

Political Advertising on Facebook: The Case of the 2017 United Kingdom General Election

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Abstract

Despite a focus on Facebook advertising in recent elections around the world, little research has empirically analysed the content of these adverts and how they are targeted. Working with the social enterprise Who Targets Me, 11,421 volunteers installed a browser plug-in on their computers during the 2017 UK General Election campaign. This allowed us to harvest 783 unique Facebook political adverts that collectively appeared 16,109 times in users' timelines. Analysis of this dataset challenges some conventional wisdom about Facebook political advertising. Rather than evidence of segmentation, we find evidence that messages adhere closely to national campaign narratives. Additionally, Facebook advertising does not appear to be greatly more negative than other traditional modes of communication. Finally, our analysis highlights some of the major challenges that need to be overcome to properly understand the role that Facebook plays in conventional political communication.

Keywords

advertising, Facebook, political communication, United Kingdom

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The role played by social media, especially Facebook, in elections is increasingly a cause for concern. This concern takes various forms, but includes fears about business models creating filter bubbles of so-called “fake news” which, in turn, ferment populism (Groshek & Koc-Michalska, 2017); that the advertising eco-system is hard to regulate and non-transparent (Moore, 2016); and the risk of foreign powers using social media to distribute content with the aim of disrupting the election process (Solon & Siddiqui, 2017). Unexpected election results—notably in the UK’s 2016 European Union (EU) membership referendum and the 2016 United States Presidential election—have intensified such concerns. However, it remains hard to investigate these questions empirically. In particular, researching Facebook adverts poses a significant problem because data from this social network is difficult to access and adverts are largely ephemeral. Both from the point of view of academic research and electoral regulators, this lack of transparency is problematic.

This article and the data it draws on attempt to tackle this challenge. By employing an innovative method of data-gathering, we provides empirical insights into Facebook advertising by major political parties in the 2017 United Kingdom General Election. Using a browser plug-in created by the social enterprise Who Targets Me and more than 11,000 volunteers who installed it on their computers, we harvested the adverts that appeared on users’ timelines, creating a repository of political advert content and data on who saw them.

The aim of this article is twofold. First, we analyse two datasets from the 2017 UK General Election campaign. The first dataset contains the content of adverts placed on Facebook by major UK political parties. This allows us to understand the messages of individual parties and how they compare. The second dataset looks at advert impressions

(that is, the appearances they make on individual users' timelines). We use this dataset to offer some insights into the way messages were targeted at particular voters during the campaign. This allows us to tentatively address some of the concerns about the role that Facebook plays in election campaigning. Beyond this, the second aim of this article is to make a broader contribution, building on and going beyond the UK example to consider the challenges of researching political advertising on Facebook. In our conclusion we highlight three specific and significant research challenges that need to be overcome: the epistemological challenge, which involves getting access to the data and analysing it; the conceptual challenge, which involves redefining concepts fundamental to political communication so as they remain useful for investigating Facebook; and the systematic challenge, which requires us to better understand how Facebook advertising fits into the broader platform eco-system, which includes user-generated content created by political parties and citizens, as well as bots and nefarious actors seeking to subvert democratic politics.

Existing research on Facebook in elections and our research questions

Facebook is a multifaceted platform and has been used in a variety of ways in election campaigns. Much has been written about its potential to galvanize social movements protests (Tufekci & Wilson, 2012; Valenzuela, Arriagada, & Scherman, 2012). In elections, candidates set up profiles in order to create groups of supporters and communicate with them directly (Borah, 2016). Political entrepreneurs not formally affiliated to campaigns set up pages in support of particular politicians (Levy, 2007). Experimental research has also suggested that the platform has the potential to increase voter turnout (Haenschen, 2016). However, more recently there has been a large rise in campaign spending on social media advertising, particularly on Facebook, and especially in Europe and the US (Tambini, 2018).

While the user-generated element of Facebook has been widely researched, the role played by Facebook as an advertising platform is less understood.

One way of understanding the role that Facebook advertising is playing in election campaigning is to see it as part of a broader pattern of targeted political communication based on data analytics. Recent elections (especially, but not limited to, those held in the US) have seen significant advances in the ability of campaigns to effectively target members of the electorate. The most significant element of this development involves a move from segmented targeting to modeling the attributes of individuals, and choosing to target them with particular messages or ignoring them all together (Kreiss, 2016; Nielsen, 2012).

While there remains a debate about the effectiveness of data-driven politics (Baldwin-Philippi, 2017; Hersh, 2015), a growing number of researchers and commentators are concerned about data-driven political campaigning and message targeting on social media. Concerns include privacy (Howard, 2006; Kreiss & Howard, 2010); the lack of transparency in regard to targeting practices (Kreiss & Howard, 2010; Rowbottom, 2012); campaign finance laws and the possibility of organizations that are unregulated (and may even be acting on behalf of a foreign power) participating in the election campaign through purchasing social media advertising (Kim et al., Forthcoming); the ability of existing electoral law to maintain a level playing field and thus ensure legitimacy (Barocas, 2012; Pack, 2015; Rowbottom, 2012; Tambini, 2018); and the possibility of “political redlining,” that is, the ability to target messaging at a narrow segment of the electorate and to exclude others who are less politically useful (Hersh, 2015). More broadly, the use of social media in political campaigning has been linked to a general tendency towards a more turbulent political environment (Margetts et al., 2015).

One concern that links these various claims is the notion that effective targeting may undermine voter autonomy: those voters for whom social media is the dominant source of news and information could theoretically be inundated with a constant stream of political messaging based on their data trails designed to effectively manipulate them. These concerns came into sharper focus after the shock results of the UK referendum on EU membership and the US presidential elections, both in 2016. Subsequently, academics, journalists and politicians started to think social media and the democratic process, while regulators and judicial authorities launched enquiries in a number of countries (Information Commissioner's Office, 2018; UK Electoral Commission, 2017; United States Department of Justice, 2018). International organizations also responded, with the Council of Europe publishing analysis on the risks posed by social media to elections (Council of Europe, 2017).

