Uncover: Strategies and Tactics of Russian Interference in US Elections
Russian Groups Interfered in Elections with Sophisticated Digital Campaign Strategies

Project DATA (Digital Ad Tracking & Analysis)
09/04/2018

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We analyzed strategies and tactics of the Kremlin-linked Russian operative, the Internet Research Agency (IRA) based on 3,519 Facebook/Instagram ads released by the House Permanent Select Committee on Intelligence (HPSCI, November 2017; May 2018).

The findings of our HPSCI analysis are generally consistent with those of our own data. The HPSCI data analysis confirms the conclusion we have drawn from *Stealth Media* https://doi.org/10.1080/10584609.2018.1476425 (go.wisc.edu/stealth): the Internet Research Agency (the IRA), a Kremlin-linked operative, intimately understood the political cleavages in the U.S and exploited them. The IRA ads were designed to divide the public and interfere in the U.S. elections by utilizing data-driven, algorithm-based, microtargeting capacity that is readily available on Facebook/Instagram.

A close examination of both HPSCI and our own data reveals that the IRA developed sophisticated digital campaign strategies and tactics. It demonstrates a clear understanding of political/election campaign strategies (e.g., how to effectively (de)mobilize U.S. voters) and data-driven targeting tactics (e.g., how to best utilize Facebook data algorithms).

Some of the strategies and tactics the IRA employed on Facebook/Instagram include:

- The IRA created an entire digital *ecosystem* across multiple platforms by seeding various types of groups.

  Our study revealed that the IRA created a large network of groups that resembles a digital media ecosystem. The IRA created 73 different ad sponsors/groups on Facebook, linked to more than one hundred groups across digital platforms beyond Facebook/Instagram, including Google/YouTube, MeetUp, Twitter, and independent websites[1].

- The IRA targeted a wide range of *issue interests*, but sowed divisions by targeting *both ends* of the political spectrum.

  Consistent with our finding from *Stealth Media*, The IRA groups covered a range of issue interests including abortion, LGBT rights, gun rights, immigration, nationalism/alt-right, race, terrorism and the like. The primary issue areas the IRA covered were consistent with the issue domains we emphasized in our previous study, *Stealth Media*.

  While groups targeting African Americans with racial issues were most dominant (e.g., BM, Blacktivist, Williams & Kalvin), the IRA also created groups targeting the other side of the political spectrum, emphasizing nationalism and immigration issues (e.g., Angry Eagle, Being Patriotic, Stop A.I).

- While sowing divisions within the public, the IRA attempted to interfere in the 2016 presidential election. Notably, clear evidence exists that the IRA operated *voter suppression campaigns.* It deliberately targeted *nonwhite* voters, especially African Americans, by promoting their racial/ethnic identity early on, but attempted to suppress votes when closer to the election.

  We define voter suppression as a strategy that demobilizes, discourages, or prevents specific segments of the population from voting. It is designed to divide the coalition of the opposition and decrease the turnout of voters who are likely to support the opposition.

  We found three types of voter suppression campaigns on Facebook/Instagram: a) turnout suppression/election boycott; b) third-candidate promotion; and c) candidate attack, all targeting nonwhites or likely Clinton voters.

  No evidence suggests the voter suppression was employed on the other side of the political spectrum, however.

- The IRA attempted to (de)mobilize people in a *coordinated* fashion.

  Across the groups the IRA created, in some cases, the exact same ads were promoted by different groups/sponsors, presenting clear evidence for coordination among those different sponsors.

  Some IRA groups also shared the exact same landing pages for ads they ran, revealing strong connections among those groups/sponsors.

  Most notably, in some cases, "middleman" groups data that linked multiple groups ran advertising on Facebook/Instagram. For example, a middleman group, Tea Party News, linked two seemingly unrelated Facebook groups, American Made and Muslim Voice.

  "Middleman" groups, at least based on the HPSCI data, did not appear to sponsor paid advertising on Facebook/Instagram themselves. However, this type of group served as intermediary, linking other groups on Facebook/Instagram to feed potential targets to these linked groups, and ultimately amplifying the spread of their messages while disguising their connections to coordinated networks.

  Indeed, Muller's indictment reports Tea Party News as a group created by the IRA (United State of America vs. Interne Research Agency, LLC, Indictment, Department of Justice; February 18, 2018). However, the HPSCI data did not include Tea Party as an IRA operation.

- Some of independent websites linked to the IRA are still live.

  We tracked every page linked to the IRA's Facebook/Instagram ads. We found that some of the independent sites that used as landing pages for ads (e.g., Black Matters US), are still live.

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[1] Based on the HPSCI data contained a total of 3,519 Facebook/Instagram ads, we found 73 ad sponsor groups; 6 intermediary/middleman groups linking seemingly unrelated groups; 76 sites (107 pages) linked to the ad sponsors; and 82 unique event organization pages, yielding a total of 237 pages/accounts. However, Facebook announced that in reviewing ad buys, roughly 3,000 ads connected to "about 470 inauthentic accounts and Pages" were found (September 6, 2017).

