

SCCJR Briefing Paper

Influence government: exploring practices, ethics, and power in the use of targeted advertising by the UK state.

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EXECUTIVE SUMMARY

We have identified an emerging tool being used by the UK government across a range of public bodies in the service of public policy: the online targeting advertising infrastructure and the practices, consultancy firms, and forms of expertise which have grown up around it. Our initial explorations involved the use of these tools by the National Crime Agency in ‘influence operations’, however our empirical mapping suggests much broader use is becoming common across government. This reflects an intensification and adaptation of a broader ‘behavioural turn’ in the governmentality of the UK state and the increasing sophistication of everyday government communications. Contemporary UK public policy is fusing with the powerful tools for behaviour change created by the platform economy. Operational data and associated systems of classification and profiling from public bodies are being hybridised with traditional consumer marketing profiles and then ‘projected’ onto the classification systems of the targeted advertising infrastructures. This is not simply a case of algorithms being used for sorting, surveilling, and scoring; rather this suggests that targeted interventions in the cultural and behavioural life of communities are now a core part of governmental power which is being algorithmically-driven, in combination with influencer networks, traditional forms of messaging, and frontline operational practices. We map these uses and practices of what we describe as the ‘Surveillance Influence Infrastructure’, identifying key ethical issues and implications which we believe have yet to be fully investigated or considered. What we find particularly striking is the coming-together of two separate structures of power - the governmental turn to behaviourism and prevention on one hand, and the infrastructures of targeting and influence (and their complex tertiary markets) on the other. We theorise this as a move beyond ‘nudge’ or ‘behavioural science’ approaches, towards a programme which we term ‘influence government’.

Introduction

The practices of private sector advertising and marketing have long existed in a mutual relationship with government - from wartime propaganda to public health messaging. In their contemporary forms, marketing practices have evolved substantially beyond postcode-based demographic targeting, supported by the proliferation of online advertising infrastructures which allow continually-updated targeting based on behaviour and online activity and direct evaluation of impact by online sales. Our empirical research shows that these advanced marketing techniques are now being incorporated into the business of government and law enforcement. From Prevent campaigns against cybercrime (delivered through targeted Google adverts to teenagers searching for illegal services) to Home Office fire safety campaigns (broadcast via Internet connected speakers to those who recently bought matches), this represents a novel, powerful, and in some cases potentially concerning frontier of government policy.

The infrastructures of *surveillance capitalism* (Zuboff, 2015) provide government and law enforcement with a range of novel capacities - new data and profiles for targeting, tailoring, and evaluating policy, and new, more intimate channels through which to influence the public and their behaviour collectively and individually. When combined, as we observe in our research, with the capacities of private sector marketing consultancies to collect cultural and commercial data, this raises a number of serious issues about the reach and scope of government and the aspects of our lives which it can observe, target, and influence. This is not to argue that there are no positive uses of advanced marketing approaches for social policy; we found a number of examples where this appears to have genuine capacities to divert people away from more punitive state responses, to increase access to services and support, or where this has been developed in a participatory, co-productive manner with the communities in question. However, we argue that there is a need for further and more critically-engaged democratic discussion of the use of 'digital influence' by government.

This briefing paper serves to set out our initial, exploratory findings about the use of these techniques in the UK public sector, discussing some of the emerging ways in which public bodies are using what we term the Surveillance Influence Infrastructures (SII) developed for targeted advertising to facilitate public policy outcomes through 'behaviour change' strategies. We first set out relevant context, explaining the thinking behind these approaches to public policy - approaches which rely on behavioural science and a 'public health' approach to a wide range of social issues. This focuses particularly on the development of early 'nudge' campaigns and their current incarnation in the form of targeted *behavioural messaging*. We then discuss the complex network of online services and infrastructures which now facilitate the generation of databases and algorithmic models that facilitate targeting of adverts. In particular, we seek to connect the commercial Surveillance Influence Infrastructure, the most familiar faces of which are Facebook and Google, with the practices and forms of knowledge used by advertising specialists, marketing consultants and behavioural psychologists to which they are linked. We then identify (drawing from an analysis of publicly available documents) a range of examples of how contemporary targeted advertising through the SII is being used in practice in the UK

public sector. We provide some initial tentative explorations of what this means for public policy and the character of state governance more generally. Our paper concludes with a critical reflection on emergent ethical issues and some of the areas which might conceivably benefit from these techniques - the 'potential futures' of surveillance-targeted behavioural messaging.

Behaviourism and government

We begin by discussing the wider context of UK public policy and the 'behaviourist' turn of the last ten years. With the election of New Labour in 1997 and the ascendancy of 'third way' politics across the 1990s came a reinvigoration of interventionist social policy. This retained a focus from previous governments on management and markets but incorporated attempts to bring scientific evidence, expertise, and technocratic methods (and the new digital technologies of 'e-government') to the business of public policy and public services (Giddens, 2013). While interventionist and design-based policy approaches continued through the New Labour years (1997-2010), communications was generally seen as a separate (but extremely important) aspect of government - gaining consent and awareness for government policy and judging the public mood, rather than constituting a policy 'lever' in its own right. Under David Cameron's Coalition government post-2010, preventative policy was re-imagined and brought together with communications practices in the form of the Behavioural Insights Team, also known as the 'nudge' unit (Dolan 2010).

Nudge, a term coined by Thaler and Sunstein (2008), is part of a preventative turn in government social policy, and involves reshaping the 'choice architecture' in which individuals make decisions - complementing the provision of information with direct attempts to leverage existing social capital, repurposing of 'deviant' social norms, and interventions in the built environment and in consumer choice (Halpern 2015). This includes economic levers, such as changing the price of tobacco; architectural levers, including design elements of the built environment; and, in addition to these older 'situational' approaches, the targeting of messaging at particular groups to influence the psychological and behavioural processes involved in making decisions. In broader preventative policy, this 'in the moment' behavioural shaping is sometimes supported by more abstract attempts to shape 'risky cultures', where the 'culture' (loosely defined) of particular social groups is seen (in a problematic and often implicitly racist or classist sense) to contribute to social problems.

