How the 2016 election made conservative discourse extreme

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Abstract

The 2016 election brought names like Richard Spencer and Steve Bannon into the mainstream and focused attention on the rise of the so-called "alt-right". While popular media has decried the growth of right-wing news outlets like Breitbart News, little sustained academic research has examined the spread of alt-right ideas or their apparent influence over modern conservative discourse. This project uses a combination of text-based machine learning techniques to develop models of media trends for both extremist and more mainstream conservative news organizations. By scraping thousands of blog posts from the white supremacist *Daily Stormer*, and conservative news outlet *Breitbart News*, we show how the 2016 election created the opportunity for white supremacist rhetoric to begin to influence mainstream conservative discourse. Our findings demonstrate that extremist ideas significantly shaped and influenced conservative news during and after the 2016 election. This project emphasizes the salient nature of right-wing extremism in modern American political discourse.

Keywords: Unsupervised Learning, White Extremism, Media Studies

Introduction

When Donald Trump announced his candidacy in June 2015, prominent white supremacist groups quickly moved to support him. This was quite surprising to scholars familiar with the American white supremacist movement's historical eschewance of mainstream partisan politics. However, a closer reading of prominent sites like the *Daily Stormer* indicated a close connection between Trump's rhetoric on immigration and that website's immediate endorsement for his candidacy, with *Daily Stormer* reprinting the

inflammatory comments he made about immigrants in his announcement speech. Subsequent white supremacist coverage of Trump candidacy continued to herald Trump as the ideal anti-immigration candidate, even before mainstream conservatives began to endorse Trump and support fringe notions like a ban on Muslims entering the country and a wall on the border.

This paper examines how fringe media groups come to influence the media and issue agenda in the context of the rise of the alt-right media sphere. We trace the rise of alt-right media influence by tracking the migration of white supremacist-style media frames into mainstream conservative discourse, and how the campaign of Donald Trump triggered this process.

While extensive work has sought to unpack how media fragmentation and selective exposure influences political polarization (Mancini [1], Nelson-Field and Riebe [2], Arceneaux et al. [3], Arceneaux and Johnson [4]), most of this research examines fragmentation's outcomes in the form of who polarizes and how much. However, less research has examined how obscure and highly segmented media outlets influence more mainstream outlets, and then how frames and ideas from those original sources reach a broader audience (although see Bail [5] for an explication of how fringe groups drive media framing). It is that phenomena which we initially observed during the 2016 election, with frames and narratives prominent in white supremacist circles being adopted by major conservative outlets.

We suggest a theoretical process to explain how certain fragmented outlets influence others. Fringe outlets, like the popular white supremacist *Daily Stormer*, frame issues as openly as they want to with little regard to censure. However, major moments, such as presidential elections or terrorists attacks will shift consumer preferences, such as by priming the audience's racist predispositions, allowing once fringe discourse to become mainstream. Extreme sources then pivot their discourse to avoid potentially alienating frames in favor of those which, based on the watershed moment, have the potential for mainstream acceptance. As the watershed moment creates a consumer audience for more extreme discourse, mainstream sources will begin to adopt existing frames and narratives that have already been in use by fringe sources. Through this process, frames long promoted by the fringe source will make it into the mainstream of American politics. We contend this process occurred with the alt-right during the 2016 presidential election, as *Daily Stormer* began to increasingly discuss mainstream issues, influencing conservative discourse in an effort to support Donald Trump's candidacy. Our theory relies heavily on frameworks developed by Taeku Lee that show

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how social movements can break the traditional mode of elite-dominated messaging.

A review of the relevant literature and context led us to hypothesize that white supremacist rhetoric became both more mainstream in tone and increasingly influential on conservative media during the election. Our hypotheses derive mainly from an ongoing qualitative understanding of white supremacist subcultures and from a preexisting theoretical framework, and our ongoing observations of white supremacist discourse have observed that members of the alt-right, including but not limited to *Daily Stormer*, have increasingly emphasized the need to mainstream their discourse, with an eye to influence contemporary political events surrounding Trump's election. Moreover, their fascination appears closely tied with his inflammatory views on immigration. These hypotheses were evaluated by employing two complementary forms of unsupervised learning in text analysis in order to evaluate the topics from each source, the extent of their overlap, and their changes over time.

In the pages that follow, we examine how fringe media sources (i.e., *Daily Stormer*) shaped mainstream media discourse within the context of rise of the alt-right and the 2016 election. We find that *Daily Stormer* topics deemed to be extremist declined sharply during the election, concurrently with an increased concomitance in frames concerning immigration and Donald Trump between *Daily Stormer* and the prominent conservative website *Breitbart News*. Namely, discussions of immigration became increasingly episodic in nature, framing immigrants as criminals, for both sources, and *Daily Stormer's* early support of Trump was only mimicked by *Breitbart* after Trump had gained significant political support. These findings lead us to conclude that the election significantly shaped both white supremacist and conservative discourse to make the former more palatable while the latter more extreme.

The Case: The Alt-Right and 2016 Presidential Election

After Donald Trump announced his candidacy for the presidency in the summer of 2015, the Republican Party and conservative media world significantly divided over the prospect of a Trump presidency. However, there was little ambivalence among white supremacist groups. The founder and administrator of the massive white supremacist forum Stormfront, Don Black, described Trump in December 2015 as "the great white hope"[6]. Trump

was quickly endorsed by other leading supremacists such as Jared Taylor [7] and David Duke [8]. The media narrative spread that Trump was being supported by a faction of hardcore racists and white supremacists.

However, conservative sites lagged in their endorsement of the candidate. This appeared to change only after Trump proved to be the effective and increasingly popular candidate who managed to secure the Republican Party nomination. Still, once the prominent conservative media website *Breitbart* began to coalesce behind Trump, *Breitbart* became widely described as a haven for alt-right racists. *Breitbart*, an online conservative news source founded by the influential Andrew Breitbart, is reportedly the second largest conservative website[9], based on online traffic, rivaling the online traffic of such political web giants as *Politico* [10]. However, unlike white supremacist and formal alt-right pages, *Breitbart* receives mainstream attention from conservatives, including consistent inclusion in the popular aggregation site, *The Drudge Report*.

There is some initial credibility to the idea that *Breitbart*, the alt-right, and Donald Trump were closely tied. *Breitbart's* executive chairman, Steve Bannon, left his post to lead Trump's campaign in August 2016 and was subsequently invited to a senior position in the White House's inner circle. This came shortly after Bannon announced in July 2016 that *Breitbart* would serve as a "platform for the alt-right."[11] During this period, *Breitbart* also employed Milo Yianopoulous, a man whose ties to the alt-right have been extensively documented [12], as a senior editor. During the election, Yiannopoulos co-authored a controversial article for *Breitbart* [13] which described the alt-right in favorable terms as youthful and subversive, but certainly not racist. While Yiannopoulos is well known for his involvement in major alt-right events such as the so-called "Gamergate" in 2014, his ties to the formal white supremacist movement are also difficult to ignore, as he sought assistance for that very article from notorious white supremacist, and *Daily Stormer* site administrator, Andrew "Weev" Auernheimer and promised another white supremacist who works with the American Renaissance that he would "like what I'm cooking up" [14]. While these connections do not demonstrate significant overlaps between white supremacists and *Breitbart's* rhetoric, they demonstrate the personal and ideological ties between groups which laid the groundwork for subsequent discourse diffusion. These examples serve as an effective sub-narrative, where white supremacist ideas trickled into Breitbart through Yiannopoulous and were inspired by Donald Trump as evidenced by Bannon. This gives some initial reason to believe

that a pathway between white supremacists and *Breitbart* existed via the election of Trump.

This paper will largely discuss the white supremacist movement as it is presented by the blog: *Daily Stormer*. This site, which the Southern Poverty Law Center (SPLC) notes became the largest white supremacist website during July 2016, after surpassing the forum *Stormfront*,[15] offered consistent and full-throated support for Donald Trump's campaign from as early as June 2015 – when Trump announced his candidacy. In an article on June 28, *Daily Stormer* editor, Andrew Anglin, wrote his "official endorsement," emphasizing that Trump's most significant stance was "about Mexicans" before quoting the infamous line from Trump's announcement address that:

> When Mexico sends its people, they're not sending their best. They're not sending you. They're not sending you. They're sending people that have lots of problems, and they're bringing those problems with us. They're bringing drugs. They're bringing crime. They're rapists. And some, I assume, are good people.

Anglin ended his endorsement by urging his readers to "do whatever they can to make Donald Trump President," and again emphasizing Trump's views on "Mexicans." This endorsement significantly predated those of other white supremacists, which is unsurprising given the movement's historical reluctance to participate in mainstream politics (Blee et al. [16]), and before *Breitbart* and most conservatives followed. While Ann Coulter endorsed Trump quickly in July 2015,[17] Yiannopoulos did not do so until January 2016.[18] Steve Bannon never offered a formal endorsement, former staffers such as Ben Shapiro have publicly remarked on how Bannon had spent the campaign shifting *Breitbart* to promote Trump specifically.[19]

A great deal of media attention has been devoted to analyzing how white supremacist and alt-right ideas proliferated and impacted conservative rhetoric during and after the election. While there is certainly debate over what constitutes the alt-right, with some like Bannon denying that it attracts primarily racist adherents and others like Anglin situating racists as the alt-right's core constituency, **this paper seeks to trace how Trump's election resulted in *Daily Stormer* adopting more mainstream frames, especially surrounding their endorsement of Trump and vilification of immigrants, and it will then show how these frames were subsequently adopted by *Breitbart News.***

Literature

This paper draws off Lee [20]'s conception of how social movements and counter-elites can shape mainstream elite discourse. Lee [20] builds off of Zaller [21]'s receive-accept-sample (RAS) model, which emphasizes the role of elites and their messages in heavily shaping public opinion. Elites are generally seen as established political actors whose lives are dedicated to political work. While elite messages are selected based on individual predispositions, public opinion is driven by a chiefly "top-down" approach with non-elites serving as almost passive absorbers of information. Instead, Lee [20] emphasizes the importance of social movements in determining elite discourse. He argues that, based on crucial predispositions such as race and racial group interests, non-elite actors, such as everyday citizens, informal institutions, or non-established political elites ("counter-elites") can mobilize and shift mainstream discourse, forcing it to accommodate their own political efforts and messages. Importantly, Lee, in situating his analysis in the Civil Rights movement, sees race as a highly critical predisposition that allows for a collective understanding of racial group interests.

While Lee's ambitious challenge to Zaller's model depends on the important case study of the Civil Rights movement, this paper expands on Lee's work by exploring the role of the alt-right and white racial extremists in shifting discourse during the 2016 election. This would provide a starkly different context for Lee's theory, helping strengthen its overall validity and potential for application. While Zaller's approach would emphasize the role of mainstream conservative elites in driving public opinion, *Daily Stormer* and the alt-right more broadly can be seen as a social movement with significant influence over public opinion. Similarly, Donald Trump arose from non-elite (in Zaller's terminology) to elite status, exemplifying Lee's emphasize on how non-elites become elites. While this process occurred for civil rights leaders because newfound elites rose to prominence on behalf of a social movement, the alt-right parallel would see Bannon in this role, while Trump was more divorced from, though apparently supported by, the alt-right social movement.

