UNIVERSITY OF LEEDS

Democracy Playing Catch Up

Q. How do non-party organisations and political parties make use of **online political advertising** related to Brexit, on Facebook's advertising platform? An analysis of The Facebook Ad Library for United Kingdom Online Political Advertising.

Somya Mehta

A dissertation submitted in partial fulfilment of the requirements for the degree BA (*Hons*) Communication and Media

School of Media and Communication, University of Leeds

May 2019

Word Count: 11,967

<u>Abstract</u>

While print and broadcast advertising used to be the norm of political campaigns a few decades ago, online political advertising is the new favourite. With the interactive Web 2.0 and the advent of social media, political campaigns are invariably getting more and more 'datafied'. High-profile market research and canvassing techniques that once used to be associated to extremely high costs and sophistication, are now available with the click of one button (or maybe a few). The lawless space of online political communication has caused global controversies in the recent years. Be it the US Presidential Elections or UK's EU Referendum results, data-driven political advertising has been plagued with the narrative of its ill effects on the democratic health of a society. As a result, this dissertation was interested in examining the nature of these digital political ads related to 'Brexit', that circulate Facebook in an apparently, 'lawless' manner. This research draws on concepts of 'homophily' and clustering of like-minded individuals on social platforms and its manifestation in the targeting of online political advertisements. Ultimately, this research concludes that while there are prominent indications of personalisation in the content of online political ads, Facebook also makes use of context-driven algorithmic targeting that may not be apparent in the ad content.

Keywords: online political advertising, Facebook advertising, targeted ads, data-driven political campaign, Facebook ad library, personalisation

Table of contents.

1. Introduction	3
2. Literature Review	
2.1 Evolution of Political Advertising	7
2.2 Tech Vs Democracy: Consequences of Online Political Advertising	
2.3 Post-Cambridge Analytica: New-age Regulatory Challenges	
2.4 Web 2.0: Facebook and 'Bigger' Data	
2.5 'Bridging the Gap': Research Objectives	
3. Methodology	
3.1 Research Design3.2 Sampling methods	
3.2 Sampling methods	
3.3 Coding Categories and Operationalisation	
4. Results and Discussion	
5. Conclusion 6. References	51
6. References	53
7. Appendix	60

1. Introduction

The proliferation of web-based services, technology as well as subsequent social media platforms, in the past few decades, has revolutionised the ways in which firms identify their potential audiences and gather information about their interests, online behaviour and even purchasing habits. While, in the pre-internet era, brands and companies still made extensive use of market research, demographic profiling and audience segmentation to deliver relevant marketing communications and advertising, the granularity of such insights has vastly improved since the establishment of dynamic and interactive web-experiences, commonly known as the second wave of World Wide Web or Web 2.0. Kumar and Gupta (2016: 302) argue that insights that were once merely based on "guestimates", can now be informed by a large body of systematically collected data - Big Data. Big data has easily become the buzzword, or "fashionable term" as Silver (2012: 9) calls it, of twenty-first century marketing techniques. An annual report by a data collection firm, DOMO, stated that 2.5 quintillion bytes of data is generated each day and this number is only set to increase by 2020 (Marr, 2018).

The widespread use of personal data in commerce has led to data being regarded as the 'oil of the twenty-first century', highlighting the influence of this industry on economy and subsequently, society. Tech giants, such as Google, Apple, Facebook, Amazon and Microsoft, listed as the 'five most valuable firms in the world' by The Economist (2017), use data-processing as a key revenue stream in their business models. One of the predominant ways in which data, or big data, the 'new oil', is being capitalised on, is through internet advertising. The use of big data analytics in profiling online user character, behaviour and relationships, has become a predominant business model for majority of the web-services in an attempt to monetise their platforms, in the last two

decades (Adshead et al., 2019; EDPS, 2018). Doug Laney coined the term 'infonomics', in the 1990s, to describe the growing value of data-driven insights to monetise web platforms, which has now become a widely-recognized industry in the modern society (U.S. House of Representatives, 2017).

In the UK itself, internet advertising expenditure has increased from £3,508m in 2008, to £11,553m in 2017, with an annual growth rate of 14%, indicating that internet advertising has easily overtaken other traditional forms of advertising, such as television, press and radio (Adshead et al., 2019: 35). A recent report on 'online advertising in the UK' (Adshead et al., 2019), commissioned by the Department of Digital, Culture, Media and Sport (DCMS), argues that "data is the lifeblood of the online advertising industry, enabling brands to target advertising and to analyse campaign performance and impact" (ibid: 14), in real-time, through the use of sophisticated algorithms and big-data analytics. The online advertising industry benefits from both first-party and second-party data, including advertisers that have customer data, online publishers, data-mining agencies, and most of all, the major internet companies, such as Facebook, that benefit from a vast array of first-party data (collected directly from consumers) relating to browsing habits, online activity, location, interaction with social networks of friends (Adshead et al., 2019).

While the internet has connected people from all around the world, the initial optimism of social media and internet serving as effective democratic tools, has been subdued by concerns that pose a threat to the integrity of democracy. The main concern here seems to be that people are being manipulated, through intrusive collection of personal data, constant surveillance of online behaviour, being categorised based on algorithmic decisions, and then, receiving information

catered to those categories (EDPS, 2018), through targeted online political advertising. In the wake of scandals such as Facebook-Cambridge Analytica and its potential impacts on the outcome of the Brexit Referendum in 2016, the key pillars that form a working democracy, revolve around shared culture, free elections and trust in authority (Bartlett, 2018) among other aspects, all of which seem to be challenged by the fragmented, hyper-personalised web, facilitating rampant spread of misinformation (Howard and Kollanyi, 2016; Bartlett 2018; Tambini, 2018).

As a result, this dissertation aims to explore the use of online political advertising related to 'Brexit', on Facebook's advertising platform. The central research question driving the focus of this dissertation, is: 'How do non-party organisations and political parties make use of online political advertising related to Brexit, on Facebook's advertising platform?'. The question will be explored through an analysis of political advertising related to 'Brexit' on the Facebook Ad Library, rolled out in the UK in October 2018, over a period of two weeks. The dissertation aims to shed light upon the manifest content of online political advertising that floats on social media platforms, such as Facebook, an area has largely been left out of the narrative of data-driven political campaigning, due to the previous lack of online advertising archives to conduct empirical research.

2. Literature Review

2.1 Evolution of Political Advertising

Rise of the internet and digital tools, have continued to enhance practices of online advertising (Kreiss, 2016), through sophisticated audience targeting and segmentation tactics that can effectively help "mobilize voter turnout, engage young people, raise money, and support grassroots ground operations" (Chester and Montgomery, 2017: 2). In fact, online advertising has now become the most popular way of advertising employed by political campaigners, with 42.8% of the total advertising spend being used for digital advertising, in the UK (Figure 1).



Figure 1: Reported spending by campaigners on digital advertising (The Election Commission, no date e)

The use of voter information by political organisations is not a new or rare phenomenon. Political parties, candidates, non-party political/grassroots organisations have had access to electoral registers since the beginning of universal suffrage (Information Commissioner's Office, 2018a). The growing influence of news media and expansion of media platforms, from print to television to radio and now the internet, has always been used to disseminate political communication, be it through advertising or other informational segments. Political advertising in the United Kingdom has traditionally been segmented into two main platforms, print and broadcasting, with the former being a lot less regulated than the latter. Print-based political advertising has been a popular revenue stream for national newspapers and billboards since the twentieth century, while broadcast media has traditionally "allocated rationed blocks of free airtime for party political broadcasts (PPBs)" (Scammell and Langer, 2006: 65), prohibiting political advertising on these platforms. Even though PPBs on television play a key role in disseminating political information from major parties, broadcasters such as the BBC have historically been driven by concerns of impartiality and political neutrality, values that maintain journalism's role as the 'fourth estate' of democracy (Scammell and Langer, 2006; Tambini, 2018). PPBs are also regulated and allocated by the Ofcom Broadcasting Code keeping in line with narrative of legitimacy and integrity of elections. However, political advertisement in the print domain has largely been unregulated and exempt from the commercial self-regulatory body, Advertising Standards Authority's (ASA) code of practise.

Political parties and candidates have enjoyed total freedom of expression while campaigning and advertising on print mediums, posters and billboards, giving rise to more strategic, creative and multichannel approaches to political campaigning. The history of political communication stems back to the extensive use of marketing tactics often employed in US elections, prevalent since mid-twentieth century. The United States is regarded as the first ever country, where election campaigns have been heavily driven by professional use of political marketing (Maarek, 2011). In the UK, it was not until the hiring of Saatchi & Saatchi by the Conservative Party in 1978, that political communication took a sharp turn into the realm of marketing, incorporating sophisticated, rather commercial, techniques, such as the use of focus groups and psychographic market research to gain in-depth knowledge of voter behaviour (Scammell, 1995; Scammell and Langer, 2006). According to Scammell and Langer (2006: 73), "the Saatchis transformed the look of party advertising, adopting commercial production values...and pioneering an aggressive negative style of advertising", similar to political advertising models pioneered in the US (Jamieson, 1996; Maarek, 2011).

One of the most famous Saatchi ads for the Conservative Party has been the 'New Labour, New Danger' ad ahead of the 1997 election, which portrayed Tony Blair, Labour leader of the time, "with a scary smile and crazed, red eyes" (Scammell and Langer, 2006: 74). This particular ad campaign had a very high emotional appeal and garnered a lot of negative publicity, leading to subsequent action being taken by ASA, which at the time, regulated non-broadcast political advertising. Interestingly, as a result of the dispute caused by ASA's interference with this Saatchi campaign, the independent authority was eventually encouraged to withdraw its rights to regulate political advertising altogether (Culf, 1997; Scammell and Langer, 2006; Advertising Standards Authority, 2014). While PPBs and posters remained the most common forms of party communication with voters, the rise of telephone and email marketing techniques in the late

twentieth century also paved unique ways for parties to have direct contact with individual voters, on a large scale.

In the twenty-first century, there has been a significant proliferation of data-driven political marketing techniques. With the rise of digital advertising employed in political campaigns, an investigation from the Information Commissioner's Office (ICO, 2018a), on the use of data analytics by political organisations, highlights that even though traditional and direct marketing approaches have always been prevalent in political campaigns, they have conventionally been driven by a certain degree of transparency, where "their provenance is clear; and the messages given are received against the backdrop of the wider political discourse" (ICO, 2018a: 10). However, the rise of social media campaigning and 'computational politics' (Chester and Montgomery, 2017; Tufecki, 2014; Kreiss, 2016), has increasingly blurred the lines of acceptable conduct and practises that have traditionally formed the very basis of aforementioned 'transparency' in political campaigns. Online political advertising is fundamentally more opaque in nature, as compared to traditional forms of campaigning. Every user consumes these online political ads in different contexts, situated amidst highly personalised News Feeds, with the help of algorithmic prediction mechanisms constantly trying to navigate who we are, who we interact with, our likes and our dislikes.