This can be seen across a range of policy areas, perhaps none more controversial than the UK's approach to the domestic 'War on Terror' which has leaned heavily on surveillance and communications in addition to the more direct exercise of disruptive force, typified as the 'influence operation'. In this account, radicalisation (and other social issues) can be tackled through the logics of public health, through a combination of surveillance, individual behaviour change, cultural, and structural interventions (Heath-Kelley, 2017). In practice, the picture of norms and moral economy is often drawn in state-defined terms which fail to accept that many people's choices, opportunities, and lives are constrained by institutional racism, over-policing, incarceration, or poverty (to name only a few such structural factors). Where they are rolled out from the centre, rather than developed locally, cultural

programmes in the UK have often promoted 'state sanctioned' versions of the cultures of communities deemed by the state to be risky, which tend to reflect capitalist, entrepreneurial, and 'resilient' models of the good citizen. Ultimately, the responsibility for policy success in a behaviourist frame relies on the individual citizen, with the role of the state being to shape their behaviour (Gandy and Nemorin, 2019).

Nudge and government communications

The apparent successes and failures of the much-publicised 'nudge unit' perhaps obscure the broader movement of these ideas throughout the UK Civil Service, in particular the importance of the lens of *behavioural studies*. Behavioural studies draw on expertise from behavioural economics, psychology and neuroscience, often attempting to exploit hypothesized unconscious biases in the brain to shape attitudes and behaviour (Halpern, 2015). These forms of knowledge have some fairly long-standing roots in the civil service, particularly within the frames of *economics* and *public health*. Economic expertise forms a core part of the competency frameworks underpinning the UK civil service, extending beyond macroeconomic analysis and fiscal policy to include analysis of the 'economics' of individual behaviour. Economic 'levers' at the microscale are seen by the civil service and local government as key to achieving policy goals - tweaking, for example, the minimum unit price of alcohol, or offering incentives for desirable behaviours. Equally, while communications can often be seen to revolve around announcing government policy, shaping public opinion, or the broader shaping of a sense of nationhood (Rose, 2000), it too has developed over the past several decades (incorporating approaches and expertise from psychology) a series of policy 'levers', wielding the power to achieve policy aims in its own right by shaping not only public opinion, but *behaviour*. In developing sets of professional standards around these practices, behavioural psychology and behavioural economics have become a core body of professional expertise on which public policy and communications can draw in the service of 'nudging' citizens and shaping their behaviour.

The communications structure of government in the United Kingdom is organised around government departments, agencies, and other public bodies, with some capacity retained in a centralised form in the executive. Each public sector department or agency (including, for example, individual health boards and regional police services), employs their own dedicated communications team, who draw from expertise within their own particular policy area as well as centralised sets of competencies underwritten by the Government Communications Service. This aspect of government communications has a fairly long history in the UK, generally conceived around the 'public awareness campaign'. These campaigns, which have a legacy in social marketing approaches to public health, have historically operated on an essentially economic logic - increasing the perceived likelihood or severity of negative effects from a socially undesirable behaviour, such as smoking or drink driving, or encouraging positive behaviours, such as uptake of benefits and entitlements, public share ownership (Tell Sid¹), promoting healthy behaviour ('National Smile Month'²), giving blood, or getting vaccinated. Crucially, these approaches blend a

¹ <https://www.bbc.co.uk/news/business-15792873>

² <https://www.dentalhealth.org/national-smile-month>

rational choice and social positivist model, extending the communication professional's duty to *inform* the public and gain their consent for policies to include attempts to shape their behaviour directly.

Digital communications, tracking and advertising infrastructures

Thus, communications forms an important (and, crucially, often the cheapest) part of 'nudge' in its present form, which aims not only to shape the *situation* in which citizens make conscious and unconscious choices, but additionally to engage more actively with subjects to shape the way they think about different issues - the 'choice architecture' in which they make decisions. However, communication in the Internet age need not be the one-to-many style of the billboard, cigarette packet, or television advert (though these also use rudimentary forms of targeting); one of the transformative aspects of social media has since its inception been the promise to re-envision how governments communicate with their citizens. Although the 'digital transformation' narrative promises to use the capacities of social media to open up new, less hierarchical lines of communication between governments and citizens, the idea that state representatives and broader publics occupy equal standing in these communication platforms is clearly flawed. In fact, these bidirectional modes did not replace the 'top-down' forms of government communication, rather they coexist with them. While softer practices of e-government, engagement and participation are developing (Chun et al., 2010), these cannot be confused with the continued development of ever-more targeted and insidious forms of unidirectional communication.

Modern online advertising emerged out of direct marketing business³, which is part of the broader advertising and marketing industry. In conventional targeted communication, through the mass media, or via direct advertising, organisations use information about populations to 'segment' their potential audience according to a range of sociodemographic features in order to study and design communication that this segment may be receptive to, not only as advertising but also in brand positioning, product innovation etc. Classifications offered by firms such as CACI (an IT firm that provides the Acorn service⁴) or Axiom, are hugely influential, used by private and public actors, with an entire industry experienced in understanding and reaching these population-groups. Membership of these segments is determined by publicly available and private data, collected and sold by data brokers as profiles, and used by marketing services firms and their clients (e.g. advertising and marketing groups such as WPP and Publicis). The data industry that powers these models has rather heterogeneous sources, from credit rating agencies, specialist and full service ad agencies, firms that run loyalty card systems, or offer criminal record checks (Bria 2015), and online tracking services, especially those dedicated to advertising. These firms use this data to offer a range of other services, such as client retention, fraud prevention (e.g. banking, insurance, advertising), threat analysis, predictive analytics, and services to political parties.

