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

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Abstract

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 targeted advertising infrastructure and the practices, consultancy firms, and forms of expertise which have grown up around it. 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'.

Keywords

Targeted advertising, government, power, marketing, criminal justice, public policy

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. Our empirical research shows that these advanced marketing techniques are now being incorporated into the business of government and law enforcement. Although the 'algorithmic turn' and 'behaviourist turn' are both well-established within UK governance, their *combination* in an emerging set of practices represents a novel, powerful, and in some cases potentially concerning frontier of government policy.

This article 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 Infrastructure (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 apply behavioural science and 'public health'

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logics to a wide range of social issues. We then discuss the complex network of online services and infrastructures which generate databases and algorithmic models that facilitate the targeting of adverts. 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 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.

Governmental modernity: From social marketing to responsabilisation

To understand these developments it is useful to situate these practices within the history of government in the UK. Governmental modernity, at the heart of much of Foucault's scholarship, is generally linked to the ascendancy of a distinct rationality of power. This rationality contends that, as the empirical study of human societies progresses, their essential dynamics will be understood to the extent that they can eventually be *designed* to function in more beneficial and harmonious ways (Foucault, 1982; Garland, 1997).

In the 1970s and 1980s, the adoption of the ideals of modern government - that the state could shape important aspects of experience and personhood - continued to develop. Within public health, the rise of a 'social marketing' approach in this period saw commercial marketing techniques deployed using the limited targeting available through the mass media to transmit public health messages (Atkin and Wallack, 1990; Lupton, 1995, p110; Grier and Bryant, 2005). These were designed by partnerships of ad agencies, community groups, government agencies and academics (Atkin and Wallack, 1990). While health literacy, empowerment, social norm adaptation and collective action may have been the aim of some of these programmes, they were often designed with a model of the 'heroic' individual able to change their own behaviour while ignoring more structural features (Katz et al., 2000; Wallack, 2002). Despite notable successes, these programmes suffered from problems such as poor design, inadequate research and poor stakeholder coordination (Cook et al., 2021).

Another approach sought to build public consensus around legitimacy for policy action. This was accompanied throughout the second half of the 20th Century by an expansion of the reach, severity, and targeting of the repressive force of the state, particularly through the targeting of violent policing and punitive policies within education,

housing, and health at poor communities and communities of colour. State engagement with 'traditional' media (particularly newspapers) was crucial to manufacturing broad social consent for these approaches through concerted media campaigns and moral panics which transformed the cultural environment - around muggings, 'hoodies', anti-social behaviour, asylum seekers, or the 'benefit cheat' (Hall et al., 1978).

The rise of a 'risk' model of social groups and issues was reflected in a broader managerialisation of the business of government across the 1980s, becoming known as New Public Management (Barberis, 1998). This managerialisation entailed the increasing collection of data and categorisation of publics (through patient databases, offender matrices, and other systems) with a view to managing the public through metrics, outcomes, and measurable processes. Many of these metrics relate as much to the targets and outcomes used to monitor the intermediary firms granted public contracts under the neoliberal model as to the public themselves. This also included the appropriation of the tools, standardised techniques, and models of private industry, including market segmentation and postcode-based marketing using the Mosaic or Acorn classifications. Foucauldian scholarship generally makes sense of this through the lens of *biopolitics* - the protective power and subjectifying force which the state exerts by gathering data about its citizens, with its companion, *necropolitics* - where the state represses through dramatically overextending or tactically withdrawing its gaze (Mbembe, 2008). Modernist ideas of transforming society had given way to forms of intervention and shaping based around surveillance and the management of ever more diffuse and globalised forms of risk - maintaining the existing social order and mitigating its worst effects.

As the modes of governance in the UK and US shifted in the neoliberal era, the state's role became less the centralised design of secure societies and prosocial citizens, and more concerned with the *responsibilisation* (Garland, 2001) of private citizens and businesses, who could purchase services from private sector providers. This was coupled with the continuing ascendancy of repressive force targeted against communities deemed a risk to mainstream society - in health, crime, welfare, and other areas of social policy. The role of the state in social design in this 'marketised' mode, though distanced and softened, was not necessarily diminished; in idealised neoliberal societies the state takes the form of a 'steering', not a 'rowing' force, in which the delivery of government policy is devolved to the private sector and civil society, but the state still ultimately sets the goals and agenda (Crawford, 2006). This privatisation coincided with an increasing perception within government of the apparent intractability of social issues, leaving only individuals, able to protect *themselves*, but with no sense of a wider possibility of collective social change (Loader, 2006).