2.2 Tech Vs Democracy: Consequences of Online Political Advertising

With the 'open' web, came the hope of establishing a healthier democracy, one that breeds increased connectedness and deliberation, allowing the internet to act as a democratising force (Tambini, 1998; Rheingold, 1995). The internet was initially conceived by scholars as a hope to

extend Habermas' public sphere and to form online deliberation spaces that would expand the reach of the conventional public sphere. This notion, very soon, changed into a narrative of restrained caution around the internet's democratic potential (Zittrain, 2008). And in the age of data-driven campaigns and elections, especially since the 2016 US election and EU referendum in the UK, this narrative has further shifted to a call for help, insinuating that democracies may be in a crisis (Tambini, 2018; Chester and Montgomery, 2017; Sumpter, 2018; Bartlett, 2018; EDPS, 2018; ICO, 2018a). The fundamentals of democracy may be in conflict with the fundamentals of technology. The World Wide Web was conceived as an anarchic space, free from government rule, to give the supposed power back to the people (Barlow, 1996). Bartlett (2018: 4) argues that democracy and technology are products of different times, where:

"The machinery of democracy was built during a time of nation-states, hierarchies, deference and industrialised economies. The fundamental features of digital tech are at odds with this model: non-geographical, decentralised, data-driven, subject to network effects and exponential growth."

The fundamental features of digital tech outlined by Bartlett (2018), form the very basis of the attention economy (Dijck, 2013), upon which the business models of Internet advertising seem to thrive. Hence, the advertising industry is situated at the heart of the digital media ecosystem; shaping the core functionality of online platforms (Chester and Montgomery, 2017). The major affordances of the web like interactivity, open spaces, anonymity, online connections, not only seem to be in harmony with the libertarian perspective of internet as free space, but could also be seen as a space to create the Habermasian public sphere. However, Sunstein (2002) argues that the internet is far from these values that it was initially conceived to encourage. The proliferative growth of online news and information consumption since early 2000s, has given rise to significant concerns around the ways in which people receive and consume information. The shift from news

consumption from mass-media, where information dissemination was more or less in a 'one size fits all' manner, to the consumption of highly personalised information in personalised contexts, which Negroponte (1995) refers to as the 'Daily Me', takes away from the fundamental notions of the 'public sphere' that encourage a shared understanding of the world (Livingstone, 2005).

The process of web-personalisation also latches onto central notions of commercialism and profitability, as an attempt to extract maximum value of personal user data through increased algorithmic-surveillance; undermining the economic and social freedom that forms the basis of cyber-libertarianism (Thierer, 2009). The political economy of privacy on platforms like Facebook is heavily impacted by the consequences of economic surveillance and commodification of user data, which Christian Fuchs (2012: 139) refers to as "the exploitation of the internet prosumer commodity". Capital accumulation of user-data on social media, then, extends beyond the debate of how much user information is made available on the platform, to how the user-data is used for advertising purposes and the ways in which users may be exploited in this process. Internet exploitation of this sort can also be situated within the wider context of a capitalist critique of the modern-society, where it can be argued that what social media companies are doing with user-data, is no different to what "contemporary capitalism is doing to humans throughout the world in different forms" (Fuchs, 2012: 156).

Due to algorithmically-curated news feeds and personalised, micro-targeted advertising, messages online are often received in 'echo chambers' (Sunstein, 2002; 2007), where users are more likely to receive messages from like-minded individuals, "devoid of attitude-challenging content" (Bakshy et al., 2015: 1130), in a possible attempt to increase click-through rates or what

tech giants commonly refer to as 'relevancy'. This can result in users being "insulated from contrary perspectives" (Allcott and Gentzkow, 2017: 211), curbing the democratic process of rational-critical discourse that involves receiving both sides of any given argument (Graham, 2015). Parisier (2012: 9) also points out that algorithmic technologies can lead to the creation of 'filter bubbles' online, which offer a "unique universe of information to each of us", fundamentally altering the ways in which information has traditionally been consumed. The prevalence of 'echo chambers' and 'filter bubbles' online can deter voters from hearing other sides of the arguments, forming networks of like-minded people, who may not understand why they receive certain messages, while being excluded from the others (ICO, 2018a).

The lack of contact between people with dissimilar opinions, online, is often related to the growing concern around political polarization in online spaces (Farrell, 2012; DiMaggio et al., 2001; Tambini 2018; Sunstein, 2002; Silver, 2012; Chester and Montgomery, 2017; Abramowitz and Saunders, 2008). Sunstein's early claims on the formation of 'echo-chambers' have been based on the concept of 'homophily', which suggests that the internet tends to bring like-minded people together, from an otherwise fragmented online society, and in the process, makes them even more like-minded (Sunstein, 2002; 2007). However, scholars have argued that while the former can be proved by sufficient evidence, the latter has been criticised due to lack of it (Farrell, 2012).

The emergence of social networks has established a "meeting and mating process" (Lazer et al., 2010: 249) that occurs online, whereby both individual and external factors influence the bringing together of like-minded users, subsequently creating an "opportunity for the formation of friendships or other forms of affiliation ("mating")" (Lazer et al., 2010: 249). Social ties formed

in this manner, where forms of affiliation are more common with similar individuals, is commonly referred to as 'homophily' (Lazer et al., 2010; McPherson et al., 2001). The prevalence of homophily in regards to political networks has been a key area of research within social sciences (Lazer et al., 2010), where research has shown that discussion partners tend to be situated within same age groups, race, religion (Marsden, 1987) and political preferences (Huckfeldt et al., 1995; Ikeda and Huckfeldt, 2001). In the context of political communication, this raises significant challenges for online social networks that are designed to amplify the existence of homophily through their algorithmically-driven site architectures, where people's views tend to shape the network and vice versa (Lazer et al., 2010; McPherson et al., 2001).

Clustering of like-minded individuals in social networks has been a widely researched topic in political and social sciences, with political polarization emerging as a central consequence in many debates (Farrell, 2012; Silver, 2012; Lazer et al., 2010; Huckfeldt et al., 2002; 2004). The narrative of political polarization has become a lot more popular over the past decade, and with the amplification of homophily in online social networks that thrive on clustering like-minded people together, scholars have also argued that network clustering, in fact, may encourage individuals to adopt extreme and inward-looking views (Sunstein, 2007; Bakshy et al., 2015).

In similar ways that the rise of printing press introduced greater sectarianism within the society, online political polarization and rapid rise in political partisanship, can also be observed in the age of web 2.0 (Silver, 2012). Partisanship, referred to as a "potent political force" (Bankert et al., 2017: 104), has acted as a significant driver of political action and behaviour in democratic societies. According to Silver (2012), ideas can now be testified with more extensive information

and 'proof' available online, leading to more solidified views and opinions that may be vary of dissimilar attitudes. In similar ways, partisan views, too, can be influenced and solidified at a greater rate than ever before, leading to less tolerance for varied expressions (Kahan, 2012). The concept of partisanship has been widely attributed to generational and life-cycle factors by political and social scientists (Butler and Stokes, 1974; Krosnick and Alwin, 1989), where "the old tend to vote and identify with the party of the right more than the young" (Tilley, 2002: 121). Interestingly, similar results have been found by David Sumpter (2018), for the YouGov poll results (2016) 10 day prior to the EU Referendum in 2016, where the author derived a positive correlation between a voter's age and their chances of voting 'Leave', a stance that has commonly been attributed to conservative values:



Figure 5.1 Regression model of probability that a person will vote to leave the EU dependent on age. Circles are measurements taken from opinion poll data collected by YouGov in the run-up to the vote as to whether the UK should leave the EU in 2016.³ Solid line is a model fit, relating age to probability of voting to leave.⁴

Figure 3: Regression model of probability (Sumpter, 2018)

With the advent of social media and platforms like Facebook, estimating ideology online has become more accessible and large-scaled. While the relationship of age and political ideology has been widely-researched even before the establishment of the internet, with the availability of social media data, scholars have been able to quantify relationships between ideology and social relationships, such as marriage, educational qualification, and ideology based on friendship networks and voter turnout (Bond and Messing, 2015). One such empirical study by Bond and Messing (2015) provides significant insights into online clustering of friendships and estimates of ideology, based on social and demographic factors on Facebook. The scholars argue that young people tend to be more liberal in their political views than older people and women tend to be more liberal than men. While the same pattern can be observed in married and single people, the study also found that young people who get married earlier tend to be more conservative (Bond and Messing, 2015). While these categorisations are not exhaustive in any manner, they provide indicative estimations of the ideological spread across online social networks such as Facebook, closely relating to offline ideological estimates, thus, strengthening the effectiveness of online targeting and segmentation for political campaigning.

A vast majority of literature covered in this dissertation indicates that data-driven campaigning poses a number of threats to the democratic health of a society, leading to subsequent concerns around a number of key areas. Data protection and misuse of personal data have been some of the central concerns revolving around digital campaigning practises (Cabanes et al., 2018; Kreiss and Howard, 2010; Cohen, 2012), where voters' personal data is harvested in large amounts, from social media platforms, to target them with relevant and highly-personalised messages that may not be completely accurate. According to a report by the Electoral Commission (2018) in the UK, a key challenge with online ad campaigns revolves around the lack of transparency surrounding audience profiling and targeting. Voters may not be aware of how and why they receive certain

political messages online, leading to transparency issues around digital political campaigning and can result in lower trust levels in the overall political system of a country.

2.3 Post-Cambridge Analytica: New-age Regulatory Challenges

A number of growing concerns related to data-driven political campaigning have been raised in the recent years, as elections continue to become more 'datafied' than ever before (ICO, 2018a; Tambini, 2018; McCarthy, 2017; Adshead et al., 2019). Unlike more traditional ways of political campaigning, digital campaigning techniques tend to be more opaque in nature, leaving room for potential legislative and ethical breaches. One such case of legislative and ethical breaches, is the infamous Facebook-Cambridge Analytica scandal that came into prominence in March 2018, when a Channel 4 (2018) sting operation and whistle-blower Christopher Wylie (Cadwalladr and Graham-Harrison, 2018) exposed the British political consulting firm, for using information from 50 million Facebook profiles in a major breach of data, to shape the outcome of Donald Trump's shock victory in the 2016 US Presidential Elections. The firm had also been attributed to the outcome of the EU Referendum in the same year, with whistle-blower Shahmir Sanni speaking up about Vote Leave, the official pro-Brexit campaign and its links to Cambridge Analytica (Cadwalladr et al., 2018). Interestingly, both Trump and 'Leave EU' outcomes were won by narrow margins (BBC, 2016a; 2016b).

