

Influence government, platform power and the patchwork profile: Exploring the appropriation of targeted advertising infrastructures for government behaviour change campaigns

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Abstract

The targeted digital advertising infrastructures on which the business models of the social media platform economy rest have been the subject of significant academic and political interest. In this paper, we explore and theorise the appropriation of these infrastructures — designed for commercial and political advertising — by the state. In the U.K., public sector bodies have begun to repurpose the surveillance and messaging capacities of these social media platforms, along with the influencer economy, to deliver targeted behaviour change campaigns to achieve public policy goals. We explore how frameworks of behavioural government have aligned with Internet platforms' extensive infrastructures and the commercial ecologies of professionalised strategic marketing. We map the current extent of these practices in the U.K. through case studies and empirical research in Meta's Ad Library dataset. Although the networks of power and discourse within the ad infrastructure are indeed acting to shape the capacities of the state to engage in online influence, public bodies are mobilising their own substantial material networks of power and data to re-appropriate them to their own ends. Partly as a result of attempts by Meta to restrict the targeting of protected characteristics, we observe state communications campaigns building up what we term patchwork profiles of minute behavioural, demographic, and location-based categories in order to construct and reach particular groups of subjects. However, rather than a clear vision of a 'cybernetic society' of reactive information control, we instead find a heterogeneous and piecemeal landscape of different modes of power.

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Introduction

The past 10 years has seen a great deal of empirical investigation and critique aimed at the business models, infrastructures, and modes of power of the Internet giants. As the Big Tech economy moves into a period of seismic change, with a purported new wave of technological disruption by large language models on the one hand and the retrenchment of ever-more muscular state regulation of core business models on the other (Mansell, 2021), these critiques are becoming ever-more salient. Critical perspectives have tended to focus on commercial use of these infrastructures, often via data capitalism (West, 2019), platform capitalism (Srnicsek, 2017), or surveillance capitalism (Zuboff, 2015) frameworks; or, subsequently, their re-appropriation for political campaigns (Cadwalladr and Graham-Harrison, 2018), misinformation (Ribeiro, *et al.*, 2019) and illegal activity (Zabyelina, 2017). While these critiques often centre on power moving away from governments and towards the platforms and their networks, in recent years governments have found ways to reassert power through these infrastructures. The increasing use of these infrastructures by governments as tools of public policy and law enforcement (including the digital advertising systems on which we focus in this paper) by requiring a re-examination of the infrastructural power of platforms (Collier, *et al.*, 2022). We focus on how the state and associated public services are adopting digital targeted behaviour change advertising in a U.K. context. This topic brings us to what we describe elsewhere as an emerging regime of *influence government*. Although nowhere near the extent of the Chinese social credit systems (Liang and Chen, 2022), it nonetheless represents a turn to a form of governance supported by the infrastructures of the modern digital world.

This paper will empirically explore attempts by public bodies to appropriate these digital advertising infrastructures and interrogate the forms of infrastructural power that we see emerging in their use by the U.K. government. First, we give an overview of the concept of behaviourism in government policy, then discuss ad targeting infrastructure and platform business models (AdTech) and some critical perspectives on their relationship with power. We give an overview of our methodological approach using the Meta Ad library. We then proceed to map the use of these practices in the U.K., drawing on a series of empirical examples to show how the state is attempting to appropriate these targeting infrastructures, concluding with a case study on different attempts to target Muslim communities by the U.K. government.

We argue that the U.K. state — as a wide range of discrete levels of government — has shown enormous capacity to re-assemble the modes of power apparently embedded within the design of these platforms by co-ordinating its own material networks of data and power. In particular we see the assembling of hybrid or *patchwork profiles* of detailed cultural, geographic, and social categories via the ad buying and analytics interfaces and the reliance on the opaque computational facilities of the ad platforms to optimise and extend these. Although these processes seem to simulate the kinds of adaptive, tailored, and individualised information control that might characterise a truly cybernetic model of online government, we argue that, rather than a cybernetic society taking shape, we instead see heterogeneous modes of power being assembled by a wide range of different state bodies and their commercial partners.