Behaviourism and government

With the election of New Labour in 1997 and the ascendancy of ‘third way’ politics came a reinvigoration of interventionist social policy. A key feature was application of scientific evidence, expertise, technocratic methods and ‘e-government’ to the business of public policy and public services (Giddens, 2013). Within this approach, communications was generally seen as an important but separate 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. However, 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.

Nudge, a term coined by Thaler and Sunstein (2009), is one of the better-known parts of a preventative turn in government social policy, and involves reshaping the ‘choice architecture’ in which individuals make decisions. The provision of information by government is complemented 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. This turn to a psychological or ‘Behavioural Public Policy’ (BPP) draws 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). 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-Kelly, 2017). 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.

There is now a well-developed research literature, including a number of Nobel prizes, on the potential and use of BPP in a government context (Baggio et al., 2021; Gofen et al., 2021; Lepenies and Malecka, 2018) - this itself is far from new. The literature focuses not only on the fundamentals of behavioural psychology, but also on analysis of the policy actors who undertake these interventions (Gofen et al., 2021). A whole range of behavioural levers have become well-established within government, not only at the level of policy, but also in formulation of law (Thaler and Sunstein, 2009). In part this follows the turn to evidence based/informed policy and is associated with a drive across government of experts and policymakers promoting these methods (Feitsma, 2019; Jones and Whitehead, 2018). BPP approaches in government integrate a heterogeneous set of theories - incorporating ideas from cognitive psychology, social psychology, experimental and evidence-based government techniques such as the RCT, and behavioural economics. This has seen it emerge as a dominant policy paradigm in the UK in recent years, commanding significant rhetorical and practical power - what Mols et al., describe as a ‘fifth’ mode of governance alongside ‘hierarchy, markets, networks, and persuasion’ (Mols et al., 2015).

In part, BPP has succeeded in establishing itself following the government-wide shift to evidence-based approaches to policy. These generally favour targeted interventions that are different for different groups, which can be studied semi-empirically. A skeptical critique might suggest that nudge in particular packages up simple, easy-to-grasp ‘scientific’ theories, non-radical ‘tweaking’ forms of policy change, and self-referential measures of performance which make them easy to finance, justify, enact, and evaluate. This increasingly established policy paradigm is accompanied by a series of more critical debates: around the legitimacy and rigour of behavioural science as an intellectual project, the practical efficacy of nudge interventions, and what this development means for broader frameworks of political economy (Schubert, 2017) and the evolving rationalities of government (Leggett, 2014). BPP’s status as an intellectual project has come in for substantial critique, particularly from within psychology itself, reflecting a tension between two distinct bodies of psychological knowledge and practice (Mols et al., 2015). One emphasises an individualist psychology, often based in neuroscientific research about individual decision-making, which contrasts a countervailing approach rooted in social psychology that often informed older social marketing approaches. Individual-focused understandings of nudges have generally predominated in government. Social psychologists, on the other hand, advancing the ‘social identity approach’, generally critique individual-focused forms of nudge, instead arguing that

individuals should be understood within broader social contexts and communities, whereby human decisions are viewed as shaped in large measure by prevailing social norms, and to a lesser extent by the choice architecture the individual is presented with when being nudged (Mols et al., 2015). Thus, they argue, successful lasting behaviour change depends instead on shifting norms and broader changes to social cultural context. Ultimately, however, the responsibility for policy success in a behaviourist frame still relies on the citizen, with the role of the state being to shape their behaviour (Gandy and Nemorin, 2019).

The *stealth*-based aspects of traditional nudges have also come in for critique (Jones and Whitehead, 2018). BPP has been framed as ‘Liberal Paternalism’ (Lepenies and Malecka, 2018; Sunstein, 2016; Hausman and Welch, 2010), with fierce debates over both its legitimacy and the scope for consent for nudges that are in some tellings supposed to work only when the citizen is not actually aware of them (Schmidt and Engelen, 2020). The secrecy of some nudge practices can cause severe negative reactions when revealed, which can undermine the broader institutional legitimacy on which such interventions depend and stigmatise targeted groups (Mols et al., 2015). This phenomenon is part of a wider set of unexpected consequences which can result from this approach, collectively termed ‘blow-back’. The complex and harmful side-effects of these approaches contest the idea of the ‘biddable’ citizen who can be nudged or messaged in a ‘hypodermic’ model, as a passive recipient of government power, who makes choices within a decision environment but is powerless to change, re-imagine, or re-interpret that environment (Hausman and Welch, 2010). Instead, the citizen often proves far more active and critical a subject of messaging than nudge generally assumes.