The major social media platforms have been estimated to have collated over 52,000 personal attributes from its user-base (EDPS, 2018), to categorise people based on their interests and behaviour. Statistical methods, such as regression models, can then be applied to these large datasets to create predictive mechanisms. While statisticians have used regression models and

probability over centuries, the data-sets have never been of this scale (Sumpter, 2018; EDPS, 2019). Big data harvested from online platforms, combined with behavioural sciences, can then be used to reveal precise nuances about voter attributes and use that information to feed targeted information to those voters, which is what political firms like Cambridge Analytica (CA) claim to do. CA's access to 50 million Facebook profiles is largely attributed to Aleksandr Kogan, a former psychology professor that built a quiz app, which had third-party access into Facebook's user-profile data, leading to a major data breach from the social platform. Neither Aleksandr Kogan nor CA were authorised to use the personal data collected from Facebook for commercial/political purposes at the time, however, Facebook did not have sufficient checks in place to stop this from taking place.

A political-marketing strategy that is based on exploiting personal data from naive Facebook users who are unaware of these data breaches, to target their vulnerabilities as a citizen, no longer just remains a breach of data, but also becomes a breach of democracy. Personal data exploited for online manipulation of the electorate raises significant concerns about the legitimacy of the election process, which form the very basis of a functioning democracy (Sumpter, 2018; Bartlett, 2018; Chester and Montgomery, 2017). The European Data Protection Supervisor's (EDPS, 2018: 13) recent report highlights:

"The principle of electoral transparency is not met if the voters have no freedom to seek, receive and impart information about the process and the candidates, including about the source and spending of financial support received by a candidate or a party. These rights are also therefore challenged by online manipulation."

Hence, practices of micro-targeted advertising, based on granular and nuanced voter profiling, seem to be in conflict with an individual's human rights as well as fairness of elections. There have

been several ongoing investigations by the Information Commissioner's Office (ICO) and the Electoral Commission in the UK, regarding CA's role in manipulating the outcomes of the EU Referendum, where ICO has clearly stated that "the rules that apply offline should apply online". As the UK Data Protection Act continues to apply online, Facebook has been served a fine of £500k for failing to protect users' data (Waterson, 2018). With the new legislations of the General Data Protection Act (GDPR) and The Data Protection Act 2018 coming into play just after the scandal emerged, the fine on Facebook would have increased significantly, demanding increased accountability from the social platform.

GDPR has been addressed as a regulatory response by the EU, in light of the heightened concerns around users' personal data online, and provides greater power to legislative bodies, such as the Information Commissioner's Office in the UK, to hold online platforms accountable for data breaches (DCMS, 2018). The new legislation also plays a fundamental role in decreasing "availability of third-party data in the open internet market and [has] led Google and Facebook to stop third-party access to user IDs" (Adshead et al., 2019: 16), which was the primary cause of CA's data breach. While the new data protection legislation is viewed as an important legislative change to combat the growing data protection concerns online, it has also been criticised for causing noticeable harms to the commercial advertising industry, while not having any sufficient impacts on an individual's data protection rights (Adshead et al., 2019).

Other than data protection and transparency concerns, there have also been significant concerns around the inability of existing electoral laws in UK, to effectively deal with the challenges brought forward by online political advertising (Ewing and Rowbottom 2011, Tambini, 2018; Barocas, 2012; Adshead et al. 2019). While The Electoral Commission (no date a; no date b) has a number of regulations set in place, for monitoring campaign expenditure by both non-party organisations and political parties, these regulations are incapable of monitoring the opaque and fragmented nature of funding sources for digital campaigns.

The opaque nature of funding sources behind digital campaigning prohibits legislative bodies to accurately track and trace the people/organisation behind the online political advertisements. Furthermore, online political advertising campaigns encompass the ability to target nuanced voter profiles, at much cheaper rates and much higher reach, revolutionising the way in which political organisations fund their campaigns. While PPBs in the UK have been strictly regulated by the Ofcom Broadcasting Code, political advertisement in the print domain has largely been unregulated and exempt from ASA's code of practise (Scammell and Langer, 2006). It can then be argued that the repercussions of the absence of satisfactory legislation around print-based political advertising, are being surfaced in the advent of online political advertising. While the Electoral laws could have been sufficient to regulate print political advertising in the past, they no longer hold their own, in regards to online political advertising. Moreover, the independent bodies that regulate online advertising, such as the ICO, Electoral Commission and ASA, seem to be fragmented across a spectrum of different issues, resulting in limited coordination between the authorities to combat the overall consequences brought forth by online political advertising as a domain, thereby, leading to fragmented solutions.

2.4 Web 2.0: Facebook and 'Bigger' Data

Through the evolution of Facebook over the last decade and its reliance upon data-gathering techniques used to deliver personalised content, it's important to note that the platform's vested interest in promoting 'openness' and 'connectedness', seems to be fuelled by the overarching motives of profitability as opposed to the preconceived notions of online community-building. Facebook has extensively opened its user-data to advertisers, third parties and vendors, exposing itself to a serious loss of users and reputation damage, "through a steady erosion of privacy and trust" (Dijck, 2013: .62; Nussbaum 2010), which also form the foundations of key regulatory challenges faced in the digital era, as discussed later in this dissertation. Facebook's online advertising model has been refined and expanded overtime, to enhance the platform's ability to target nuanced user-profiles, carefully segmented through its algorithms.

The main types of targeting techniques currently offered by the platform include demographic and behavioural (based on interests and web browsing data), single-person targeting (enabling microtargeting), retargeting and personalisation of ad content (Adshead et al., 2019). More recently, newer forms of targeting, such as Custom Audiences, created by uploading user's personal information including name, email, postcode etc. and Lookalike Audiences, targeting users with similar attributes to the advertiser's customer data; have also become increasingly popular (Adshead et al., 2019; Faizullabhoy and Korolova, 2018).

The economic success of Facebook is rooted in its ability to strike a balance between serving as a meeting place (for networking) and a marketplace, which Dijck (2013: 62) argues, as a primary difference between social media and conventional media platforms. The lines between the two

mechanisms is blurred, to say the least, as "Facebook has a stake in promoting the first type of mechanism while diverting attention from the second type" (Dijck, 2013: 47), for obvious reasons. The more information users have about how their personal data is used in this online 'marketplace', the more likely they are, to act against it. Berghel (2018) correctly points out, "Facebook's 2 billion users aren't a community in any meaningful sense of the term—they are, collectively, the product sold", which raises critical issues, not only in terms of regulatory challenges, which of course form the bulk of the issues, but also in terms of user awareness and lack of transparency around the hidden realities of online advertising and social media platforms.

An article on Campaign Live (Calvert, 2015), however, quoted an IAB study (2018), which showed that over half of the respondents favoured personalised and relevant ads and 61% of survey respondents for another IAB study agreed that they would rather view ads than pay for the platform. These studies demonstrate an underlying trade-off that occurs when one uses the services offered by social networks; a trade-off between personalised advertising and data privacy, where compromising privacy of one's personal data becomes the opportunity cost that comes with being able to access an online service for free. The notion that users may actually *prefer* to see personalised ads that are more relevant to them, in exchange for some of their personal data, can still make economic sense, given that the ads in question are related to commercial products. However, the question that emerges here is whether the opportunity cost stays the same, when applying this highly-commercial business model to organise politics and consequently, democracy. Does this opportunity cost extend beyond the perceived benefits of 'personalisation' and 'relevance' in the information economy? Is the trade-off also between personalised/free content and democratic rights of a citizen? To critically discuss these questions, this dissertation addresses the rampant growth of online political advertising.

When the same, personalised, targeted online ads are used to propagate political agenda and skewed partisan interests, the debate becomes wider than any one individual, it becomes a societal concern. Hence, if a user's consumption of personalised political advertising results into a possible externality in consumption (whether negative or positive), it also becomes a social welfare debate. Therefore, when addressing the booming growth of online advertising industry, it is imperative to also address the growing prominence of online political advertising, along with online commercial advertising. To speak about either one in isolation, is like looking at only one half of the whole problem, resulting in weak solutions that are unable to deal with the subsequent challenges effectively. When the two types are displayed in the same way on a social media platform, or at least traditionally have been, one needs to look at them hand-in-hand, due to their co-existing nature and use that as a starting point for developing new or existing regulatory frameworks. The EDPS (2018: 5) points out that there is a vast ongoing debate in this specific sector to distinguish "how the political environment interacts with the economy" resulting in "the major platforms [that] sit at the centre of this ecosystem, gaining disproportionately from the growth in digital advertising" not only within the market economy, but also, and more increasingly, within the political economy (EDPS, 2018; Chester and Montgomery, 2017; Rubinstein, 2014).

2.5 'Bridging the Gap': Research Objectives

Taking the above literature into consideration, this dissertation argues that the overall narrative of data-driven campaigning and political micro-targeting has been circulated around as a means of

undermining democracy, in anti-democratic manners. The use of these targeting techniques has been subjected to high-levels of investigation in the recent years, to gauge their effectiveness and potential consequences. A number of regulatory bodies have been trying to come up with adequate legislative solutions to minimise the damaging impacts of data-driven political campaigning. However, there has been a significant lack of robust information regarding the nature of these politically micro-targeted advertisements, and the extent to which they demonstrate the highlypersonalised attributes, based on nuanced voter profiles that have been outlined by existing literature.

According to Tambini (2018: 270), research related to data-driven campaigning has largely relied on interviews (Enli and Skogerbø, 2013; Moore, 2016; Kreiss and McGregor, 2016; Anstead, 2017), ethnography (Nielsen 2012), or legal analysis (ICO 2018a; 2018b; EDPS, 2019; Chester and Montgomery, 2017; Butrymowicz, 2009). There has been very little analysis of the actual messaging of these micro-targeted ads, testing "the validity of some of the more worrying claims about new forms of propaganda" (Tambini, 2018: 270) that have emerged in the narrative around data-driven campaigning. This has largely been the result of lack of access into the content of online political ads that circulate the web. Only the voter, campaigners and social platforms tend to know the nature of these personalised ads and who they are targeted towards. Online ads disappear once the user moves onto the next page, making it hard for independent bodies and scholars to examine the content of these ads and its adherence to political advertising laws that are set in place (Adshead et al., 2019). As a result, according to Tambini (2018: 270), "there remains a rather large gap between hype (generally of the dystopian variety) and understanding of how targeted campaigning on social media has in fact been deployed".

Post the Cambridge Analytica debacle, significant concerns have been raised around the previous lack of any permanent databases to collect political ads online, allowing legislative bodies to be able to hold digital campaigns and their sponsors accountable. As a response to this criticism and in an attempt to increase transparency around online political ads, Facebook launched its very first Ad Archive in May 2018 for collecting online political ads in US. The Archive has since been rolled out in other countries gradually, including the UK in October 2018, ahead of Local Elections and European Elections in May 2019. The Ad Archive, now called the Facebook Ad Library, has become one of the largest Online Advertising Databases, including all ads reviewed by Facebook as being political or related to issues of national importance (Appendix 7).