Moreover, one of Lee's important contributions was his shift away from survey research and into a content analysis of letters written to the President of the United States. This paper, in looking more specifically at shifts in media discourse, will situate the analysis in terms of media messages, necessitating an understanding of how media consumers and producers impact the

content of media messages. It is this relationship that Arceneaux and Johnson [4] emphasize in a series of experimental studies which demonstrate that media audiences are active decision makers and not just passive receivers of elite cues. Such audiences will choose what to watch based on their ideological preferences, seek out media which support their current views, and they won't watch any news if uninterested. This shifts the RAS model in prioritizing the role of non-elites in selecting which cues to receive. Further research has consistently upheld Arceneaux and Johnson's contentions. Studies such as Peterson et al. [22] and Flaxman et al. [23] have used the methodological boon of web-browsing histories to track consumer preferences, finding that audiences consistently navigate to their favored sources. Peterson et al. [22] found that media audiences tend to self-segregate behind outlets with favored ideologies, and they demonstrate how this trend increased in 2016 over previous analyses in 2013 and 2009.

Similarly, Flaxman et al. [23], as well as Iyengar and Hahn [24], tracked how users actively decide to go to their favorite news outlets, suggesting that increased media choice will lead to more polarized media options. Finally, Gentzkow and Shapiro [25] take these findings even further by looking at the role that consumer preferences have on actually shaping the news coverage being presented to them. They find that consumer preferences tend to drive changes in media slant, with an even greater impact on slant than the ideology of the news owner. On this last point, it is important to distinguish between their analysis of nominally non-partisan news and the current paper's focus on explicitly partisan advocacy journalism. This paints consumers as not just an active selector of elite messages but as having a potentially causal role in shaping what messages they will be offered. A rising alt-right social movement seeking out racist messages would then logically have a role in growing the demand for such messages from increasingly mainstream outlets and politicians.

Specifically, this paper examines changes in available media cues in terms of the use of different media frames, in a similar fashion as how Haynes et al. [26] tracked disparate uses of frames by mainstream media elites. In a comprehensive analysis of immigration-related media coverage, they identified strikingly different frames within arguments for and against immigration, and they explicated how these frames are manifest in specific word choices. They track the use of different frames through an in depth content analysis of immigration-related media stories. Importantly, they draw on Iyengar [27]'s use of "thematic" vs. "episodic" frames. For Iyengar [27] and Haynes

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et al. [26], thematic frames are dedicated to broader, more impersonal forces, whereas episodic frames refer to more specific examples. Iyengar explores this question in terms of poverty, with thematic frames discussing broad economic factors and episodic frames emphasizing economically disadvantaged individuals, themselves. He found that the use of episodic frames tends to engender less sympathy for those suffering from poverty. Haynes et al. [26] find that conservative outlets tend to avoid using episodic frames in favor of thematic ones. However, they note that the potential exists, such as the coverage of high profile crimes exemplified in the 2015 killing of Katie Steinle by an undocumented immigrant, though their assessment ends in 2013.

Yet frames are more than just the messages themselves. At its basic level, framing is seen as a process of how people conceptualize or re-conceptualize issues based on underlying cognitive structures. Issue-relevant predispositions at the psychological level are important in determining how an individual sees the world, and elites attempt to take advantage of these cognitive frameworks by situating issue-specific arguments within the frames that will appeal to their audience (Chong and Druckman [28], Scheufele and Tenksbury [29]). For white Americans, these predispositions are often highly racial. In a sweeping study, Kinder and Kam [30] traced how "ethnocentrism" or the priority placed on one's own ethnicity over others serves as a significant predictor for a wide range of policy-related opinions. This is especially true for the subject of immigration, as has also been further explored in additional research. Valentino et al. [31], Sniderman et al. [32], Brader et al. [33]

Further research emphasizes that the Obama and post-Obama era have seen white public opinion increasingly dominated by racial sentiment. While white political attitudes have long been significantly shaped by racial attitudes (Tuch and Hughes [34]), recent research has examined more specifically how Barack Obama's presidency racialized American politics by making white racial attitudes increasingly salient on a host of issues as diverse as health care and tax reform (Tesler [35], Tesler [36]). These findings must also be juxtaposed with recent research finding that the perception of discrimination against whites leads those same individuals to strongly prefer a white candidate (Schildkraut [37]). This apparently played out in the 2016 election where racist and sexist attitudes surpassed measures of economic dissatisfaction in driving support for Trump, in a way that did not occur with Romney or McCain (Schaffner et al. [38]), and similar racist and anti-immigrant attitudes even led many Democratic voters to shift their support for Trump Reny et al. [39]. The rise of the Tea Party during Obama's presi-

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dency has also fostered a semi-mainstream conservative movement with high levels of racial resentment ([40, 41, 42]). This would suggest that media consumers supportive of Trump would increasingly demand frames consistent with racist and xenophobic attitudes.

The question still stands, however, of why organized white supremacists would see an opportunity for increased salience during the 2016 election. One part of the answer comes from social identity theory, while another stems from recent sociological analyses of the role of the internet in uniting and galvanizing white supremacists. Social identity literature would support the idea that whites, and especially white men, exhibited a sense of group consciousness and white social identity as activated by a prototypical exemplar who made white interests salient. Jardina [43] Social identity and group consciousness can involve many types of identities but are frequently tied to racial groups. While there has been little research on white social identity in recent years, the growth of activism by white supremacists seems consistent with group action. Social identity theory focuses on the effect that perceived threat has on groups forming a sense of collective, often political, consciousness (Huddy [44], Huddy [45], Gurin [46], Conover [47]) Often, this can involve the presence of a prototype representing that identity Miller et al. [48]). From our preliminary research into white supremacist rhetoric, Trump is often described as just that prototype. Jardina [43] tracked the development of a threat-based sense of white identity during recent years, noting that this increased with the Obama presidency, consistent with Tesler [36], but also that measures of white identity heavily predicted positive evaluations of Donald Trump.

The recent history of white supremacy in the United States lends significant credence to the notion that the movement has become increasingly engaged politically. As Simi and Futrell [49] outline, white supremacist groups have long continued to flourish inside "hidden spaces," or enclaves where they can inundate their children into racist belief structures and affirm their own, even if they are unable to act openly in public or in politics. However, these scholars emphasize how the advent of the Internet has been able to bring these spaces to people that once lacked in-person connections to the white power movement, allowing disparate groups to organize real-world activities and further sustain their movement (Simi and Futrell [50]). Simi [51] offers several reasons for a possible new wave in white supremacist activity and terrorism, specifically, and white supremacist activity more broadly, including changing demographics from immigration and the changing cultural and

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political trends associated with the election of Barack Obama in 2008.

Building from the role of perceived threats from immigration, many white supremacists have incorporated this idea of threat into their discourse. Increasingly, they have adopted language suggesting that they have been discriminated against, either due to their white race or their political beliefs, utilizing the language of mainstream civil rights discourse as part of a broader strategy to make their views more palatable to mainstream audiences (Blee et al. [52], Berbrier [53]). This is often tied to the idea of "white genocide", the belief that the white race faces extinction due to increased immigration, to "heritage preservation", or to other allegedly "hate-free" forms. Berbrier [54] As multiple journalistic accounts elucidate, various white supremacist factions have spent the last decade cleaning their public image to be more palatable in the mainstream. [55, 56] While the *Daily Stormer* had previously rejected any effort to soften its tone, there preliminary evidence that even it attempted to shift its framing to package racist ideas in more mainstream ways. For instance, a leaked "style guide"[57] written by Anglin instructs aspiring *Daily Stormer* bloggers in how best to "co-opt the perceived authority of the mainstream media" and that "when using racial slurs, it should come across as half-joking – like a racist joke that everyone laughs at because it's true."

The basic theory then is that the alt-right acted as an energized social movement that pushed conservative elites, such as *Breitbart*, into shifting their media coverage of Trump and immigration closer in line with alt-right and white supremacist priorities. As Trump gained popularity, this served as evidence for a robust audience for pro-Trump and vehemently anti-immigrant audiences, increasing the pressure on *Breitbart* to shift their coverage of the election. This combines Taeku Lee's model for explaining opinion change during the Civil Rights Movement with literature on media fragmentation that gives primacy to consumer demands, and it situates the postulated social movement into contemporary research on the role of white identity and racism in contemporary American politics.

Hypotheses

The central hypotheses are as follows.

H1: Trump's candidacy caused a significant decline in *Daily Stormer's* use of extreme topics.

H2: Trump's announcement caused an immediate surge of support from *Daily Stormer*

H3: *Breitbart* supported Trump after *Daily Stormer* and only when he had demonstrated popularity by securing the nomination.

H4: Trump's candidacy resulted in *Daily Stormer* shifting discourse on immigration to promote more extreme, episodic frames.

H5: Trump's candidacy resulted in *Breitbart* increasing its use of episodic immigration frames.

Data and Methods

In order to assess these hypotheses, we collected blog text from *Breitbart* and *Daily Stormer*. Because *Daily Stormer* did not launch until August, 2013, *Breitbart* articles were only collected beginning August, 2013. In total, we collected 14,560 *Daily Stormer* blogs and 92,526 *Breitbart* articles. Then, each of these text corpuses were subjected to two forms of topic modeling. Finally, 15,109 articles were collected from the popular centrist website *Politico*. This corpus also underwent LDA analysis in order to see if topic shifts occurred for confounding reasons not related to the proliferation of alt-right ideas within conservative news. This was used in an effort to determine if *Politico* experienced similar effects as conservative and alt-right news. If this were the case, such as if *Politico* began to adopt similar frames on immigration or positive discussions of Trump, then the causal mechanisms hypothesized are weakened, suggesting that there is a broader agenda setting context.

First, they each separately underwent LDA analysis. This allowed for topics to be developed in isolation from each other, in order to see if similar topics and patterns emerged. Then, both corpuses were combined and underwent STM-based analysis to detect crossovers in a more rigorous fashion. While the LDA approach better elucidates the specific topic distributions used by each given source, there is some inference necessary to say that two topics discuss the same subject matter. However, STM groups both corpuses and tells us which topics are shared and the extent to which a given topic

occurs in both sources. By utilizing both tactics, however, and seeing similar results in each, this dual approach strengthens the robustness of the method.