Public sector communications and behaviourist government

While recent headlines and research have captured how governments try to influence foreign citizens through propaganda, public diplomacy (Cull, 2008) and a raft of “information interventions” (Arceneaux, 2021), the use of communications by governments to shape the attitudes and behaviours of their own citizens has a long history. Post-1945, various attempts were made in the U.K. and other countries to formalise public information informed by emerging interest in communications, diffusion of information, and cybernetic theory (*e.g.*, Wiebe, 1951–1952; Merton, *et al.*, 1946). Marketing science, proposed as a framework for action by public bodies in 1971 (Kotler and Zaltman, 1971), combines commercial approaches to development of products and services, market segmentation, consumer research, and communications, but modified for social issues for which there was often no product or price (Andreasen, 1994). Central to this social marketing perspective is that information and influence must be tied to programmes of policy. In many cases, simpler models of social advertising characterised much of this activity, with no specific support or programme to support citizens’ behaviour change (Andreasen, 1994); much of these were public information campaigns on topics such as paying tax, claiming benefits, recruitment for government service, or public education, often through schools and the media. Many others involved actively promoting behaviour change on themes of public health, pro-environmental behaviours, blood and organ donation, road safety, fire safety, or public security (Andreasen, 1994).

The delivery of these communications was achieved via the structures of the state — schools, health centres, libraries, sport centres — often using low-tech

formats, such as leaflets, that could also be distributed to households and workplaces. The state also became a major purchaser of advertising space in the mass media, from national TV to local newspapers, and various forms of outdoor advertising using the audience metrics of each publication for targeting. Designing campaigns and buying media would generally be put out to tender to commercial creative and buying agencies, governed by framework agreements linked to standardized practices within the civil service. Many of the challenges related to government use of paid advertising that exist today were already identified at this time, including difficulties in evaluation of social outcomes, legitimacy, pricing, and the problems of communicating with socially excluded communities (Bloom and Novelli, 1981).

Recently these approaches to behaviour change were complemented by the development of ideas from design and behavioural studies, particularly the ideas of nudge, boost, and choice architectures (Thaler and Sunstein, 2008; Sunstein, 2016; Shafir, 2013; Strabheim and Beck, 2019; Hertwig, 2017). These concepts explore the power of the state to shape citizen's behaviour by non-fiscal and non-regulatory means in the design of tax forms, opt-out organ donation, or streetscapes and by leveraging a whole range of psychological biases and careful approaches to how citizens interact with state-provided services and the environment and make consumer and health choices. This redesign of the infrastructure of citizen-state interaction is often characterised by its proponents, including Thaler and Sunstein (2008), as 'libertarian paternalism', in which the citizen is not ordered to change their behaviour in line with government policy, but, rather, communications are used to co-ordinate citizens to take up public services (Pykett, *et al.*, 2014) or to counteract messages and narratives from non-state actors (Sunstein, 2016; Goodwin, 2022). Public health campaigns, in particular, became much more influenced by developing insights into psychology of behaviour and influence (Michie, *et al.*, 2011). However this approach has been frequently criticised as overly simplistic and focused on individual lifestyle choices while ignoring the wider social determinants of health (Quigley and Farrell, 2019).

A final theme in behaviourist (or, as we argue subsequently, 'influence') government has been the exploration of data-led approaches to understanding, classifying, and targeting citizens. While targeting has always relied on some types of research and negotiation of cost-benefit (for example in health screening programmes) (Grier and Kumanyika, 2010), the datafication of the population, and potential to render citizens amenable to algorithmic sorting across all the functions from the state has come to characterize much of contemporary e-government. Controversial computational techniques such risk modelling of particular citizen groups — those likely to commit benefit fraud or commit crime — have been well documented (*e.g.*, Završnik, 2021). The ultimate vision of these techniques recalls a distinctly cybernetic approach to information control in which complex social systems are regulated through adaptive, semi-automated and responsive forms of intervention built into infrastructure, encouraging desired feedback loops and dampening undesirable ones (Savas, 1970). However, questions have been raised about the ethics and efficacy of computational techniques being used to create dynamic nudges in policy and marketing (Yueng, 2017; Nadler and McGuigan, 2018).

The U.K. is an apposite focus for this research — it underwent a particularly intensive engagement with behavioural science in the form of the Nudge unit, a policy unit set up in 2010 to incorporate behavioural insights into the work of all government departments (Halpern, 2015), and behaviour change communications now form a core part of the Government Communication Service practice framework (U.K. Government Communication Service, 2023). The U.K. government's marketing budget was nearly one billion pounds in the most recent year [1]. The U.K. public sector in recent years has been slowly integrating planning based on state statistical data with commercial data-based techniques. However, for nudges based in *communications*, governments — the U.K. state included — now must engage with the rapidly evolving infrastructures of the Internet platforms and the technologies and markets of the targeted advertising ecosystem.