The apparent successes and failures of the ‘nudge unit’ perhaps obscure the broader movement of BPP ideas throughout the UK Civil Service, including within communications work. These forms of knowledge have long-standing roots in the civil service and other major government institutions, such as the NHS. While communications includes announcing government policy, perennial public information campaigns, attempts to shaping public opinion, or the broader shaping of a sense of nationhood (Rose, 2000), communications units have developed over the past several decades a series of their own policy ‘levers’, wielding the power to achieve policy aims in their own right by attempting to shape 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 to enact BPP.

Digital communications, tracking and advertising infrastructures

Thus, communications forms an important (and, crucially, often the cheapest) part of BPP. Targeted marketing has its roots in the 1920s (Grier and Kumanyika, 2010) with the aim of increasing the relevance of the messaging by market segment, and has been exploited by commerce using a whole range of techniques and models of behaviour change, attitude change and reinforcement. 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); the increasingly personalised and fragmented online media has transformed how commerce addresses its markets, and as we argue, how governments communicate with their citizens.

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 that continually collect information on individual’s behaviours, interests, and personal network - 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. Whether this is viewed through the lens of *surveillance capitalism* (Zuboff, 2015), *platform capitalism* (Smicek, 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, now dominated by practices known as “programmatically digital display advertising”¹. In

this model, advertising ‘space’ is sold in complex secondary and tertiary markets 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 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, characteristics of people in an individual’s close network, and characteristics of other people in a location in order to tailor messaging even more effectively (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 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 et al., 2019; Kostygina et al., 2020). 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 early 2000 consumer concerns for ‘authenticity’ which brand managers attempted to co-opt during this period, 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). 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 Youtube and Instagram ‘influencers’, most often employed for their vast marketing capacity to younger demographics.

Taken together, we describe this complex arrangement of technologies, companies, markets, and practices as the ‘Surveillance Influence Infrastructure’ (SII); a dynamic set of global infrastructures built on top of the Internet for surveilling and shaping behaviour. 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 coming-together of social marketing and BPP approaches with the practices of algorithmic governance,

towards a programme of control which we term ‘influence government’. We now discuss the empirical case for this in depth.

Methods

Although considering the ways in which control technologies such as these might potentially be abused provides a useful hook for critique, it is vital also to understand the reality of how they are being used in practice. Focusing on the UK (though we also found evidence of these approaches elsewhere), 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. In doing so, we seek to build an empirical case for our argument that two pre-existing trends, the algorithmic turn and behavioural turn in government, are fusing in the practices of government.

The source documents were obtained through Internet search, initially using the keywords ‘behaviour change’, ‘targeted advertising’ and ‘digital marketing’ in .gov space, and subsequent snowball sampling. They are all accessible on gov.uk or other UK public sector domains, including the subdomains local.gov.uk and nationalcrimeagency.gov.uk. We also conducted a comprehensive survey of available materials on civil service training platforms, such as the GCS website. They include 38 webpages and documents relating to local government strategy and guidance, 56 relating to central government strategic frameworks and training materials, 30 for supplier websites, and 30 examples relating to specific campaigns for a total of 154 primary sources.

Our evidence covers three main domains - first, government strategy and training documents, largely drawn from the Government Communication Service hub, the Local Government Association website, and broader strategic documents from law enforcement. These set out a case for how the intersection of behaviourism and targeted digital marketing are incorporated into government policy visions and of the tools, approaches, and ideas which underpin their communities of practice. Secondly, we studied the websites of 30 marketing consultancies and other contractors from the government’s contractor lists, drawing out key narratives and approaches - what they claim to be doing and their ‘offer’ to government. Thirdly, we surveyed 30 established campaigns to establish what methods were employed and how they were evaluated. These were chosen from examples and case studies on government and supplier websites. In analysing this material, we found a wide variety of practices, encompassing both well-established strategic and professional frameworks underwritten by central government and also far more informal and amateurish use of these techniques.

Our exploratory methodology seeks to first establish an outline map of government strategies around the use of digital ‘influence’ marketing, and then to explore some of the leading edge practices emerging. Although the core strategy documents by their nature provide a representative view of government strategic thinking and the body of knowledge systematically drawn on by government, our review of case studies and contractors is more partial, reliant on publicly available sources. There is a clear bias in these data - unsuccessful or uncontroversial campaigns are less likely to be reported, and agencies are incentivised to over-claim or represent these strategies in a more positive light. However, we examine these critically as evidence of some of the emerging practices in the field, rather than a representative survey of all activity across central and local government. We are also aware that the effects of these campaigns may be exaggerated, misreported or have not been continued.