³ For example, the UK industry association is now Data and Marketing Association <https://dma.org.uk/>, formerly the Direct Marketing Association

⁴ <https://www.caci.co.uk/>

As consumption of media shifts online, legacy communications channels increasingly fail to reach many groups in society (Ofcom 2020), so advertisers have turned to online channels - with over 3/5ths of UK ad spending pre-pandemic being spent on online channels, spending that shifted even more to online markets over 2020-21 (WARC, 2021) 'Top down' advertising communications practices have developed further in three key ways with the rise of digital platforms. First is the refinement of detailed real-time metrics about the communications available to those who use the services - from simple views and likes, to rafts of data related to location, time and many other characteristics of the individuals engaging with each communication, including successful sales, or 'conversion'; The second is the creation of tools, dashboards and 'analytics', to interpret and visualise this data and shape ongoing communications programmes. The third, since many of the platform businesses work on an advertising model, is the offer of paid channels to reach audiences, targeted and personalised from second-to-second using the data and analytics tools - the "surveillance advertising" model (Crain 2019).

These developments are part of a broader evolution of the business models of the large international companies which provide most Internet services, described in Zuboff's (2015) conceptual paper as *surveillance capitalism*. This describes how online 'platform' services are overwhelmingly provided for free to end users and revenue from advertising is dependent on the collection of intimate personal data from users, used to develop individual profiles and ever more fine-grained classifications for the targeting of communications and tailoring of services. Whether this is viewed through the lens of *surveillance capitalism* (Zuboff, 2015), *platform capitalism* (Srnicsek, 2017), or *data capitalism* (West, 2019), this represents a change in some of the core ethics of marketing, with users not only segmented by sociodemographic characteristics but also by the emergent properties of enormous datasets of collected behaviours - clusters surfaced automatically and at scale through 'big data' and 'algorithmic' techniques.

To reach the online 'eyeballs' of those targeted and to influence their attitudes and behaviour, there is a rich and diverse ecosystem of channels, but channels that are increasingly dominated by a few main players, and by algorithmic ad markets, now dominated by practices known as "programmatic digital display advertising"⁵. The main players are Google, who have over 90% of search-based advertising in the UK, and a large part of the display ads (especially through YouTube), and Facebook, through its social platforms, Facebook and Instagram, who have over 50% of the market (CMA 2019). In this model, advertising 'space' is sold in complex secondary and tertiary markets (ISBA/PwC 2020), and these profiles are not only collected directly based on behaviour (as well as more traditional demographics), but also using data gathered from other data brokers to infer characteristics and behaviours where this data is missing. Connecting these individual profiles to the data of connections in a person's online social network allows messages not only to be targeted at the individual, but to those around them (their family, friends, and colleagues) in order to shape their behaviour indirectly (Crain, 2019). Wider context for this targeting can be provided by search terms (for example, searching for a particular product or service), visiting sites and services, 'social' engagement, geographical location,

⁵<https://www.emarketer.com/content/uk-programmatic-digital-display-ad-spending>

characteristics of people in an individual's close network, and characteristics of other people in a location, or using a service in order to tailor messaging even more effectively.

This adds significant complexity over the simpler postcode/survey/census segmentations associated with traditional marketing consultancy, allowing segmentation to take into account individual behavioural preferences and histories - including vast amounts of online browsing data, purchase history data, and communications data - and then aggregate them. This has facilitated the development of a whole raft of targeting techniques: the context of the webpage or physical location, browsing and purchase behaviour, follow-up ads and special offers, or by comparing an individual to others: act-alike and look alike for example. In combination with existing data held by the government through its operational services and institutions (and data gathered through their own trackers on government websites), this automated algorithmic segmentation allows for far more targeted communications to reach different sections of the public (Crain, 2019).

The targeting of adverts is only one part of what has become established as an infrastructure of influence methods facilitated by digital platforms - a whole set of standardised tools, processes, business services and metrics that can be called on by anyone willing to pay. Particularly influential individuals who sit as opinion leaders or tastemakers at the centre of local networks (and more successful national and international digital celebrities) can be identified using advanced analytics, and their function as *influencers* can then be used by brands and government to shape buying habits and behaviours (Coates, 2019; Kostygina et al 2021). These local influencers have far greater connections and legitimacy with the small-scale communities in which people take part online, supported by a range of metrics and expertise which is collated by management companies. These revive the 2000 consumer concerns for 'authenticity' which brand managers attempted to co-opt during this period (with Cultural Jamming, No Logo backlash), but at a microscale - enacted through the lives of the 'influencers' who are themselves at the mercy of their own metrics and the models of the advertisers (Duffy et al. 2021). The influencers can be commissioned directly via managers, or increasingly through 'influence as a service' buying platforms where they can be purchased en masse (Yesilogu, 2020). Some 'influencers' involved in targeted advertising have been highly specific to local communities, while in the case of recent covid public health campaigns, some have been drawn from the large pool of youth-oriented 'Instagram influencers', most often employed for their vast marketing capacity with the profitable demographics of ages 18 - 34.

Taken together, we describe this complex arrangement of technologies, companies, markets, and practices as the 'Surveillance Influence Infrastructure'; a dynamic set of global, infrastructures built on top of the Internet for surveilling and shaping behaviour. While in the past we have tended to focus on the surveillance infrastructures owned or monitored by the state, in these new scenarios we are seeing the state turn to the paid-for, commercial SSI. For public bodies, with budgets of £100m+ for communications, the possibilities of using these infrastructures to support their mandated goals are clear. What we find particularly striking is the coming-together of two separate structures of power - the turn to behaviourism and prevention on one hand, and the infrastructures of targeting and influence (and their complex tertiary markets) on the other. We theorise this as a move

beyond ‘nudge’ or ‘behavioural science’ approaches, towards a programme of control which we term ‘influence government’. We now discuss the empirical case for this in depth.

Mapping influence government

Although considering the ways in which control technologies such as these might potentially be abused provides a useful hook for critique and for the exploration of potential ethical concerns, it is vital also to understand the reality of how they are being used in practice. Focusing on the UK, we draw on publicly-available documents to map out the evidence on how governments are already using these technologies to address contemporary challenges of governance and control. These documents were obtained through Internet search using the keywords ‘behaviour change’, ‘targeted advertising’ and ‘digital marketing’ in .gov space, and subsequent snowball sampling and are all accessible on gov.uk or other UK public sector websites, including the subdomains local.gov.uk and nationalcrimeagency.gov.uk. They include 38 pages and documents relating to local government, 56 relating to central government, 30 for suppliers, and 30 relating to specific campaigns for a total of 154 primary documents. Due to the exploratory nature of the research and our desire for others to dig into the sources which inform our assertions, we provide links to many of these evidentiary public documents via footnotes. We are also aware that the effects of these campaigns may be exaggerated, misreported or have not been continued.