Ads related to politics or issues of national importance are archived in the searchable Ad Library for up to seven years and include information such as, ad text, image, web link associated to the ad, amount spend on the ad, ad reach (number of impressions) and demographic and geographic breakdown of the ad audience (Edelson et al., 2018). This dissertation aims to bridge the gap between the 'hype' and working understanding of how the narrative of data-driven political advertising is actually manifested into online political advertising on Facebook. This has been enabled by Facebook's launch of the Ad Library, consisting of online ads relative to politics and issues of national importance in its searchable archive. In order to understand the nature of online political advertising, the following research question has been formulated:

RQ: How do non-party organisations and political parties make use of online political advertising related to Brexit, on Facebook's advertising platform?

To aid the analysis and successfully answer the aforementioned research question, following sub-questions will also explored:

- **1.** Who is being shown online political ads related to 'Brexit on Facebook, for the chosen time-frame?
- 2. Who are the different political actors paying for online political advertising related to 'Brexit' on Facebook?
- **3.** Does the content of Brexit related ads in the UK demonstrate the highly-personalised features that form the bulk of recent literature around data-driven campaigning?
- **4.** Is the Facebook Ad Library an effective tool for the analysis of online political ads related to controversial political topics, such as 'Brexit', ahead of the European Elections 2019 in the United Kingdom?
- **5.** Are the legal and ethical frameworks in the UK, adequate to combat the challenges brought forth by online political advertising?

3. Methodology

3.1 Research Design

According to a popularity graph by Statista (2019), Facebook is the most popular social network worldwide with 2,320 million active users, enabling the platform to leverage enormous network effects, whereby its value increases each time a new user joins the platform because more active users equates to more data produced, in real-time. The launch of the new Facebook Ad Library rolled out in the UK, in October 2018, acts as a dynamic archive of online political advertising disseminated on the platform. This is a critical response from Facebook's end, to increase transparency around online political advertising that has been a recent topic of global political debate. Prior to the launch of this archive, there was very limited access to the actual political advertisements that circulate the web, making it impossible to undertake robust research to assess the manifest content of online political advertising (Tambini, 2018). As a result, to address the existing research gap mentioned above, related to data-driven online political advertising, this dissertation employs a quantitative content analysis to provide contribute to and reflect on the widespread narrative of the threats posed by data-driven political advertising, in relation to the manifest content of online political advertising.

According to Bryman (2001: 176), content analysis can be defined as "an approach to the analysis of documents and texts (which may be printed or visual) that seeks to quantify content in terms of predetermined categories and in a systematic and replicable manner", making it a deductive process. This method has been one of the most common methods of research undertaken in regard to political advertising, in examining the manifest content of political advertising

(Johnston, 2006). Content analysis usually focuses on revealing the structural features of media content, revealing the underlying social, political and cultural nuances of media texts. However, in this dissertation the content analysis has been undertaken alongside a brief demographic analysis and analysis of ad spend and its 'impressions', described as "the number of times that [the] adverts were on-screen" (Ads Help Centre, no date a). This analysis will enable the dissertation to uncover prognostic nuances of the texts as well as structural features. Each advertisement archived in the Library consists of the number of impressions created by the ad, the amount spent on the ad (£), demographics targeted by age and gender as well as geographical segmentation of the ad audience. The flexibility of content analysis was tremendously beneficial, in adapting the categories to suit the needs of assessing the aforementioned insights generated by the archived ads on the Ad Library.

3.2 Sampling methods

The Unit of Analysis for the research was political/issue-based advertisement (as signified by Facebook in the ad archive). The context Unit of Analysis was the Facebook Ad Library for the UK. To conduct the research in a sizeable manner, it was necessary to choose a specific subset of the total population of Facebook political/issue-based adverts archived in the Library. As a result, a non-probability, purposive sampling method (Neuendorf, 2002) was employed, to collect political/issue-based advertisements related to Brexit, over the period of two weeks, from 10th to 24th April). The Facebook ad archive, at the time of the research was adding new political ads onto the archive on a weekly basis, starting from October 2018. The total population of ads was too high and fragmented, so a non-probability sampling method was deemed more useful for answering the research question. The sample size collected from a subset of the total population,

gathered over the period of two weeks, reached a sample size of N=234 political/issue-based advertisements, considered as appropriate for the scale of this study.

The dissertation was particularly interested in political advertisements related to Brexit, due to controversy surrounding Vote Leave's use of online political advertising during the EU Referendum in 2016 (Cadwalladr et al., 2018). Hence, an analysis of Brexit-related political advertisement and their subsequent stances of 'Leave' and 'Remain', indicating conservative and liberal political views, provided a solid foreground for conducting the content analysis in relation to the Ad Insights provided by the Ad Library. The Facebook Ad Archive is searchable, through keywords and page names, which enabled me to enter the term 'Brexit' into the search bar, to segment political advertisement related to the topic. To further sample the population, a second stage of event-based sampling was employed (Neuendorf, 2002), as the analysis particularly wanted to explore the dissemination of Brexit-related political advertisements ahead of the European Parliamentary Elections on 23 May 2019. The EU elections have been considered very crucial for the understanding of the referendum results that came out in 2016, to gauge the extent of polarization that still exists around the two stances, based on electoral voting for either proleave or pro-remain political parties.

A critical issue with the Ad Library was that there were fluctuations in the search results returned by the Library, depending upon the number of advertisements being displayed. To avoid the fluctuations in search results, the analysis was undertaken one week after the time duration of 10th to 24th April. A leading cause of the fluctuations as well as the Ad Library crashing multiple times, while returning search results with thousands of dynamic ads, is the inability of the ad

archive to be searched based on time-frames. This means that with each search-term, the Library returns masses of advertisements across several months, making the process of loading these ads rather tedious and time-consuming.

To improve the stability and accuracy of the design, regardless of the limitations of Ad Library, the design was retested by searching for the 38 unique advertisers derived from the initial datacollection process, which was a lot easier to load on the archive, and enabled me to crosscheck the presence of the collected ads for the specific time-periods. This also adds to the reliability of this particular research design and allows higher levels of replicability and transparency, since the Facebook advertisements analysed in this dissertation are open to public domain. Another advantage of this "unobtrusive method" (Webb et al. 1966, in Bryman, 2001: 189) includes the ability of this research design to be replicated overtime, to allow future longitudinal research, analysing different phenomena related to online political advertising (Bryman, 2001).

3.3 Coding Categories and Operationalisation

Along with sampling techniques, coding plays a significant role in determining the effectiveness of the overall research design, and the overall study. Due to the recency of Facebook rolling out the UK Ad Library, there was little reference in existing coding manuals for operationalising digital advertisements. The coding categories of this study have been derived in two ways. The first part of the coding categories, related to the manifest content on online political ads, is based on references from The Election Commission's 'purpose test' (no date a), which is used to judge whether political campaigning material will be subject to regulation, prior to the election period. This was tied together with categories based on the structural and media-based

features of the online political ads, such as the type of media used in the ad, advertiser name, 'paid for by' label, topic of the Ad in relation to Brexit, as well as the stance related to Brexit. The types of political sponsors were also coded, based on data-gathering process used by Edelson et al. (2018). The second part of coding categories was deducted from the insights made available by the Facebook Ad Library, such as information related to age, gender, geographic location, ad impressions and ad spend.

To process the raw data, the average of each range was calculated, in order to come up with a numerical figure for the purpose of analysis. Moreover, the gender and age categories also had to be operationalised to provide indicative rather than definitive results, based on most targeted agegroups and most targeted genders. A coding manual was devised to provide a deeper insight into the operationalisation of the given coding categories (Appendix 6). To increase the accuracy of the results gathered, an intra-coder reliability test (Bryman, 2001) was conducted, whereby, I re-coded a selection of 60 advertisements one week after the initial data-collection process, using the coding manual, to verify the operationalisation of the coding categories. In addition to descriptive statistics like calculating mean, average and standard deviation, statistical analysis using t-tests was also undertaken for a section of the data (Appendix 2), to test the results for statistical significance (Neuendorf, 2002). The results from the test have been discussed in the next section.

Even though ample measures have been taken to improve the reliability and validity of this research design, there are some unavoidable disadvantages of this research method. Bryman (2001: 191) argues that "a content analysis can only be as good as the documents on which the practitioner works", which is accurate in this particular case, as the results of this dissertation directly depend

on the quality of data provided by Facebook. Furthermore, even though the coding categories have been operationalised to provide an exhaustive account of online political advertising related to Brexit, "it is almost impossible to devise coding manuals that do not entail some interpretation on the part of coder" (Bryman, 2001: 191). Regardless of these disadvantages, the research method offers significant benefits to conduct an analysis of online political advertising related to Brexit, archived on Facebook Ad Library, over the duration of two weeks.

4. Findings and Discussion

The sample of 234 political/issue-based ads collected over a two-week period, from the Facebook Ad Library, had a total of 9,151,000 impressions and a total spend of £99,450, with '<£100' being the most common ad spend category, shown in 65% of the total ads. The average impressions per ad were 39,107 impressions, with '10k-50k' impression range being the most common category, shown in 32% of the total ads. The ads have also been categorised based on their Stance on Brexit, with 75% of total ads taking a clear stance of Leave or Remain (Figure 4). Ever since the infamous Facebook-Cambridge Analytica scandal that emerged in March 2018, its associations with Pro-Leave organisations and alleged fuelling of political content online has been an issue of national scrutiny in the UK (Cadwalladr et al., 2018).

Brexit Stance	No. Ads	Impressions	Spend (£)	Average
				Impressions
Neutral	59	1293500	6400	21924
Leave	43	3292500	45750	76570
Remain	132	4565000	47300	34583
Total	234	9151000	99450	39107

Figure 4: Overall results, 10 April 2019 - 24 April 2019

A variety of political actors are making use of online political advertising on Facebook, spending large amounts of money, in hopes of targeted communications with the electorate (Kreiss, 2016). Furthermore, the most common category of ad spend being '<£100' and impression range being '10k-50k', also indicates the significantly lowered costs of political ad spend online, in comparison to traditional print and broadcasting mediums, with the potential of reaching even larger groups of people. This poses a significant challenge for independent regulators such as The

Election Commission UK (no date a; no date b) that have traditionally monitored the overall campaign expenditure. Traditional campaign expenditure limits, which include Digital Ad Spend, have been based on the working costs of print-based and broadcasting communication mediums that have inherently different structural capacities of 'reach' and 'spend', so the set expenditure limits may not actually signify appropriate levels of regulation in the realm of online advertising. For instance, £20,000 (Election Commission, no date c) is the maximum amount allowed to be spend by non-registered non-party organisations, which may not be a significant amount to use in traditional broadcasting and print newspapers, however, can be used to generate a significantly large number of impressions and targeted communication on Facebook.