However, despite this gathering storm of academic and public debate, there has been a lack of robust information on how the campaigns actually use Facebook. Out of necessity, research into data-driven campaigning has tended to rely on interviews (Anstead, 2016; Kreiss, 2016; Moore, 2016), ethnography (Nielsen, 2012) or legal analysis (Butrymowicz, 2009). Despite the valuable insights from this research, there is little analysis of the messages themselves, or on how they are targeted. We know of just two studies that actually examine the targeting process or the messages it disseminates. Hersh (2015) uses data purchased from the Democratic Party supporting consultancy Catalyst to undertake experiments on the effectiveness of targeting, finding that the key ingredient in the targeting process is the registration of many American voters as party supporters for the purposes of the primary system (a type of data resource that is not available to campaigns in other countries). More recently, Kim et al. (Forthcoming), employing a method similar to ours, studied Facebook advertising during the 2016 US Presidential election. However, unlike our study, this

research focused on investigating advertising purchased by individuals and groups who were not formally part of the election campaign, so-called “stealth” advertisers.

With such limited research, it is difficult to assess the worrying claims about Facebook advertising. The key proposals of the theoretical literature—namely, that the legitimacy of elections and referendums may be undermined by these new campaigning tools—have not effectively been tested, and there remains a large gap between public commentary (generally of the dystopian variety) and our empirical understanding of how targeted campaigning on social media has actually been deployed.

To build on the work that has already been done in this area, this article seeks to better understand exactly how Facebook was used as an advertising platform in the 2017 UK General Election. In particular, drawing on the questions raised in existing literature, we seek to address the following research questions:

- **What messages were used in the Facebook advertising campaigns of the major political parties?** In particular, what topics were parties focusing on, and how did this compare across parties? Is there evidence that messages were tailored in a contradictory way for different audiences?
- **Were these messages more likely to be (i) negative or (ii) personality/leader-focused in some parties than others?** The rise of negative and personality-based campaigning has been one of the most significant trends in political communication in recent decades (Ansolabehere & Iyengar, 1995; Langer, 2011). To what extent does Facebook advertising follow similar patterns to more traditional modes of communication?
- **Were parties using Facebook to mobilize votes to engage in political actions?** One of the defenses that has been made of social media, especially when it is attacked for

promoting so-called “Slactivist” forms of politics, is that it can provide a platform for promoting other, higher threshold forms of political activity, such as donating to political campaigns or mobilizing supporters to engage in door-to-door electioneering (Karpf, 2010). Is there evidence that this is occurring?

- **Did parties target their messages to voters’ marginal constituencies?** One risk posed by highly targeted advertising is that it might exacerbate existing institutional tensions in election systems. This might especially be true in an election system like the UK’s first-past-the-post, where there are incentives for parties to target their campaign messages at the narrow segment of the electorate that are most vital to their success (i.e., the most persuadable voters in the a few, strategically important, marginal seats). Is there evidence that this is occurring?

Data and methods

To address these research questions, we employ a dataset gathered using a browser plug-in created by the social enterprise Who Targets Me (Jeffers & Knight-Webb, 2017). Because of the lack of publicly available data on Facebook advertising, researchers face substantial difficulties in reaching reliable conclusions about political communication practices, despite the widespread public debate about their implications for democratic communication. One response to this “information gap” has been the development of voluntary projects that attempt to capture datasets of Facebook adverts so as to open up the “black box” of Facebook advertising. Citizen-led approaches of this kind are not wholly new. Similar projects have asked volunteers to scan and upload election leaflets coming through their letter boxes to create datasets of their content (see, for example, ElectionLeaflets.org, 2018). More recently, this approach was used in the one of the few studies to actually examine the content of Facebook political adverts (Kim et al., Forthcoming).

In total, the Who Targets Me plug-in was installed by 11,421 people in England, Scotland and Wales by the final day of the 2017 Election campaign. When users volunteered to install the plug-in, they were asked to give active consent to the data-gathering process. They were also asked for three pieces of additional information that could be appended to the data collected from their browsing: their age, gender and the postcode of their home address (which could be converted into their parliamentary constituency).

The plug-in successfully gathered data from 1,341,004 views of Facebook adverts (termed “impressions,” that is, the appearance of an advert in a Facebook user’s timeline). We then extracted all the impressions made by political adverts in the overall dataset, which totaled 16,109 items.ⁱ We used this raw data to generate two datasets for analysis. First, since these items included a number of duplicate adverts that had appeared in more than one user’s timeline, we identified unique adverts, creating a dataset of 783 items. This would be necessary to analyse the content of the adverts that political parties were purchasing. Second, we used geographical data gathered from Who Targets Me users when they installed the plug-in to measure the density of political advertising in individual UK parliamentary constituencies. In order to do this, we developed a metric that we term “political advert density” (PAD). This is a ratio of political adverts relative to all Facebook adverts being seen in a constituency. This allows for us to control for the different number of users across constituencies, and the differential amount of time those users might be spending on Facebook. This second dataset allowed us to identify the constituencies that parties were targeting the most with adverts within our dataset, and to examine the extent to which this was related to constituency marginality.

Approach to analysis. In order to measure levels of negativity, personalization, and calls for action, as well as the various topics the adverts covered, we employed a content

analysis approach. This method has often been used to study political messaging (for an overview of this method, see Krippendorff, 2013). In order to ensure intercoder reliability, we created a random sub-sample of 100 adverts, which were independently analysed by two coders. When tested with Krippendorff's Alpha, all our variables scored in excess of 0.800, a strong indication of intercoder reliability. In addition to these high scores, coders also examined and reflected on disagreements to make further improvements to our frame.

Analysis of Facebook adverts

[Figure 1 about here]

The content of Facebook adverts placed by parties. Drawing on the dataset of unique adverts, Figure 1 shows the topics that each party's adverts concentrated on. It leads to a few observations. The adverts produced by the Conservative Party were heavily focused on Brexit (65.6% of all Conservative adverts in the dataset). This is unsurprising, given that the original rationale for the election was to provide a mandate to continue the Brexit process (May, 2017). As might be expected, the Liberal Democrats, the only UK-wide party to actively oppose Brexit, also focused on Brexit in many of their adverts (24.7%). In contrast, Labour barely mentions the issue (1% of all Labour adverts are about Brexit).