From our initial exploratory research, it appears that there are three main communications functions being achieved by the use of these platform advertisements and digital influence networks:

1. Information provision or awareness raising - trying to inform relevant parts of society of government policies, services, benefits etc (the traditional business of government)
2. Moderate or modify culture and attitudes of the public in general or particular groups
3. Behaviour change - direct nudge and decision shaping ‘in the moment’ of particular groups or service users.

Within these complementary functions, there appears to be a wide range of different forms and levels of practice, constituting everything from sophisticated, multi-site influence campaigns to simply purchasing Google ads in a relatively naive way. We set out a typology of four distinct ‘modes’ which we observe, involving progressively deeper links to the networks of power and practice which attend this work. In general, this is a picture of a move from government ‘crisis’ in the face of new digital media to an increasingly full embrace of its potentials, practices, and modes of knowledge.

Naive uses: Targeted ads as billboard space

The first form this takes is its most basic - the opening up of targeted advertising as a space for traditional communications. In this model, the advertising budget of the organisation is simply extended to include a range of online 'spaces', with campaigns running on billboards and in newspapers additionally being delivered through online ad buys. We found a range of examples of these across policy areas, which tended to be minimally targeted - often simply at country level - and with little apparent iteration or audience segmentation. This includes the bulk buying of non-targeted digital adverts, limited contextual buying targeting particular kinds of websites and platforms using conventional media metrics (such as targeting Tiktok in order to reach younger people), and adverts targeted using broad search terms. In this mode, there is little sense of a systematic theory of change other than the broadcasting of a message unidirectionally.

Although this takes the form of the classic 'awareness campaign', the use of digital delivery methods contributes important new aspects to this traditional form of government communications. The targeted influence infrastructure extends these campaigns into new digital platforms and spaces; these new contexts are both more *intimate* than the billboard or television advert, and can also *modulate* the message, rendering it (particularly on platforms like Twitter and Facebook) part of a discussion, with people able to react and share it in real time. These discussions, along with more detailed metrics for engagement, click-through, and response, provide communications professionals with substantially more detail of how their messages are received. However, it is in the next stage of sophistication that the truly novel capacities are realised.

Professional practice: modern public sector communications

Moving up a level of sophistication, we find a range of examples where an advanced competency framework around SII has been incorporated into the daily practice of public sector organisations. In this form, both dedicated communications professionals and (on occasion) frontline operational staff are learning, teaching, and employing the skills associated with SII and advanced digital marketing, engaging with effective ad buying, iterative message development, sophisticated targeting, and, crucially, the development and articulation of *theories* of social issues and behaviour change strategies. We now discuss the broad shape of these approaches in the UK public sector - who is using them, in which frameworks, and to what end.

The genealogy of these approaches in the UK public sector can be traced back to the rise of the Nudge Unit (now the Behavioural Insights team⁶), which helped to develop practical and theoretical frameworks around *behaviour change campaigns* as part of the business of government - a reinvigoration of the traditional 'awareness' campaign and a re-implementation of classic 'social marketing' approaches from public health. This has co-evolved with a more general professionalisation of government communications, whose core competency frameworks now attempt to incorporate leading-edge digital marketing practices. At present, this body of professional expertise has its home in the Government Communication Service (who have also helped spread this expertise to other public bodies). There are clear flows of expertise between governmental, private, and quasi-governmental

⁶ <https://www.bi.team>

bodies, with nationwide strategic partnerships and procurement structures with ad buying services⁷ (which also provide core government marketing training), dedicated creative agencies⁸, and staff moving bidirectionally between government and the private sector.

Much of detail of these professional frameworks and training materials is freely available on the UK's Government Communication Service's website (GCS), and analysis of these reveals the supportive structures of a fully-fledged community of practice. Within the GCS, behaviour change campaigns are structured within what is termed the OASIS model, a cyclical delivery model whose steps are: Objectives, Audience Insight, Strategy/Idea, Implementation, Scoring and Evaluation. This borrows from 'agile' implementation frameworks for evidence-based design, with messages and targeting able to 'evolve organically' (at least in theory) informed by ongoing evaluation. Evaluative strategies employed include statistical data held by the Office of National Statistics, New Media Organisation, OFCOM, the GCS research library, and the Cabinet Office's Insight and Evaluation Team⁹. Targeting is used both to reach the desired population group but also to design the intervention - using research, marketing data, and operational data. A variety of heuristics and frameworks are taught, often based on the design and evaluation of complex interventions in public health, such as the 'COM-B system' (Capability, Opportunity, and Motivation to engage in Behaviour) (Michie et al 2011) and other systems for non-specialists to design communication-based behaviour change programmes.¹⁰

Beyond these tools, core competencies for the GCS now include higher levels expertise in full-spectrum digital marketing campaigns. This involves a range of additional capacities, including the use of influencers and practices such as countering misinformation, assessing questions of data use and propriety, and protecting government brand identity in an environment where adverts can be displayed in unexpected and undesired contexts. There is a keen awareness within central government and the GCS that these advertisements are being deployed in an online advertisement which is fundamentally adversarial - other actors are attempting to counter the messages given out by government in a range of ways. Government practices in this environment go well beyond traditional communications, embedding counter-disinformation approaches (through the RESIST toolkit¹¹) and strategies for using large, multi-site campaigns to achieve direct behaviour change.