4.1 Who is being shown online political advertisements related to 'Brexit on Facebook?

Clustering of like-minded individuals has become commonplace on social media platforms, with the purpose of ease to disseminate information between networks that might be more relevant and connected to their ideologies. These networks, to say the least, are crucial for online advertisers, to make use of through dynamic advertising features such as 'Lookalike' and Custom Audiences on Facebook (Faizullabhoy and Korolova, 2018). Scholars have found that partisan behaviours tends to be based on the age demographics, with younger people being associated to more liberal political views (Butler and Stokes, 1974; Krosnick and Alwin, 1989). Clustering based on partisan behaviour, alongside detailed online user-profiles, then becomes a significantly cheaper, twenty-first century version of high-profile market research techniques employed by political actors in the late twentieth century, upon which the traditional electoral laws have been built.



Figure 5 shows a Demographic (gender and age) split by Number of Impressions, where the split by both gender and age, in relation to political ideologies of 'Leave' and 'Remain' is apparent. While the highest number impressions generated by 'Remain Ads', associated to liberal political ideologies with largely centre-left political parties campaigning for the stance, are skewed towards the younger demographic, with more females being targeted. On the contrary, as seen in Figure 5, the 'Leave' Ads have been skewed towards the older demographic (45+ years), with an inclination towards more male audiences. The research then indicates a reflection, though not a relationship, of existing understanding of partisan behaviour related to age and gender demographics, where previous scholars have identified that younger age-groups and women tend to be more liberal in their views (Bond and Messing, 2015).



Similar results have also been found by Sumpter (2018), deriving a positive correlation between a voter's age and their chances of voting 'leave'. Based on Sumpter's regression-model of probability (Figure 3), a similar graph has been derived as part of this research, categorising number of 'Leave' and 'Remain' Ads with the probability of the specific age demographics being primary targets (Figure 6). Since, the Ad Library does not reveal the exact number of people in each age-group being targeted, and only consists of indicative figures, the most common age group targeted for each particular 'Leave' Ad was selected for the purpose of creating the above probability graph. The correlation coefficient as seen in Figure 6 demonstrates a positive correlation between age and the probability of being targeted with 'Leave' Ads, suggesting the probability of 'Leave' Ads being targeted to the older population (consistent with Figure 3).


Interestingly, from Figure 7, one can see an emerging pattern of an inversely-proportional relationship between age-groups and the probability of being targeted with 'Leave' Ads vs 'Remain Ads, with ages '35-44' being a relatively less targeted age-group for both types of Ad groups. The correlation coefficients generated from the line of best fit for both Ad groups are higher than a value of 0.5 (0.8 for 'Leave' and 0.6 for 'Remain)', showing strong correlations between different age-groups and the probability of being targeted with either 'Leave' or 'Remain' ads, based on the sample size for this research project. However, even though the correlation coefficients are relatively strong, it is important to keep in mind that the size of the total sample analysed for this research is fairly limited. The 234 ads had been segmented into categories of 'Leave', 'Remain' and 'Neutral', making the subcategories even more limited.

To test the statistical validity of the above results, t-tests were undertaken for both, the probability of being targeted with 'Leave' and 'Remain' Ads. The t-statistics in both cases were

calculated to be lower than the critical values derived from t distribution table, thus, failing to reject the null hypotheses and making the coefficients statistically insignificant. In the case of the probability of being targeted with 'Remain' Ads, which had a higher number of total sample size, the t-statistic (1.62) was relatively close to the critical value (1.66), indicating that perhaps continued data-collection and increasing the total sample size may help strengthen the correlation of the two variables, hence, improving their statistical significance (Appendix 2).



Furthermore, the archive also revealed the geographical locations being targeted within UK. Figure 8 shows that 87.9% of the total impressions are located within England, giving an indication of the England-centric geographical spread of UK-based online political advertising on Facebook. Similar to age and gender demographics, the geographic location, too, was revealed as percentages, rather than actual figures, so the average percentages of each of the 4 countries were used to come up with the above chart. Nonetheless, Figure 8 can be used as a useful indication of the geographical spread of UK-based online ads related to 'Brexit', to determine which country's population is more targeted than the others. While analysing ads based on geographical spread, there was an observation that the Ad Library available for some of the other countries, like the US and India, had a more detailed insight of geolocation than in the case of UK. In both the other countries, the insights had been broken down per state, allowing the geographical analysis to be more accurate for elections and referendums.

While the UK insights have been divided into the 4 main countries, this dissertation argues the need for Facebook Ad Library to roll out similar versions of geolocation insights in its UK version. Even though regions in England are not segmented based on the 'state' model, Facebook can use the segmentation of 'UK regions', devised by The Electoral Commission (no date d) for monitoring spending limits during election periods (Figure 9). This will aid the process of a more thorough analysis on the part of the Election Commission as well as other independent bodies trying to govern the transparency of election process within the UK.



Figure 9: UK regions divided by spending limits during regulated periods (The Electoral Commission, no date d)

4.2 Who is paying for online political advertisements related to 'Brexit' on Facebook? The key political actors

The analysis reveals that a wide range of different political actors make use of online political advertising on Facebook. The sponsor category for each ad was determined by clicking on the Facebook page associated with the particular ad, where the 'about' section reveals the category of the page. However, the self-assigned categories on Facebook are rather scattered, across a number of different terms categorising similar functions. To avoid having a long and scattered list of Facebook page categories, the sponsor categories were determined by noting the self-assigned categories on the Facebook pages as well as visiting the advertisers' websites for more information. The key political actors that made use of political advertising related to 'Brexit' on Facebook's platform, for the two-week time period, are political parties, political organisations, nongovernment organisations, citizen communities and political candidates. Interestingly, these are also the key political actors that undertake offline methods of political advertising, as indicated by previous research (Information Commissioner's Office, 2018a), reflecting the similarity in the nature of political ad sponsors, both online and offline. For the scope of this research, 'for-profit' organisations and non-candidate individuals were grouped as 'others', as the research is more interested in exploring how key political actors such disseminate political communication online.



Figure 10 shows the dominance of political parties consisting the most amount of Facebook Ad Impressions (60.2%) and the highest Ad Spend (72.9% in Figure 11) as compared to the rest of the political actors. In the case of political organisations and non-government organisations, one can also see that their impressions are higher to the proportion of their ad spends (Figure 10, 11), and in the case of political parties, it is the opposite. This indicates that organic algorithmically-driven criterias may be conducive to spreading online political advertising by non-party organisations, enabling these organisations to undertake more rigorous communications to the

electorate than has previously been enabled by print and broadcasting, where candidates and political parties drive the narrative of political advertising.



This dissertation also looked at whether the prominence of different types of political sponsors online differs by Brexit Stance. According to the results demonstrated in Figure 12, 93.1% of the total impressions created by 'Leave' Ads were from Political Parties, as opposed to 53.5% in the case of 'Remain Ads'. In the case of 'Remain' Ads, the impressions were more evenly distributed

amongst Political Parties and Political Organisations, indicating the prevalence of both party and non-party organisations campaigning for 'Remain', as opposed to the party-based dominance visible within the 'Leave' Ads (Figure 13). However, an overall analysis clearly indicates that Political Parties are the most prevalent category of political sponsors for online Facebook ads related to Brexit, over the course of two weeks that are assessed in this dissertation (Figure 10).

Interestingly, The Brexit Party, a new pro-Leave party led by Nigel Farage, was the top advertiser by impressions and ad spend (Appendix 3), followed closely by Liberal Democrats, a pro-Remain party. The absence of more traditional parties, such as Labour and Conservatives, indicates online platforms like Facebook can be especially favourable for smaller parties to gain supporters and spread awareness through their campaigns. Online ad platforms like Facebook provide smaller political parties with an opportunity to conduct more-targeted communications at much cheaper costs, making online political advertising a highly significant form of campaigning for these parties. The results indicate that smaller political parties such as The Brexit Party and Liberal Democrats have noticeably started their Brexit-related election campaigns, ahead of their political competitors. However, this dissertation only considers a duration of two weeks, which means that other parties could have started their campaigns after the weeks monitored by this research. A further analysis of ads from The Brexit Party and LibDems also reveals similar demographic splits as seen in Figure 5, for 'Leave' and 'Remain' Ads.



Figure 14 shows the weekend/weekday spread across all the different political sponsors. The political sponsor category of 'Community' is seen to have a relatively even spread across the two weeks less than 10 ads being disseminated each day. There is also a noticeable dip between 12-14 April and 18-20 April, indicating that online political ads are more widely created during the week, as opposed to the weekends. This could be due to a variety of reasons; weekends are usually when people take time out to relax and indulge in leisure activities, whereas weekdays are seen as a time that people are more inclined to browse news and political, perhaps on their commute to or from work and during other such routine activities undertaken throughout the week.

While the number of ads disseminated by political organisations reduces starkly in the beginning of the two-week period, the number of ads disseminated by political parties increases significantly towards the end of the two weeks. It is also important to note that 15th April was the last date for political parties to register for standing in the European Parliamentary Elections in May 2019. The noticeable rise in the ads disseminated by political parties after 15th April can also

be an indicator of the rise in increase online political campaigning for EU elections. However, EU elections weren't the only upcoming elections during the two-week period, as UK Local Elections were also set to take place on 2nd May. So, the increase in political and dissemination by political parties towards the latter half of the duration can be based on either of the two elections taking place in May.

2.3 Content of Online Political Advertising related to Brexit: What is being shown?

This also raises a point of concern for regulatory bodies, when considering online campaigns ahead of elections. Like print advertising, the content of online political ads is largely unregulated (Scammell and Langer, 2006). Political sponsors could then easily inflate or deflate their campaign expenditure regarding any one type of election, as both regulated periods, in this case, overlap. With the case of broadcast advertising, this is less likely as political actors have to clearly disclose the nature of their PPB before being able to execute it. The overlap of the two elections is also visible in the content of online political advertising related to Brexit (Figure 15).



While a large number of ad content (46%) didn't reflect any other significant topics other than Brexit, the rest of the ads were issue-based, focusing on a variety of different topics in relation to Brexit, to further their stance on the issue. As seen in Figure 15, ads related to both, European Election and Local Election, were disseminated in the two-week period, making it easier for political sponsors to manipulate their online ad spend across the two separate election campaigns. To overcome spending breaches that happen in such ways, The Election Commission would have to vigilantly monitor the content of online political ads, to make sure that the online political ads reflect the regulatory standards of regulated campaign periods, ahead of elections. Lack of any specific regulatory body monitoring the content of online political ads such as these, means that The Election Commission may have to employ more resources to overcome this challenge, which may be beyond their capacity. While it would be useful to further this research and explore the relationship between Ad Topics and Demographics, to uncover the nuances around topic-based targeting techniques, the small sample sizes of each of the topics meant that the results generated would not be significant, acting as a delimitation of this dissertation.

