

Profiling & Targeting Emotions in Digital Political Campaigns

Briefing Paper for All Party Parliamentary Group on Electoral Campaigning Transparency

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1. Summary

The All Party Parliamentary Group (APPG) on Electoral Campaigning Transparency asked us: *What role does emotional profiling and targeting play in digital political campaigns? What is the public acceptability of such techniques? How may new emotional AI analytics be used in political campaigning?* This briefing paper reports the following findings.

- Tools for profiling and targeting in digital political campaigns exploit people's emotions.
- Profiling and targeting in digital political campaigns have potential democratic benefits, but require transparency to avoid covert, attempted manipulation of electorates by micro-targeting population segments with emotive messages optimised to maximally engage them. This is illustrated by the case of Cambridge Analytica.
- Surveys in the US and UK show that people do not want deception or micro-targeting in digital political advertising. Neither do they want their emotions exploited for digital political advertising.
- 'Emotional AI' is on the rise and is much broader than sentiment analysis, spilling over into traditionally offline environments, with the use of sensors to capture data. As industry leaders advocate a turn to social context in order to more accurately gauge users' emotions, this raises the possibility that citizens' online and offline behaviour may be turned into perpetually targeted data pools by those campaigning for political office.

The following sections expand on these findings.

2. Tools for profiling and targeting in digital political campaigns exploit people's emotions

There is an array of digital marketing tools to identify and deploy the most persuasive adverts online, and to target different audiences online with tailored messages that maximise engagement.

For instance, 'A/B' testing compares two versions of a single variable, typically by testing a subject's response to variant A against variant B and determining which of the two variants is more effective. There has been an exponential increase in deployment of rapid 'A/B' testing using Artificial Intelligence (AI) across the past decade. This allows thousands of ad variations to be tested daily, for instance using Facebook's tool, Dynamic Creative, to find optimal combinations based on engagement metrics (Bartlett et al. 2018: 33).

Digital marketing tools are used to find and target specific voters. For instance, political digital marketing firms offer 'lookalike modelling' to identify potential supporters, by matching millions of voters to their email addresses, online cookies and social media handles, as well as hundreds of other data points (such as culture, religion and political positions) to create detailed voter profiles. Since 2015, UK digital campaigning has seen increasing use of data analytics and data management approaches in order to profile and identify target audiences, including 'persuadables' (The Electoral Commission 2018: 4).

Psychographic and emotion-based targeting use neuroscience tools to determine the emotional impact of advertising messages; emotion analytics uses new types of data and tracking methods to help advertisers understand the impact of campaigns on an emotional level; and psychological targeting tailors persuasive appeals to the psychological needs of specific audiences (Chester & Montgomery 2017). McStay (2018) describes a wide variety of emotional analytics available for gaining insight into users' emotions ('emotional AI'), but currently the most widely used form is sentiment analysis of what people say on social media, identifying positive and negative opinions, emotions, and evaluations

3. Democratic pros and cons of emotional profiling and targeting in digital political campaigns

The use of such tools could be democratically lauded for increasing voter engagement and turnout while making politicians aware of what voters really care about so that they can alter their policies accordingly. However, such campaigns must be conducted transparently to avoid covert, attempted manipulation of electorates by micro-targeting population segments with emotive messages optimised to maximally engage them.

The scope for such negative deployment in digital political campaigns was brought to popular attention by the activities of Cambridge Analytica – a data analytics company (defunct since May 2018) that operated in the UK and USA. In July 2019, the US Federal Trade Commission filed an administrative complaint against the US arm, Cambridge Analytica LLC, for its deceptive harvesting of personal information from tens of millions of Facebook users for voter profiling and targeting. This personal information was collected in 2014 from users of a Facebook app, and comprised users' Facebook User ID, which connects individuals to their Facebook profiles, as well as other personal information such as gender, birthdate, location, and their Facebook friends list. This personal data was collected deceptively: the app users had been told that the app would not download identifiable information. The app asked its users to answer personality and other questions. Cambridge Analytica used the information to train an algorithm that generated personality scores for the app users and their Facebook friends. Cambridge Analytica then matched these personality scores with US voter records for its voter profiling and targeted advertising services (Federal Trade Commission 2019).