Although the broader ways in which communication practices link up with other policy areas are doubtlessly fascinating, we are particularly interested in the aspects of these campaigns which relate to the use of commercial Surveillance Influence Infrastructures. Many of the examples available show real attempts at contextual 'in the moment' targeting working in tandem with situational nudges in the built environment or in user design. There is a clear drive to demonstrate innovation and creative or 'edgy' approaches, for example, an early campaign from 2015 in which fake celebrity profiles 'matched' young people on Tinder, (a popular dating and hook-up app), then when the target agreed to the match, they

⁷ <https://www.mgomd.com/omnigov-manning-gottlieb-omd/>

⁸ <https://www.design102.co.uk>

⁹ <https://gcs.civilservice.gov.uk/publications/evaluation-framework/>

¹⁰ <https://gcs.civilservice.gov.uk/publications/strategic-communications-a-behavioural-approach/>

¹¹ RESIST counter-disinformation toolkit

were presented with an advert inviting them to sign up for organ donation¹². For more centralised campaigns there is scant detail on the public pages of the GCS relating to exactly *how* these adverts are targeted, but more evidence of audience segmentation approaches can be found elsewhere, particularly at the local level¹³. Some clues can be found which suggest a very wide range of targeting approaches indeed - for example, the Home Office using purchasing data for people who had bought candles recently and targeting them through their smart speakers with fire safety adverts¹⁴.

While centralised campaigns have less public detail on targeting, at the level of specific places and communities there is evidence of further local targeting using demographic, geographic, and behavioural classifications. Here we find the content of behavioural adverts tailored at very local levels to include particular place names or local contexts, and other strategies, including identifying community leaders at the hyperlocal level and encouraging them to take part in adverts themselves¹⁵. In the context of the pandemic, government has been enlisting influencers to deliver core behavioural messaging and promote the Test and Trace programme¹⁶. The major SII operators, increasingly vulnerable to public sensibilities about the harms which they facilitate, are developing internal relationships with governments and devoting their own resources to public goods - using their own targeting capacities to counter-message against radicalisation, grooming, and misinformation as well as occasionally providing public bodies with free space for public issue campaigns¹⁷ or working with organisations like Moonshot¹⁸ which use the SII in the service of 'strategic communications' programmes against online harm.

From our research, we have established that frontline operational data collected in the management of public services, such as records of fire service call-outs¹⁹ and other public service data, are being used, in combination with commercial data and open data to develop targeting profiles for behavioural campaigns. These communications practices link with the operational work of the public body or agency, feeding data collected by the campaigns to inform and evaluate operational practices, and collecting data from the operational side to tailor and target the campaigns. This is also crucial to the evaluation of these campaigns - operational data are used to establish baselines, forecast predicted

¹²<https://3x7ip91ron4ju9ehf2unqrm1-wpengine.netdna-ssl.com/wp-content/uploads/2020/03/Delivering-Excellence-in-Partnership-Marketing.pdf> page 19-20

¹³<https://www.local.gov.uk/our-support/guidance-and-resources/comms-hub-communications-support/futurecomms-building-local-8>

¹⁴ <https://gcs.civilservice.gov.uk/podcasts/digital-campaigning-essentials-introducing-the-ecosystem/>

¹⁵ <https://www.local.gov.uk/sites/default/files/documents/KLS%20campaign.pdf> and <https://drive.google.com/file/d/1JVZtay6D7EjreLHNXc208w-pDFjO7x17/view>

¹⁶ <https://www.bbc.co.uk/news/business-53968222>

¹⁷ GCS Excellence in Partnership Marketing guidance <https://3x7ip91ron4ju9ehf2unqrm1-wpengine.netdna-ssl.com/wp-content/uploads/2020/03/Delivering-Excellence-in-Partnership-Marketing.pdf>

¹⁸ <https://moonshotteam.com>

¹⁹ Applying Behavioural Insights to Fire Safety

<https://www.local.gov.uk/sites/default/files/documents/ESFRS%20final%20report%2018%20oct%202019.pdf>

effects and then measure change and evaluate campaigns, often incorporating continuous feedback and development²⁰.

Ultimately it is challenging to assess from publicly-available documents whether what we are observing is a well-established phenomenon across the UK public sector or rather the front line of innovation - however it is clear that at the very least, communications teams across government are experimenting with these approaches and there is a developing body of knowledge and set of professional frameworks on which practitioners can draw.

Professional practice: law enforcement

A second, separately evolving strand of practice can be identified in law enforcement, particularly in the Serious Organised Crime Prevent programme and broader preventative policing. This forms part of a wider 'public health' model of law enforcement and national security designed to tackle complex (and nominally intractable) social harms such as knife crime and radicalisation (Donnelly, 2015); with noted high profile successes attributed to Scotland's Violence Reduction Unit and the NCA's anti-cybercrime campaigns (Collier et al. 2021).

The adoption of behaviour change within law enforcement is partly attributable to the broader spread of the Prevent approach from radicalisation to a far wider set of policing areas, including cybercrime, knife crime, and gun crime. As an example, we discuss the NCA's CYBER CHOICES, or CYBER-PREVENT preventative diversion programme. As with other Prevent policing areas, this involves a process of identifying 'at-risk' young people, selected based on demographic risk and patterns of behaviour detected by surveillance; in this case, on the basis of online activity which indicates a potential interest in cybercrime forums or the purchase of cybercrime tools. These interventions target people *before* they engage in serious illegal activity based on a set of risk characteristics. Once potential targets are identified by NCA surveillance, initial intervention is generally carried out through 'knock and talk' visits, where an NCA officer visits the home of the young person and discusses their behaviour with them and with their parents²¹. This involves the collection of substantial amounts of operational data which feeds ongoing research and practice. For some this serves simply as a warning, however for those who are identified as particularly suitable, this leads to a workshop intervention, in which NCA officers take a group of these children and give them talks and skills development in order to divert their 'illicit' skills into a legitimate career in cybersecurity²². Again, data are gathered about populations with the aim of not only informing operational concerns, but contributing to a body of knowledge within the NCA about the people they are targeting and the characteristic factors which relate them to criminal offending pathways.

