

Politics in the Facebook era: Examining the effects of voter 'micro-targeting' in the 2016 US presidential election

By Michela Redoano



The ways we access news and, with it, the nature of political communication have radically changed since the advent of social media. Predictive analytics provide social media platforms, such as Facebook and Twitter, with new tools for targeting voters at extremely granular levels.

TARGETING ON INTERNET platforms is potentially much more precise than on traditional media outlets thanks to technologies such as behavioural micro-targeting (i.e. the tracing of dynamic behavioural patterns, interests and networks) exploiting extensive quantities of user-generated data. For example, to facilitate the identification of different audiences, in 2016 Facebook began classifying its US users in terms of political orientation (conservative, liberal and moderate) and interests (on specific candidates, issues, or initiatives). As a result, political campaigns are increasingly relying on social media, while comparatively reducing their focus on traditional media outlets. Such political micro-targeting of voters with exquisitely tailored messages allows political campaigns to operate at relatively low cost, and with little or no regulatory constraints. A study conducted by Facebook itself indicates that micro-targeting is an effective way to reach voters. Bond et al. (2012) estimate that about 340,000 extra people turned out to vote in the 2010 US congressional elections because of a single Facebook political mobilisation message.

Parallel to this, more and more voters are relying on social media to learn about politics. During the 2012 US Presidential campaign an estimated 12 percent of Americans regularly received their campaign news from Facebook, but by 2016, these figures had grown substantially to over 60 percent, and Facebook was ranked as the third-most-cited “main source” of information for the 2016 US presidential election (Pew

Research Center, 2012, 2014, 2016, 2018). Figures are somewhat similar for European countries, with a 2016 Eurobarometer survey reporting that 40 percent of Europeans use social media daily, and that about 16 percent of Europeans indicate social media as the major source of “most of their news on national political matters”.

The Trump campaign’s primary communication channels consisted of social media, particularly Facebook and Twitter. The campaign reportedly spent \$44 million on Facebook, running 175,000 variations of political adverts. By contrast, Hillary Clinton’s campaign spent an estimated \$28 million on social media, and it relied more heavily on traditional media outreach. Many political campaigners, scholars and journalists think that Facebook and Twitter may have significantly contributed to Donald Trump’s election as the 45th president of the United States.

Many fear that this new way of campaigning may have large, and possibly unwanted, consequences on election results and on the functioning of democratic institutions – particularly given the recent scandals of Cambridge Analytica, related to the direct unauthorised access into peoples’ accounts, and of the “Russian fake news”, related to the spread of false political information. But Trump’s victory is not the only event under scrutiny. According to a report¹ published in October by Parliament’s Digital, Culture, Media and Sport Select Committee investigating the manipulation of social media in elections, an unknown organisation has spent in 2018 more than £250,000 on Facebook ads, reaching over 10 million Brits and pushing for a far

harder Brexit than Prime Minister Theresa May had originally aimed for.

My recent research with an interdisciplinary team – Federica Liberini and Antonio Russo, economists from ETH Zurich; and Angel Cuevas and Ruben Cuevas, computer scientists from Carlos III University of Madrid – assesses the effects and power of political micro-targeting on social media. Our study, which brings into use a new and unique dataset that allows us to examine the issue by using advertising prices as a window onto the issue, has generated interest beyond the academic circles. For example, Jess Garland, director of policy and research at the UK’s Electoral Reform Society, has widely cited our research to call for stricter regulations for online adverts to include “imprints” stating their origin and funder.² Ofcom, the UK’s communications regulator, has invited us present and discuss our findings. Our work has appeared in articles in the national and international press, such as the *El Pais*, and the *Wall Street Journal*.³

Despite recent changes, social media are still relative closed platforms. They do not disclose most information, making the task of identifying the effects of political campaign conducted on their networks extremely challenging. At the time of the 2016 US elections, Facebook did not share information regarding the volume or content of political ads, or the identity of the campaigners who paid for these ads. To circumvent these problems, we use daily Facebook advertising prices, collected during the 2016 election campaign, to exploit the variation across political ideologies, and to propose a measure for the intensity of online political campaigns. Our proxy for political campaign intensity is based on variations in Facebook advertising prices charged for different audiences, defined by locations, political ideology and demographics, as observed during the critical campaign months leading up to the 2016 November elections.

Political micro-targeting via Facebook was particularly effective when based on ideology, gender and educational level, but much less so when based on race or age.



The findings show that Facebook ads persuaded undecided voters to support Donald Trump, and persuaded Republican supporters to turn out on election day. By contrast, ads to support Hillary Clinton had no effect.

Facebook Marketing API, an ethical and completely privacy-preserving technology, provides novel and highly valuable data in this pursuit; the computer science literature has used this technology to address important socio-economic problems, such as the gender divide worldwide.

