disinformation-in-the-Digital-Age.pdf
- Paul, Christopher, and Miriam Matthews. "The Russian "Firehose of Falsehood" Propaganda Model: Why It Might Work and Options to Counter It." Rand Corporation (2016): 2-7.

- https://www.rand.org/content/dam/rand/pubs/perspectives/PE100/PE198/RAND_PE198.pdf
- Pew Research Center. *Partisan Antipathy: More Intense, More Personal*. Washington, DC: October 2019. https://www.people-press.org/2019/10/10/partisan-antipathy-more-intense-more-personal/
- Prier, Jarred. "Commanding the Trend: Social Media as Information Warfare." *Strategic Studies Quarterly* 11, no. 4 (2017): 50-85. https://www.jstor.org/stable/26271634?seq=1#metadata_info_tab_contents
- Mueller III, Robert S. Report On The Investigation Into Russian Interference In The 2016 Presidential Election. Washington, DC: US Department of Justice, March 2019.
- Singer, Peter Warren, and Emerson T. Brooking. *LikeWar: The Weaponization of Social Media*. New York: Eamon Dolan Books, 2018.
- Stroud, Natalie Jomini. "Selective Exposure Theories." In *The Oxford Handbook of Political Communication*. August 2017. https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199793471.001.0001/oxfordhb-9780199793471-e-009/version/0
- US Congress. House of Representatives. Permanent Select Committee on Intelligence. *Report on Russian Active Measures*. 115th Cong., 2018. https://docs.house.gov/meetings/IG/IG00/20180322/108023/HRPT-115-1_1-p1-U3.pdf.
- Wardle, Claire, and Hossein Derakhshan. "Information Disorder: Toward an Interdisciplinary Framework for Research and Policy Making." Council of Europe report 27 (2017).