During the course of this research, several observations regarding the content of political advertising related to Brexit, indicated the use of extreme language in relation to sectarianism, such as, "Remoan are anti-democratic, like the evil empire they serve." and "Make Britain Great Again". Similarly, some ads also consisted of images of pro-leave political candidates painted as clowns. Ads from People's Vote UK, a pro-remain political organisation, ran multiple ad campaigns with attack imagery, Boris Johnson, in a rather 'Saatchi and Saatchi' style of political advertising, seen in the 'New Labour, New Danger' in 1997 General Election. The particular advertising also made use of abusive language, which would normally be prohibited in print-based

political advertising (Appendix 4). While these are qualitative constructs of the online political ads on Facebook, it is crucial to asses these features in the overall scheme of digital advertising. In this case, the traditional characteristic features of print-based advertising are reflected in new-age digital advertising, posing old threats on new mediums.



Figure 16 shows the spread of different media types being used on the Facebook platform, relating to political advertising. Most of the political ads related to Brexit that have been analysed within this dissertation, made use of supporting media along with a conventional text-based Facebook post. While images are the most common type of media used in these political ads, it is important to note that 9.4% ads consisted videos, as part of the advert. The multimedia nature of online political ads can pose critical challenges for traditional regulatory practices that have relied on unilateral media regulators, focusing on any one type of media communication. Some of the videos used in Ads by Brexit Party, were rather long, PPB style video-adverts, which will require a different set of governing rules, as to image-based advertising. While print-based advertising has been largely unregulated, online political advertising cannot be seen in the same light, due to its

inherent structural differences that allow many types of media to be incorporated in the advertising process.

Majority of the online political ads (70%) also included a Call to Action. The most common call to actions were 'Sign Up' and 'Sign Petition', both of which consisted of links to the advertiser's website, asking the user to fill-in their personal information. While the user may not wish to sign-up straight away, other calls to action also included 'liking' the advertiser's page, which is basically a version of sign-up on Facebook, to opt-in to receive future communications from the advertiser, in one's personalised news-feed (Appendix 5). Another call to action included 'Take the quiz', which was used only by one advertiser, *38 Degrees*, to persuade users to take the platform's quiz on Brexit, which didn't seem to have any real purpose, other than garnering precise Brexit-related user information and personal data. Perhaps, Facebook should pay close attention to non-party groups such as these, that may not have any real agenda of promoting political campaigns, but may just be ways of data-harnessing.

2.4 Other limitations of the Facebook Ad Library

As a result of the scrutiny and criticism received by Facebook over the past year, the platform has changed a number of its Advertising policies to adhere to guidelines of adequate transparency around digital campaigning and ad spend online. Online political ads on the Ad Library also demonstrate 'Paid for by' label, clearly disclosing the sponsors of a particular advert and if the advertiser failed to disclose the sponsors, the ad was taken down by Facebook. However, 20% of the ads had different sponsors and 'paid for by' labels, with few ads disseminated from different Facebook pages, being paid for by the same sponsor. The archive does not allow us to search the

amount spent on online political advertising by the 'Paid for by' label, making it difficult to see how an individual sponsor may run several different non-related ad campaigns, using different Facebook pages.

While Facebook deserves due credit for creating a searchable archive with detailed information about each political/issue-based ad, it's important to note that the information regarding individual ad spend and number of impressions was only made available in broad ranges, making the results of this dissertation indicative rather than definitive. In early 2019, Facebook also launched its Ad Library Report, which can be used to create dynamic reports on who the key players in online political advertising are, how many ads they have in the archive and their spending to date. While the report provides a good starting to point to gain insight into the different types of political actors disseminating online political ads on Facebook, it has a significant limitation. The report includes information like total ad spend and number of ads in the archive, for each advertiser, however, it does not reveal the number of impressions created by the advertisers, which is a significant indication of the reach of online political advertisements.

A key limitation of the Facebook Ad Library is also the lack of context surrounding online political advertising. Users do not view these ads in isolation, devoid of any context. The digital ads form a key part of an individual's personalized News Feed on Facebook, which Adshead et al. (2019: 25) describe as being "integrated into the surrounding content in a non-interruptive way, following the form and function of the user experience in which it is placed". 'In-feed' advertising then becomes a way to contextualise promotional content amidst the network's cultural artefacts, carefully combining "values of attention, popularity, and connectivity" (Dijck, 2013: 62) as part

of a successful business model. The impact of contextualised online political advertising, amidst a personal pool of information, cannot be examined through the Facebook Ad Library. It is also important to note that the Ad Archive is created by Facebook for its own platform, which increases the chances of the platform being biased in its revelation of online political advertising, to serve the company's commercial needs. However, even though the Ad Library has structural limitations, discussed throughout this section, the information provided by the archive is still highly valuable, as it is a lot more than what has been available previously. It is also important to note that there were instances where the same ad campaigns had been run by the same advertisers, targeted different demographics. This can be an indicator of the various other ways in which Facebook's algorithm target online political communication, independent from the structural features of the actual advertisement.

5. Conclusion

In conclusion, the dissertation shows the different ways in which political actors, such as nonparty organisations and political parties, disseminate online political advertising related to Brexit, on Facebook's platform. The following types of targeted practices were reflected in the results of the content analysis: targeting based on demographics of age and gender, geographical data, single-person targeting in the form of micro-targeted ads and to an extent, personalisation of ad content. There is an indication of personalised-profiling within the manifest content of online political advertising, when assessed against the demographic nuances revealed by the Ad Library, as shown in the case of 'Leave' and 'Remain' ads segmented by age-groups ranging from 18 to 65+ (Figure 6,7). Given the scale of this dissertation, the sample size analysed was rather limited, making it difficult to draw statistical relationships between the manifest content of online political ads and targeted demographic and geographical data. However, this study provides a useful foreground for carrying out large-scale research, consisting of a large subset of the population, which may be able to provide statistical insights into the personalisation of online political advertising on Facebook.

This dissertation covers a large range of topics related to 'Brexit' related online political advertising on Facebook, such as the key political actors spending on the political ads; the key demographics viewing these ads; the manifest content of the ads; the subsequent regulatory challenges as well as the limitations of Facebook's Ad Library, making this dissertation a multi-faceted research project that sheds light upon the content and targeting practices of online political ads, related to Brexit. Each of these sub-questions have been examined in the Discussion section, indicating the tendencies of younger females being targeted with 'Remain' ads, as opposed to older

men being targeted with 'Leave' Ads. While political parties are the biggest spenders of political advertising related to Brexit, there is a growing prominence of non-party political organisations making effective use of Facebook's ad platform. The realm of online political advertising also seems particularly beneficial to smaller political parties, such as the Liberal Democrats, a left-leaning political party and the new Brexit Party, right-leaning party. Even though both parties reflect opposite ends of the political-ideology spectrum, they were both witnessed to be the two most active political parties disseminating Brexit-related ads, for the duration of 10th to 24th April, ahead of the European Elections in May 2019.

Moreover, this research also highlights certain regulatory challenges posed by online political ads on Facebook, calling for online political advertising being subject to robust regulatory frameworks. The lack of appropriate regulatory measures surrounding the online political landscape can be detrimental to the health of democracy, where political ads that are prohibited from print and broadcast mediums can easily make their way onto non-transparent, algorithmically-governed realms of online social platforms. The existing regulatory frameworks that tend to govern online political advertising practices are rather fragmented in nature, with different bodies like ICO, Election Commission etc., governing different parts of the process, leading to a lack of collective robust regulatory framework that can be used to monitor online political advertising. The multimedia nature of online political ads also indicates the need for either a new independent regulatory-body to monitor the content of online political ads, or the existing regulatory bodies joining forces, to come up with adequate solutions that cater to the multi-faceted nature of the challenges posed by online political advertising, and perhaps, offer a replacement to the attention economy with "an economy of human value" (Bartlett, 2018: 209).

6. References

- Abramowitz, A. and Saunders, K. (2008). "Is Polarization a Myth?" *Journal of Politics*. **70** (2), pp. 542–55.
- Adshead, S., Forsyth, G., Wood, S. and Wilkinson, L. (2019). *Online advertising in the UK*. London: Plum Consulting.
- Advertising Standards Authority. (2014). *Political advertising (ASA)*. [online] Advertising Standards Authority. Available at: https://www.asa.org.uk/news/political-advertising.html [Accessed 4 April 2019].
- Anstead, N. (2017). "Data- Driven Campaigning in the 2015 UK General Election." *The International Journal of Press/ Politics*. **22**(3), pp. 294–313.

Allcott, H. and Gentzkow, H. (2017). "Social Media and Fake News in the 2016 Election." *Journal of Economic Perspectives.* **31**(2), pp. 211–36.

- Bakshy, E., Messing, S. and Adamic, L. (2019). *Exposure to ideologically diverse news and opinion on Facebook*. [online] Science Mag. Available at: https://science.sciencemag.org/content/348/6239/1130.abstract [Accessed 3 May 2019].
- Bankert, A., Huddy, L. and Rosema, M. (2016). Measuring Partisanship as a Social Identity in Multi-Party Systems. *Political Behavior*, **39**(1), pp.103-132.
- Barocas, S. (2012). The Price of Precision: Voter Microtargeting and Its Potential Harms to the Democratic Process. *First Edition Workshop on Politics, Elections and Data*, New York: ACM. doi:10.1145/2389661.2389671.
- Bartlett, J. (2018). The people vs tech. London: Ebury Press.
- Barlow, J. P. (1996). *A declaration of the independence of cyberspace*. Electronic Frontier Foundation.
- BBC. (2016a). US Election 2016. [online]. Available at: https://www.bbc.co.uk/news/election/us2016/results (Accessed: 20 April 2019).
- BBC. (2016b). EU Referendum. [online]. Available at: https://www.bbc.co.uk/news/politics/eu_referendum/results (Accessed: 20 April 2019)

Benson, J. (1994). <u>The rise of consumer society in Britain, 1880-1980</u>: Themes in British Social History. London: Longman

Berghel, H. (2018). Malice Domestic: The Cambridge Analytica Dystopia. *Computer*, **51**(5), pp.84-89.