We machine coded the data based on established guidelines for unsupervised topic modeling process, basing our method largely on past uses of text models, especially as spelled out in Wilkerson and Casas [58], Quinn et al. [59], and Blei et al. [60]. Wilkerson and Casas [58] lay out a basic framework, beginning with careful attention to converting text into data, as s discussed further in Appendix A's discussion of preprocessing, leading to the process of evaluating its performance. Moreover, all three papers discuss methods of robustness checks, which are included and discussed in Appendix B. Unsupervised methods were chosen to avoid the prohibitively costly nature of hand coding such a massive corpus. Moreover, because supervised processes require a priori assumptions as to the topics at play, this approach raised the concern of researcher bias. If the goal is to determine areas of overlap between the two corpuses, having predetermined categories into which to code documents also presupposes commonality between both corpuses' categories. Instead, an unsupervised approach helps reveal the underlying topics without imposing expectations on either corpus. Finally, as these papers emphasize, the number of topics must be determined. Here, we drew on Roberts et al. [61]'s use of the R STM package. Using the SearchK function, each corpus is subjected to automated tests to determine the optimal number of topics. Based on this analysis, the combined STM corpus was divided into 65 topics. The *Breitbart* corpus was divided into 65, the *Daily Stormer* corpus into 55, and the *Politico* corpus into 60. This is further discussed in Appendix C.

Blei and Lafferty [62] provide a comprehensive introduction into the use of and statistics behind topics, emphasizing its ability to detect hidden structures and patterns within the text, without imposing expectations. Similarly, Blei et al. [60] develop a series of best practices when using topic models which were relied on for guidance. In terms of interpretation, this approach takes a similar one as the applications used, for example, by Boussalis and Coan [63]. That paper both used LDA to understand topic distribution and to understand how that distribution changed over time.

STM provided an important way of understanding the comparisons between topics (Roberts et al. [64]). This method expands on the LDA approach by including covariates within the analysis. This allows topics to be seen as they are similar or different over a selected covariate, such as author, source, or date. As shown in Roberts et al. [61], this approach can allow for complex analysis as to how texts vary based on these features. Under

this approach, topics are created based on both sources, while still keeping track of the source for each document. This allows topics to be seen by the extent to which they occur in one source or another. This also allowed us to see, within a given topic, which words were more likely to occur in *Daily Stormer* rather than *Breitbart* and which sources tend to feature which topics. Moreover, by also including date covariates, we can see how the presence of a topic changed over time, based on the individual source. This model is demonstrated in Roberts et al. [65] by demonstrating how various sources describe news in China over different time periods. This was primary employed to supplement the LDA analyses and verify that when *Daily Stormer* and *Breitbart* began using similar topics, they were using comparable language in each such that those topics can be deemed similar.

The *Daily Stormer* was selected because it serves as both the largest white supremacist news organization but also as a focal point for the alt-right. Not only does it situate itself within the alt-right movement, commenting on other leading members and associated news, but it also has opened its pages to contributions — though the extent of author complicity is unknown — by leading supremacists like David Duke, Jared Taylor, and Michael Enoch, as well as more mainstream so-called "alt-light" conservatives like Ann Coulter and Pat Buchanan. This makes the website a representative of the white supremacist Right. Similarly, *Breitbart* was chosen as the leading conservative news website, in terms of traffic, besides the aggregation-based *Drudge Report*.[9] While *Breitbart's* ties to Donald Trump are the source of endless media speculation, they are not the primary reason for it's selection in this analysis. Instead, *Breitbart* represents a major source of conservative news, and its connection to Donald Trump simply emphasizes his influence over conservative discourse.

After preparing the corpora for topic modeling by determining preprocessing steps and optimal numbers of topics, the resulting models were closely analyzed to determine the exact topic to which they referred. In addition to reviewing the most frequently used words, the top ten articles for each topic were hand read. This involved sorting topics by their topic prevalence and reading the articles that most exemplified each topic, as topic prevalence indicates how many words related to a given topic are present in each article. Thus, reading the topic topic prevalence articles, I was able to see what the LDA algorithm determined to be the main word clusters for each topic. For STM topics, the top ten from each source were examined for each topic. These were then plotted over time in order to determine if they were par-

ticularly confined to the election, the Trump administration, or the Obama administration. Further details of each topic are provided in Appendix D.

In order to verify that my hypotheses on the progression of topics are accurate, this paper will employ a series of t-tests and interrupted time series analyses. The t-tests are intended to support descriptive claims that certain topics increased or decreased during the election as opposed to pre-election, for instance. This allows us to say if the changing discourse was likely to occur by chance alone, or if there is a statistically significant shift. Similarly, interrupted time series analyses, with an eye towards inferring causality, help see if discourse sharply decreased or increased around key inflection points.[1] This allows some degree of confidence in attributing Trump's announcement of candidacy, for example, as a causal factor for changes in media discourse.[2] This is not always possible, where inflection points are not theoretically obvious, so the design combines interrupted time series analyses with t-tests to better assess my hypotheses. For *Daily Stormer*, each t-test used daily topics, as did each interrupted time series, however, this tactic proved insufficient for *Breitbart*. Due presumably to the incredibly high volume of articles, daily measures were unable to see significant t-test increases even when testing to see if there were increases for topics with nearly zero instances before an inflection point. Instead, in each case, weekly topics were utilized. Finally, a series of inflection points were selected for theoretical reasons. The first, Trump's announcement of candidacy, provides an effective time to assess the immediate impact that Trump's candidacy had on news discourse. Similarly, I examine his securing of the nomination on May 3, 2016, after Trump won the Indiana primary, and his final primary rival, Ted Cruz, dropped out of the race. This serves as a moment where conservatives were tasked with focusing their support on the only remaining Republican candidate, indicating a major shift in the election. Finally, Trump's successful general election victory was also examined as a natural point where his popularity on the right would be at a high point.

The first hypothesis will be tested by interrupted time series analyses on each topic deemed "extreme" in order to see if each decreased significantly after Trump announced his candidacy. Then, all the topics will be aggre-

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[1]All regression results are displayed using stargazer. [66]

[2]While I controlled for possible monthly variations, those results were not displayed in included figures for the purposes of visual parsimony.

gated, and the interrupted time series will be redone on all topics at once. Finally, a t-test will be conducted to see if extreme frames were generally more common before the announcement as opposed to during the election.

The second hypothesis will be tested with an interrupted time series analysis on *Daily Stormer's* pro-Trump topic surrounding Trump's initial announcement.

The third hypothesis will first be tested with an interrupted time series analysis on *Breitbart's* pro-Trump topic at Trump's announcement (expecting null results) before performing a similar test once he secured the nomination. A t-test will also be performed for before and after Trump secured the nomination.

The fourth hypothesis will be tested by performing an interrupted time series analysis with Trump's announcement of candidacy to see if *Daily Stormer's* newly introduced episodic immigration frame increased due to his election.[3] Because there are other immigration frames at play, a t-test will also be conducted to see if macro-level frames decreased from the pre-election to election period, while micro-level frames increased overall.

The fifth hypothesis will be tested with a t-test on the use of `Breitbart's` episodic and macro-level immigration frames before and after the announcement of candidacy. Specifically, this tests whether episodic frames increased after Trump's announcement of candidacy. Moreover, an interrupted time series analysis will be performed to see if episodic frames increased after Trump secured the nomination and after Trump won the election.

Topic Selection

The first hypothesis concerned extreme topics from within the Daily Stormer corpus. Topics were selected that had no counterpart in *Breitbart* and that were considered to be both particularly extreme relative to mainstream discourse and which represent an important facet of white supremacist ideology, based both on previous literature and our own experience reading the corpus and related white supremacist writings. A total of twelve topics were selected (4: Holocaust Denial, 9: Hitler Apologism, 10: Western Degradation, 11: Jewish Control, 20: Anti-Feminism, 36: Racial Differences, 39:

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[3]As will be seen, there were two new episodic immigration frames, but one is clearly linked to an incident in Cologne that year, rather than being causally attributable to Trump.

Jewish Media, 42: South African White Genocide, 43: Anti-Integration, 45: Black Crime, 49: White Interests, 50: White Interests 2). A brief description of each is included in Appendix D, but these topics largely deal with African-American crime, allegations of anti-white ideology, rhetoric opposing interracial relationships, Nazi apologism, anti-Semitism, and Holocaust denial.

The subsequent hypotheses necessitated further analysis of the *Daily Stormer* corpus, in addition to the *Breitbart* LDA model and the combined STM model. Here, both LDA models for *Daily Stormer* and *Breitbart* were analyzed to see which topics were substantively comparable, while the STM model helped determine the extent to which language used in apparently similar topics was actually comparable. Topics relating to Donald Trump's campaign and to immigration were common in both, with multiple topics relating to each. The emphasis on immigration is perhaps not surprising, given that the 2016 election heavily featured the issue of immigration and ran through much of the analysis period. Moreover, immigration plays an important role both in the white supremacist desire for an ethnostate and fears of so-called "white genocide," but it also was a driving issue in intra-Republican politics since at least 2012 and in the Republican primary of 2015/2016. For both the theoretical and historical importance of immigration, but also for the significant focus of both corpora on the topic, it was selected as the main mode of comparison.

Topics concerning Donald Trump had to be inspected carefully. These were subset to include a pair of topics for each corpus demonstrating overt support for the candidate/President, as well as those used to defend his presidency. This settled on *Daily Stormer's* use of topics 7 (Pro-Trump Election) and 41 (Pro-President Trump) which explicitly rooted on his candidacy. The former was mostly devoted to favorable coverage of the primaries, with the latter showcasing explicit statements of support and platforms for Trump's tweets and speeches, mostly after he secured the presidency. Similarly, *Breitbart's* topics 7 (Pro-Trump Election) and 22 (Defense of Trump) were devoted to defending Trump during the election. The former was filled with favorable general election coverage, with the latter mostly defenses of his Presidency. This second one mostly shows how support for Trump extended post-election. The most explicit are the two "Pro-Trump Election" topics (7 and 7), and these will be the focus of statistical tests. The STM model also garnered a set of similar topics which discussed Trump's candidacy: 24, 32, and 46. Of these, 24 (STM Pro-Trump) represents the most explicitly pro-Trump of the

topics, regularly giving an uncritical platform for his tweets and speeches.

In a similar fashion, six immigration topics were selected from the Daily Stormer LDA models (13, 14, 22, 25, 27, and 38), and four topics were chosen from the *Breitbart* LDA model (12, 28, 29, and 33). These were each read closely, with an eye to how exactly the subject of immigration was framed. For *Daily Stormer*, this tended to be divided between discussions of broader trends, such as how immigration caused alleged cultural decline or white demographic displacement in the United States and Europe, (13, 22, and 25) and more focused discussions of immigrants or refugees acting as criminals (14, 27, and 38). In the former case, immigration was described as a broad impersonal force, whereas in the latter, it was described as consisting of individual immigrants who were themselves the problem. On the other hand, *Breitbart's* topics were also split between larger discussions of immigration policy (12, 29, 33) and reform and more concrete discussions of immigrant crime (28), though the latter did not appear to be present before the election. These binaries mapped largely onto the episodic/thematic discussion discussed earlier.