In the run up to the EU Referendum campaigns in 2016, Cambridge Analytica also offered its psychographic profiling and analytics services to one of the unofficial Leave campaigns, Leave.EU. Arron Banks (Leave.EU founder) maintains that although Cambridge Analytica made a pitch, Leave.EU did not go forward with the work (Banks 2018: 4). However, Leave.EU may have used the work done in that pitch to progress its own modelling of the electorate (Kaiser 2019: 51-52). Cambridge Analytica's pitch states that the company would generate 'Target Audience Profiles' by feeding 'quantitative and qualitative data through a series of sociological, political and psychological parameters':

Each of these profiles will outline the views and motivating factors driving behaviour amongst group members, and will also outline the messaging strategies most likely to be effective in influencing them to support the Leave.EU campaign.

The end result of this process is a comprehensive plan for influencing voters likely to be receptive to Leave.EU's positions and messages. This plan will include guidance on messaging including slogans and visuals, appropriate channels (digital, mail, etc.) and scheduling, which together constitute a holistic strategy that will give Leave.EU the best chance of success. (Cambridge Analytica/SCL Group n.d.: 7)

Part of this pitch also offered *voter suppression*. The pitch claims that its 'powerful predictive analytics and campaign messaging capacity can help you to segment and message the population according to a range of criteria'. One of these criteria is 'Partisanship'. As well as describing the 'General Voter' and 'Ideological Voter', it describes the 'Opposition Voter – groups to dissuade from political engagement or to remove from contact strategy altogether' (Cambridge Analytica/SCL Group. n.d. p.3, emphasis added).

4. What do people think of profiling and targeting in digital political campaigns?

Surveys in the US and UK show that people do not want deception or microtargeting in digital political advertising. Neither do they want their emotions exploited for digital political advertising.

4.1 Digital Deception

A US poll (conducted by Knight Foundation-Gallup across 3-15 Dec. 2019) finds that large majorities of Americans want social media companies to ban clearly false content in political ads. For instance, on ads targeting supporters of an opposing candidate/cause and providing the wrong election date, *81% support banning the ads*; only 15% say the ads should be allowed to run with a disclaimer that the ad may contain misinformation; and only 5% say the ad should be allowed to run unfettered. On ads that say a politician voted for a policy that they did not actually vote for, *62% support banning the ads*; only 28% say the ads should be allowed to run with a disclaimer that the ad may contain misinformation; and only 10% say the ad should be allowed to run unfettered (McCarthy 2020).

4.2 Digital Microtargeting

Where people are aware of the digital microtargeting being used to attempt to persuade them, most do not like it.

- A YouGov survey research commissioned by the pro-privacy group Open Rights Group (ORG) in 2019 finds that a *majority of the UK national sample (58%) said they were against targeting or tailoring adverts, based on analysis of people's personal data to segment them into groups happening during an election* (ORG 2020).
- In the US, even more people are against microtargeting through digital ads. A US poll (conducted by Knight Foundation-Gallup across 3-15 Dec. 2019) finds that *72% of Americans say that internet companies should make no information about its users available to political campaigns in order to target certain voters with online ads*. Only 20% of US adults favour allowing campaigns access to limited, broad details about internet users, such as their gender, age or postal code: this is in line with Google's policy, which recently reigned in the scope of information that political campaigns can use for targeting. Only 7% of Americans say that any information should be made available for a campaign's use: this is in line with Facebook's targeting policies, which do not put any such limits in place on ad targeting (although Facebook does give its users some control over how many ads they see) (McCarthy 2020).