This operational knowledge directly contributes to a complementary strategy involving targeted advertising, known as 'influence operations', or (as previous scholarship has

²⁰GCS Evaluation Framework <https://3x7ip91ron4ju9ehf2unqrm1-wpengine.netdna-ssl.com/wp-content/uploads/2020/03/Evaluation-Framework-2.0.pdf>

²¹ <https://www.nationalcrimeagency.gov.uk/who-we-are/publications/6-pathways-into-cyber-crime-1/file>

²² <https://www.nationalcrimeagency.gov.uk/what-we-do/crime-threats/cyber-crime/cyberchoices>

suggested) *influence policing* (Collier et al. 2021). These adverts, targeted at UK adolescents between the age of 14 and 20 with an interest in gaming, are calibrated to appear when users search for particular cybercrime services on Google, informing them that these services are illegal and that they face NCA action if they purchase them. Beginning as simple text-based adverts, the NCA developed them across a six month campaign in consultation with behavioural psychologists and using the data they were collecting from their operational work. They additionally linked these adverts to hashtags for major gaming conventions (assuming from their debriefing interviews and the academic literature a link between gaming and cybercrime), and purchased advertorials discussing the illegality of these services on major gaming websites. Finally, they developed video adverts (using their pathways data) for circulation on YouTube.

There is evidence that the adverts themselves have been extremely effective in dissuading particular kinds of online crime, with a six-month NCA campaign appearing to be linked to a total cessation in growth in the purchase of Denial of Service attacks in the UK, at a time during which these attacks were rising sharply across in comparable nations (Collier et al., 2021). These adverts have both a messaging function (shaping perceptions) but also function more immediately as symbolic ‘digital guardians’, representing a claiming of sovereignty of digital space by UK law enforcement. The hosting by cybercrime services of Google Ads in order to secure advertising revenue means that the NCA have even managed to get these notices onto the websites selling these illegal services themselves.

It is striking how closely this process of gathering information and tailoring intervention resonates with (refracted through the logics of law enforcement practices) the practices of data gathering and iterative messaging development of the private sector consultancies who provide marketing services commercially. The iterative cycle of identifying and surveilling ‘at-risk’ children, targeting for in-person intervention, collecting information directly, moving on to focus groups, and then feeding these data back into an overall framework which guides the targeting and design of operations is reflective of similar practices of identifying customer groups, quantifying likelihood of purchase, conducting primary consumer research, and then feeding this information back into an overall campaign.

These behaviour change campaigns have been taken up by some of the many Violence Reduction Units and Networks around the country, which take ‘public health’ approaches to violent crime²³. While campaigns in Scotland focus more on in-person interventions in schools and community mentorship, other VRUs appear to use a comprehensive data strategy in much the same manner as the NCA, blending operational data, commercial data, and research data into high-level and local dashboards for operational targeting, then feeding into sophisticated targeted marketing campaigns²⁴. In general, this VRU work has the potential to incorporate more of the co-production values which might make such an approach bottom-up rather than top-down, however in some cases this democratic emphasis seems to be in spite of, rather than as a result of the Nudge ‘libertarian

²³ <https://www.lancsvrn.co.uk/wp-content/uploads/2020/06/Lancs-VRN-Strategy.pdf>

²⁴ <https://www.lancsvrn.co.uk/wp-content/uploads/2021/02/Lancashire-Violence-Reduction-Network-Annual-Report-2020-21.pdf>

paternalism' philosophy (Gane, 2021) exemplified by the Behavioural Insights team. For example, in the VRU's work in London with the Behavioural Insights Unit, we can observe that the BI team's recommendations involve using a combination of social media and operational data, further tightening the network of surveillance and messaging developing around young people deemed 'at-risk':

Use advanced analytical models to identify predictors of risk and intervention opportunities. The VRU and its partners have access to large swathes of administrative data, which present a good opportunity for identifying behaviours or combinations of risk factors which predict violence (as opposed to simply being associated with it). By drawing on advanced analytical techniques such as algorithmic analyses and natural language processing, the VRU can micro target resources where risk is highest and bolster the 'safety net' around those most vulnerable to violence. In particular, we recommend early analytical projects focus on: going missing and violence; the use of social networks for predicting violence; analysing social media sentiment to predict threat online; and exclusions and violence.

Behavioural Insights Team Violence in London Report²⁵

Many of these VRU and NCA campaigns explicitly draw on the language and frameworks of PREVENT. We contend that widespread policy moves towards nominally 'public health' or preventative policing models are creating a gap which is being filled by these behaviour change communication approaches - the availability of the SII has meant that they constitute the cheapest, perceptually lowest-risk, and nominally most innovative and high or immediate impact aspects of the public health approach as rendered to law enforcement, much of which remains explicitly on an austerity footing.

The need to make campaigns appealing, to 'speak to communities where they are' and to create aesthetic components which are likely to resonate with the target audience (along with deeper ideas about shaping culture) require developing deep forms of cultural knowledge - who the target community are, what music they listen to, what TV they watch, who they follow on social media, their life histories - and using this to perform 'cultural interventions' through influence campaigns. A study of recent NCA campaigns reveals these broader contours²⁶. They present not only a diversion from a negative behaviour or rationale but also a *positive* assertion drawing on the aesthetics of the target culture but often repurposing them in the context of a productive capitalist subject, concerned with consumption, accumulation of wealth, community ties, mainstream success, and job opportunities in the legitimate economy.

Consultancy networks:

Although there is clear evidence of the UK Civil Service developing these capacities, much of this work is nonetheless outsourced to the private sector, including key supportive capacities for ad buying, creative, and market segmentation. These services are purchased from a set of recommended or preferred suppliers as part of the professional practice model. However, in some cases, these consultancies are contracted to take a more central

²⁵ <https://www.bi.team/wp-content/uploads/2020/02/BIT-London-Violence-Reduction.pdf>

²⁶ <https://gcs.civilservice.gov.uk/news/gcs-campaign-of-the-month-winner-april-2021/>,
<https://www.youtube.com/watch?v=GfaP-TZTTB0&feature=youtu.be>

role in creating and shaping campaigns and running them as a full service - from initial discussions with policymakers through to research, design and delivery. These agencies market themselves on their capacity for deep engagement with communities on the ground, conducting focus groups, identifying micro-influencers, drawing on corporate datasets and developing cultural and behavioural pictures of often quite small target groups. These techniques, drawn from marketing professional practice, also implicitly cast the citizen as consumer - in this case, of narratives and nudges.