The absence of the topic in the Labour adverts can be interpreted in two ways. It could be seen as a tergiversation by Labour on an issue that was politically problematic for them. This is due to divisions within the party's electoral coalition, which contains urban, middle-class voters (who tended to vote Remain in the referendum) and working-class voters living in post-industrial regions (who tended to vote Leave) (Hanretty, 2016). Ignoring the Brexit issue is certainly something the party has been accused of, both before and after the 2017 General Election (Harrop, 2017). However, an alternative and more positive reading of the content analysis is that it provides no evidence of Labour targeting specific voters with

contradictory messages on Brexit. We find no evidence of anything like this occurring, even on an issue (in this case Brexit) where it would benefit Labour to employ such a strategy. The major focus of policy-based Labour adverts on Facebook include social security (21.6%), education (13.4%) and healthcare (12.9%). These messages build on arguments that the party and the broader political left have been constructing in recent years, particularly focusing on an anti-austerity message (Anstead, 2017b). These findings are interesting because they point to a Facebook advertising strategy that is not, at least in message terms, highly differentiated, but rather based on well-established messages developed in the years before the election. This echoes previous research that suggests that targeted advertising, at least in the UK, tends to draw on well-honed national messages deployed to reach voters who are likely to be most receptive to them and are deemed to be electorally significant (Anstead, 2017a; Ross, 2015).

[Figure 2 about here]

An important question for those seeking to understand Facebook use in elections is the extent of negative campaign advertising on the platform (Auter & Fine, 2016). Our coding (shown in Figure 2) reveals that the majority of adverts placed by the four largest political parties were negative (defined in our coding as naming a specific opponent politician or party). Overall, Labour had the highest proportion of negative adverts (64.1%), followed by the Liberal Democrats (61.6%), SNP (Scottish National Party) (57.9%) and Conservatives (56.4%). However, this is only slightly higher than the level of negative campaigning in other forms of media, for example, in parliamentary election broadcasts, where the proportion of negative content in recent UK elections has hovered somewhere around 40 to 50 percent (Walter, 2014: 52). A qualitative examination of the data suggests that these figures can be broken down further, with different types of negative advertising being evident. Conservative negative advertising was strongly focused on attacking Jeremy Corbyn, the Labour leader. In

contrast, Labour and Liberal Democrat adverts had a greater tendency to focus on the Conservative Party and its policies. A third category of negative advertising focuses on offering tactical advice to voters, indicating that the party placing the advert was most likely to defeat another party in the constituency. These adverts also attempt to explicitly discourage voters from supporting another challenger party, suggesting a decision to do so amounts to a wasted vote. This latter type of advert is one type of communication where the ability to target geographically is particularly important as, by definition, such adverts are constituency-specific, relating to local electoral circumstances.

Although the dataset does not contain many adverts from the Green Party ($n=22$), the adverts gathered stand out as being part of a relatively positive campaign on Facebook, at least in comparison with other parties. While the Greens did produce some negative adverts attacking their opponents, especially the two largest parties, the majority of the content they placed on Facebook were broader statements of values or attempting to solicit support from activists. This approach is in keeping with communication strategies that the Green Party have adopted in previous elections, seeking to set themselves apart from the larger, mainstream parties (Green Party of England and Wales, 2015).

Another difference between the parties is the extent they pursued a personality-based/leader-focused campaign. Research on campaigning since the 1960s has supported a theory that the rise of television was associated with “personalized” campaigning (Langer, 2011). It is unclear if social media campaigns continue the personalization trend. In our content analysis, we defined personality-based campaigning as adverts that explicitly mention the party leader. As might be expected, given that from the outset the Conservatives looked to build their campaign around Theresa May (Bale & Webb, 2017), the Prime Minister featured heavily (34.5% of Conservative adverts mentioned May explicitly). In contrast, Jeremy

Corbyn was not mentioned in a single advert purchased by Labour. This is unsurprising in the context of the start of the election campaign, where received wisdom was that Jeremy Corbyn was a liability to the party. What is interesting, however, is that Labour did not change its approach over the course of the seven-week campaign, even when their message seemed to be gaining traction and both the party's poll ratings and Corbyn's personal ratings increased (YouGov, 2018).ⁱⁱ This might suggest that parties are less able to rapidly adjust messaging on Facebook than is normally assumed.

The final codes we applied to the advert dataset categorizes appeals for the reader to engage in political action. We identified several different actions that appeared across the dataset. What is again notable is that parties have adopted quite different strategies. Voting is the only activity that the Conservative Party requests. In contrast, the other parties ask for their supporters to engage in other activities. This is true of both the Liberal Democrats and the Greens. In the case of the Liberal Democrats, 19.8 percent of adverts ask users to sign a petition, likely with the aim of getting more details about would-be voters and supporters so as they can be more effectively targeted with additional messages, a tactic widely used in previous elections (Anstead, 2017a). The Green Party makes the most diverse use of the medium. 32.1 percent of its posts ask readers to donate to the party and the same number request that users share posts on Facebook. In contrast only 25 percent of Green Party posts mention the act of voting. This is unsurprising. As a small party, the Greens struggle to generate coverage on traditional media. Additionally, the party has limited financial resources.ⁱⁱⁱ The content of the Green Party adverts offsets these challenges. Interestingly, our findings echo research done on Green Parties in other countries, where social media is used in a similar fashion to galvanize activism (Larsson & Christensen, 2017).

Targeting of Facebook adverts placed by parties. As we have seen, theoretical and public debate about Facebook political advertising has involved multiple claims about targeting. We examine the claim that campaigns are focusing resources on marginal constituencies.^{iv} In this section we focus on the four parties for which we have adverts for that ran candidates across the UK (excluding Northern Ireland): the Conservatives, Labour, the Liberal Democrats and the Greens.

It seems to be the Conservatives who were most efficient at targeting their Facebook adverts to marginal constituencies, with a correlation of 0.320 between the PAD score and the marginality of constituencies.^v The Liberal Democrats also have a correlation, albeit a weaker one (0.102). In the case of the Green Party there seems to be very little meaningful relationship between constituency marginality and the propensity to place adverts. However, this is not entirely surprising. As the analysis of advert content above suggests, a large proportion of the Green's advertising did not seek to mobilize voters, but asked individuals to engage with the party as activists and donors. It is the Labour Party, however, which presents the most puzzling result. There is no measurable correlation between marginality and the PAD for Labour advertisements. Why might this be?