Mapping influence government

From our initial exploratory research, the core strategy documents and evaluations invoke a wide range of different forms and levels of practice, constituting everything from sophisticated, multi-site influence campaigns to simply purchasing Google Ads. We set out a typology of three distinct ‘modes’ of practice which we observe, involving progressively deeper links to the networks of power and practice which attend this work.

In each case, we discuss the broader strategic picture set out in core strategy documents, and then, where appropriate, explore this ‘on the ground’ in more depth through case study examples. 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 TV, billboards and in newspapers additionally being delivered through online ad buys. These more naive forms are not part of a coherent ‘new media’ strategy, but simply upgrades to existing communications routes - where they do appear in strategic documentation, the focus is on bringing existing buying practices up to date. We found a range of examples of these across policy areas, which tended to be minimally targeted - often simply at national 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. 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, from our review of core government strategic documents, that 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.

At present, this body of professional expertise has its home in the Government Communication Service (who have also helped transfer this expertise to other public bodies). The GCS website, the repository for training, practice, and policy, now includes substantial details of how behavioural communications campaigns can be conducted, including evaluation and digital delivery. There are clear flows of expertise between governmental, private, and quasi-governmental bodies, with nationwide strategic partnerships and procurement structures with ad buying services (which also provide core government marketing training), dedicated creative agencies, and staff moving bidirectionally between government and the private sector.

Much of the detail of these professional frameworks and training materials is freely available, 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 Team². 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.³

Beyond these tools, core competencies for the GCS now include higher-level 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 an awareness within central government and the GCS that these advertisements are being deployed in an online environment 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 toolkit) 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 were presented with an advert inviting them to sign up for organ donation. 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 level. We found numerous examples from key policy areas including Justice, National Security, Environment, Health, Welfare, and Fire Safety, ranging back to as early as 2011, with increasing frequency of campaigns in recent years. While initially targeting approaches were based rather broadly, on particular platforms or demographics, more recent campaigns use far more intimate and algorithmically-enhanced methods - 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 adverts

or preventative law enforcement messaging based on search engine queries and language used on social media.

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 themselves. In the context of the pandemic, government has been enlisting influencers to deliver core behavioural messaging and promote the Test and Trace programme. 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 campaigns or working with organisations like Moonshot.

From our research, we have established that frontline operational data collected in the management of public services, such as records of fire service call-outs 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 effects and then measure change and evaluate campaigns, often incorporating continuous feedback and development.

As more public-facing examples and evaluations of these campaigns emerge, it is increasingly clear that we are observing a well-established phenomenon across the UK public sector rather than simply the front line of innovation, with many government departments and agencies now retaining dedicated behaviour change communications teams. There is a developing body of knowledge and set of professional frameworks on which practitioners can draw, and a well-established infrastructure of services and consultancies which provide practical delivery and support. In short - behavioural campaigns are now a core aspect of government communications work.

Professional practice: Law enforcement

A second, separately evolving strand of practice can be identified in law enforcement, particularly in the Prevent counter-radicalisation programme and broader preventative policing. As an example, we discuss the NCA's CYBER CHOICES preventative diversion programme. 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 suspect behaviour with them and with their parents. For those who are identified as 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 cybersecurity. Throughout, data are gathered 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 and data directly contributes to a complementary strategy involving targeted advertising, known as ‘influence operations’, or (as previous scholarship has 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 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 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). The hosting by these cybercrime services of Google Ads in order to secure advertising revenue means that the NCA have even managed to get these notices onto the sites themselves.

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 crime. 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 campaigns. 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 around young people deemed ‘at-risk’:

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 Report)⁴.

Many of these VRU and NCA campaigns explicitly draw on the language and frameworks of PREVENT.

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 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.

Both community-focused and more centralised campaigns are widely evident. 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 it. Conversely, a particularly controversial and widely-reported example was the SuperSisters website, a culture website for Muslim teens which was revealed to be covertly funded by the UK Home Office. 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 restaurants 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.

Theorising targeted advertising and the state

Having mapped the current available evidence of how the UK state is making use of these technologies, we now reflect on some of the theoretical concerns raised by this research. Ultimately, both business and states are interested in shaping the behaviour of populations, and it is unsurprising to observe convergence in the practices that they are developing to do so. 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.

We identify a common pattern between all these approaches which is at the heart of 'influence government' as an emerging rationality - the conjunction of three systems of knowledge production. First, government departments draw on research and surveillance from their expansive operational datasets to develop profiles which are used to assess the needs, riskiness, and vulnerabilities of particular groups. These 'profiles' reflect not established targets but whole groups felt to pose a higher or lower risk of negative outcomes - profiles of patients, immigrants, potential offenders, prisoners, and welfare recipients. These category systems, which reflect well-established approaches to modern government, are those produced by state institutions in the business of governing people's lives and are facilitated by the large private sector consultancies who provide much of the data infrastructure for hospitals, immigration services, prisons, and other institutions.