In each case, moreover, these were compared to the topic results of the STM package which yielded three relevant topics about Trump's campaigns and three relevant immigration topics (24, 32, 46 and 16, 54, 58, respectively). One of the Trump topics was explicitly Pro-Trump: 24 (STM Pro-Trump). The other two dealt with "STM General Election Coverage" (46) and "STM Trump as President" (32). The third is not largely useful for this paper, but 24 and 46 can be used to see if pro-Trump rhetoric was similar and to distinguish better between pro-Trump rhetoric and simple coverage of the campaign. In a similar manner, the immigration topics were divided between the episodic "STM Border Security" (16) and the more thematic "STM Homeland Security" (54). A final topic (58) emphasized Trump's connection, focusing on "STM Trump Will Stop Immigration." STM allows for each of these topics to be analyzed to see if they are more likely to appear in *Daily Stormer's* or *Breitbart's* and which words appear in instances of the topic from each source. STM also allowed us to see how this language, by source, changed and converged over time.

Finally, topics were examined from the *Politico* corpus discussed. This was intended to determine whether *Politico* had yielded a similarly pro-Trump topic or had begun a shift towards episodic immigration stories. Either of these possibilities would indicate either that the topics selected above were excessively vague or that exogenous features were driving changes in

topics. However, no comparable topics were found within the *Politico* corpus. This suggests that any shifts were occurring within the conservative and far-right media universes, rather than being due to general trends within the mainstream news.

Analysis

0.1. Extreme Topics (H1)

Anybody who has strayed onto white supremacist blogs, especially the *Daily Stormer*, should be quite familiar with the extremist, often incredibly offensive, nature of their online discourse. While this tone scarcely shifted during the study period, the topic selection certainly has. In the case of each extreme topic, an interrupted time-series analysis and a t-test were conducted on daily topic frequency, as a percent of total topics used, in order to see if the announcement of Trump's candidacy resulted in a statistically significant reduction in topic frequency. The first of these used an interrupted time series on each of the 12 topics deemed "extreme," using Trump's June 2015 announcement of candidacy as an inflection point. This analysis found that of the 12 topics deemed "extreme", seven saw a significant decline during the period after Trump announced his candidacy. Similarly, the topics were also aggregated into a daily measure of "extreme" discourse, and the same analysis was replicated finding that, overall, extreme topics decreased drastically after Trump's candidacy began.

Table 1: Extreme Topics Time Series

	Dependent variable:
	Extreme Topics
Date	0.001***
	(0.0003)
Trump Announcement	−0.981***
	(0.158)
Date:Trump Announcement	−0.0003
	(0.0004)
Constant	2.408***
	(0.167)
Observations	1,632
Log Likelihood	−2,843.015
Akaike Inf. Crit.	5,720.030
Bayesian Inf. Crit.	5,811.631
Note:	*p<0.1; **p<0.05; ***p<0.01

An additional t-test was analyzed to see if the average daily topic frequency for extreme topics decreased during the election (from Trump's announcement until Election Day) from pre-election levels. Again, this found a statistically significant drop, suggesting that any immediate effect of Trump's candidacy continued throughout the election.

Table 2: T-Test for Extreme

BeforeMean	AfterMean	T-Stat	P-Value	95 Conf. Low	95 Conf. High
0.08	0.05	5.76	0.00	0.02	0.04

0.2. Pro-Trump (H2,H3)

During the early days of the primary, we would expect pro-Trump topics to rise for both sources, as they had scarcely existed before, but my second

hypothesis would predict they would do so more for *Daily Stormer*. This fits with *Daily Stormer's* immediate endorsement. When an interrupted time series analysis was conducted on both sources' topics to see if they rose in a significant way upon Trump's announcement, it is only significant for *Daily Stormer's* topic, indicating that their support was immediate and only gradually gravitated to *Breitbart*.

Table 3: Time Series For Trump Announcement

	Dependent variable:	
	DS	Breit
	(1)	(2)
Date	−0.0001	−0.00005
	(0.0001)	(0.0001)
Trump Announcement	0.688***	0.012
	(0.076)	(0.029)
Date:Trump Announcement	−0.0003*	0.0001
	(0.0002)	(0.0001)
Constant	0.007	0.081***
	(0.080)	(0.031)
Observations	1,632	1,568
Log Likelihood	−1,327.905	−249.759
Akaike Inf. Crit.	2,689.810	533.517
Bayesian Inf. Crit.	2,781.412	624.432
Note:	*p<0.1; **p<0.05; ***p<0.01	

As Trump gained the nomination, however and won the election, *Breitbart's* use of this topic steadily increased. This was tested using another interrupted time series analysis to see whether Trump's seizure of the nomination in May 2016 resulted in an immediate increase in support from *Breitbart*. This found a positive and significant effect, though notably more muted than

Daily Stormer's immediate endorsement.

Table 4: Breitbart Time Series Nomination

	Dependent variable:
	Pro-Trump
Date	−0.00004
	(0.00003)
Nomination	0.058**
	(0.029)
Date:Nomination	−0.00001
	(0.0001)
Constant	0.075***
	(0.028)
Observations	1,568
Log Likelihood	−248.068
Akaike Inf. Crit.	530.135
Bayesian Inf. Crit.	621.050
Note:	*p<0.1; **p<0.05; ***p<0.01

Given that we would expect a more gradual shift of support for Trump amongst *Breitbart* articles, a t-test was performed to see if, before Election Day, pro-Trump topics increased after the nomination.

Table 5: Breitbart Pro-Trump Around Nomination

BeforeMean	AfterMean	T-Stat	P-Value	95 Conf. Low	95 Conf. High
0.03	0.10	-5.79	0.00	-0.10	0.04

The STM models also strengthen the assessment that support for Trump converged by the nomination period. When looking at which topics were closely shared by both sources, the pro-Trump STM topic was the closest

to being equally shared between both sources. The STM Pro-Trump topic demonstrates that the language used when endorsing Trump was comparable between both sources. Moreover, when showing how that support changed over time, Figure 2 demonstrates how the topic for *Daily Stormer* (blue) increased more quickly but that the topic selection became almost indistinguishable during the second half of 2016.
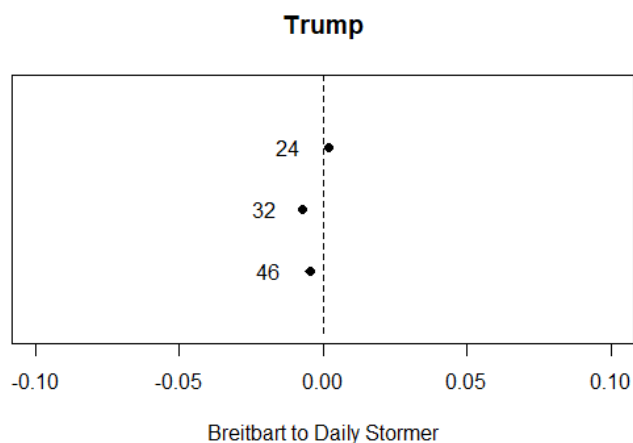
Trump

Figure 1: STM Trump Topics
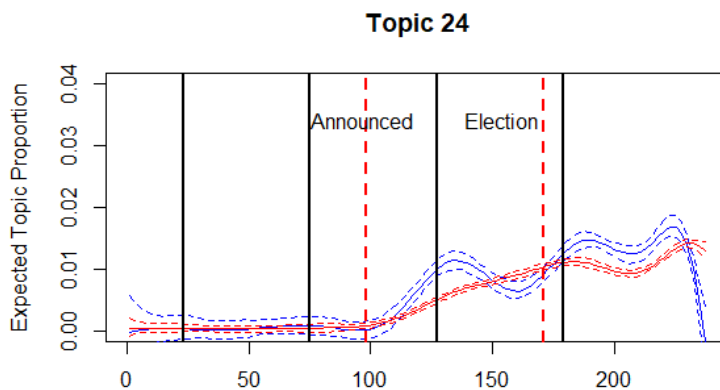
Topic 24

Figure 2: STM Topic 24

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None of this is to say that *Breitbart* was not initially interested in discussing the candidacy as a news event. As the election coverage (46) demonstrates, both sources quickly covered the campaign, almost at identical rates. It is notably that this topic is simply news over the campaign, as it drops off quickly after Trump's victory and appears to be almost identical in frequency for both sources. These STM models together show that, when both outlets covered Trump, positively or neutrally, they did so in similar ways.
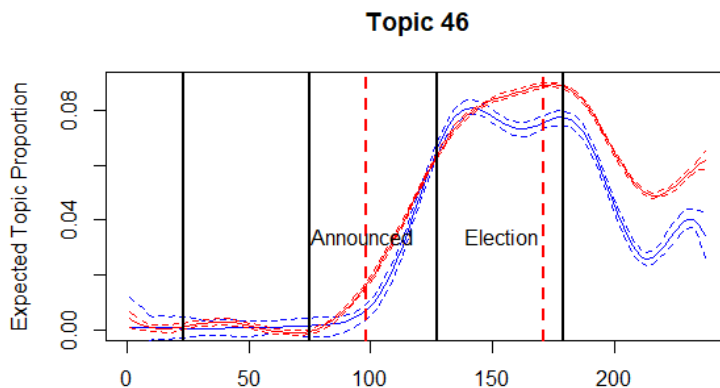
Figure 3: STM Topic 46

0.3. Immigration (H4, H5)

Daily Stormer's coverage of immigration significantly shifted during the election. Before the election, extreme topics were the primary, though not exclusive, focuses of immigration discussion. When *Daily Stormer* did discuss immigration, it relied on high-level thematic topics. This included a focus on the effect of mass immigration (13), resistance to multiculturalism (25), and fears of so-called "white genocide (22), all of which talked about the broad impact of immigration into the Western World. It is not as though they did not discuss episodic content either, as topic 27 (Refugee Sex Crimes 1) focused on the crimes committed by refugees and featured numerous episodic frames. Yet, after Trump announced his candidacy, *Daily Stormer* began focusing even more on the crimes caused by immigrants, specifically Syrian refugees in Europe. This included topic 14 (Refugee Crimes) and topic 38 (Refugee Sex Crimes 2). These two topics, which were starkly episodic in

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nature, dominated the discussion throughout the election. This was tested by performing another interrupted time series analysis on the Refugee Crimes topic, finding that it increased quickly after Trump's announcement. The additional Refugee Sex Crimes 2 topic was not tested for Trump's impact, as a reading of the topic made clear that it spiked due to a series of incidents in Cologne, Germany where refugees allegedly committed a series of sexual assaults.

Table 6: DS Episodic Frame Time Series

	Dependent variable:
	Refugee Crimes
Time	0.00004
	(0.0001)
Trump Announcement	0.341***
	(0.047)
Time:Trump Announcement	−0.0005***
	(0.0001)
Constant	0.172***
	(0.050)
Observations	1,632
Log Likelihood	−1,048.430
Akaike Inf. Crit.	2,130.860
Bayesian Inf. Crit.	2,222.462
Note:	*p<0.1; **p<0.05; ***p<0.01

Similarly, because of the presence of non-Trump linked and pre-election episodic frames, a t-test was performed to see if episodic/micro frames increased during the election, with regard to pre-election, and whether the opposite were true with more macro-level thematic frames. The test found both to be the case.