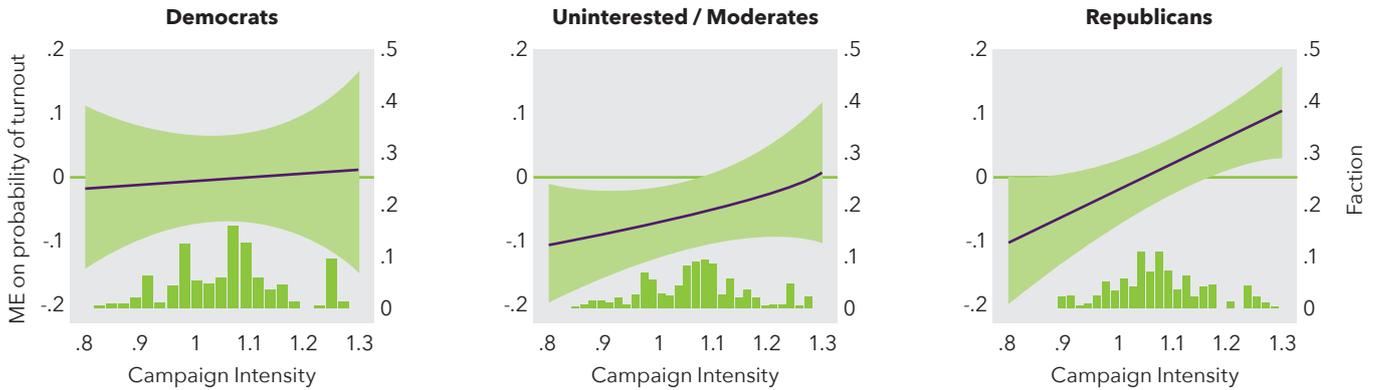
We employ this measure to investigate: (i) how intensely the presidential campaigns micro-targeted politically relevant audiences on Facebook, and (ii) what effect, if any, such campaigns had on voters who relied on social media for their political news. The Facebook

price data measure the intensity of political campaigns at the audience level. To complete the analysis and to estimate the effect of such campaigns on individual voting outcomes, we exploit the American National Election Survey database (ANES 2017) to derive measures of exposure to Facebook *political campaigns* based on respondents' Facebook habits. We then match each respondent to Facebook audiences based on demographic, political and location details, and we compute a personalised measure of *treatment* to political campaign on Facebook.

Overall, reading political news on Facebook affects our voting choices. Our study indicates that advertising on Facebook is an effective way to persuade and mobilise voters, but this effect only surfaced in the direction favouring Mr Trump. In the context of the 2016 US presidential elections, we find that political micro-targeting was particularly effective when based on ideology, gender and educational level, but much less so when based on race or age.

More specifically, targeted Facebook campaigning increased turnout among core Republican voters, but not among Democrats or independent voters. Figure 1 plots the differential marginal effect of campaign exposure on voter turnout between regular Facebook users and non-users as a function of campaign intensity for three groups of potential voters: Democrats, Republicans and swing voters (i.e., the moderate, undecided or uninterested voters). The results show a clear positive effect of the Facebook campaign on turnout among Republican supporters, but not on the other two groups (Democrats and swing voters). Our estimates indicate that exposure to political ads on Facebook increases the likelihood of voting by between 5 percent and 10 percent. Note that this difference vanishes as the campaign became less intense. This suggests that Trump (or someone on his side) was effective in mobilising his core supporters to turn out. ►

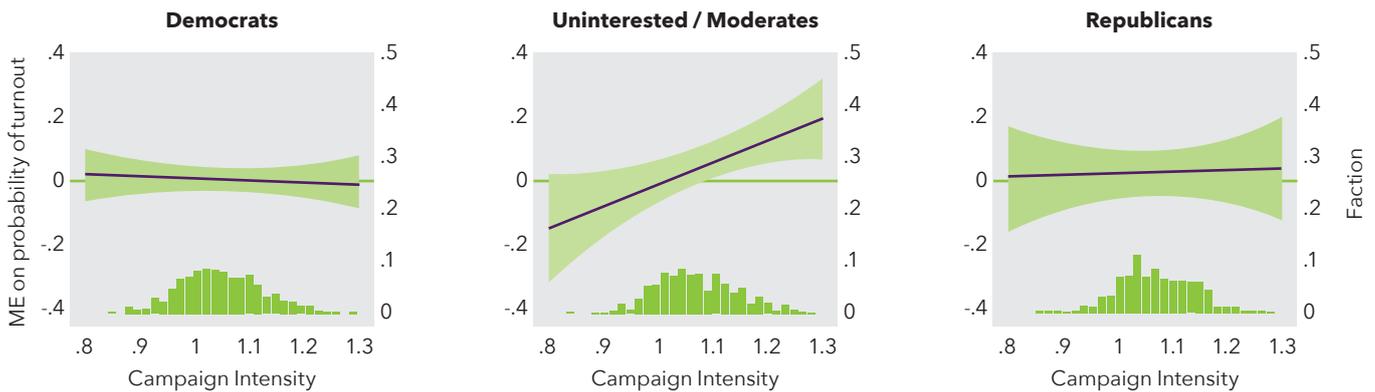
Figure 1: Differential marginal effects (ME) of campaign exposure on voter turnout



Notes. The solid line represents the differential marginal effect of campaign exposure on voter turnout between “regular” Facebook users and non-users by level of campaign intensity; the grey-shaded area shows the 95 percent confidence interval. The bar-histogram below each line represents the distribution of campaign intensity across each group of respondents. Audiences are jointly defined by ideology, state of residence and gender.