Social media and the Meta ad ecosystem

Government communications have always adapted to the capacities of novel forms of media — and the new digital platforms are no exception. Old and new media business rely in part on selling the use of their infrastructure to third parties to target communications they hope will influence the behaviour of the end-users of these platforms, while the media business tries to capture the attention of citizens (Goldhaber, 1997; Wu, 2018). However, the mechanisms of operation and their affordances — the material design of the infrastructure and its relationship to the user and advertiser — differ significantly from these legacy modes.

We focus on two specific mechanisms (of a wider range) through which Internet platforms provide the capacity for information control and influence. The first constitutes paid communications, or bought attention, where the platform businesses are paid to promote communications to audiences in a conventional advertising model. Some of the paid attention is achieved on the service pages of the main platform (*e.g.*, Google, YouTube, Instagram, TikTok, Amazon), while

much is programmatically purchased on external Web sites and apps (contextual advertising) (Zuboff, 2019). A second mechanism leverages the ability to analyse user behaviour and content to promote paid and organic content to audiences (Boerman, *et al.*, 2017). Algorithmically suggested content and suggested audiences have become some of the most powerful and criticised aspect of modern platforms, particularly exploited by newer platforms like TikTok and in Meta's ad optimisation products (Cohn, 2019). The entire industry is also moving towards ever more computational- and data-intensive methods, which is likely to intensify the push to these automatic approaches (Qin and Jiang, 2019; Rogers, 2021).

In this paper we focus on advertising on Meta's properties — Facebook and Instagram as of 2023 — but while there are important similarities with other services, there are also some important differences — for instance, Google includes search advertising, which can track users' expressed intent via search terms (Thornton, 2018). These are part of an ecosystem that computationally (programmatically, in the jargon of the industry) auctions and delivers ads to every online user interface, both Web sites and apps, drawing data from those sites and providing analytics to site and app controllers in turn to develop their own business.

The core of the Meta advertising and social business is the way it collects information and categorises users through their demographics, interests, behaviours, and location. Some conventional socio-demographic data is declared by users — such as age, gender, politics, relationships, education, and 'life events'. 'Interests' are created from user behaviour online — 'liking' and following pages and posts on Facebook and Instagram — and collected from Web pages [2] and apps that include a Meta tracker (Privacy International, 2018). 'Behaviour' represents interactions on apps and devices, purchases, etc.; and location is either declared or tracked from app and Web site use (Facebook, 2023). Meta also leverages its 'social graph' of the connections between its users. Some of these categories are organic, based on the names of followed pages, hashtags, and other user keywords. Others are created by Meta — they are requested by industry or composited based on Meta's own research and analysis of user behaviour (Cotter, *et al.*, 2021). We set out some of these mechanisms in [Figure 1](#).