- Bond, R. and Messing, S. (2015). Quantifying Social Media's Political Space: Estimating Ideology from Publicly Revealed Preferences on Facebook. *American Political Science Review*, **109**(1), pp.62-78.
- Bryman, A. (2001). Social Research Methods. 1st ed. Oxford: OXFORD University Press.
- Butler, D. and Stokes, D. (1974). Political Change in Britain. 2nd edn. London
- Butrymowicz, Daniel W. (2009). "Loophole.com: How the FEC's Failure to Fully Regulate the Internet Undermines Campaign Finance Law." *Columbia Law Review*, (109), pp.1708–51.
- Cabañas, J. G., Cuevas, Á., & Cuevas, R. (2018). Facebook Use of Sensitive Data for Advertising in Europe. arXiv preprint arXiv:1802.05030.
- Cadwalladr, C., Graham-Harrison, E. and Townsend, M. (2018). *Revealed: Brexit insider claims Vote Leave team may have breached spending limits*. [online] the Guardian. Available at: https://www.theguardian.com/politics/2018/mar/24/brexit-whistleblower-cambridgeanalytica-beleave-vote-leave-shahmir-sanni [Accessed 5 Apr. 2019].
- Channel 4 News. (2018). *Exposed: Undercover secrets of Trump's data firm*. [online] Available at: https://www.channel4.com/news/exposed-undercover-secrets-of-donald-trump-data-firm-cambridge-analytica [Accessed 4 Apr. 2019].
- Chester, J. & Montgomery, K. C. (2017). The role of digital marketing in political campaigns. Internet Policy Review, 6(4). DOI: 10.14763/2017.4.773
- Cohen, J. E. (2012). "What Privacy Is For." Harvard Law Review, 126(7), pp.1904–33.
- Culf, A. (1997). *Demon eyes ad wins top award*. [online] The Guardian. Available at: https://www.theguardian.com/politics/1997/jan/10/past.andrewculf [Accessed 6 Mach. 2019].
- Dijck, J. V. (2013). *The culture of connectivity: a critical history of social media*. Oxford, Oxford University Press.
- DiMaggio, P., Hargittai, E., Neuman W., R., Robinson, J.P. (2001). Social implications of the Internet. *Annual Review Sociology*. **27**(307
- Dougherty, C. 2002. *Statistical Tables*. [online] Available at: https://home.ubalt.edu/ntsbarsh/Business-stat/StatistialTables.pdf [Accessed 3 April 2019]
- Edelson, L., Sakhuja, S. and McCoy, D. (2018). An Analysis of Facebook's Archive of Ads With Political Content. [online] GitHub. Available at: https://github.com/online-polads/FBPoliticalAds/blob/master/docs/Facebooks-archive.pdf [Accessed 3 March 2019].

- Ellison, N.B., Steinfeld, C., and Lampe, C. (2007). The benefits of Facebook "friends": Exploring the relationship between college students' use of online social networks and social capital. *Journal of Computer-Mediated Communication* **12**(1), pp. 1143-68
- Enli, G. and Skogerbø, E. (2013). Personalized Campaigns in Party-Centred Politics. *Information, Communication & Society*, 16(5), pp.757-774.
- Erevelles, S., Fukawa, N. and Swayne, L. (2016). Big Data consumer analytics and the transformation of marketing. *Journal of Business Research*, 69(2), pp.897-904.
- European Data Protection Supervisor (EDPS). 2018. EDPS Opinion on online manipulation and personal data. [online] Available at: https://edps.europa.eu/sites/edp/files/publication/18-03 19_online_manipulation_en.pdf [Accessed 3 March 2019].
- Ewing, K, D., and Rowbottom, J. (2011). "The Role of Spending Controls: New Electoral Actors and New Campaign Techniques." In *The Funding of Political Parties: Where Now?*, edited by Keith D. Ewing, Jacob Rowbottom, and Joo-Cheong Tham, pp.77–91. Abingdon: Routledge.
- Facebook Ads Help Centre. (n.d.). *About ads related to politics or issues of national importance* / *Facebook Ads Help Centre*. [online] Available at: https://www.facebook.com/business/help/167836590566506?helpref=page_content [Accessed 3 February 2019].
- Facebook Ads Help Centre. (n.d.). *Impressions | Facebook Ads Help Centre*. [online] Available at: https://www.facebook.com/business/help/675615482516035 [Accessed 3 June 2019].
- Faizullabhoy, I. and Korolova, A. (2018). Facebook's Advertising Platform: New Attack Vectors and the Need for Interventions. [online] arXiv.org. Available at: https://arxiv.org/abs/1803.10099 [Accessed 3 April 2019].
- Farrell, H. (2012). The Consequences of the Internet for Politics. *Annual Review of Political Science*, **15**(1), pp.35-52.
- Fuchs, C. (2011). Towards an alternative concept of privacy. *Journal of Information, Communication and Ethics in Society*, **9**(4), pp.220-237.
- Google Trends. (n.d.). *Google Trends*. [online] Available at: https://trends.google.com/trends/ [Accessed 3 April 2019].
- GOV.UK. (2019). Data Protection Act 2018 Overview. [online] Available at: https://www.gov.uk/government/publications/data-protection-act-2018-overview [Accessed 3 May 2019].
- Graham-Harrison, E. and Cadwalladr, C. (2018). *Revealed: 50 million Facebook profiles harvested for Cambridge Analytica in major data breach.* [online] the Guardian. Available

at: https://www.theguardian.com/news/2018/mar/17/cambridge-analytica-facebook-influence-us-election [Accessed 4 April 2019].

- Graham, T. (2015). Everyday political talk in the Internet-based public sphere. In: Coleman S and Freelon, D. (Eds.), *Handbook of Digital Politics*. Cheltenham and Northampton: Edward Elgar Publishing, pp. 247-263.
- Howard, N and Kollanyi, B. 2016. Bots, #StrongerIn, and #Brexit: Computational Propaganda during the UK-EU Referendum. SSRN Electronic Journal. 10.2139/ssrn.2798311.
- Huckfeldt, R., & Sprague, J. (1995). *Citizens, politics, and social communication*. New York: Cambridge University Press.
- Huckfeldt, R., Johnson, P., & Sprague, J. (2002). Political environments, political dynamics, and the survival of disagreement. Journal of Politics, 64, 1–21
- Huckfeldt, R., Johnson, P., & Sprague, J. (2004). *Political disagreement: The survival of diverse opinions within communication networks*. Cambridge, UK: Cambridge University Press.
- Ikeda, K., & Huckfeldt, R. (2001). Political communication and disagreement among citizens in Japan and the United States. *Political Behavior*, (23), pp. 23–52.
- Information Commissioner's Office. (2018a). *Democracy disrupted*. United Kingdom: Information Commissioner's Office.
- Johnston, A. (2006). Political Advertising in the United Kingdom. In: L. Kaid and C. Holtz-Bacha, ed., *The SAGE Handbook of Political advertising*. California: Sage Publications.
- Kahan, D., Peters, E., Wittlin, M., Slovic, P., Ouellette, L., Braman, D. and Mandel, G. (2012). *The polarizing impact of science literacy and numeracy on perceived climate change risks*. [online] Nature.com. Available at: https://www.nature.com/articles/nclimate1547 [Accessed 3 April 2019].
- Kreiss, D. (2016). *Prototype politics: Technology-intensive campaigning and the data of democracy*. New York: Oxford University Press
- Kreiss, D. and McGregor, S. (2018). Technology Firms Shape Political Communication: The Work of Microsoft, Facebook, Twitter, and Google With Campaigns During the 2016 U.S. Presidential Cycle. *Political Communication*, **35**(2), pp.155-177.
- Kreiss, D., and 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), pp.1032–50.
- Krosnick, J.A., and Alwin, D.F. (1989). "Aging and Susceptibilityto Attitude Change." *Journal* of Personality and Social Psychology (57), pp. 416–25

- Kumar, V. and Gupta, S. (2016). Conceptualizing the Evolution and Future of Advertising. *Journal of Advertising*, 45(3), pp.302-317.
- Lazer, D., Rubineau, B., Chetkovich, C., Nancy, K. and Neblo, M. (2010). The Coevolution of Networks and Political Attitudes, Political Communication, 27(3), pp. 248-274. DOI: 10.1080/10584609.2010.500187
- Livingstone, S. (2005). On the relation between audiences and publics. In: Livingstone, S., (ed.) *Audiences and publics : when cultural engagement matters for the public sphere.*
- Maarek, P. (2011). Campaign Communication and Political Marketing. London: Routledge.
- Marr, B. (2018). How Much Data Do We Create Every Day? The Mind-Blowing Stats Everyone Should Read. [online] Forbes. Available at: https://www.forbes.com/sites/bernardmarr/2018/05/21/how-much-data-do-we-create-everyday-the-mind-blowing-stats-everyone-should-read/#737e04c360ba [Accessed 3 March 2019].
- Marsden, P. V. (1987). Core discussion networks of Americans. *American Sociological Review*, (52), pp.122–131.
- McCarthy, S. (2017). Regulating political advertising in the UK- truth or consequences?. [online] Available at: http://www.lse.ac.uk/accounting/Assets/CARR/documents/R-R/2017-Summer/riskandregulation-33-regulating-political-advertising-in-the-uk.pdf [Accessed 3 March 2019].
- McPherson, M., Smith-Lovin, L., & Cook, J. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, (27), pp. 415–444.
- Montgomery, K. C. (2011). Safeguards for youth in the digital marketing ecosystem. In D. G. Singer and J. L. Singer (Eds.), *Handbook of children and the media* (2nd ed.), pp. 631-648. Thousand Oaks, CA: Sage Publications.
- Moore, M. (2016). "Facebook, the Conservatives and the Risk to Fair and Open Elections in the UK." *Political Quarterly*, **87**(3), pp.424–30.
- Nielsen, R.K. (2012). *Ground Wars: Personalized Communication in Political Campaigns*. Princeton: Princeton University Press.
- Nissenbaum, H. (2010). *Privacy in Context: Technology, Policy and the Integrity of Social Life*. Stanford: Stanford University Press.
- Negroponte N. (1995). Being Digital. New York: Knopf
- Neuendorf, K. (2002). The content analysis guidebook. California: Sage Publications.

- Pariser, E. (2012). *The Filter Bubble: What the Internet is hiding from you*. London: Penguin Books.
- Rheingold, H. 1995. The Virtual Community. King's College London: Minerva.
- Rubinstein, I. S. (2014) Voter privacy in the age of big data. *Wisconsin Law Review*. Available at: http://wisconsinlawreview.org/wp-content/uploads/2015/02/1-Rubinstein-Final-Online.pdf
- Scammell, M. and Langer, I. (2006). Political Advertising in the United Kingdom. In: L. Kaid and C. Holtz-Bacha, ed., *The SAGE Handbook of Political advertising*. California: Sage Publications.
- Schönberger, V., & Cukier, K. (2013). *Big data: A revolution that will transform how we live, work, and think.* Boston, MA, : Houghton Mifflin Harcourt.
- Silver, N. (2012). The signal and the noise. London: Penguin Books.
- Statista. (2019). Global social media ranking 2019 / Statistic. [online] Available at: https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-ofusers/ [Accessed 3 March 2019].
- Sumpter, D. (2018). Outnumbered. Bedford Square: Bloomsbury Publishing.
- Sunstein C. R. (2002). Republic.com. Princeton, NJ: Princeton Univ. Press
- Sunstein, C. R. (2007). Republic.com 2.0. NJ: Princeton University Press
- Tambini, D. (2018) Social Media Power and Election Legitimacy. In: Tambini, Damian and Moore, Martin, (eds.) *Digital dominance: the power of Google, Amazon, Facebook, and Apple*. Oxford University Press, New York, NY, pp. 265-293.