Unfortunately, many people do not realise that digital microtargeting tools are being employed to (at best) persuade them and (at worst) manipulate them for political purposes. The UK's 2016 Brexit referendum saw 'dark ads' (namely, microtargeted online adverts only seen by the recipient) being discussed in public for the first time. By the UK's 2019 General Election, following the Cambridge Analytica scandal, more of the UK public were aware of this issue with a majority disapproving of these practices: however, there were still large proportions unaware.

- YouGov survey research in 2019 commissioned by ORG showed that *only half (54%) of the UK population were aware of how political parties target or tailor adverts based on the analysis of their personal data* (political microtargeting), and a third (31%) were not aware at all, or not very aware. Only 44% of the national sample were very or fairly aware of 'dark ads' with a similar figure (41%) not very or at all aware (ORG 2020).

That there is still relatively low awareness after several years of public discourse on this issue is alarming: a significant proportion of the British electorate are unaware of how parties may attempt to manipulate them.

4.3 Exploiting emotions for digital political advertising

Profiling increasingly includes data about emotions, but when UK citizens are asked about their views on the targeting of their emotions for political purposes, they are not in favour. A demographically representative omnibus survey of UK citizens (conducted by ICM Unlimited across 15-17 Jan. 2020 for [the Emotional AI Lab](#)) on their levels of concern about a variety of

emotion-sensing technologies finds that people are most concerned about political uses.¹ Respondents were asked to rate their levels of concern on the following question:

“On political advertising companies analyse people's social media profiles (e.g. identifying what pages they ‘like’ on Facebook) to understand our feelings about political parties and issues. They use this data to find out which political ads and messages are most engaging for specific audiences, as well as to further personalise and target the type of political ads we see on social media.’

The survey found that 66% were not OK with any form of data being collected by political advertising companies about their emotions. Only 24% were OK with data collection about their emotions by political advertising companies as long as the information is then used to target people like them (but not them personally); and only 10% were OK with data collection about their emotions by political advertising companies to target them personally, as well as to target people like them.

As people become older, they also become less accepting of any form of data being collected by political advertising companies about their emotions. While 52% of 18-24 year olds are ‘not OK’ with such practices, this figure rises to 60% (25-34 year olds), 62% (35-44 and 45-54 year olds), 74% (55-64 year olds), 73% (65-74 year olds) and 76% (75+ year olds).

Remarkably, this survey also found that sentiment analysis and targeting of people’s emotions for the purposes of political advertising is seen as *more sensitive than other modes of emotion capture that are arguably even more intrusive*, such as ‘biometric’ techniques that read physiological traits to infer emotion.

This degree of concern was higher than for all other forms of emotion sensing technologies queried, including: in *cars* in order to understand the emotional behaviour of drivers to monitor fatigue and driver distraction, and to personalise the driver experience; in *out-of-home advertising* that changes in relation to facial expressions; in *schools*, to track students' facial expressions to try to work out their emotional states and attention levels in order to tailor the teaching; and in *workplaces* to track employees’ emotions.

4.4 Horizon line scanning: how might new emotional AI forms be used in political campaigning?

The ramifications of these opaque, potentially powerful techniques for exerting undue political influence have not been lost on regulators. The UK’s data regulator, the Information Commissioners Office, commissioned a report in 2018 on the future of political campaigning. The report predicts that current practices of usage of big data analysis, targeted advertising and psychographics are likely to be intensified as AI increasingly enters political communications. For instance, on targeting, AI is likely to be increasingly used to optimise campaigns, to work out exactly who should be targeted, when, and with what content, in order to maximise persuasive potential: ultimately, this process could be automated to *programmatically* generate streams of personalized messages targeted at each voter constantly updated based on A/B testing. On psychographics or similar techniques, this is likely to be increasingly grounded in big data, to produce insights on voters’ personality types, emotional states, moods and views on divisive issues like immigration (Bartlett et al. 2018).