A second finding indicates that targeted Facebook campaigning increased the probability that a previously non-aligned voter would vote for Trump; as shown in Figure 2, if the voter used Facebook regularly, this probability increased by at least 5 percent. Similar effects emerged among those who do not have a university or college degree.

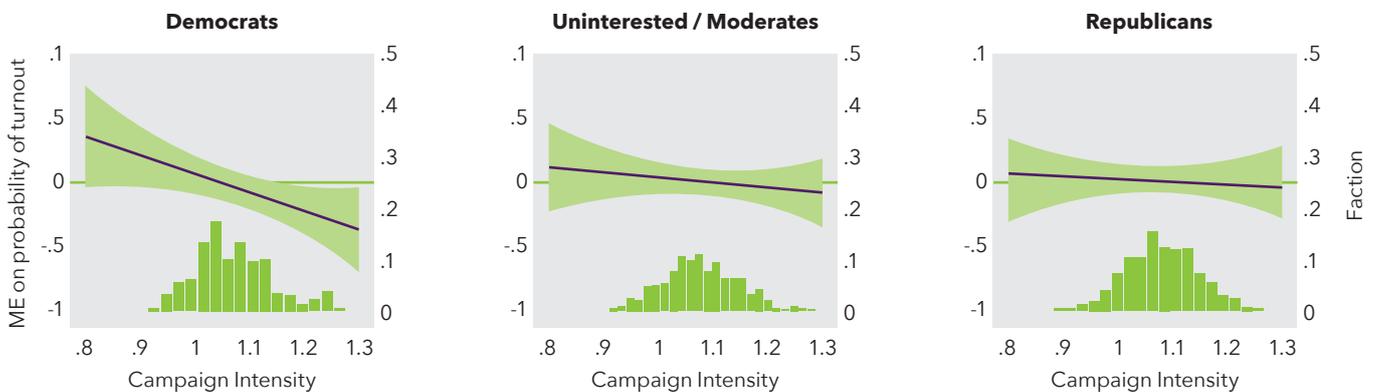
Figure 2: Differential marginal effects (ME) of campaign exposure on Trump vote



Notes. The solid line represents the differential marginal effect of campaign exposure on Trump vote between “regular” Facebook users and non-users by level of campaign intensity; the grey-shaded area shows the 95 percent confidence interval. The bar-histogram below each line represents the distribution of campaign intensity across each group of respondents. Audiences are jointly defined by ideology, state of residence, and gender.

A third result shows that this micro-targeting was ineffective for Clinton, failing to boost turnout or to sway voters in her favour, (Figure 3).

Figure 3: Differential marginal effects (ME) of campaign exposure on Clinton vote



Notes. The solid line represents the differential marginal effect of campaign exposure on Clinton vote between “regular” Facebook users and non-users by level of campaign intensity; the grey-shaded area shows the 95 percent confidence interval. The bar-histogram below each line represents the distribution of campaign intensity across each group of respondents. Audiences are jointly defined by ideology, state of residence, and gender.

Further results show that targeted Facebook campaigning appears to have reduced the probability of a voter changing his mind about which candidate to support. This was true among males, those without a college education, and those who initially declared themselves to be aligned with the Republican party. These findings provide support for the hypothesis that exposure to social media strengthens polarisation. Our analysis also suggests that reading political ads on Facebook does not make individuals more politically informed, but accessing news on newspapers and surfing the Internet does – as evidenced by a simple test we employed to measure respondents' improvement in political knowledge during the US presidential campaign.

Overall, our results show that social media effectively empowered politicians to influence key groups of voters in electoral races. These findings provide further evidence that recent political outcomes, such as Brexit and the election of President Trump, might be largely due to the effective use of data analytics. ◀

Footnotes

- ¹ publications.parliament.uk/pa/cm201719/cmselect/cmcmds/1630/163002.htm.
- ² www.electoral-reform.org.uk/latest-news-and-research/media-centre/press-releases/current-election-campaign-rules-are-a-cheaters-charter-say-campaigners-in-fresh-demand-for-transparency/
- ³ For a list see sites.google.com/site/michelaredoano/media.

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Though Facebook CEO Mark Zuckerberg has said it is "crazy" to think that Facebook ads swayed the vote, new research shows that the social platform had a significant effect on the 2016 US presidential election.