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This report analyzes strategies and tactics of the Kremlin-linked Russian operative, the Internet Research Agency (IRA) based on 3,519 Facebook/Instagram ads released by the House Permanent Select Committee on Intelligence (HPSCI, November 2017; May 2018).

The report highlights four major strategies and tactics the IRA operations exhibited on Facebook/Instagram: a) the creation of an entire digital ecosystem across multiple platforms b) divisive issue campaigns; d) election interference and voter suppression d) networked coordination of (de)mobilization

Creation of a Digital Ecosystem

The IRA created an entire digital ecosystem across multiple platforms by seeding various types of groups that identified targets across the political spectrum.

One of the most striking features of the Russian Facebook ad campaign was its ability to mimic the organic digital ecosystem an ordinary Facebook user would encounter on a day-to-day basis. On any given day, a Facebook user is likely to encounter page promotions for specific groups, posts about current events, stories from news organizations, as well as more mundane content like memes and music advertisements. The collection of ads released by the HPSCI reveals the IRA possessed an intricate understanding of this digital ecosystem, as well as an in-depth understanding of issues relevant to many audiences in the United States.

Based on the HPSCI data, we identified a network of 73 different ad sponsors/groups and about the same number of groups linked to those ad sponsors across platforms, such as Eventbrite, Google/YouTube, MeetUp, and Twitter.
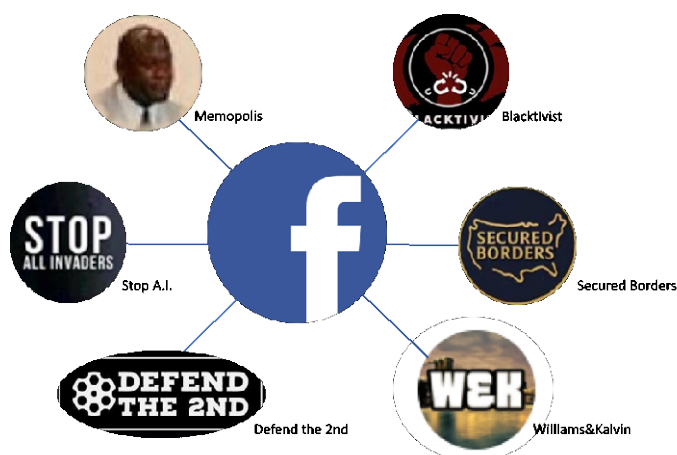
The IRA-linked groups were not always overtly political, nor did they continuously post political content. Mimicking an organic digital ecosystem, these Russian groups included various groups promoting memes, in-person meetups and events as well as links to other websites including represent.com, a legitimate website where one can design and sell t-shirts promoting specific causes.

Most groups, however, impersonated nonprofits, issue advocacy groups, grassroots organizations, movements, communities, news organizations.

In some cases, the IRA co-opted existing non-profit organizations and attempted to "piggyback" on their clout and name recognition in order to influence Americans. For instance, the United Muslims of America, one of the IRA groups, used the same name of an organization registered as a 501 (c)(4) indeed existed back in 1982[1], whose stated mission is nonpartisan in nature and instead aims to encourage Muslims to actively participate in the civic and social life of American society and promotes "peace and harmony" among various ethnic and religious groups in the United States.

Heart of Texas is another example of the IRA's attempt to mimic issue advocacy groups. Heart of Texas was one of the more popular groups promoting Texas secession and it grew to be the largest group promoting secession on Facebook, with more followers than the official pages of the Texas Democratic and Republican parties combined[2].