Empathically-optimised disinformation enabled by widespread use of sentiment analysis of social media is already with us. Yet, as Bakir & McStay (2020) point out, sentiment analysis is just the most obvious tip of the iceberg and is limited to online environments. They see a data-rich technological environment that uses emotion and affective states to profile people and naturalize interaction with devices and content. Emergent, this includes emotion-sensitive domestic voice assistants; content services such as Spotify that profile moods; and sensing in transport, public spaces, private homes and our bodies (through wearables). Legacy technology companies are becoming much more active with emotional AI products (McStay, 2018). As

¹ This survey, commissioned by the authors of this briefing paper, is unpublished. For more details, contact the authors.

McStay and Urquhart (2019) point out, industry leaders, such as Microsoft, are now advocating a turn to social context in order to more accurately gauge users' emotions. They predict that this turn to social context will inevitably involve a turn to *more* data so that the profiling analyst can know more about a person and the scenario.

Keeping in mind the ingenuity with which advertising technologies were leveraged in the 2010s, this raises the distinct possibility that citizens' emotional responses, behaviour and profiles may be utilised by bad actors, including those campaigning for political office. On the basis of ongoing analysis by the Emotional AI Lab (and its interviewing and engagement with the technology industry), we see this as cause for concern from the mid-2020s onwards, but suggest now is the time to build civic defences.

References

- Bakir, V. & McStay, A. 2020 in press. Empathic Media, Emotional AI and the Optimization of Disinformation. In Boler, Megan & Davis, Elizabeth (eds) *Affect, Algorithms and Propaganda: Interdisciplinary Research for the Age of "Post-Truth" Media*. Routledge.
- Banks, A. 2018. Oral evidence: Fake News, HC 363, 12 June.
<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/digital-culture-media-and-sport-committee/disinformation-and-fake-news/oral/85344.html>
- Bartlett, J., Smith, J. & Acton, R. 2018. *The Future of Political Campaigning*. Demos. July.
<https://ico.org.uk/media/2259365/the-future-of-political-campaigning.pdf>
- Cambridge Analytica/SCL Group. n.d. *Leave.EU: Profile Raising and Outreach*.
<https://www.parliament.uk/documents/commons-committees/culture-media-and-sport/Arron-Banks-appendix.pdf>
- Federal Trade Commission. 2019. FTC Sues Cambridge Analytica, Settles with Former CEO and App Developer, 24 July.
<https://www.ftc.gov/news-events/press-releases/2019/07/ftc-sues-cambridge-analytica-settles-former-ceo-app-developer>
- Kaiser, B. 2019. Additional Submissions to Parliament in Support of Inquiries Regarding Brexit, July.
<https://www.parliament.uk/documents/commons-committees/culture-media-and-sport/Britanny-Kaiser-July-2019-submission.pdf>
- McCarthy, J. 2020. In U.S., Most Oppose Micro-Targeting in Online Political Ads. Gallup blog, 2 March.
<https://news.gallup.com/opinion/gallup/286490/oppose-micro-targeting-online-political-ads.aspx>
- McStay, A. 2018. *Emotional AI: the rise of empathic media*. London: Sage.
- McStay, A. & Urquhart, L. 2019. 'This time with feeling?' Assessing EU data governance implications of out of home appraisal based emotional AI. *First Monday*, 24(10 – 7) October. doi: <http://dx.doi.org/10.5210/fm.v24i10.9457>
- ORG.2020. Public are kept in the dark over data driven political campaigning, poll finds. 10 January.
<https://www.openrightsgroup.org/press/releases/2020/public-are-kept-in-the-dark-over-data-driven-political-campaigning,-poll-finds>
- The Electoral Commission. 2018. *Digital campaigning: increasing transparency for voters*, June.
https://www.electoralcommission.org.uk/sites/default/files/pdf_file/Digital-campaigning-improving-transparency-for-voters.pdf