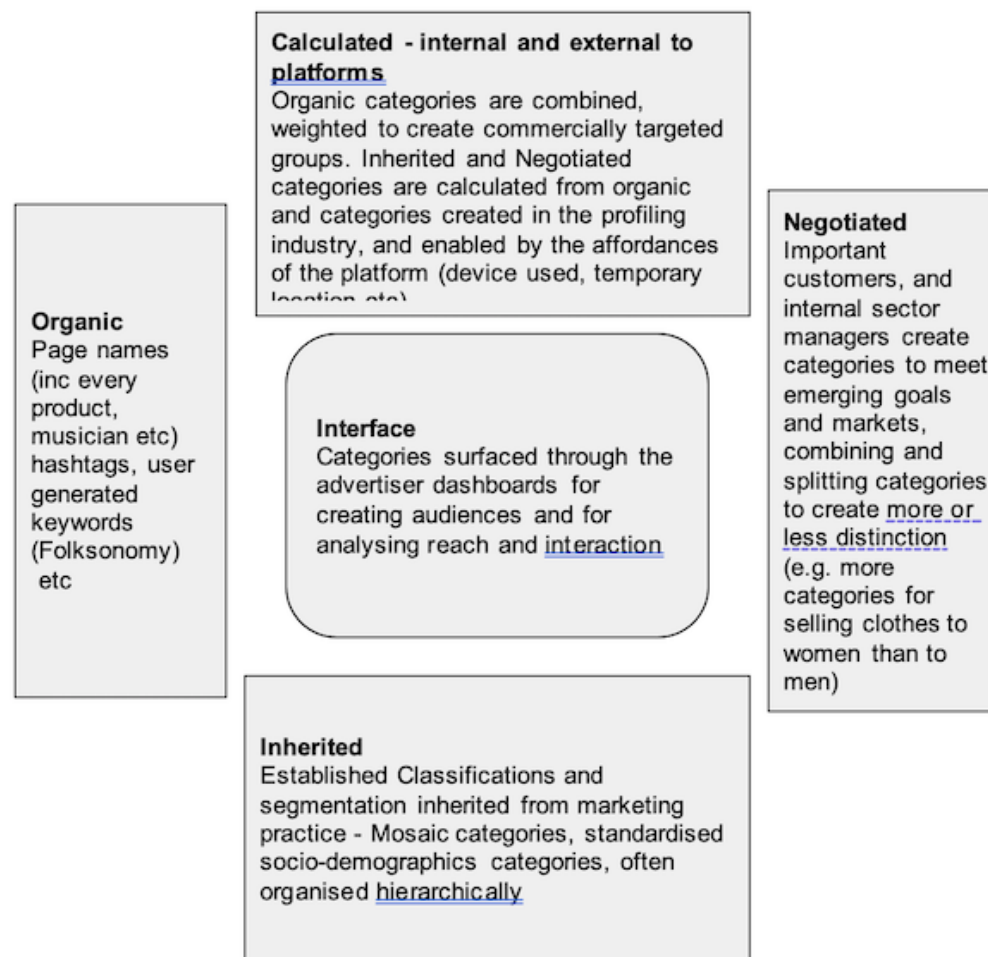


Figure 1: Heterogeneity of categories for targeting.

This business model, often summarised as surveillance capitalism (Zuboff, 2019), allows a move beyond traditional postcode, demographic, and consumption pattern segmentation to tailored campaigns that address people in groups based on detailed behaviours, interests, and real time location data (Cotter, *et al.*, 2021). The mechanisms by which this targeting is facilitated involve a huge intermediary industry of data sources and algorithmic imputation of interests and behaviours (often branded as AI) (van der Vlist and Helmond, 2021). The behavioural-data based targeted advertising approach has been under considerable regulatory scrutiny in recent years (Deshpande, *et al.*, 2022), related to misinformation, political influence (Dommett and Zhu, 2022), public health (Goodwin, 2022), competition (U.K. Competition and Markets Authority, 2020), and privacy (Sartor, *et al.*, 2021). It is also a moving target; the affordances, practices, and regulations are constantly changing. Meta and other ad platforms offer advertisers the possibility to target adverts according to these categories (by inclusion or exclusion of terms) to fulfil specific marketing objectives [3]. The categories are presented in the basic user interface as pre-categorised trees of keywords or by searching for specific terms (see [Figure 1](#)). Audiences can be filtered on including and excluding people based on these categories. On most platforms, exclusionary targeting using direct selection of categories that include protected characteristics (“Muslim”, “gay”) has been significantly reduced in recent years

by filtering thousands of keywords, and platforms continually merge or consolidate categories (Cotter, *et al.*, 2021) [4]. There has been increasing disapproval of targeting directly on multicultural affinity constructs such as ‘African American’.

According to the advertisers’ goals such as building a brand or generating sales leads, ad buyers manually select categories: a simple, broad socio-demographic; a particular interest; or by building up a patchwork combination of categories that represent different interests and behaviours of an imagined audience [5]. Increasingly advertisers use services on the platform that automatically identify audiences most likely to be receptive to the ads to fulfil advertising goals. Advertisers can create ‘custom’ and ‘lookalike’ audiences from existing Page followers or tracked by ‘Meta Pixel’ code on their Web site, or by uploading an encrypted (hashed) list of names of customers, Web site visitors, etc. Meta finds a similar extended audience that will be shown the advert, or recommends targeting based on the success of similar adverts by other advertisers. However, what is ‘similar’ is opaque to buyers. Ads are also re-targeted based on dynamic response to the content (*e.g.*, image analysis), view time and interaction, and may end up being shown to people very different to the original intended audience (a process called ‘optimising’) (Kaplan, *et al.*, 2022). Most commercial advertisers are happy if this leads to more sales, but for government advertisers (and brand managers), this may involve spending money reaching people that a message was never intended for. Currently, some of these additional targeting tools are not available to those advertising for political purposes (Meta, 2022).

The actual placement of ads generally occurs through an auction in which the platform, and potentially a range of other businesses, automatically values the quality of an ad, the potential that a particular person will act on it, and the advertiser’s bid ceiling [6]. There are thus several steps that mean the advertiser cannot be sure in advance who will be shown the ad. The selection of a range of targeting categories is in practice more akin to an AI prompt than a deterministic instruction. Platform and third-party systems measuring user interaction are thus required. Ad buyers are provided with dashboards (Kitchin, *et al.*, 2016) that allow real-time planning, steering, retargeting, and evaluation [7]. Taken together, these constitute the core material infrastructure with which governments and other advertisers must engage to work the levers of information control on Meta platforms.