These institutional forms of knowledge are then brought into contact with those produced in marketing consultancies and consumer research organisations. The profiles of state subjects are hybridised with a wide range of consumer profiles - the classic demographic, cultural, and postcode-based systems used by traditional marketing. On a

campaign-to-campaign basis, these profiles are finessed in particular local contexts, through surveys, interviews, ethnographic research, and other attempts to dig into the culture, ideas, and beliefs of the targeted population. This develops very intimate views of communities, often at hyperlocal scale, but they are designed to render the citizen as consumer, an amalgam of tastes, qualities, and beliefs to be steered. It is at this stage that the essentialised components of culture - in the form of disconnected signifiers, strands of discourse, and aesthetics unmoored from context - are collected, processed, and reconfigured as 'positive' versions of groups deemed risky. This serves both a laudable practical rationale of 'speaking to people in their own language' and tailoring messages for groups to be more relevant and comprehensible, but additionally a broader and more insidious function - the state shaping of culture. This represents a significant development from the state 'policing the crisis' to actively shaping cultures that are deemed 'risky' (Hall et al., 1978).

These hybrid profiles, narratives, and aesthetics are then projected into the platform targeting infrastructures. This reflects a governmentality of its own - a 'big data' rationality, which, in addition to classifying subjects into pre-established deductive category systems of age, gender, health, ethnicity, and sexuality, abstracts categories directly from data - clusters emerging from a collective of atomised individuals (Aradau and Blanke, 2017). The data used to create these profiles and clusters is extremely intimate - a record of clicks, page visits, posts on social media, networks of interaction and behaviour whose characteristics cast back and forward between people within dense and loose social groups, imputed through statistical aggregation where they are missing. Where this meets behaviourist government, it represents a further abstraction of power towards softer and more insidious modes - which we term 'influence government'. We believe that this represents a development from the 'nudge' approach of the Behavioural Insights Unit, closing the loop between different forms of data, targeting, profiling, surveillance, and control sites at which the government can place messages to a variety of ends.

Our theorisation of the emerging biopolitics of 'influence government' reveals a triple system of knowledge production which, when considered in the round, constitutes a dizzyingly wide and deep array of lenses on communities and individuals. These link the forms of biopower traditionally associated with the state to the gathering of deeper cultural knowledge and consumer segmentation, and then to a further range of algorithmic lenses whose classifying gaze (however partial and flawed) is based on extremely intimate surveillance of online behaviour. The rationality of risk is written through this emerging system of power - it is at its heart a development of the epidemiological or 'public health' approach to thinking about public policy problems (Heath-Kelly, 2017). The context of austerity in the UK and moves to 'cheap' and 'smart' digital solutions, along

with a more general imperative in the public sector for bureaucrats to demonstrate innovation, leadership, and the use of scientific research to inform policy, has created the perfect conditions for behavioural psychologists, behavioural economists, and communications professionals to sell influence government as a cheap, low-risk, and scientifically-grounded approach to policy and in some cases to develop these uses below the radar of public democratic scrutiny. As we discuss in the final section of this article, ‘influence government’ is accompanied by a range of potential issues and concerns which are at present insufficiently addressed.

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). 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).

Some of this work is more ethically justifiable. For example, the VRU work emphasises the potential to incorporate more of the co-production values which might make such an approach bottom-up rather than top-down (Fraser,

2017). However in some cases this democratic emphasis seems to be in spite of, rather than as a result of the BPP ‘libertarian paternalism’ philosophy (Gane, 2021) exemplified by the Behavioural Insights team. The BI campaigns appeared much more top-down, surveillance focused, and engaged on, rather than with, communities. The role of private sector agencies, particularly where they are leading the work, ethical expertise, and evaluation, is troubling. 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. 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.

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.

The development of ‘nudge’ into ‘influence government’ is much more well-established in counter-radicalisation and national security research. The lessons from this body of practice 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. 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 and its institutions 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 far right 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.

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, 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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Notes

1. <https://www.emarketer.com/content/uk-programmatic-digital-display-ad-spending>.
2. <https://gcs.civilservice.gov.uk/publications/evaluation-framework/>.
3. <https://gcs.civilservice.gov.uk/publications/strategic-communications-a-behavioural-approach/>.
4. <https://www.bi.team/wp-content/uploads/2020/02/BIT-London-Violence-Reduction.pdf>.

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