Tambini, D. (1998). Civic Networking and Universal Rights to Connectivity: Bologna. In *Cyberdemocracy*, edited by Tsagarousianou, R, Tambini, D., and Bryan, C. King's College London: Routledge.

- Tilley, J. (2002). Political generations and partisanship in the UK, 1964-1997. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, **165**(1), pp.121-135.
- The Economist. (2017). *The world's most valuable resource is no longer oil, but data*. [online] Available at: https://www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data [Accessed 3 April 2019].
- The Electoral Commission. (no date e). *The rise of digital campaigning*. [online] Available at: https://www.electoralcommission.org.uk/find-information-by-subject/political-parties-campaigning-and-donations/digital-campaigning/1-the-rise-of-digital-campaigning [Accessed 3 April 2019].

- The Electoral Commission (no date c). *European Parliamentary elections 2019: Political parties (GB)*. London: The Electoral Commission.
- The Electoral Commission (no date d). *European Parliamentary elections 2019 (GB and NI): Non-party campaigners*. London: The Electoral Commission.
- The Electoral Commission (no date b). *Overview of party campaign spending*. London: The Electoral Commission.
- The Electoral Commission (no date a). *Overview of regulated non-party campaigning*. London: The Electoral Commission.
- Thierer, A. (2009). *Cyber-Libertarianism: The Case for Real Internet Freedom*. [online] Technology Liberation Front. Available at: https://techliberation.com/2009/08/12/cyberlibertarianism-the-case-for-real-internet-freedom/ [Accessed 5 March 2019].
- Tufecki, Z. (2014). Engineering the public: Big data, surveillance and computational politics. *First Monday*, **19**(7).
- U.S House of Representatives. (2017). hearing entitled 'Algorithms: How Companies' Decisions About Data and Content Impact Consumers'. [online] Available at: https://docs.house.gov/meetings/IF/IF17/20171129/106659/HHRG-115-IF17-20171129-SD002.pdf [Accessed 3 March 2019].
- Waterson, J. (2018). *UK fines Facebook £500,000 for failing to protect user data*. [online] the Guardian. Available at: https://www.theguardian.com/technology/2018/oct/25/facebook-fined-uk-privacy-access-user-data-cambridge-analytica [Accessed 3 April 2019].
- Westley, B. H. & Stempel, G. H. (1989). *Research methods in mass communication*. Prentice Hall: Englewood Cliffs.
- Wu, T. (2010). The Master Switch: The Rise and Fall of Information Empires. New

7. Appendix

Appendix 1:

Demographic	Leave Ads	Demographic	Remain Ads
18-24 F	500	18-24 F	1775000
25-34 F	0	25-34 F	450000
35-44 F	0	35-44 F	135000
45-54 F	0	45-54 F	30000
55-64 F	500	55-64 F	0
65+ F	228000	65+ F	703000
		·	
18-24 M	8000	18-24 M	410000
25-34 M	2000	25-34 M	954000
35-44 M	10500	35-44 M	44500
45-54 M	1513500	45-54 M	109000
55-64 M	1618500	55-64 M	39000
65+ M	418000	65+ M	55000

Table 1: Data for Figure 5

Table 2: Data for Figure 6

Age	Leave Ads
18-24	0.086956522
25-34	0.086956522
35-44	0.043478261
45-54	0.195652174
55-64	0.239130435
65+	0.347826087

Table 3: Data for Figure 7

Age	Leave Ads	Remain Ads
18-24	0.086956522	0.446043166
25-34	0.086956522	0.244604317
35-44	0.043478261	0.064748201
45-54	0.195652174	0.043165468
55-64	0.239130435	0.100719425
65+	0.347826087	0.100719425

Table 4: Data for Figure 8

Country	Average Impressions	Percentage
England	34023	87%
Scotland	2737	7%
Wales	1564	4%
Northern Ireland	391	1%

Table 5: Data for Figure 10

Facebook Impressions by	
Sponsor Type	
Sponsor Type	Impressions
Community	94000
Non-government Organisation	1433500
Political candidate	65000
Political party	5505500
Political organisation	2040000
Other	13000

Table 6: Date for Figure 11

Facebook Ad Spend by Sponsor Type	
Sponsor Type	Ad Spend (£)
Community	2000
Non-government Organisation	6400
Political candidate	700
Political party	72450
Political organisation	17600
Other	300

Facebook Leave Ad Impressions by Sponsor Type	
Sponsor Type	Impressions
Community	24500
Non-government Organisation	157500
Political candidate	40000
Political party	3065000
Political organisation	5500
Other	0

Table 7: Data for Figure 12

Table 8: Data for Figure 13

Facebook Remain Ad Impressions by Sponsor	
Туре	
Sponsor Type	Impressions
Community	62500
Non-government Organisation	51500
Political candidate	13500
Political party	2440500
Political organisation	1993500
Other	3500

Date	Community	Non-	Political	Political	Political
		government	Candidate	Party	Organisation
		organisation			
10	3	11	0	1	37
11	1	4	0	0	2
12	3	2	0	6	5
13	3	0	0	3	0
14	5	0	0	0	1
15	3	9	0	0	0
16	1	1	0	1	1
17	0	16	1	1	0
18	5	0	0	0	1
19	2	0	4	0	5
20	0	0	1	0	1
21	6	0	2	3	1
22	3	1	4	8	0
23	1	0	0	0	1
24	4	0	2	40	3

Table 9: Daily Ads for each sponsor category

Table 10: List of topics

Торіс	No. of Ads
Climate	22
Change/Environmental	
Issues	
European Election	29
	-
Healthcare	8
Local election	22
People's Vote	26
Other	19

Table 11: Media Types used in political ads

Media Type	No. of Ads	
Carousel	23	
Image	188	
Video	22	

Leave Ads:

X axis	Age	No. of Ads	Probability	Rounded off
1	18-24	4	0.086956522	0.09
2	25-34	4	0.086956522	0.09
3	35-44	2	0.043478261	0.04
4	45-54	9	0.195652174	0.2
5	55-64	11	0.239130435	0.24
6	65+	16	0.347826087	0.35
			SUM	1.01
			MEAN	0.021956522
			STD-DEV	0.335431492
		Ν	46	6.782329983
		DoF	45	

Formula	(X-bar - coeff)/s/sqrr(n))
T-statistic	0.443954665
Critical Value (from table)	1.678
DoF	45
Since T-Statistics < CV, we fail to reject the null, meaning the coefficient is not statistically significant	

'Remain' Ads:

X axis	Age	No. of Ads	Probability	Rounded off
1	18-24	62	0.446043166	0.45
2	25-34	34	0.244604317	0.24
3	35-44	9	0.064748201	0.06
4	45-54	6	0.043165468	0.04
5	55-64	14	0.100719425	0.1
6	65+	14	0.100719425	0.1
			SUM	0.99
			MEAN	0.021521739
			STD-DEV	0.156172981
		Ν	139	11.78982612
		DoF	138	

Formula	(X-bar - coeff)/s/sqrr(n))	
T-statistic	1.624721258	
Critical Value (from table)	1.657	
DoF	138	
Since T-Statistics < CV, we fail to reject the null, meaning the		
coefficient is not statistically significant		
However we can see this is very close to the statistic however it is still		
not significant		

Table: Top 10 Advertisers by	y Ad Spend
Advertisers	Ad Spend
The Brexit Party	43500
Liberal Democrats	27950
People's Vote UK	9900
Best for Britain	6400
38 Degrees	5950
Conservatives	900
Loving Europe 2	750
I Love EU	450
Scottish Environment LINK	450
Best for Doncaster	300

Table: Top 10 Advertisers by Ad	
Impressions	
Advertisers	Impressions
The Brexit Party	2967500
Liberal Democrats	2437500
38 Degrees	1382000
People's Vote UK	1129500
Best for Britain	804500
Conservatives	90000
Scottish Environment LINK	51500
Simon Clarke MP	31000
Best for Doncaster	30000
Northern Linconshire & Gainsborough European Movement	30000

PEOPLES-VOTE.UK

People's Vote UK Sponsored • Paid for by People's Vote Data about this ad 0 Since the Brexit vote, big manufacturing companies like Jaguar Land Rover, Nissan Inactive and Honda have ALREADY cut jobs. 10 Apr 2019-12 Apr 2019 But Boris Johnson doesn't care. 10K-50K <£100 Want the British people to have the final say on Brexit, rather than Boris Johnson? Impressions Money spent (GBP) Sign our petition.... Car industry Who was shown this ad pulls out of Age and gender Men Women Unknown Johnson says, **see** "f*** business" 18-24 25-34 35-44 45-54 55-64 65+ Where this ad was shown Do you agree? England 100% Protect British jobs! Add your name to our petition Sign Up

67

0



Information from the advertiser

V

Wales

0

65+





Call to Action

Coding Manual

A1: Sponsor Type

Code	Sponsor Type
1	Community
2	Non-government Organisation
3	Political candidate
4	Political party
5	Political Organisation
6	Other

A2: Brexit Stance

Code	Brexit stance
1	Leave
2	Remain
3	Neutral

A3: Topic of Ad

Code	Торіс
1	Climate Change/Environmental Issues
2	European Election
3	Healthcare
4	Local election
5	People's Vote
6	Brexit
7	Other

A4: Media Type

Code	Media Type
1	Carousel
2	Image
3	Video

A5: Call to Action

Code	Call to Action
1	Like Page
2	Link to website
3	None
4	Send message
5	Sign Petition
6	Sign Up
7	Take the quiz
8	Other

A6: Ad Impression Range

Code	Ad Impression Range
1	<1k
2	1k-5k
3	5k-10k
4	10k-50k
5	15k-100k
6	100k-200k
7	200k-500k
8	500k-1M
9	>1M

A7: Ad Spend Range

Code	Ad Spend Range
1	<100
2	100-499
3	500-999
4	1k-5k
5	10k-50k

A8: Age Range

Code	Age Range
1	18-24
2	25-34
3	35-44
4	45-54
5	55-64
6	65+

A9: Gender

Code	Gender
1	Women
2	Mostly Women
3	Neutral
4	Mostly Men
5	Men

*The code for Gender is assigned by calculating percentages of the gender breakdown in each ad

According to Facebook (Ads Help Centre, no date a), the definition of ads related to politics or

issues of national importance, includes:

- "is made by, on behalf of or about a current or former candidate for public office, a political party, a political action committee or advocates for the outcome of an election to public office;
- relates to any election, referendum or ballot initiative, including "get out the vote" or election information campaigns;
- relates to any national legislative issue of public importance in any place where the ad is being run; or
- is regulated as political advertising."