We have found evidence of some genuinely democratic practices in these campaigns, where the company works with communities to drive and design communications through participatory, co-creative practices. For example, an HIV behaviour change campaign by the Hitch Marketing agency directly involved people at a local level not only in appearing in the campaign, but helping to co-design and implement it²⁷. However, particularly when the 'innovative' or 'edgy' side of the marketing agency dominates (rather than serious and systematic participation), some of these agencies are characterised by a breathtaking naivety at best and serious failings at worst. A particularly controversial and widely-reported example of this was the SuperSisters website, a culture website for Muslim teens which was revealed to be covertly funded by the UK Home Office²⁸. Where these touch on criminal justice concerns, there have been further controversies. The disastrous campaign by agency FCB Inferno and All City Media targeting young black Londoners through chicken restaurants²⁹ showed the potential for serious backlash where targeting was deemed to be discriminatory, yet reaction focused on the more visible, offline aspects of the campaign, not the online targeted advertisements which also formed a part.

Governmentality-as-a-service

Finally, we turn to the wider network of major data services, infrastructure, and analytics providers who support the operational data capacities of public bodies. We term these 'governmentality-as-a-service' companies - private sector providers, often international companies, who provide full-spectrum information services to nation states and government departments. Our choice of this moniker reflects the fact that these corporations not only provide government services but also contribute their own distinctive rationalities and ways of conceptualising the business of government that are embedded in the tools and infrastructures which they provide. These companies bid for government digital services contracts, develop, for example, re-implementable capacities for health data storage, processing, and collection, which are then sold off-the-shelf to multiple governments. They function as integrators - managing large databases of operational data and providing additional services and analytics as 'added value' - and include a wide range of established companies such as PWC and Azure as well as disruptive and controversial players such as Palantir.

²⁷ <https://www.hitchmarketing.co.uk/our-work/145-hiv-let-s-sort-this-together>

²⁸ <https://www.theguardian.com/uk-news/2019/sep/15/lifestyle-website-for-muslim-teens-is-covertly-funded-by-the-home-office>

²⁹ <https://www.prweek.com/article/1593925/racist-cynical-badly-targeted-pr-pros-slate-home-office-knifefree-chicken-shop-campaign>

This corporate infrastructure supports the further datafication of government - establishing digital collection and monitoring in all aspects of public services. The business case for this form of modernisation is that it both promotes efficiencies in basic delivery and allows for better understanding of how people are using these services, allowing profiling, segmentation, and evaluation of policies. These large business-IT services providers aim to render the operational data of government more useful for a range of cases, including for behavioural campaigns. With this infrastructure comes a suite of platform governance tools - part of the vision of these solutions is to be able to conduct 'big data' analysis on operational data and develop targeting criteria for nudges, combining these sources with other forms of open and commercial data in dashboards and frontline delivery platforms. Although these capacities are still nascent and unproven in the majority of cases, they constitute a key potential future site with implications for 'influence government'. We see these firms as providing both an extension of and a bridge between the commercial SIs and the public sector service delivery system, including state surveillance infrastructures.

Risks, ethics, and issues

The crucial development of this article is to observe and understand the coming together of an increasingly well-established rationality of 'behaviourist' government with a set of infrastructures, practices, and knowledges created by private sector 'platform' companies and the ecosystems which have grown up around them. If influence government does constitute an emerging set of tools and practices for government communications and policy, it is clear that there are serious practical and ethical aspects of their use which would benefit from further consideration and democratic discussion. In this final substantive section, we give an overview of some of the main issues which we have identified.

A central critique of these measures, and one which is no stranger to 'nudge' and behavioural science (Ewert, 2020) is their contested relationship with democracy; that as practiced they are essentially top-down, providing public bodies with a unidirectional capacity to shape the online environment, behaviours, and cultures of their citizens (and those groups who fall under their control but are denied citizenship). The notionally holistic approach to policy which this constitutes does indeed draw on a very wide set of levers - culture, economics, individual psychology, structural considerations such as poverty or racism - but instantiates them in a single site, the risky individual and their decisions. This is far from a liberatory (or even liberal) conception of state power, resting on the contention that individual behaviours and community cultures are the root of policy problems. Although some feedback from citizens does form a part of these processes, it often grants them little in the way of agency to shape policy themselves, contributing instead data to market researchers about their thoughts, opinions, and cultural sensibilities which can be drawn on by policymakers in making decisions, often in ways to which target communities might reasonably object.

Additionally, these inductive, iterative knowledge processes can have a 'reifying' effect, in which the assumptions, biases, and prejudices embedded in operational practices shape the data which these practices (such as policing or medicine) produce about populations; data which are then fed into targeting and evaluation systems to become 'self-fulfilling

prophecies'. Thus a group is targeted because it is perceived to pose a higher risk, and it poses a higher risk because it is being targeted (Fraser and Atkinson, 2014). Far from being an agile process that constantly challenges assumptions, and finds new and more appropriate ways to address social problems, these practices can serve to amplify and embed ideas of 'risky groups' - a critique well-established in critical studies of existing and historical forms of 'smart' policing (Hinton and Cook, 2020). Equally, the assumptions of policymakers, poorly-justified narratives from weakly evidenced academic studies, and the political sensibilities of ministers can, when incorporated into these processes, similarly set the terms of who constitutes a risk and how, in ways which can become self-fulfilling.

The governance structure which underpins this policy decision-making is therefore important. Who draws on this knowledge, who sets priorities, and the transparency and accountability of these processes are crucial to their overall democratic legitimacy. The lack of transparency of these methods is of particular concern, especially where targeted advertising is used. Many of the situational 'tweaks' which attend a traditional nudge or behavioural science-informed campaign are targeted, but they tend also to be *visible* to populations beyond these targets. Minimum unit pricing, changes to cigarette displays, anti-homeless spikes, and 'go home' vans are all targeted at particular populations, but their broader visibility allows at least a minimal route of accountability and critique - they can become subjects of public outrage and be reported on by journalists. Targeted advertising and other influence practices, such as the cultivation of 'influencers' in populations, however, are only viewed (in theory) by the intended audience - reducing the capacity for broader accountability. Thus, while theoretically the data trails, open datasets, and auditable algorithms might make these more transparent, in practice these are not as available for scrutiny.