Not only did Heart of Texas regularly post content on the topic of Texas secession, but it also organized events and rallies. One event created by Heart of Texas was particularly notable because people actually turned up to an event in Houston with Confederate flags and AR-15's. Presumably, few people who attended the event realized it was entirely created and facilitated by the Internet Research Agency[3].
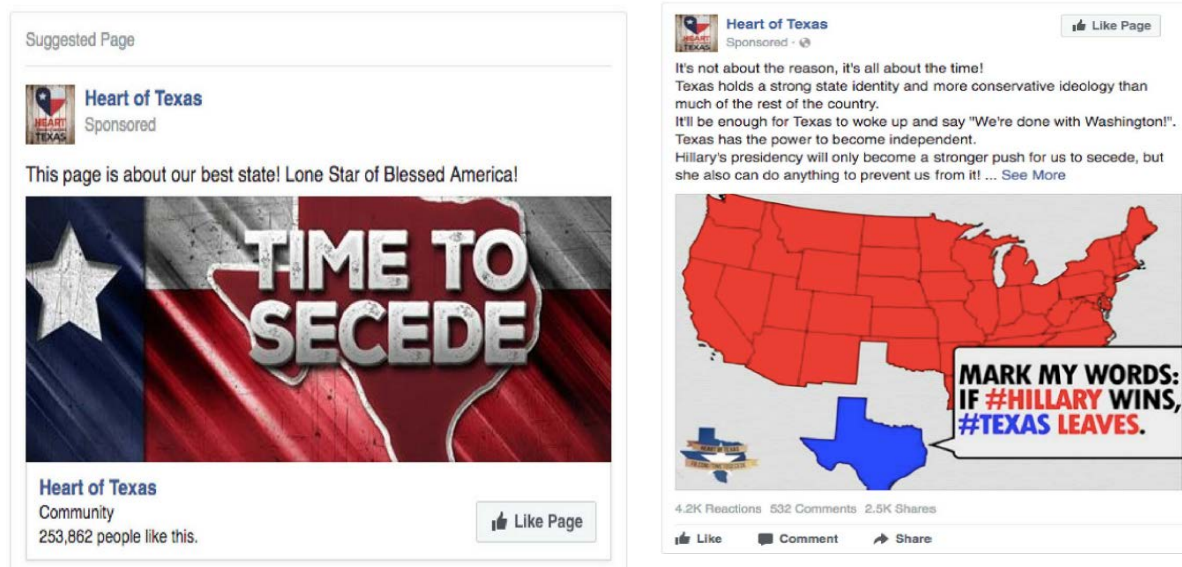
The IRA groups that promoted content on Facebook/Instagram also benefited from online presence on other platforms. Outside links to YouTube were not uncommon, particularly with Williams & Kalvin, YouTube content creators ostensibly from Atlanta but who were, in fact, individuals working under the direction of the Kremlin.

This IRA group was perhaps the most sophisticated in the degree to which it was embedded in digital environments across multiple platforms because Williams and Kalvin also maintained an active Facebook page, Twitter account and Instagram page, reaching followers across media platforms and linking between their various accounts.

Divisive Issue Campaigns and the 2016 Elections

A Wide Range of Issues

Groups created by Russian actors to influence the U.S. presidential election covered a diverse set of issues along the political spectrum.

Consistent with our previous findings[4] the IRA hit some of the most divisive issues in the U.S.: race, nationalism/alt-right, immigration, terrorism, guns, and LGBT rights.

Figure 1. Number of Ads by Issue
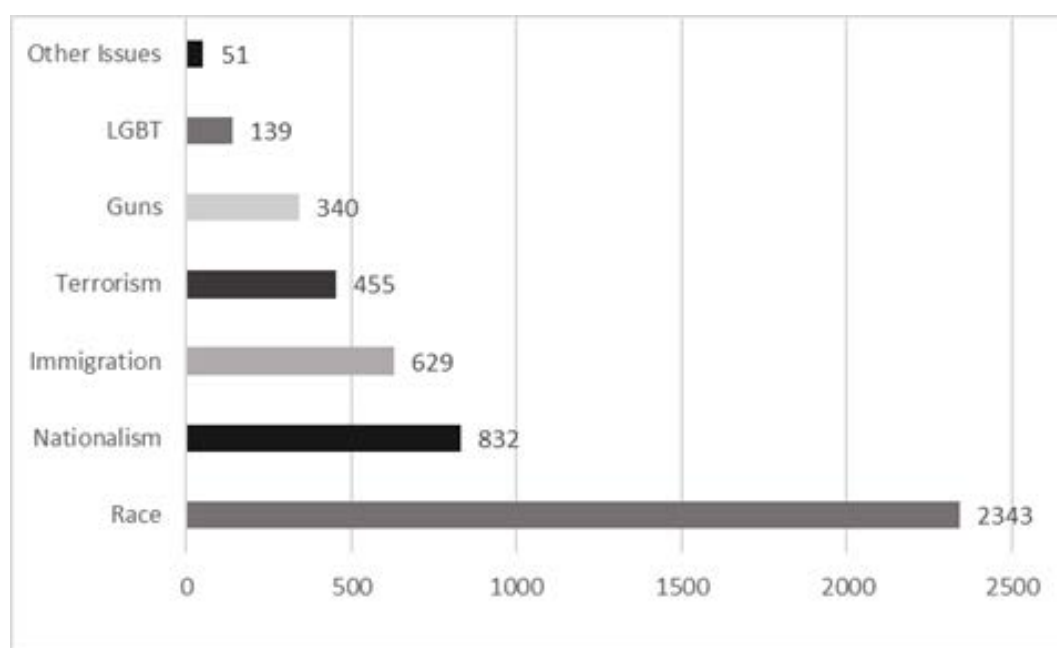
Note: The counts represent each time an issue was tagged by our dictionary and not unique ads, since some ads can have words related to multiple issues.