Three reasons could provide an explanation. First, while a very logical approach to running a campaign, targeting marginal seats might not always be the best campaign strategy. Put another way, the definition of marginal used in this analysis is based on the closeness of the result in the 2015 Election for each party. However, changes in the political landscape during the course of a parliament might encourage parties to employ either offensive or defensive strategies. At the outset of the campaign, Labour were a long way behind in the opinion polls, suggesting that targeting adverts at the most marginal seats (i.e., those where they were just behind or ahead of their nearest rival) might not be a rational strategy, as these

seats could already be seen as lost. Labour's low share in early campaign polling also offers a second explanation. During this period, it was rumored that those surrounding the Labour leader Jeremy Corbyn were keen to make national vote share a metric of electoral success, as opposed to seats won, and so retain the leadership of the party in the event of a significant defeat (Bush, 2017). It maybe that Labour were intentionally targeting resources at seats where it might be possible for them to increase their vote share, even if this would have little effect on the number of seats won. Third, and more broadly, recent British elections have seen a decreased propensity for seats to follow patterns of Universal National Swing (UNS) (Kellner, 2014). This is partially the result of a reconfiguration of the underlying social basis of British politics, and partially because of a growing ability for campaigns to reach out to segments of the population who are likely to be most responsive to their messages. Facebook targeting is part of this process. As such, it might make sense to target particular seats that are not marginal in the traditional sense of the term, but contain a large number of persuadable voters. The Conservative Party employed this approach in the 2015 General Election when targeting would-be Conservatives in what were assumed to be "safe" Liberal Democrat seats (a strategy that played a role in nearly wiping out their coalition partners and winning an outright majority) (Ross, 2015).

Ultimately, our dataset does not allow us to judge which if any of these explanations is most plausible. What it does remind us, however, is to be wary of accounts of targeting that are overly focused on automation and accuracy, but neglect the extent to which political strategies are designed, contested and implemented by human political actors.

[Table 1 about here]

We can delve into this data more by examining the ten most targeted seats for each party (shown in Table 1), revealing what they perceived as the key battleground

constituencies for their campaigns. The evidence here suggests that Labour were more defensive, with four of their five most targeted seats being constituencies represented by a Labour MP. In contrast, the converse is true for the Conservatives with four of their five most targeted seats being constituencies where they were currently in opposition. The Liberal Democrat and Green data is less clearly defined, although the Liberal Democrats' most targeted seats include four where they are challengers and the incumbent's majority is in the four-figure range (a relatively small amount, given the scale of the Liberal Democrats' electoral decline in the 2015 Election), and the seat of Richmond, which the party had won in a post-Brexit referendum by-election in December 2016.

It is the Brexit referendum that most clearly defines the battle lines between the parties. Both the Conservatives and Labour focus on constituencies that voted for the UK to leave the EU. In Labour's case, every single constituency in the top ten voted to leave, seven of them with more than a 60 per cent vote share. For the Conservatives, eight of the top ten constituencies voted Leave. In contrast, the Liberal Democrats were seeking to mobilize voters who had supported Remain in the referendum. Five of their top ten constituencies supported Remain, including the ultra-strong remain seats of East Dunbartonshire (26.87 per cent Leave vote) and Richmond (28.69 per cent Leave vote). Thus, while Brexit was sometimes absent from the content of the Facebook campaign (notably in the case of Labour), our data suggests it was strongly present in the targeting process, either because parties aimed to take advantage of it or feared that their opponents might exploit it.

In summary, we found that the messages used in the Facebook advertising campaigns appear to closely resemble the issues and approaches of the wider campaign. While it is not possible to exclude the possibility that contradictory messages were targeted to different audiences, we find no evidence of that in our dataset. The proportion of negative and

personalized messages seems comparable to previous elections and campaigns on other platforms. There is ample evidence that some parties used Facebook ads to stimulate actions such as signing petitions and joining campaigns. In general there was evidence of a wide variation of approaches between the parties with regard to all of the main indicators and the tendency to use the social media platform to target particular types of constituencies. These findings support the general view that campaigns are still in an experimental phase, but are developing sophisticated new approaches to targeted messaging. While we would defend these tentative findings as reliable, they are based on an innovative new methodology and an unusual data source. This generates a number of challenges and limitations, and it is to these we now turn.

Conclusion: The real challenges of Facebook advertising

Drawing on the Who Targets Me dataset, this article offers some findings on the use of Facebook in the 2017 UK General Election, some of which are surprising when compared to the conventional wisdom on Facebook political advertising. However, while these findings offer a window into the Facebook campaign in one election in one particular national context,^{vi} they only scrape the surface of a much larger research agenda studying how the platform is being used for political communication. We identify three distinct challenges facing researchers seeking to understand the role that Facebook plays in elections. These overlap with many of the questions facing regulators working to enforce electoral law online. We define these challenges as epistemological, conceptual, and systematic.

The epistemological challenge. This relates to the way we research political advertising online and the claims researchers can legitimately make based on the data and methods they have at their disposal. The method used in this article has a number of limitations. While they can be large, datasets of the type used in this article clearly suffer

from limitations. Two issues are particularly worth mentioning. First, our dataset is limited to those who use the Google Chrome web browser. Chrome is currently the most popular browser in the UK. In June 2017, when the election occurred, Chrome was estimated to have a 55.5 per cent market share of the desktop browser market (Statcounter, 2017. This tool calculates market share on the basis of page views). While Chrome is clearly dominant in the desktop browser market, our dataset necessarily excludes other browsers, including apps and mobile phone browsers. Industry data suggests that 88 per cent of Facebook's global advert revenue in 2017 came from mobile browsing (Statista, 2018). This is therefore a significant limitation.

Second, the people who chose to install the plug-in are self-selecting. During the election campaign, Who Targets Me did a lot of work publicizing the tool, and consciously worked to generate coverage in different types of publications—including national and local media, broadsheets and tabloids—with a range of partisan affiliations. However, it seems likely that those inclined to install the plug-in are citizens who have concerns about privacy or have an interest in political campaigns. Drawing on the metadata gathered by the plug-in, we can compare Who Targets Me users to the rest of the UK population.

The users of Who Targets Me were disproportionately likely to be male (78.54% male, as opposed to 50.79% of the UK's population). In terms of age, the median age of Who Targets Me Users (35) was lower than the UK's population (40, according to the ONS, 2016). Postcode data allows us to identify which constituency users lived in. Overall, Who Targets Me achieved good coverage of the 632 parliamentary constituencies in England, Scotland and Wales, with installations in all but one of them. However, even with this level of coverage across constituencies, it should be noted that the number of users in individual constituencies varied greatly. A number of urban constituencies (often those in the process of

gentrifying or containing major universities) had a disproportionately large number of users. This points towards a user base that disproportionately contains a particular demographic: younger, urban and likely wealthier and with more years in education than the median voter. As a consequence, the dataset is also problematic in the context of the EU referendum of 2016. The constituencies with more installations of the plug-in were also the places with the greatest propensity to vote to remain in the EU (constituency referendum vote share has been modelled by Hanretty, 2016).