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Table 7: DS Micro Immigration Frames Before/After Announcement

BeforeMean	AfterMean	T-Stat	P-Value	95 Conf. Low	95 Conf. High
0.06	0.10	-5.77	0.00	-0.05	-0.02

Table 8: DS Macro Immigration Frames Before/After Announcement

BeforeMean	AfterMean	T-Stat	P-Value	95 Conf. Low	95 Conf. High
0.08	0.05	5.76	0.00	0.02	0.04

Breitbart's immigration topics also showed a strong reaction to the election, though not immediately. While the pre-election period did not feature many episodic immigration stories, it is hypothesized that these increased throughout the election. This was first tested with a pair of t-tests which, just like for *Daily Stormer*, sought to assess whether episodic/micro stories increased during the election, whereas thematic/macro stories decreased. These tests found that while episodic stories did increase, macro stories remained relatively constant. This provides support for an increase in episodic stories and thus for my hypothesis.

Table 9: Breit Micro Announce Weekly

BeforeMean	AfterMean	T-Stat	P-Value	95 Conf. Low	95 Conf. High
0.00	0.03	-4.49	0.00	-0.03	-0.01

Table 10: Breit Macro Announce Weekly

BeforeMean	AfterMean	T-Stat	P-Value	95 Conf. Low	95 Conf. High
0.05	0.04	0.87	0.39	-0.01	0.01

It was also hypothesized that Trump's election would have more direct causal impacts on the use of episodic immigration frames, so an interrupted time series analysis was performed on the "Crime on Border" topic using both the successful nomination and general election victory as inflection points. These both represent points where conservative support for Trump would logically increase. The results suggest that, while Trump's nomination did not result in an increase, his general election victory lead to a sharp increase in the use of episodic immigration frames.

Table 11: Time Series Breitbart Immigration

	Dependent variable:	
	Crime on Border	
	(Nomination)	(General)
Time	−0.0001	
	(0.0001)	
Trump Nomination	0.003	
	(0.069)	
Time		−0.0001***
		(0.0001)
Trump Election		0.305***
		(0.071)
Time:Trump Nomination	0.0003**	
	(0.0002)	
Time:Trump Election		−0.0003
		(0.0002)
Constant	0.255***	0.200***
	(0.064)	(0.063)
Observations	1,568	1,568
Log Likelihood	−1,366.224	−1,358.682
Akaike Inf. Crit.	2,766.447	2,751.364
Bayesian Inf. Crit.	2,857.362	2,842.279
Note:	*p<0.1; **p<0.05; ***p<0.01	

These patterns were replicated via the STM model. Even though *Daily Stormer* and *Breitbart* were largely focused on vilifying different types of immigrants, the similarities elucidated by the STM analysis show that their

topics were quite similar with discursive overlap. Three topics discussing immigration between sources occurred relatively frequently. One topic (36) was excluded as it was primarily used by *Breitbart* to discuss Obama-era immigration reform efforts. Of the selected topics, "STM Border Security" (16) dealt with border security on the U.S.-Mexican border. This was relatively flat for *Daily Stormer*, moving mostly for *Breitbart* after the election. The terminology was often quite similar, stressing the need to strengthen security along the border, and the topic was almost equally common for both *Daily Stormer* and *Breitbart* following Trump's announcement of candidacy. This topic shows how episodic claims of immigrant crime were closely tied between *Daily Stormer* and *Breitbart*, despite the fact that each tended to focus on different types of immigrants.
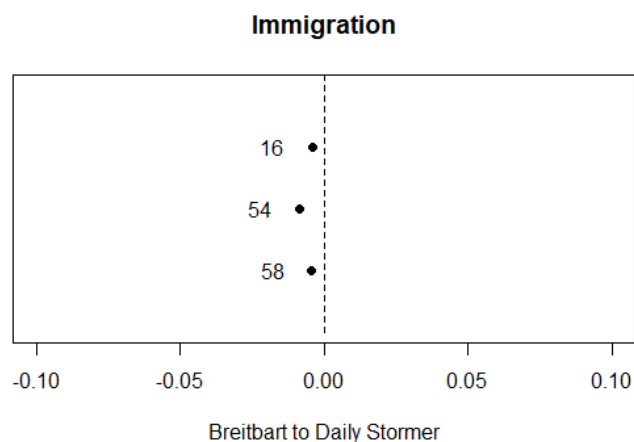
Figure 4: STM Immigration Topics

immigr_polici
immigr_law
g_alien
nation_flag
peopl_con
childhood_arriv
open_borde

defer_action
action_childhood
american_citizen

Breitbart   DS

Figure 5: STM Topic 16
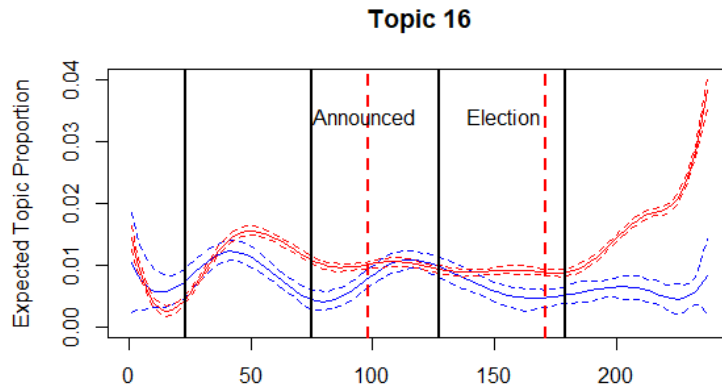
Figure 6: STM Topic 16

These topics show a common focus on Trump's efforts to curtail immigration, including legal immigration. Moreover, by looking at their changes over time, it is even more clear that they spiked alongside Trump's victory. While "STM Homeland Security" (54) was generally present, especially for *Breitbart* before the election, another topic dealing with how Trump could prevent immigration "STM Trump Will Stop Immigration" (58) only emerged after

28

the election. The former was only prominent for *Daily Stormer* before the election, though both sources increased their discussion sharply on Trump's victory. Much of the STM data may suggest that *Daily Stormer* was largely uninterested in the topic of immigration before Donald Trump, but this is not the case. Instead, as the LDA models showed, *Daily Stormer's* focus was more on macro-level immigration trends, as well as European immigration, while *Breitbart* generally discussed immigration policy. Yet it is the confluence of the "STM Border Security" topic that shows how the election had the effect of promoting a very similar sort of discourse between topics. While LDA demonstrated a shared usage of episodic frames, STM helps show that the actual language grew increasingly similar. This culminated in the "STM Homeland Security" topic showing how U.S.-centric topics of homeland security also took prominence for *Breitbart*, and to a lesser degree for *Daily Stormer*, alongside Trump's election.
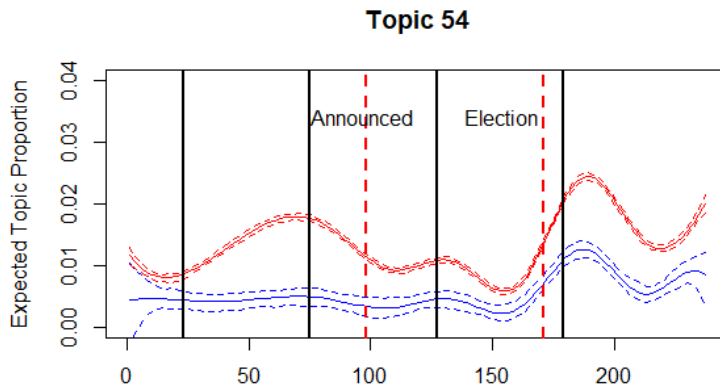
Figure 7: STM Topic 54
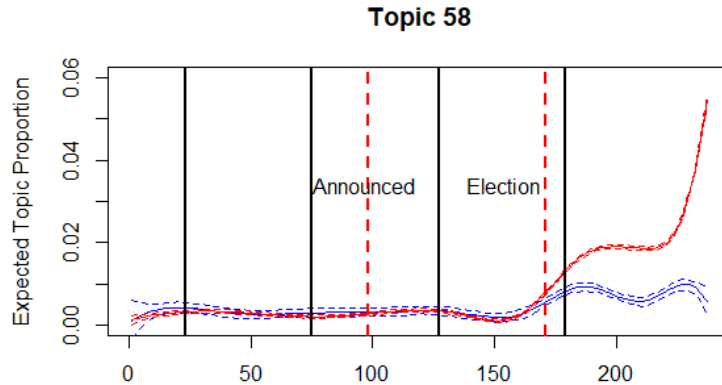
Figure 8: STM Topic 58

Discussion

Overall, the results demonstrate strong support for my hypotheses. They paint a picture of a white supremacist media discourse that responded to Trump's announcement of candidacy by toning down fringe topics and emphasizing both their support for Trump and their vilification of immigrants. Similarly, the results show that, while initially not supportive of Trump, *Breitbart* began to promote his candidacy after he had achieved political success and, after Trump achieved political success, began shifting their discourse to increasingly villify immigrants and adopt language similar to *Daily Stormer's* increasingly mainstream image.

The trends among extreme topics fit well within the theoretical expectations and background information suggesting that many white supremacists were either trying to mainstream their image or were trying to become better recruiters of formerly moderate white conservatives. Moreover, it provides support for our first hypothesis. While slightly over half of the topics showed a decline, it would have been quite surprising to see *Daily Stormer* abandon extreme topics completely, and the tests on aggregated daily stories demonstrate that Trump's candidacy had a sizable effect on moderating the topic selection of their discourse overall. Figures 9 and 10 show which topics experienced a reduction and show that, even when they were not overly responsive to Trump's announcement, there were few notable surges in extreme topics

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during the election period.