Figure 1 shows that a large portion of ad content concentrated on the issue of race in American society. In fact, 66.58% of ads[5] contained a dictionary term related to race. The issue category containing the second most ads was nationalism/alt-right, which comprised nearly one-fourth of all ads. Immigration, terrorism, and gun-related terms were also found in a substantial portion of the ads, while the issue of LGBT rights was overall less frequent. Other issues combined made up approximately 4% of all the Russian ads[6].

Issues like nationalism, anti-immigration, and terrorism also sought to create an us-versus-them distinction. These ads celebrated what was "properly" American, while demonizing what was framed as not. Many of the ads from the IRA group "Being American" epitomize the group-centric dynamic of nationalism. For example, they called out what was "properly" patriotic like passionate support for troops, and states' rights to cultivate a responsive audience before calling out what was not: liberals, illegal immigrants, and Hillary Clinton. Terrorism and anti-immigrations ads especially concentrated on a good-versus-evil distinction that framed immigrants, and refugees as nefarious threats to all of American (and Western) society.

On the other hand, the IRA also created groups targeting the other side of the political spectrum. While Stop A.I. as well as Angry Eagle targeted those who take an anti-immigration position, the IRA also created a group, Brown Power, which produced ads that were pro-immigration in nature and targeted those with Hispanic/Latino identity.

In a similar vein, LGBT United, a seemingly LGBT organization frequently highlighted issues relevant to the LGBT community.

Interest Targeting

To identify the targets receptive to the six salient issues of race, nationalism, immigration, terrorism, guns, and LGBT, the Kremlin-financed digital disinformation efforts used technological features entirely contained within Facebook to conduct microtargeted ad campaigns strategically designed to attract users most likely to respond to divisive messaging.

Among the various targeting methods Facebook/Instagram offers, the IRA predominantly utilized Interest-based targeting. About 73% of the IRA ads used interest-based targeting.

Facebook describes their interest targeting as a way "to refine your ad's target audience based on what they've included in their profiles, as well as the Pages, groups and other things on Facebook they've connected [including] sections like interests, activities, favorite music, movies and TV shows." In other words, Facebook has developed an algorithm that aggregates much of the possible actions available to users and then generates terms to describe these users. This information is then made available to advertisers through a provided search engine, allowing advertisers to target niche audiences with very little effort.

Interest-based targeting is a powerful tool used to microtarget individuals in political campaigns, because it defines interest with granular level specificity. For example, if a campaign wants to target those who care about gun rights, it can select a term, "2nd Amendment", to target those interested in the gun rights, instead of wasting resources with broadcast ads targeting media markets at the narrowest level. Interest targeting also includes behavioral traits, to some extent. For instance, "The Raw Politics', a progressive media organization, is also a term that describes readers of the medium (behavior). It can also be used as a proxy to target those who are likely to hold progressive values.

Interest-based targeting, indeed, provides the best proxy for identifying issue publics[7] --those who passionately care about a particular issue because of their values, identities, or interests. In fact, interest-based targeting can often be a more accurate proxy for geographic targeting. According to a report published by the Brookings Institute, over half of major American cities are majority nonwhite and minorities account for approximately 35% of suburban residents. If one were to simply target major cities for the purpose of mobilization or voter suppression efforts, it seems likely that such an attempt might backfire against a candidate or organization's own supporters. With interest-based targeting, however, organizations can use databases provided by digital media companies like Facebook in order to specify which *specific* populations to target using interests highly relevant to these groups. For instance, the IRA group BM targeted Facebook users who selected Martin Luther King, Jr., Nelson Mandela, Malcolm X and Muhammad Ali as "interests" and presented them with an ad highlighting the issue of police brutality.

The 2016 Elections

One might argue the IRA operations simply emphasized deep-seated divisions in a society. However, our empirical analysis illustrates that the IRA perhaps deliberately chose those issues, because those issues were at the forefront of political debates in the 2016 elections. Indeed, many of the issue ads also mentioned elections, voting, candidates, or parties.

More than 30% of the entire volume of ads generated by the IRA between 2015 and 2017 contained election-related terms, providing clear evidence of the IRA's interest in the U.S. elections.