It is possible that the data-gathering methods deployed in this article could be improved in the future. Some challenges demand a technical solution. For example, a different approach is required to understand advertising appearing on Facebook's mobile applications. There are also possible solutions to the challenges of representivity. One model might be to recruit (probably with a financial inducement) a statistically representative panel, in a manner similar to online pollsters. However, such an approach would not be unproblematic, largely because researchers lack the type of insight into the Facebook environment required to design an effective sampling strategy.

Therefore, it is probably true to say that the only real solution for understanding political advertising on Facebook would involve the company itself becoming far more transparent and giving researchers greater access to the political advertisements that appear on the platform. In the time since the 2017 Election, Facebook has taken steps in this direction. Following the Cambridge Analytica scandal, Facebook promised to engage in "radical transparency" and has taken steps to open its archive of political adverts up to researchers (Ram, 2018). However, how transparency is institutionalized is contested. While increased openness from Facebook is welcome, it underlines rather than fixes the major problem: Facebook wholly controls the data on its platform and can decide on the level of

transparency that suits its own interests. In the context of electoral politics and regulation, this is not a power that a private company should wield. For this reason, an alternative model of transparency is advocated by a group of researchers who have signed a statement calling for Facebook to provide open Application Programming Interfaces (APIs) that allow data to be downloaded by researchers, as opposed to the more curated model that Facebook is developing (Bruns, 2018).

The conceptual challenge. The Facebook environment also requires conceptual work by researchers and regulators, as much of the language used to describe election campaigns needs to be re-evaluated. For example, the definition of national and local campaigning becomes problematic. This is especially significant for electoral regulations in countries where campaign spending limits are enforced separately at the national and local level, such as the UK. The problem is that advertising purchased at the national level can be highly tailored to local circumstances. It would be possible to develop “magic word” tests of the kind used in the US campaign finance law, wherein the use of certain words—such as elect, vote, and support—are deemed to make adverts election communications rather than issue-adverts. In the context of the national–local distinction, this might mean that using the name of a candidate or a parliamentary constituency would automatically lead to an advert being defined as local, no matter who has actually purchased it. However, targeting can allow for quite subtle local content. The adverts identified in this study, for example, suggesting voting for one party over another as the best way to defeat a third party could easily be conditioned to the situation in a particular constituency without using a candidate or constituency name, raising the question of whether they should be defined as local campaigning.

Another concept employed in electoral regulation that becomes problematic in a social media environment is the idea of coordination. Historically, coordination has been

defined in institutional terms, with it being illegal for groups to form illicit alliances and coordinate their actions, especially with the aim of avoiding campaign spending limits. However, the social media environment is by definition inter-connected and relies on networks that share content and personal data. It is therefore worth asking exactly what coordination looks like in this environment, and how definitions need to evolve.

The systematic challenge. The final challenge exists at system level. Facebook advertising is only one part of a broader political communication system emerging on the platform. At least two other elements of the environment exist. The first is user-generated content. This is created by users of the platform, who might be either individuals or institutions. In addition, there is online activity masquerading as user-generated content, but in reality created by campaigners or bots to give the impression of popular support. This is what has been termed “AstroTurf” content (i.e., artificial grassroots). It is content of this kind that has led to concern about foreign interference in Western democracies (Woolley & Howard, 2016). These three types of content (commercial advertising, organic user-generated content and AstroTurf content) interact and blur into each other. The producer of one sort of content may be producing other sorts of content. Any attempt to regulate one sort of content may have unpredictable knock-on effects on the other. Tighter regulation of paid advertising, for example, may see money being surreptitiously funneled into AstroTurf-type activities.

The findings of this article suggest that we should be careful in making assumptions about how Facebook is used in the absence of empirical evidence. Furthermore, the complexity of the Facebook environment, and its increasing centrality to political campaigning, means that a great deal more empirical work needs to be done, with data that is as reliable as possible, in order to understand the way the platform is being used, and to ensure that it is not undermining the underlying principles of free and fair elections.

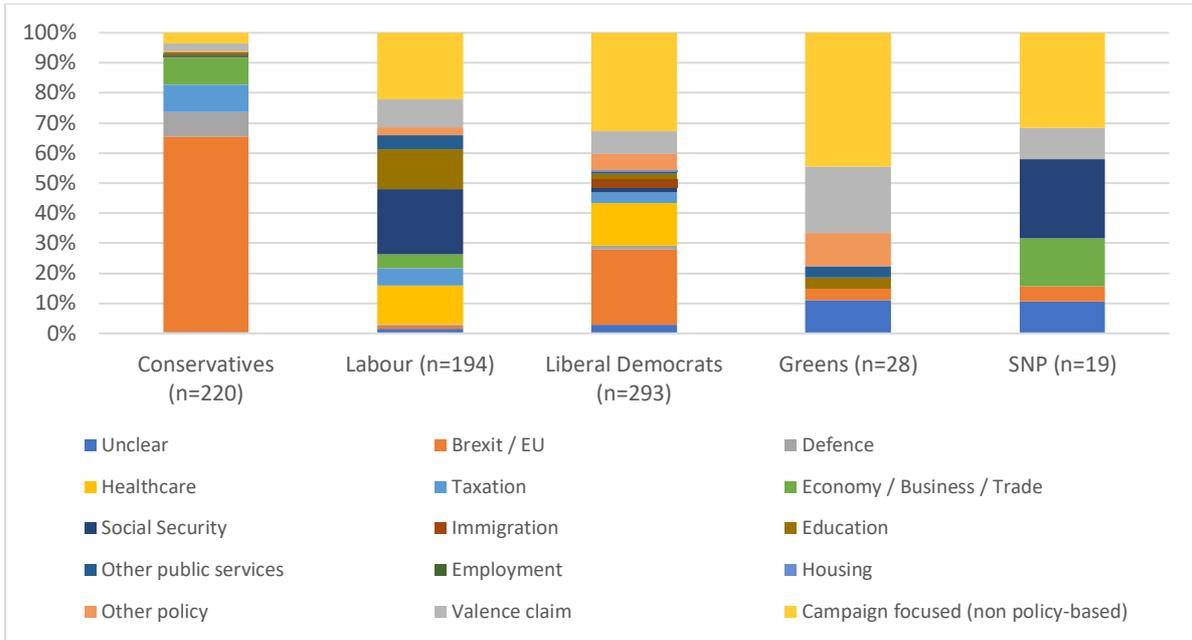


Figure 1: Topics of Facebook adverts for each party (n=754)