Reduction in Extreme Topics
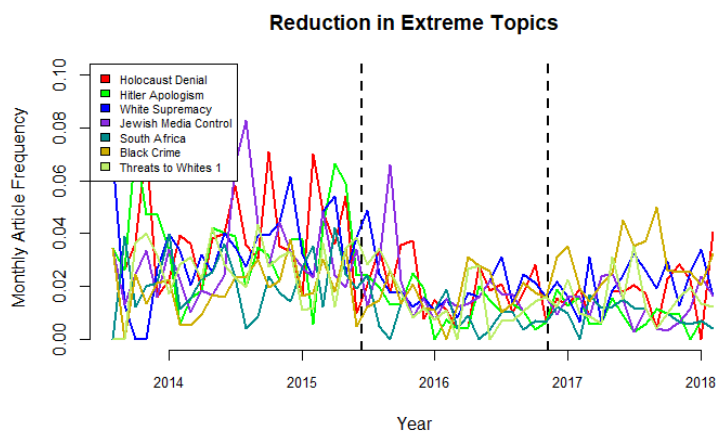
Figure 9: Reduction in Extreme Topics

Non-Reduced Extreme Topics
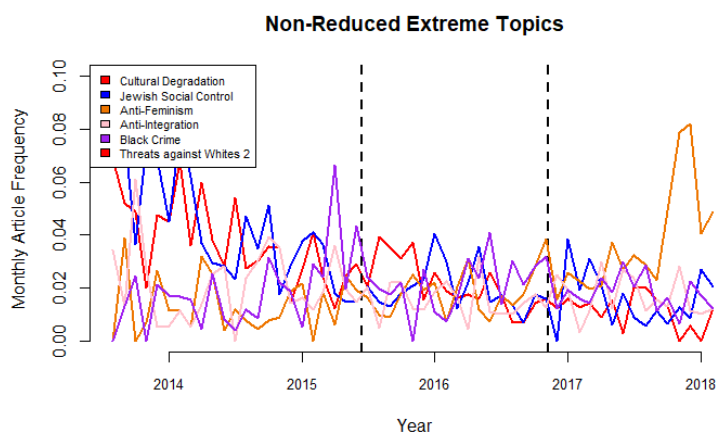
Figure 10: Non-Reduced Extreme Topics

The results similarly confirm hypotheses concerning support for Donald Trump. For *Daily Stormer*, this topic rose much more steadily during the end of 2015, in contrast to *Breitbart's* which remained tepid until rising during 2016. The observations in Figure 11 give some additional context to the results of my statistical tests. While Daily Stormer saw Trump as the

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best option, their support for him was always tempered by historical anti-political affiliations and by fears that he would abandon their interests on major issues. Still, while *Breitbart* eventually came to strongly support the candidate, *Daily Stormer* set that path by endorsing and supporting him early and vehemently.[4]
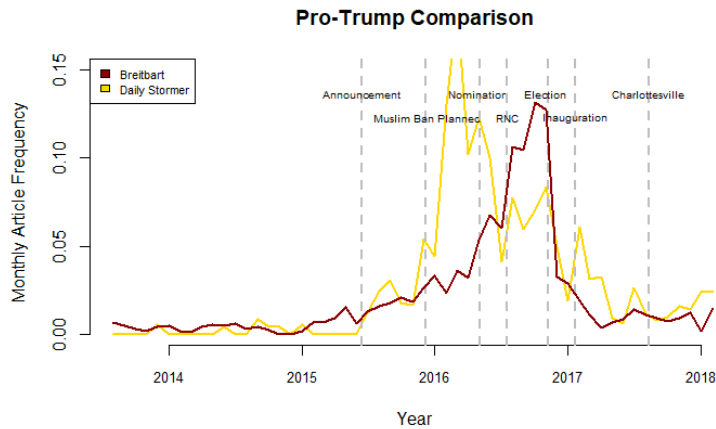
Figure 11: Pro-Trump Comparison

In terms of immigration, both *Breitbart* and *Daily Stormer* underwent a similar process during this period. Both sources saw new frames of immigrants as a threat escalate after Trump's announcement and throughout the election. While some exogenous events, like a series of New Years' Eve sexual assaults in Germany in 2015 helped to drive *Daily Stormer's* chatter, there was a significant increase in episodic frames overall, including one directly related to Trump's candidacy.

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[4]While these topics appear to show a drop off in support for Trump after the election, new topics were instead introduced that described his presidency. These were not analyzed in this paper.

Daily Stormer's Immigration
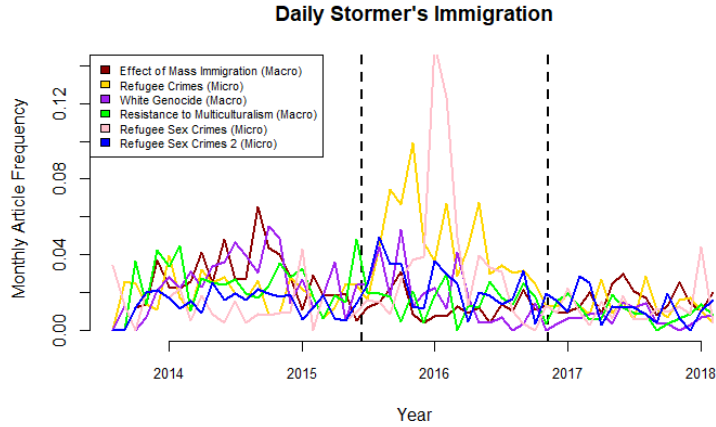
Figure 12: Daily Stormer's Immigration Topics

Before Trump announced his candidacy, *Breitbart's* thematic topic dealing with immigration reform and amnesty (Immigration Policy), was the dominant topic at play. This began to steadily decline, eventually becoming replaced by an episodic topic (Crime Across Border) and another thematic one (Conservative Failings on Immigration). The first of these dealt with specific instances of crime and instability, while the second looked at how politicians, especially Paul Ryan, had failed to secure the border. By the general election, however, Crime Across Border became a dominant topic and remained so after the election, experiencing a sharp boost after Trump's victory. This helps show how, while thematic frames remained important, episodic frames were introduced and gained ascendency as Trump's popularity and success gained as well

33
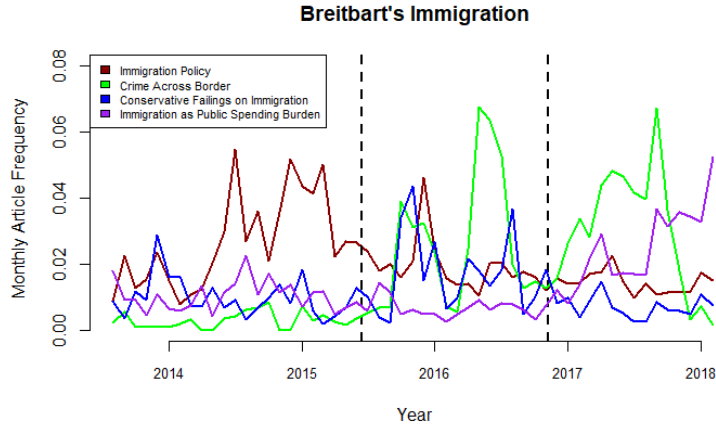
Figure 13: Breitbart's Immigration Topics

Finally, when looking at how both sources began to change their discourse over immigration, it can be seen that *Breitbart* began describing immigration and immigrants specifically more closely to how *Daily Stormer* had been doing so. This shift was confirmed both in the increased instance of episodic frames but also in the STM models which showed how those same frames showcased remarkably similar language and patterns over time.
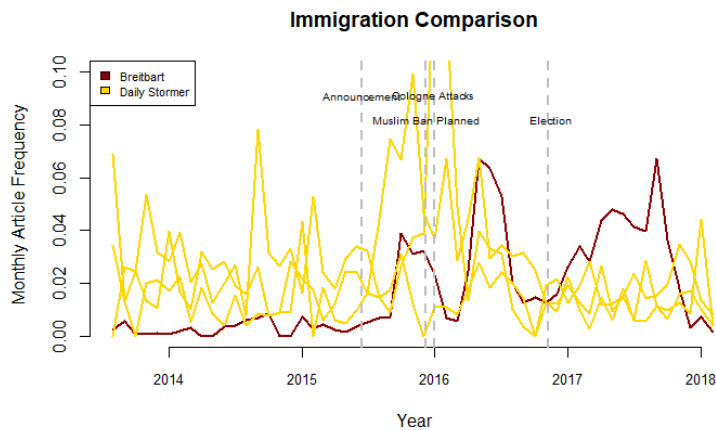
Figure 14: Immigration Comparison

Conclusion

This paper has presented a comprehensive analysis of media trends in both white supremacist and mainstream conservative news before, during, and after the 2016 election. Given the historic nature of white supremacist support for Donald Trump, and the racial and political factors surrounding the election, it was expected that white supremacist ideas had the potential to significantly shape mainstream conservative discourse, as white supremacists have been seeking to do with their increasingly online presence. We found that, initially, white supremacists toned down their explicitly racial rhetoric in favor of mainstream palatable vilification of immigrants and vocal support for Donald Trump. Most interestingly, conservative news hesitated and then embraced both the more anti-immigrant topics and the more pro-Trump topics, only after white supremacist media had set the new tone and after Trump had gained popularity. This paper not only describes the changes of white supremacist and conservative discourse and the impact of Trump's election, but it also provides a model for how unsupervised learning techniques can process, analyze, and understand media trends.

Appendix A. Preprocessing

Each corpus was analyzed to determine exactly what steps to take in the preprocessing stage. While many packages simply default to stemming, removing stop words, lowercasing, etc., such decisions have significant impacts on the overall relations between words (Denny and Spirling [67]). This concern was broader than simply dealing with basic questions of preprocessing but also extended to the use of bigrams. Many phrases within both corpuses, such as "white genocide," "illegal immigrant," and "radical Islam," express strikingly different meanings than each given word would in isolation. The preText R package (Denny and Spirling [67]) allows us to see the net effect of each preprocessing decision in changing the average distance between documents in a given document term matrix. This was conducted on all four corpora: *Daily Stormer*, *Breitbart*, *Politico*, and the first two combined.

In the case of *Daily Stormer's* corpus, we chose to engage in all preprocessing steps, including the use of bigrams (PNLSWI3). As can be seen in the accompanied figure, this has minimal impacts as doing more limited versions of preprocessing, and was the most optimal set of features, given the need to remove stopwords, numbers, and infrequently used terms which we

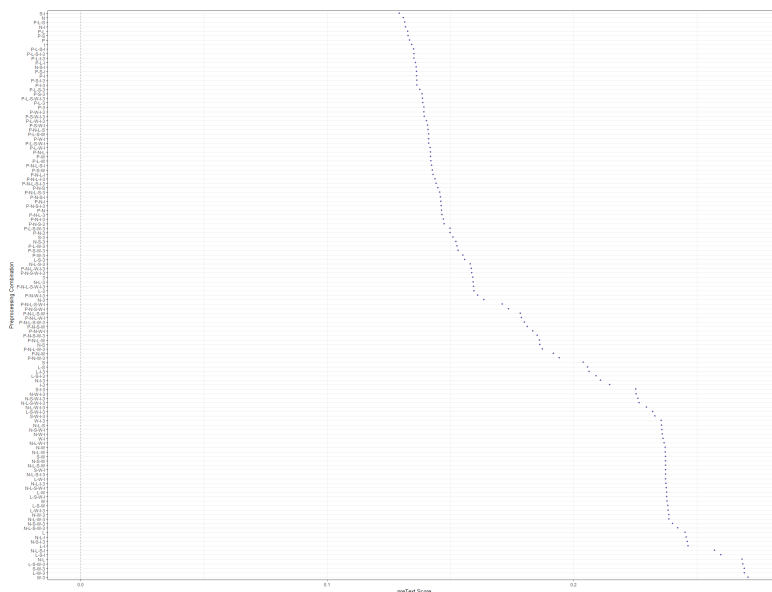chosen as theoretically necessary to remove, given the bizarre topic results if neglecting any of these steps.