Figure 2: Number of Ads by Election Related Term
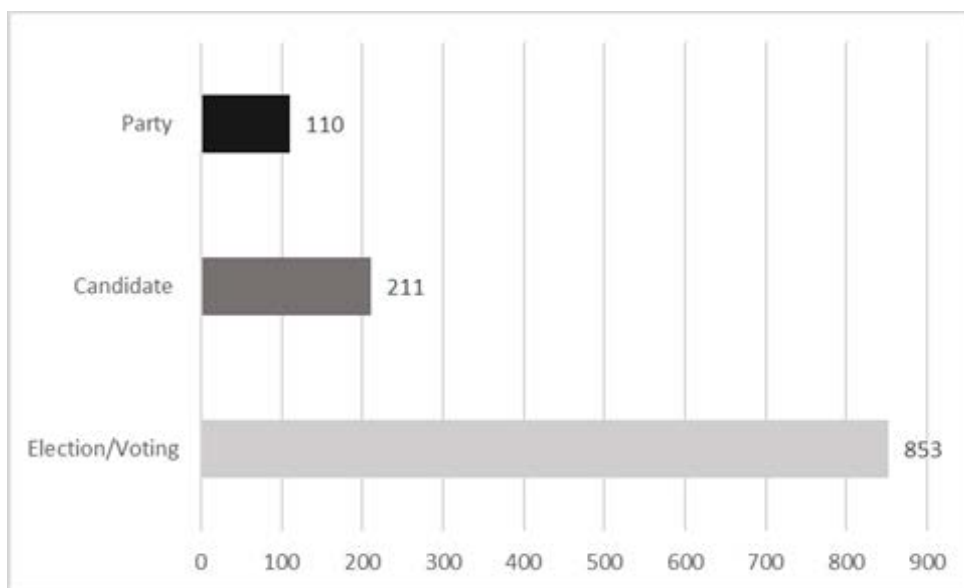
Note: The counts represent each time an issue was tagged by our dictionary and not unique ads, since some ads can have words related to multiple issues.

As shown in Figure 2, while ads mentioning elections and voting were prevalent and contained in about 30% of the total volume of ads produced by the IRA groups, candidate and party mentions still made up a good portion (about 8%).

We found that about 7.6% were not tagged by our political advertising dictionary. Our qualitative examination of those ads indicated that these were non-political content.

Figure 3 illustrates the time trends in the volume of ads containing election related terms. The trends clearly indicate election-related ads were concentrated during the primaries (espeically March-April 2016) and months leading up to the general elections (especially September-October 2016).

Interestingly, ads dealing with candidate scandals spiked in October, 2016.

Figure 3. Time Trends in Ads Contianing Election Terms
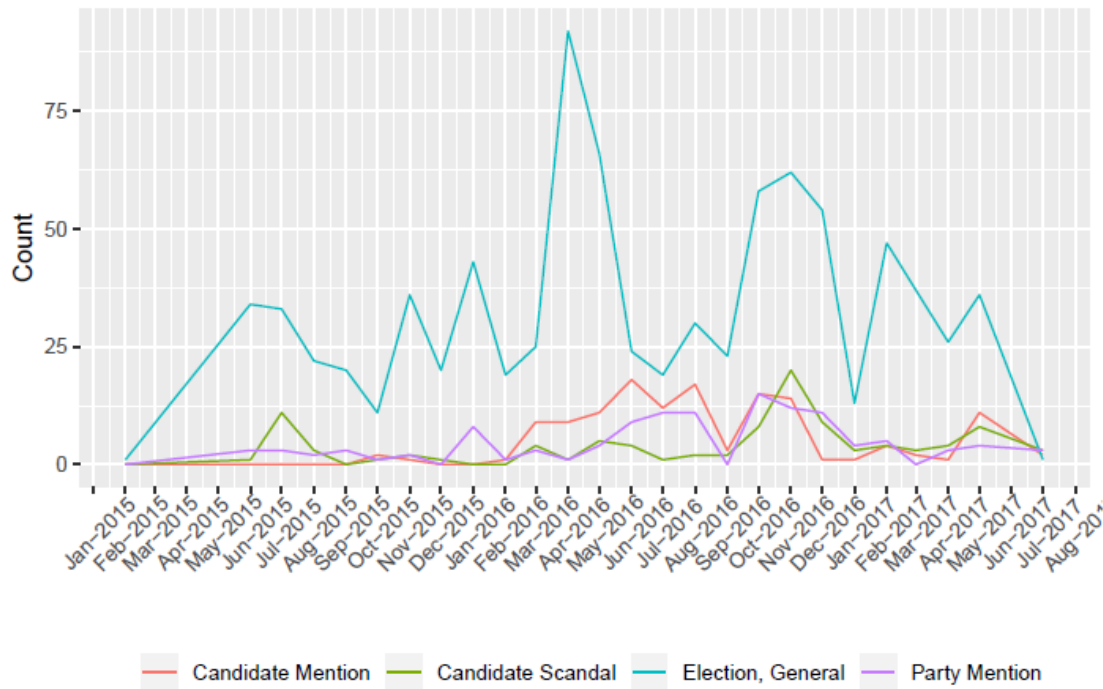
Voter Suppression

While sowing divisions within the public, the IRA attempted to interfere in the 2016 elections by operating voter suppression campaigns. It deliberately targeted nonwhite voters, particularly African Americans, by promoting their racial/ethnic identity, then suppressing their votes when closer to the elections.

Voter suppression is a strategy that refers to strategic efforts designed to demobilize, discourage, or prevent specific segments of the population from voting.