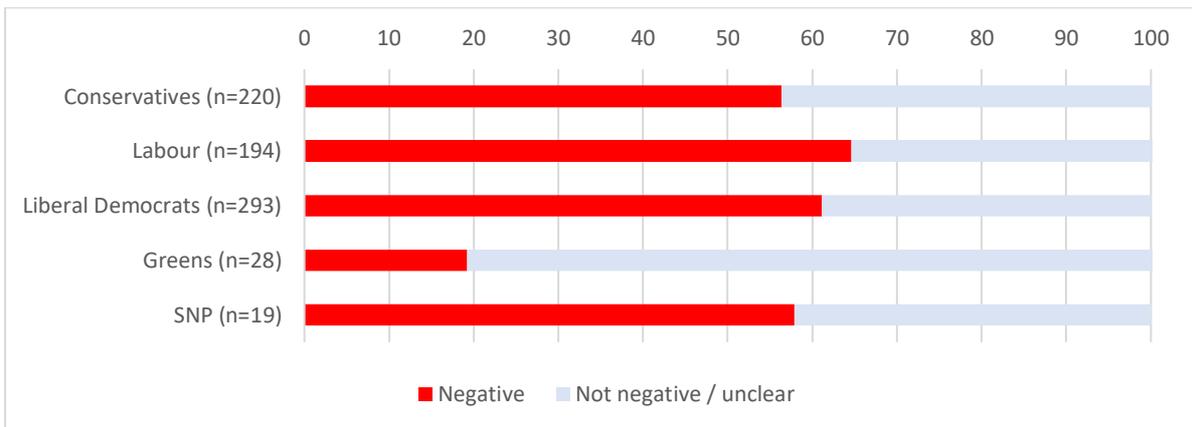


Figure 2: Proportion of negative adverts for each party (n=754)

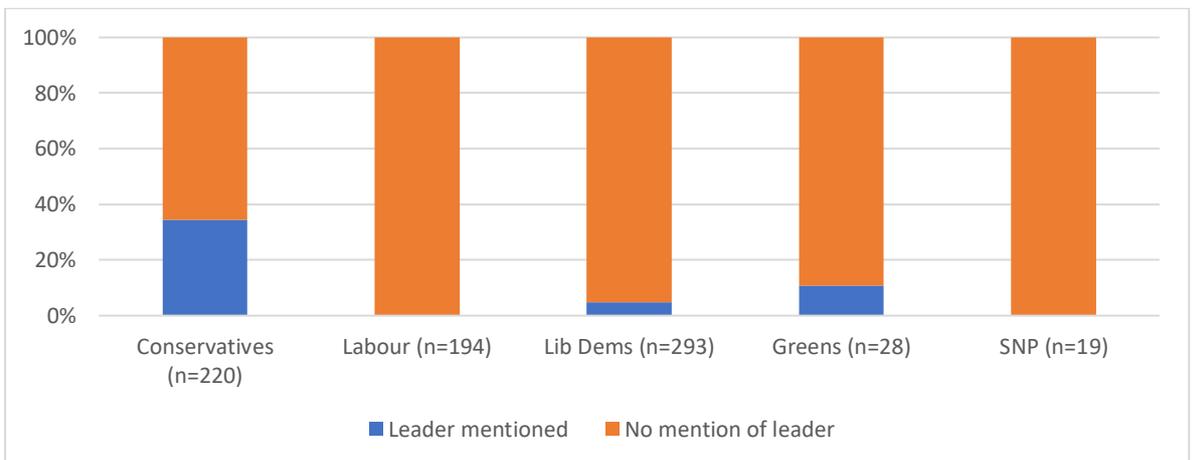


Figure 3: Personality/leader focus of Facebook adverts for each party (n=754)

| Party | | Constituency | PAD score | Marginality (+/-) | Brexit vote (Leave share) |
|---------|----|--|-------------|-------------------|---------------------------|
| Lab | 1 | Stoke-on-Trent Central | 0.114035088 | 5,179 | 64.85 |
| | 2 | Birmingham, Perry Barr | 0.079365079 | 14,828 | 51.22 |
| | 3 | Middlesbrough South and East Cleveland | 0.061643836 | 2,268 | 65.27 |
| | 4 | Peterborough | 0.05785124 | -1,925 | 61.31 |
| | 5 | Heywood and Middleton | 0.047368421 | 5,299 | 62.43 |
| | 6 | Dover | 0.044776119 | -6,294 | 63.01 |
| | 7 | Penistone and Stocksbridge | 0.044642857 | 6,723 | 60.65 |
| | 8 | Erewash | 0.042372881 | -3,584 | 63.22 |
| | 9 | Derbyshire Dales | 0.042168675 | -14,044 | 51.24 |
| | 10 | Mid Bedfordshire | 0.03652968 | -23,327 | 52.88 |
| Con | 1 | Wirral South | 0.121621622 | -4,599 | 46.55 |
| | 2 | Birmingham, Northfield | 0.037037037 | -2,509 | 46.55 |
| | 3 | Copeland | 0.023323615 | -2,564 | 59.20 |
| | 4 | Enfield North | 0.019441069 | -1,086 | 61.79 |
| | 5 | Camborne and Redruth | 0.017763845 | 7,004 | 58.41 |
| | 6 | Jarrow | 0.017094017 | -14,880 | 61.78 |
| | 7 | Bolton West | 0.016666667 | 801 | 55.55 |
| | 8 | Keighley | 0.013192612 | 3,053 | 53.33 |
| | 9 | Barrow and Furness | 0.013081395 | -795 | 57.28 |
| | 10 | Dagenham and Rainham | 0.012048193 | -7,338 | 70.35 |
| Lib Dem | 1 | North West Norfolk | 0.096385542 | -23,054 | 65.78 |
| | 2 | East Dunbartonshire | 0.046511628 | -2,167 | 26.87 |
| | 3 | Cheadle | 0.042589438 | -6,453 | 42.65 |
| | 4 | Macclesfield | 0.035175879 | -22,221 | 47.18 |