Figure A.15: Daily Stormer PreText

Breitbart, on the other hand, was subjected to only one fewer preprocessing step, choosing to not stem words (PNLWI3). The choice was between this and the entire set of preprocessing steps, as both show a relatively similar, and not abnormal distribution from the preText results, but we chose to leave the terms unstemmed, in order to avoid mistaking nuances between words that would be made similar. This was not made for Daily Stormer as stemming helped to more significantly normalize the results of that corpus.
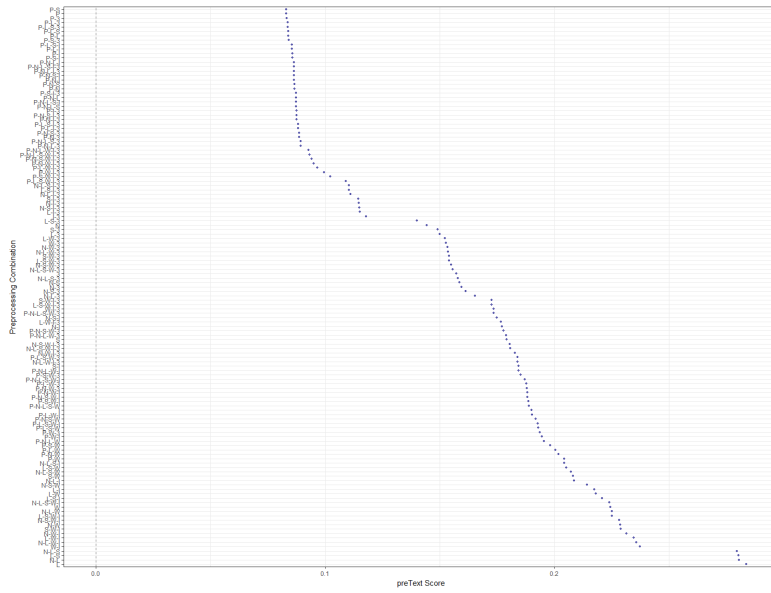
Figure A.16: Breitbart PreText

Politico was subjected to a similar analysis using the preText package. This corpus was subjected to all of the preText options. While the results indicate that removing numbers creates a significant effect, failing to do so resulted in extremely muddled data.
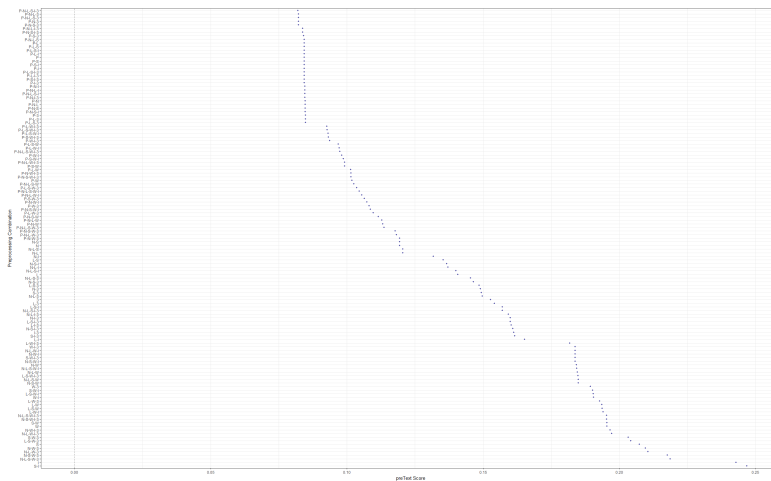
Figure A.17: Politico PreText

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Finally, the combined corpus was also subjected to preprocessing analysis using preText. Here, we chose to use a slightly different set of preprocessing criteria, keeping all steps while choosing not to remove numbers (PLSWI3). Numbers were shown to have a significant impact on the results, and including number removal in which the rest had drastic effects on how normal the combination was.
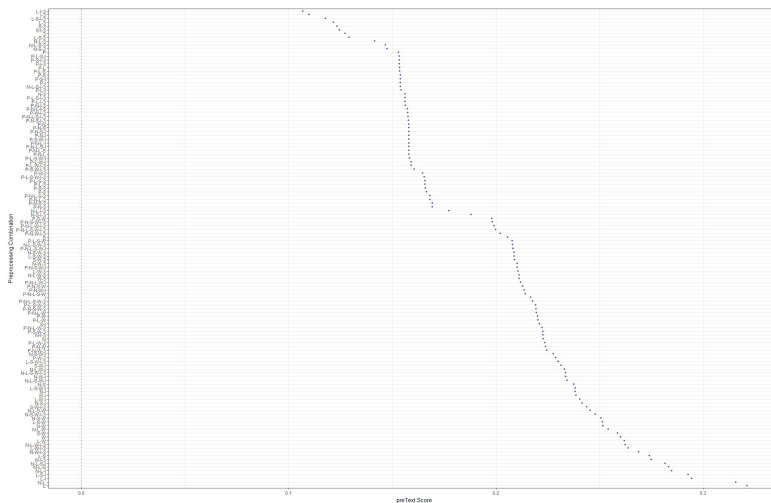
Figure A.18: Full PreText

Appendix B. Robustness Checks

Robustness checks are highly important methods for determining whether these topic models effectively represent trends in discourse. Previously cited methods include looking at specific examples of topics, using complementary algorithms, and seeing that topics correspond to real-world expectations. This paper attempts to employ each of those three approaches, in addition to representing LDA results in various ways. While the body of the paper examines the LDA topics over time as ratio to the total number of articles in a given month, there are alternative ways to represent the LDA topics. This method was chosen as it was considered crucial for reconciling the drastically different numbers of *Breitbart* and *Daily Stormer* articles, which makes absolute frequency difficult, and because a focus on topic prevalence can fail to fully capture how much the site focuses attention on a given issue. Topic prevalence can be consistent without devoting articles solely to the topic.

By looking at the number of articles per week, as a proportion of the total, attention can be focused more on when the topics are emphasized. However, each LDA graph was represented in each fashion, excluding absolute monthly articles in comparisons, showing that the choice between each approach makes little difference, supporting the robust nature of the model. Some of the crucial LDA models are shown below, and all interrupted time series analyses have been replicated with topic prevalence.
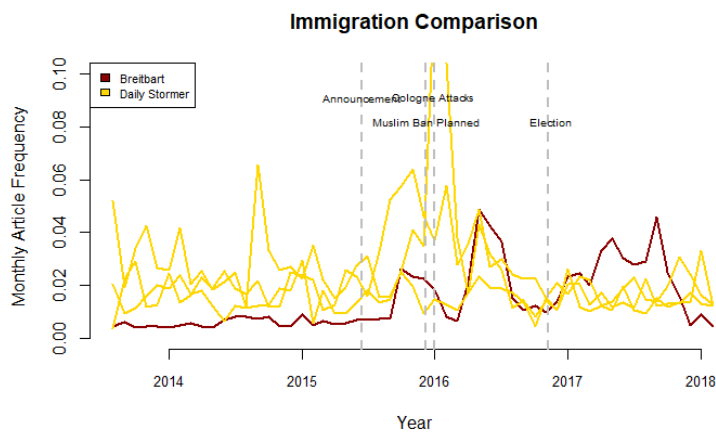

Figure B.19: Immigration Comparison (TP)
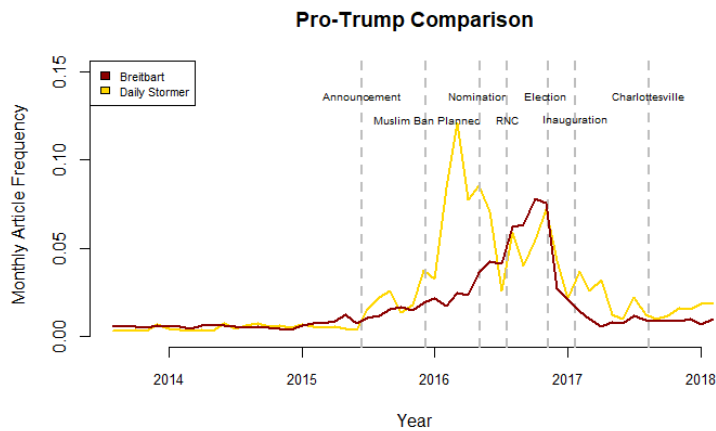
Figure B.20: Pro-Trump Comparison (TP)

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Moreover, the models can be replicated between LDA and STM to demonstrate similarities. This is demonstrated by showing the similarities between pro-Trump topics, including *Breitbart's* LDA topic 19, *Daily Stormer's* LDA topic 12, and STM's topic.
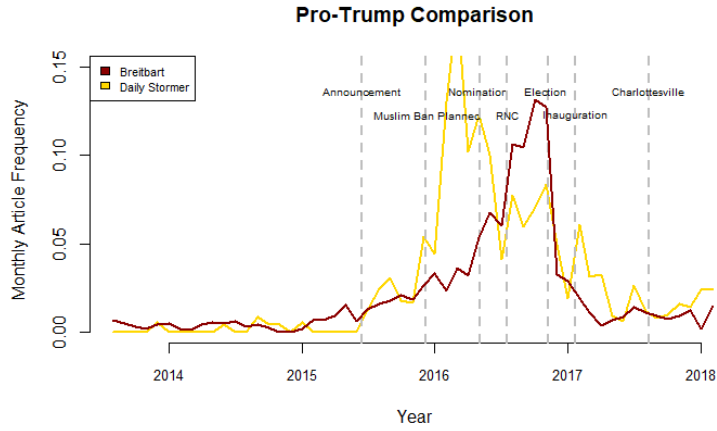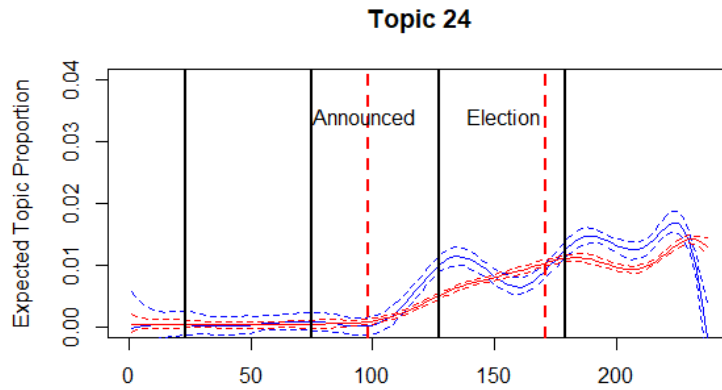

Figure B.21: Pro-Trump LDA

Figure B.22: Pro-Trump STM

Appendix C. Selection of Topic Numbers

The searchK function in the STM package allows for topic models to be repeatedly run at different numbers of topics, yielding a series of measures of fit. This was employed on each corpus for values of K (topics) between 10 and 80.

- Held Out likelihood: For a subset of documents, half the document is withheld for creating a model, and the likelihood of it containing the held-out words is calculated. Higher values of this measure indicate that the held-out words are more likely and thus the model is more predictive.

- Residual analysis: When creating a model, this measures how dispersed the residuals are. The lower the value indicates a better fit.

- Semantic coherence: This measures the extent to which the top words in a given topic co-occur. When this is higher, it means that they frequently co-occur, suggesting a good fit.