It is important to note that voter suppression should be distinguished from persuading undecided voters. Instead, voter suppression involves deliberate attempts to divide the opposition and suppress the turnout of voters who are likely to support the opposing candidate or party.[8]

Types of Voter Suppression

We developed a typology of voter suppression campaigns, classifying types of voter suppression campaigns in to four distinctive categories: a) turnout suppression/election boycott (e.g., "boycott the election"); b) third-candidate promotion (e.g., "vote for Jill Stein"); c) candidate attack movements/campaigns targeting likely voters of the candidate (e.g., anti-Clinton ads targeting likely Clinton voters); and d) deception (e.g., "text your vote").

While we did find deception-type voter suppression campaigns on Twitter, we did not find any ads attempting to deceive voters with misinformation on voting methods or incorrect dates for election day.

However, we found clear evidence that the IRA did engage in all three other types of voter suppression campaigns on Facebook.

Turnout suppression/election boycott campaigns involves outright encouragement of boycotting the election. For example, this ad from IRA-backed group Williams & Kalvin suggests no one represents African Americans, therefore, African Americans should simply not vote.

"We don't have any other choice this time but boycott the election. This time we choose between two racists. No one represents Black people. Don't go to vote."

With this ad, Williams & Kalvin appeared to target African Americans, including those interested in Martin Luther King, Jr; African-American Civil Rights Movement (1954-68); African American history or Malcom X.

Similarity, on the day of election and onward in November, the IRA groups ran ads illustrating instances in which people did not vote---"He didn't vote because only our candidate deserves the trust of a king"

Interestingly, this tactic appeared to be a counterpoint to an turnout mobilization experiment conducted on Facebook (2012). The experiment demonstrated that posting a "I voted" pledge on Facebook mobilized people to vote and indeed increased turnout[9]. If it is the case, a similar campaign specifically instructing Facebook users *not* to vote might have a demobilizing effect.

Third candidate promotion is another type of voter suppression campaigns. We found some ads that promoted a third candidate, in this case Jill Stein. A third candidate promotion would be generally classified as a candidate endorsement ad. However, when targeting a specific segment of the population, it warrants a careful examination because third candidate promotion ads would to divide the opposing candidate's coalition[10] For example, ads promoting Jill Stein targeting likely Clinton voters could have been designed to shatter Clinton voters' coalition basis, not necessarily turn likely Clinton voters to Jill Stein. The promotion of Jill Stein targeting likely Clinton voters thus could decrease the votes from likely Clinton voters.

In a related vein, an ad by the IRA group, Born Liberal, produced an ad in which Bernie Sanders was quoted criticizing Hillary Clinton's relationship with the Clinton Foundation while she was secretary of state. This ad was targeted at Facebook users who expressed an interest in "liberalism" and was created in July 14th, 2017. At this point, however, Bernie Sanders had already conceded defeat and endorsed Hillary Clinton. Nevertheless, Born Liberal continued to promote a candidate that was no longer viable (or even a candidate, for that matter) in an effort to further divide Clinton's already fractured coalition.

No evidence suggested that the same type of voter suppression strategy was also employed on the other side of the political spectrum, however.

Candidate attack---attacks of the candidate the targeted individual is likely to vote for----is the last type of voter suppression campaigns. Candidate attack is a widely practiced campaign strategy, and often not regarded as voter suppression. However, an attack campaign can work to suppress likely supporters of the opposition by specifically targeting the voters who support the campaign's target. In the broadcast era, attack campaigns were distributed indiscriminately, including the undecided and unmovable strong partisans, which made them ineffective as a voter suppression tactic. However, narrowly targeted, digital attack campaigns enable campaigns to leverage voter suppression functions more effectively by targeting specific individuals or groups of people. Further, when an attack is not directly sponsored by attacking a candidate's official campaign, it can also avoid backlash effects.

Examples of this type of voter suppression campaigns include anti-Clinton ads targeting African Americans. While the movie "Clinton Cash" was widely viewed among conservatives and likely Republican voters, interestingly, ads promoting this movie were placed by an African American community group (Williams & Kalvin) targeting African Americans.

Voter Suppression Tactics: Time Trends

Voter suppression campaigns appear to illustrate the IRA's deliberate, long-term targeting and message strategies.

In the previous section describing the IRA's ads on the 2016 election, we note that about 7.6% of the ads contained non-political content (e.g., entertainment). A close examination of those ads lead us to believe that non-political ads were perhaps used to first identify targets and build a relationship. Later, then, groups target the same individuals with political messages.

Indeed, we found that groups targeting nonwhites, especially African Americans, appeared to promote their racial/ethnic identity early on, then targeted the same types of individuals with voter suppression campaigns when closer to the elections.