More generally, there is a risk of these approaches being seen as low-risk marketing and communications strategies, divorced from the regulations and accountability structures which constrain operational work within these policy areas. These may appear to be highly attractive across policy sectors despite disputable efficacy given their high cost-effectiveness. The work of the NCA and VRUs are notable exceptions here, where these campaigns are conceived within operational frameworks. There are additional privacy concerns which these methods raise which are not necessarily easily captured by existing debates around privacy, which tend to revolve around the collection, storage, processing, and use of sensitive data about individuals. The kinds of data collected in these campaigns are deeply consequential - from quasi-ethnographic data about culture, group membership, and norms, to targeting data held by platforms, to data from A/B testing about which advertisements and targeting strategies appear to work best. The use of government operational data in creating, targeting, and evaluating these campaigns itself fundamentally transforms the potentials of online targeted advertising in ways which are not yet well-understood.

The development of 'nudge' into 'influence government' is much more well-established in counter-radicalisation and national security research, where use in (arguably) neo-colonial statecraft constitutes a well-established set of practices rather than an emerging, disruptive technology of government. The lessons from this body of scholarship are as sobering when considering the application of these methods in the context of domestic governance as they

are in the broader global stages of power. The phenomenon of ‘blowback’, the violently negative reactions which occur when groups realise that they are being subject to these measures, reflect the fact that people’s relationship with media is multifaceted – they know that the targeted influence infrastructure exists, they can often tell when it is being used and speculate as to how they are being targeted, and can react not only to messages to which they are exposed, but to the broader political dimensions of the messaging practices themselves. There is also the potential for these influence approaches to in fact serve to expose vulnerable groups to the very messages and narratives which policymakers are trying to counter, spreading them far wider.

Any negative effects of these are likely to be focused on the vulnerable and disadvantaged groups which are the primary targets of government preventative policy and are likely to be unpredictable. There are real potential harms where people are algorithmically targeted with social policy messages – for example, around knife and gun crime – which could lead to already-vulnerable young people experiencing serious anxiety, intrusive thoughts, or even shaping their behaviour in counter-intuitive ways, such as increasing their perceptions of the prevalence of knife-carrying, causing them to themselves begin to carry a weapon. The potential contribution of both the content and the targeting itself to stigma and labelling processes well-established within criminology is also concerning. Equally, there is the prospect of harming the perceived legitimacy of the state for targeted communities already long-used to being on the receiving end of state harm or neglect.

Despite these concerns, the dangers posed by the state’s use of targeted ads are accompanied by the dangers of *not* using them. There are a wealth of areas in which targeted advertising and influence approaches are being used in co-ordinated campaigns by malicious actors, from the spread of illicit cybercrime services, to the targeting of vulnerable people with scams, to attempts by far-right, misogynist, racist, and queerphobic groups to spread hateful narratives and radicalise. There is a compelling argument to be made that the state has some duty to either counter these malicious influence campaigns directly on the same terms, or to support communities in doing this work themselves. Where the state averts its gaze intentionally there is the potential for these influence infrastructures to operate unchecked, open as a technology of power to anyone able to pay for adverts or who is able to subvert the algorithms (such as the 4chan communities who attempt to game Youtube recommendations). Still, even in cases where there may be a clear moral imperative for the state to employ targeted advertising and influence, robust transparency around the employment of citizen data should be prioritised.

Finally, it is important to note that the efficacy of these ‘influence’ interventions is extremely difficult to assess. *Evaluation* is a serious issue - unlike commercial targeting, where conversion to sale offers a fairly clear metric, it is often extremely difficult, despite the promises of the OASIS model and the access to administrative data possessed by government, to evidence effects robustly. The reliance on a tracking and targeting infrastructure that is still fairly unreliable means that except for particularly self-evident forms of targeting (such as the NCA’s approach, which targets people searching for particular illegal services), many of these messages may be seen by the wrong people, or not seen by the right people. Where these profiles act in the delivery of government policy, it is crucial to account for the ways in which algorithmic bias or inaccuracy might shape who

gets which messages, and the consequences of this. This can be more consequential than might be expected - for example, if particular groups are missed by targeting, and hence do not see government advertisements for benefits or support schemes to which they may be entitled.

Concluding thoughts and possible futures

Although we draw out a critical perspective on these approaches in this article, we do not argue that there are no possible positive futures of targeted messaging. Government will always involve communication, and models exist for developing and delivering this driven by communities themselves - participatory and co-produced approaches. Some of the examples we have found, particularly where they are designed with an ethic of participation and co-production *with* the targeted communities, appear to be genuinely compatible with established democratic norms. Outside the domain of 'nudge', there are alternative rationalities which could drive this which move away from the individual as the site of change and incorporate more liberatory, community-based, solidaristic, and participatory ideas, repurposing the platform technologies of control for bottom-up social change. However it remains to be seen what the role of the platforms might be in such a future - whether infrastructures developed for commercial exploitation can ultimately serve social goods.

This paper is, we hope, the starting point for a much larger cross-disciplinary research project. Although there is a wide and deep seam of research activity which addresses improving and measuring the efficacy of different kinds of behavioural interventions, there is next to none on how these are being combined with digital influence technologies and how this hybrid approach is being realised in the practices and processes of government. There is a great deal of further research (both academic and journalistic) to be done: on the practices and rationalities of communications professionals within government, on links to private providers, on the role of the governmentality-as-a-service companies and platforms, and on what this means for the future of government and law enforcement. Further questions should be asked about the extent to which the experience of UK citizens in the online realm is being shaped by government influence. The international picture bears substantial further examination, as do the implications in global power, ethics, law, and democracy. This particular technological future has already begun to arrive and the role of the academy should not only be to administer it, but to critique and challenge it as well.

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