- Lower bound: This approximates the lower bound of the marginal likelihood, as an internal measure of fit.

In each case, attention was made to minimize or maximize the above values, selecting topics where the values of held-out likelihood, residuals, and lower bound begin leveling off, while still picking the highest value of semantic coherence.
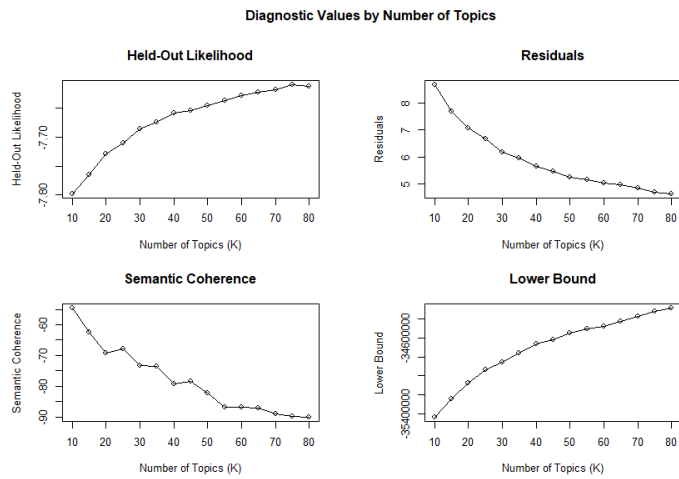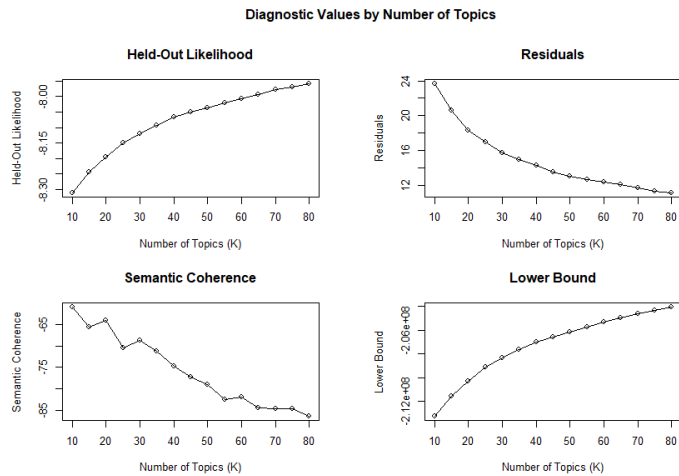
Figure C.23: Daily Stormer K
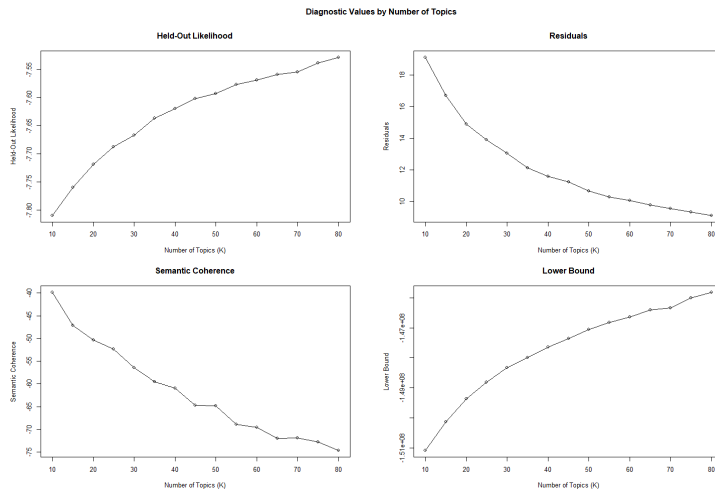

Figure C.24: Breitbart K
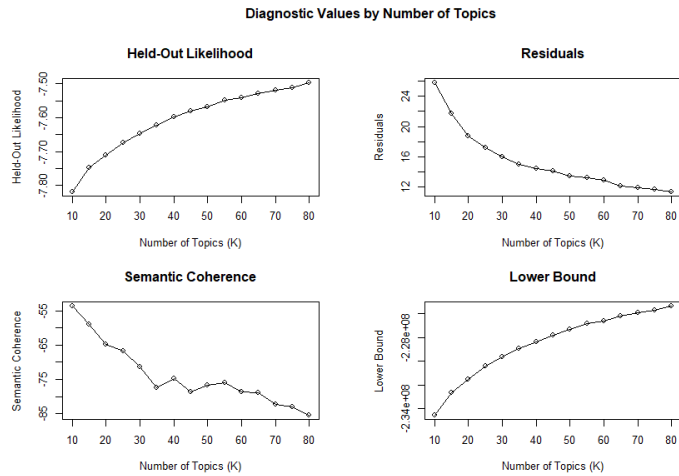
Figure C.25: Politico K

Figure C.26: Full K

Appendix D. Explication of Topics

These are *Daily Stormer* topics explicated.

- 1: Here, they explicate fake news and conspiracy theories, specifically related to Russian conspiracy

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- 2: New York City politics, especially as they relate to health

- 3: This is not a coherent category

- 4: They outline Hitler apologism and Holocaust denial

- 5: This focuses on the Obama administration as it relates to national security/foreign affairs

- 6: This is not a coherent category

- 7: This is a pro-Trump primary topic

- 8: These are negative discussions of Israel

- 9: Hitler apologism combined with anti-Semitism

- 10: Western cultural degradation via multiculturalism

- 11: This topic describes Jewish control of society broadly

- 12: White nationalism as a movement around white identity

- 13: Mass immigration and its negative impacts on society

- 14: The crimes caused by refugees into Europe

- 15: This is not a coherent category

- 16: This portrays Trump as standing against illegal immigration

- 17: This discusses the 2016 election, focusing on Clinton's campaign

- 18: This is not a coherent category

- 19: This is not a coherent category

- 20: This describes how feminism is leading to cultural degradation

- 21: This argues for a pro-nationalist foreign policy

- 22: This warns of the notion of "white genocide" as a result of mass immigration

- 23: This is not a coherent category

- 24: This provides defense of and advice for those battling anti-racism

- 25: This expresses a strong resistance to political correctness and multiculturalism

- 26: This is general indictment of U.S. foreign policy/trade

- 27: This warns of widespread sexual assaults allegedly committed by refugees

- 28: Here, they denigrate Black Lives Matter and discuss police shootings

- 29: This is discussions of and advocacy for Greece's Golden Dawn Party

- 30: This also describes white nationalism as a movement around white identity

- 31: This is largely dealing with the internal politics of European countries and the European Union more broadly

- 32: Here, they denigrate Black Lives Matter and discuss police shootings again

- 33: This discusses Putin, ISIS, and Middle Eastern foreign policy more broadly

- 34: This deals with defenses of free speech/hate speech, as well as social media censorship

- 35: This deals with defenses of free speech/hate speech, as well as social media censorship

- 36: This discusses the "differences" between whites and blacks and denigrates the idea of white privilege

- 37: Here, they claim that, due to Jewish control of society, white nationalists are unable to publicly criticize them, or allegedly Jewish concepts like political correctness

- 38: Here, they talk about refugees committing sexual violence, especially surrounding the attacks in Cologne, Germany

- 39: They denigrate the media as run by Jewish people

- 40: This discusses the Trump administration's foreign policy

- 41: This involves endorsements of Trump's candidacy, including serving as an uncritical platform for his Twitter

- 42: Here they decry tensions between black and white people, focusing especially on South Africa

- 43: Here, they argue for fallacies in the ideas black integration/multiculturalism

- 44: This discusses the threat of Islamic terrorism

- 45: This explicates black on white crime, amidst general denigrations of non-whites

- 46: This is not a coherent category

- 47: This discusses the Trump administration's law enforcement policies

- 48: This is not a coherent category

- 49: Here, they talk about the interests of white people and the threats they allegedly face

- 50: Here, they talk about the interests of white people and the threats they allegedly face

These are *Breitbart* topics explicated.

- 1: This is not a coherent category

- 2: This deals with gun rights and firearm politics

- 3: This is generally criticisms of the Obama administration

- 4: This is a policy discussion of immigration reform

- 5: This is climate denial/climate politics discussion

- 6: Here, they delve into the media and its alleged bias

- 7: This is generally general election coverage in support of Donald Trump

- 8: This discusses the 2016 primary but is not particularly pro-Trump

- 9: This is not a coherent category

- 10: This discusses American foreign policy

- 11: Here, they talk about Breitbart content and staffer changes

- 12: This is macro-level immigration policy discussion

- 13: This discusses foreign affairs outside the United States.

- 14: General election, some focus on Trump in a slightly positive way

- 15: Suspicion of federal government and federalism issues

- 16: Discussion of the Trump administration

- 17: Obama administration's executive actions, especially those related to amnesty

- 18: Obama and healthcare policy

- 19: This deals with gun rights and firearm politics

- 20: President Trump on foreign affairs

- 21: This is not a coherent category

- 22: This topic deals with defenses of Trump as President

- 23: This is generally attacks on the Clintons

- 24: A platform for Trump's views as President

- 25: Coverage of the Supreme Court

- 26: Discussion of North Carolina as it relates to primary, voter ID, and bathroom rules

- 27: Discussion of Trump administration

- 28: Immigration across Texas border – focus on crimes, increase in episodic frames

- 29: Criticisms of Paul Ryan, especially on immigration – crimes (thematic frames)

- 30: Criticism of Planned Parenthood

- 31: Trump administration law enforcement, sanctuary cities

- 32: 2016 primary, no clear endorsement

- 33: Thematic frames warning of immigrant burden on public spending.

- 34: This is not a coherent category

- 35: Tea Party Politics

- 36: Foreign policy under President Trump

- 37: Foreign policy failures of President Obama

- 38: Generally criticisms of the media and especially social media

- 39: 2016 primary, mostly Democratic

- 40: Concerns facing law enforcement, including BLM and terrorism

- 41: General platform for Trump's publicity events/public meetings

- 42: Basically New Jersey

- 43: Basically New York City

- 44: Criticisms of the media

- 45: Generally discussion of Trump in a positive light

- 46: Los Angeles politics

- 47: 2016 primary, mostly positive of Cruz

- 48: Criticisms of the Obama administration

- 49: Mostly discussions of the Bush family

- 50:This deals with gun rights and firearm politics

- 51: This is not a coherent category

- 52: This is not a coherent category

- 53: This is not a coherent category

- 54: Primarily thematic discussions of immigration's impact and Obama-era immigration reform

- 55: Generally positive descriptions of the Trump White House

- 56: Generally critical discussion of the Obama White House

- 57: General discussion of civil rights , including LGBT rights

- 58: This is not a coherent category

- 59: This is not a coherent category

- 60: Hillary Clinton and the State Department

- 61: FBI scandal and Hillary Clinton

- 62: This is just coverage of the 2016 general election

- 63: This deals with gun rights and firearm politics

- 64: Criticism of politically correct media

- 65: This covers House and Senate elections

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