For instance, the targets of Williams & Kalvin's "boycott the election" ads on the election day were African Americans, including those interested in Martin Luther King, Jr; African-American Civil Rights Movement (1954-68); African American history or Malcom X. The same types of individuals were also targeted with "Black girl magic", an ad with non-political content.
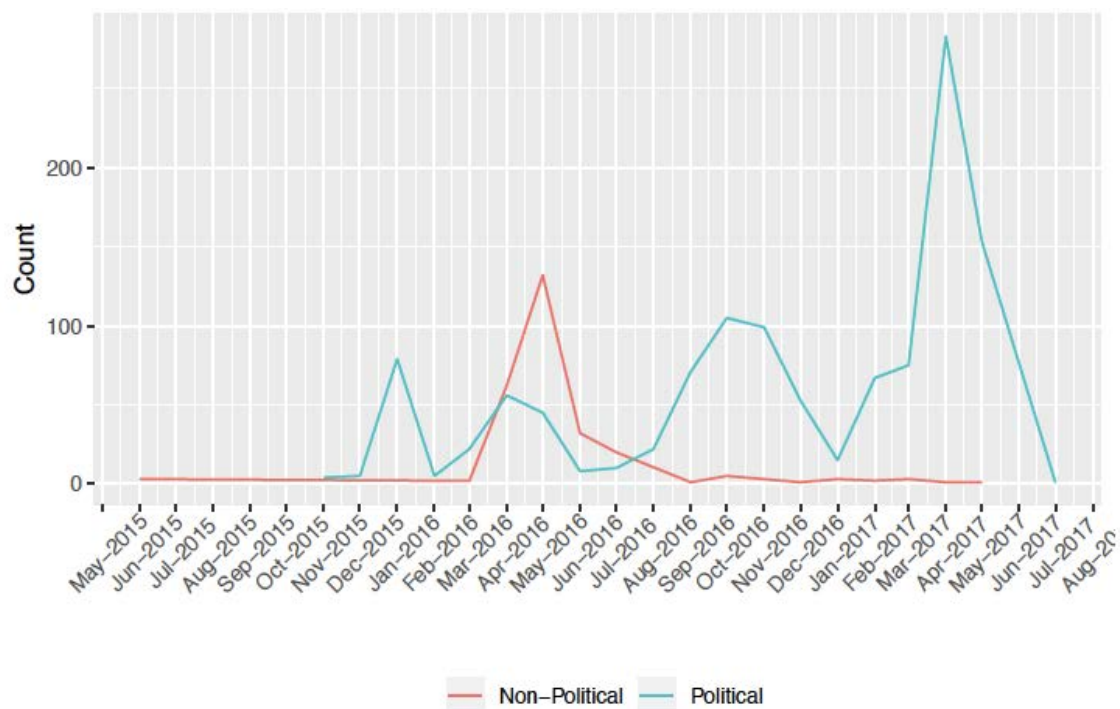
[Left] Black girl magic!
Created: 11/01/16

[Right] Boycott the election. Don't go to vote.
Created: 11/08/16

Targets: Martin Luther King, Jr; African-American Civil Rights Movement (1954-68); African American history or Malcom X

Figure 3. Time Trends, Non-Political vs. Political Ads (11 groups ever generated non-political content)

We identified a total of 11 groups that ever ran non-political ads at some point, then analyzed their advertising trends over time.

The results of the analysis, indeed, confirmed our hypothesis. These groups promoted non-political content earlier but, 60 days prior to the election, they switched to focus on political content.

Networked Coordination of (De)mobilization

Recently, Facebook has announced that it removed a suspicious coordinated network of accounts ahead of the 2018 midterm elections[11]. Much like the groups discussed in this report, these recently-removed groups also advocated for positions across the political spectrum, organizing demonstrations and counter-demonstrations coinciding with the one-year anniversary of the Charlottesville "Unite the Right" march[12].

Although complex machine algorithms can indeed reveal coordinated networks such as those Facebook recently uncovered, our research, which used simple link analysis, revealed a similar type of coordinated activity two years earlier.

However, the scope of the IRA's coordination did go beyond event organization. We found three sets of strong evidence that detected the IRA's coordinated action: a) the use of the exact same ad across ostensibly separate groups; b) multiple groups using the exact same landing page, creating a "hub" of influences; c) the use of intermediary, namely, "middleman" groups that link seemingly unrelated other groups to build traffics and amplify messages.

The first case illustrates where an exact same ad were promoted by seemingly unrelated groups. For example, Born Black and Blacklulive both targeted people who indicated they were interested in understanding racial segregation in the United States. Not only did both these ads targeted the same group of people, but they were also created around the same time (March, 2016) and ended on the same day (March 23, 2016). Careful inspection of the images also reveals a BM logo, which is one of the logos associated with the IRA group Black Matters. It is important to note that, at face value, there is little about these ads that would raise initial suspicions if one were to encounter them in isolation. It is only be looking at the entire context of these ads (i.e. content, targets and sponsors) that a pattern of malicious influence can be seen.