| | | | | | |
|--------|----|--|-------------|---------|-------|
| | 5 | Heywood and Middleton | 0.031578947 | -19,319 | 62.43 |
| | 6 | Hazel Grove | 0.030769231 | -6,552 | 52.21 |
| | 7 | Cheltenham | 0.028498511 | -6,516 | 42.90 |
| | 8 | Hemel Hempstead | 0.026717557 | -23,843 | 55.49 |
| | 9 | Erewash | 0.025423729 | -18,978 | 63.22 |
| | 10 | Richmond Park | 0.024399399 | -23,015 | 28.69 |
| Greens | 1 | Na H-Eileanan an Iar | 0.066666667 | -8,662 | 43.90 |
| | 2 | Leicester East | 0.057692308 | -27,918 | 54.06 |
| | 3 | Peterborough | 0.033057851 | -17,466 | 61.31 |
| | 4 | Sutton Coldfield | 0.028846154 | -26,356 | 51.67 |
| | 5 | Jarrow | 0.025641026 | -20,154 | 61.78 |
| | 6 | Vale of Glamorgan | 0.023752969 | -22,553 | 52.55 |
| | 7 | Kingston upon Hull West And Hessle | 0.023255814 | -14,703 | 67.99 |
| | 8 | Middlesbrough South and East Cleveland | 0.020547945 | -18,133 | 65.27 |
| | 9 | North West Durham | 0.020408163 | -18,507 | 55.05 |
| | 10 | Brigg and Goole | 0.019138756 | -22,031 | 55.05 |

Table 1: List of constituencies most heavily targeted by Labour (Lab), the Conservatives (Con), the Liberal Democrats (Lib Dem) and the Greens. Data on seat marginality calculated from Norris (2017). Brexit voting figures are based on statistics generated by Hanretty (2016).

References

- Ansolabehere, S., & Iyengar, S. (1995). *Going negative: How attack ads shrink and polarize the electorate*. New York: Free Press.
- Anstead, N. (2016). The data-driven campaign in the 2015 UK General Election. *International Journal of Press/Politics*.
- Anstead, N. (2017a). Data-driven campaigning in the 2015 United Kingdom General Election. *The International Journal of Press/Politics*, 22(3), 294–313.
doi:10.1177/1940161217706163
- Anstead, N. (2017b). The idea of austerity in British politics, 2003–2013. *Political Studies*.
- Auter, Z. J., & Fine, J. A. (2016). Negative campaigning in the social media age: Attack advertising on Facebook. *Political Behavior*, 38(4), 999–1020. doi:10.1007/s11109-016-9346-8
- Baldwin-Philippi, J. (2017). The myths of data-driven campaigning. *Political Communication*, 34(4), 627–633. doi:10.1080/10584609.2017.1372999
- Bale, T., & Webb, P. (2017). ‘Honey, I shrunk the majority’: Theresa May and the Tories. *Political Insight*, 8(2), 20–23. doi:10.1177/2041905817726900
- Barocas, S. (2012). *The price of precision: Voter microtargeting and its potential harms to the democratic process*. Paper presented at the Proceedings of the first edition Workshop on Politics, elections and data.
- Borah, P. (2016). Political Facebook use: Campaign strategies used in 2008 and 2012 presidential elections. *Journal of Information Technology and Politics*, 13(4), 326–338. doi:10.1080/19331681.2016.1163519
- Bruns, A. (2018). Facebook shuts the gate after the horse has bolted, and hurts real research in the process. Retrieved from <https://medium.com/@Snurb/facebook-research-data-18662cf2cacb>

Bush, S. (2017). Why Len McCluskey's idea of general election 'success' for Labour matters.

New Statesman. Retrieved from

www.newstatesman.com/politics/staggers/2017/05/why-len-mccluskeys-idea-general-election-success-labour-matters

Butrymowicz, D. W. (2009). Loophole.com: How the FEC's failure to fully regulate the Internet undermines campaign finance law. *Columbia Law Review*, 109, 1708.

Council of Europe. (2017). *Study on the use of internet in electoral campaigns: The rules of the game: The internet, social media and election communications*. Retrieved from

<https://rm.coe.int/study-on-the-use-of-internet/1680796298>

ElectionLeaflets.org. (2018). Retrieved from <https://electionleaflets.org/>

Electoral Commission. (2016). *UK Parliamentary General Election 2015: Campaign spending report*. Retrieved from

www.electoralcommission.org.uk/_data/assets/pdf_file/0006/197907/UKPGE-Spending-Report-2015.pdf

Green Party of England and Wales. (2015). Change the tune. YouTube. Retrieved from

www.youtube.com/watch?v=PPgS7p40ERg

Groshek, J., & Koc-Michalska, K. (2017). Helping populism win? Social media use, filter bubbles, and support for populist presidential candidates in the 2016 US election campaign. *Information Communication and Society*, 20(9), 1389–1407.

doi:10.1080/1369118X.2017.1329334

Haenschen, K. (2016). Social pressure on social media: Using Facebook status updates to increase voter turnout. *Journal of Communication*, 66(4), 542–563.

doi:10.1111/jcom.12236

Hanretty, C. (2016). Final estimates of the Leave vote, or 'Areal interpolation and the UK's referendum on EU membership'. Retrieved from

<https://medium.com/@chrishanretty/final-estimates-of-the-leave-vote-or-areal-interpolation-and-the-uks-referendum-on-eu-membership-5490b6cab878>

- Harrop, A. (2017). Where next for Labour? *The Political Quarterly*, 88(3), 395–399.
doi:10.1111/1467-923X.12406
- Hersh, E. D. (2015). *Hacking the electorate: How campaigns perceive voters*. Cambridge: Cambridge University Press.
- Howard, P. N. (2006). *New media campaigns and the managed citizen*. Cambridge: Cambridge University Press.
- Information Commissioner's Office. (2018). ICO statement: Investigation into data analytics for political purposes.
- Jeffers, S., & Knight-Webb, L. (2017). Who targets me. Retrieved from <https://whotargets.me/en/>
- Karpf, D. (2010). Online political mobilization from the advocacy group's perspective: Looking beyond clicktivism. *Policy & Internet*, 2(4), 7–41.
- Kellner, P. (2014). Uniform swing is now worse than useless – it is positively misleading. YouGov.uk. Retrieved from <https://yougov.co.uk/news/2014/12/01/uniform-swing-rip/>
- Kim, Y. M., Hsu, J., Neiman, D., Kou, C., Bankston, L., Kim, S. Y., . . . Raskutt, G. (Forthcoming). The stealth media: Groups and targets behind divisive issue campaigns on Facebook. *Political Communication*.
- Kreiss, D. (2016). *Prototype politics: Technology-intensive campaigning and the data of democracy*, Oxford: Oxford University Press.
- Kreiss, D., & Howard, P. N. (2010). New challenges to political privacy: Lessons from the first US Presidential race in the Web 2.0 era. *International Journal of Communication*, 4, 19.