The second piece of evidence is found by examining shared landing pages across presumably separate groups. For example, Black Matters, _Born black_, and BM all shared the Black Matters landing page (https://blackmattersus.com/) in their ads. While the ad content varied from racial conflict to promoting news relevant to the African American community, these three groups all linked to Black Matters' website, which is still live (but inactive) as of September 2, 2018. Furthermore, the logo of Black Matters was found inside the ad images used by all three groups, indicating that both BM and _Born black_ were in some way affiliated with Black Matters, or at least taking content directly from this group.

Third piece of evidence that indicates coordination is the use of an intermediary or "middleman" group to link seemingly separate groups. For instance, both Muslim Voice and American Made used the exact same ad with the exact same landing page (https://www.instagram.com/tea_party_news/). However, the two groups were never directly connected. This suggests that Tea Party News acted as a "middleman" between Muslim Voice and American Made---groups with presumably different content and targeting. Interestingly, however, this particular ad targeted the exact same people, including those who expressed interest in Donald Trump, the Republican Party, the Tea Party, and College Republicans.

It is important to note that the intermediary, Tea Party News, did not exist as a separate group/sponsor in the cache of ads released by the HPSCI, further suggesting that Tea party news perhaps only functioned as a "middleman" or intermediary between two groups that were not directly linked.

By having a middleman, groups have several advantages. First, a middleman group provides shared information with otherwise disconnected groups and helps these groups coordinate action. Second, a middleman serves to build potential audiences and targets, thus amplify messages through its networks. Third, a middleman disguises networked coordination among seemingly separate groups.

We found another middleman group, The White House Petition. The same landing page was shared across these three separate groups that were not directly linked to one another. While not all groups sharing petitions were unusual, looking at readily available information that included the content of the ad as well as important contextual information in conjunction with these sorts of shared linkages can ultimately reveal networks that are not obvious at first glance.

Conclusion

A close examination of both HPSCI and our own data reveals that the IRA developed sophisticated digital campaign strategies and tactics. It demonstrates a clear understanding of political/election campaign strategies (e.g., how to effectively (de)mobilize U.S. voters) and data-driven targeting tactics (e.g., how to best utilize Facebook data algorithms).

Are we now better prepared to effectively combat against foreign interference on social media? Unfortunately, I cannot provide an affirmative answer with high confidence. Digital media platforms such as Google, Facebook, and Twitter have been making important first steps to implement a transparent and accountable political advertising system. However, given that foreign operatives have already developed an entire ecosystem across multiple platforms and that they operate as coordinated networks across platforms, the current self-contained, self-regulatory system might not be the most effective way to monitor and prevent foreign interference in the future. In the presence of clear and immediate threats from foreign operations, Congress, relevant government agencies, tech platforms, and civil society itself must invest in the best collaborative efforts to guard the general public against malicious foreign influences

NOTES

[1] http://www.umanet.org/about-us

[2] Michel, Casey. "Opinion | How the Russians Pretended to Be Texans - and Texans Believed Them." October 17, 2017. https://www.washingtonpost.com/news/democracy-post/wp/2017/10/17/how-the-russians-pretended-to-be-texans-and-texans-believed-them/?utm_term=.b973d7830935.

[3] Michel, Casey. "Organizers behind Armed White Supremacist Protest in Houston Revealed as Russian." October 9, 2017. https://thinkprogress.org/armed-white-supremacist-protest-organized-by-russians-d730f83ca275/.

[4] Kim, Y. M., Hsu, J., Neiman, D., Kou, C., Bankston, L., Kim, S. Y., Heinrich, R., Baragwanath, R., & Raskutti, G. (2018). The stealth media? Groups and targets behind divisive issue campaigns on Facebook. Political Communication

[5] Percentages are calculated as the number of ads tagged in each issue category out of the total number of ads (3,519).

[6] 70 (1.9%) Russian ads were tagged as Abortion and 81 (2.3%) were tagged as "Other issues"

[7] Kim, Y. M. (2009). Issue publics in the new information environment: Selectivity, domain-specificity, and extremity. Communication Research, 36, 254-284.

[8] Wang, Tova Andrea. *The politics of voter suppression: defending and expanding Americans' right to vote*. Cornell University Press, 2012.

[9] Bond, Robert M., Christopher J. Fariss, Jason J. Jones, Adam DI Kramer, Cameron Marlow, Jaime E. Settle, and James H. Fowler. "A 61-million-person experiment in social influence and political mobilization." Nature 489, no. 7415 (2012): 295.

[10] Hillygus, D. Sunshine, and Todd G. Shields. "The persuadable voter: Wedge issues in political campaigns." (2008).

[11] Gleicher, Nathaniel. Removing Bad Actors on Facebook. Issue brief. July 31, 2018. https://newsroom.fb.com/news/2018/07/removing-bad-actors-on-facebook/.

[12] O'Sullivan, Donie, and Jeremy Herb. "Facebook Takes down Suspected Russian Network of Pages." July 31, 2018. https://money.cnn.com/2018/07/31/technology/facebook-removes-pages/index.html