- Krippendorff, K. (2013). *Content analysis: An introduction to its methodology* (3rd edn). Los Angeles, CA and London: Sage.
- Langer, A. I. (2011). *The personalisation of politics in the UK: Mediated leadership from Attlee to Cameron*. Manchester: Manchester University Press.
- Larsson, A. O., & Christensen, C. (2017). From showroom to chat room: SVT on social media during the 2014 Swedish elections. *Convergence*, 23(6), 58–602.
doi:10.1177/1354856516644564
- Levy, J. (2007). One million strong for Obama? Retrieved from <http://techpresident.com/content/one-million-strong-obama>
- Margetts, H., John, P., Hale, S., & Yasseri, T. (2015). *Political turbulence: How social media shape collective action*. Princeton, NJ: Princeton University Press.
- May, T. (2017). Theresa May's General Election statement in full. BBC News, April 18.
Retrieved from www.bbc.co.uk/news/uk-politics-39630009
- Moore, M. (2016). Facebook, the Conservatives and the risk to fair and open elections in the UK. *Political Quarterly*, 87(3), 424–430. doi:10.1111/1467-923X.12291
- Nielsen, R. K. (2012). *Ground wars: Personalized communication in political campaigns*. Princeton, NJ: Princeton University Press.
- Norris, P. (2017). British General Election constituency results, 2010–2017, V1.2. Retrieved from www.pippanorris.com/data/
- Ofcom. (2017). Internet and online content. Retrieved from www.ofcom.org.uk/_data/assets/pdf_file/0021/105438/uk-internet-online.pdf
- ONS (Office for National Statistics). (2016). Overview of the UK population: February 2016.
Retrieved from www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/overviewoftheukpopulation/february2016

- Pack, M. (2015). Constituency expense limits are dying off in the UK, but neither politicians nor the regulator will act. March 20. Retrieved from www.markpack.org.uk/130283/internet-speeds-up-the-killing-off-of-expense-controls-in-marginal-seats/
- Ram, A. (2018). Facebook promises UK more transparency on political adverts. Retrieved from www.ft.com/content/c7a47dba-494b-11e8-8ae9-4b5ddcca99b3
- Ross, T. (2015). *Why the Tories won*. London: Biteback.
- Rowbottom, J. (2012). Lies, manipulation and elections—Controlling false campaign statements. *Oxford Journal of Legal Studies*. doi:10.1093/ojls/gqs016
- Solon, O., & Siddiqui, S. (2017). Russia-backed Facebook posts 'reached 126m Americans' during US election. *The Guardian*, October 30. Retrieved from www.theguardian.com/technology/2017/oct/30/facebook-russia-fake-accounts-126-million
- Statcounter. (2017). Desktop browser market share United Kingdom. Retrieved from <http://gs.statcounter.com/browser-market-share/desktop/united-kingdom>
- Statista. (2018). Share of Facebook's mobile advertising revenue from 2012 to 2017. Retrieved from www.statista.com/statistics/462370/share-of-mobile-facebook-ad-revenue/
- Tambini, D. (2018). Social media power and election legitimacy. In D. Tambini & M. Moore (eds) *Digital dominance: The power of Google, Amazon, Facebook, and Apple* (pp. 265–293). Oxford/New York: Oxford University Press.
- Tufekci, Z., & Wilson, C. (2012). Social media and the decision to participate in political protest: Observations from Tahrir Square. *Journal of Communication*, 62(2), 363–379. doi:10.1111/j.1460-2466.2012.01629.x

- UK Electoral Commission. (2017). Electoral Commission statement regarding Vote Leave Limited, Mr Darren Grimes and Veterans for Britain Limited. Retrieved from www.electoralcommission.org.uk/i-am-a/journalist/electoral-commission-media-centre/news-releases-donations/electoral-commission-statement-regarding-vote-leave-limited,-mr-darren-grimes-and-veterans-for-britain-limited
- United States Department of Justice. (2018). Special Counsel's Office. Retrieved from www.justice.gov/sco
- Valenzuela, S., Arriagada, A., & Scherman, A. (2012). The social media basis of youth protest behavior: The case of Chile. *Journal of Communication*, 62(2), 299–314.
- Walter, A. S. (2014). Negative campaigning in Western Europe: Similar or different? *Political Studies*, 62(S1), 42–60. doi:10.1111/1467-9248.12084
- Woolley, S. C., & Howard, P. N. (2016). Automation, algorithms, and politics| political communication, computational propaganda, and autonomous agents—Introduction. *International Journal of Communication*, 10, 9.
- YouGov. (2018). Jeremy Corbyn. Retrieved from https://yougov.co.uk/opi/browse/Jeremy_Corbyn

ⁱ In this article we employ quite a restrictive definition of what constitutes the political, by only examining adverts that were purchased by accounts named for national political parties and party leaders. There are at least three ways this definition could be expanded. The first would be to include adverts purchased by constituency parties for their candidates. The second would be to broaden our definition of politics to include non-party but formally constituted political actors, such as trade unions and pressure groups. The third and broadest definition would be to define politics by the content of the advert alone, rather than who purchased it. Operationalizing such an approach would be complex.

ⁱⁱ The YouGov survey saw a rapid increase in Jeremy Corbyn’s popularity during the campaign, from below zero in mid-May to +31 by June 6.

ⁱⁱⁱ In the 2015 Election, the Greens spent £1.13m, the Conservative spent £15.59m, Labour spent £12.1m and the Liberal Democrats spent of £3.53m (Electoral Commission, 2016).

^{iv} For these calculations, the marginality of a constituency is defined for each party in each seat. If it is a seat they hold, we measure how far ahead they are of their nearest rival. If they are challenging, we measure how many votes behind the incumbent they are.

^v For these correlations we do not report p -values. This is because the p -value is a measure of statistical representivity. As we discuss later in the article, there are serious problems with claiming representivity based on the data gathered by the plug-in.

^{vi} It is also worth noting that the 2017 Election was not even a typical UK election as it was called unexpectedly by the Prime Minister. “Snap” elections of this kind may have ramifications for the preparedness of parties and their ability to implement strategy.