Unlike more conventional systems that support long-term planning and action, these infrastructures support highly dynamic classification and real-time targeting of adverts. Clear segmentation of the population and known biases are replaced by contingent and fluid clusters. While Cheney-Lippold (2017), for example, suggests that this involves creating “measurable types” — constructing stable ‘identities’ out of our data traces, Sender (2018) suggests that modern marketing moves directly from past behaviour to predicting future behaviour, without even bothering with the complexity of an individual person. While this might be the case in some markets, calculated targeting on identity or behaviour is still only part of the picture: most of the marketing and advertising world still relies on categories developed out of conventional research and established practice, and government policy and communications perhaps even more so.

Power and justice in datafication

The power and justice implications of measurement and classification processes are well theorised (Bouk, 2015), and we can draw on a great deal of recent scholarship that has explored this phenomenon in the contemporary world: the materiality, interests, and structure of a datafied society and its implications for power and justice (Flyverbom and Murray, 2018; Gillespie, 2017). The visibility and legibility of a population have become key to the exercise of power in the modern state and economy (Scott, 1998). Classifications both reflect and perform power (Bowker and Star, 2000), making the population legible to powerful actors (Scott, 1998) by allowing social sorting into subgroups (Gandy, 2021; Lyon, 2003), rendering those groups more or less visible (Mbebe, 2008) and allowing the assignment of risk to those groups by experts for the planning and execution of political, economic, and social programmes. In infrastructure studies accounts, the range of categories built into data systems — and the defaults chosen — stabilise and perform wider epistemic frames and systems of power (Bowker and Star, 2000). These infrastructures have a relatively strong ability to enforce the vision of the world embedded in their material properties and give significant power to those who can install themselves at key points in the network (DeNardis and Musiani, 2016). Although framed around power in technological infrastructures, much of the infrastructure studies literature either resonates with or directly draws from essentially Foucauldian frameworks for understanding the power of states, which is asserted symbolically, claimed directly through the enforcement of territory, materially stabilised through the built infrastructure of societies and their institutions, and underpinned by complex systems of categorisation, knowledge production, discourse, and subjectification (Valverde, 2009).

Discussions on the platform economy and its relationships to state power are now well-established, often framed through the ability of platforms to mobilise their control of core infrastructure to delocalise power from centralised states, enacting their own discursive visions of social subjects (Gillespie, 2017). Considered as

a networked mode of power, platforms, such as Meta, constitute key control points in Internet infrastructure (DeNardis, 2012; Plantin, *et al.*, 2018; Nielsen and Ganter, 2022; York, 2021). These points of passage, such as the interfaces and category systems that drive the ad targeting system, afford them substantial power to permit, deny, and shape the action of those who use these systems (DeNardis, 2012). At a more practical level, the infrastructures and practice of commercial classification and communication mediate the world of government classification and action. Long-term negotiated contracts for placing adverts and stories in the media, involving personal relationships between professionals, is increasingly substituted for anonymous programmatic targeting and buying. However, platforms like Meta are not neutral to public sector advertising and are constantly positioning themselves in a global and evolving (though asymmetrical) media market (Ihlebaek and Sundet, 2023). Platforms have numerous policies and rules often developed in response to government concern over misinformation and harms that apply to government ads, too. These dynamics raise complex issues around the correct balance between government and the private sector in regulating the delivery of communications. Finally, the whole legal basis for targeting adverts using personal data is under scrutiny in the EU. It remains to be seen how U.K. regulation addresses this issue and the potential impact of user opt-out.

We thus have a heterogenous system of ‘knowledges’ about society, with no singular dominant epistemic frame. This might suit contemporary marketing that chases every signal as something to bet on to maximise profits or sales, where experiments can be run, iterated, and abandoned. But how does this fit the requirements of public policy that both attempts to maintain long-term social order and stimulate and cajole the population to make often quite profound changes in their behaviours?

Research questions

Digital advertising platforms give the state potentially radical new capacities for targeting communications and exerting influence. In a previous paper (Collier, *et al.*, 2022), we tentatively introduced the idea of influence government as a novel mode of power in U.K. governance, bringing together the practices and commercial ecologies of strategic marketing, the theoretical frameworks of behaviourist government, and the material infrastructures of digital advertising. Drawing on these frameworks, we have conducted significant empirical research into the spread of these practices in the U.K. This is part of a much wider project, which includes interviews with policy-makers and communications professionals, in-depth analysis of strategy documents, and campaign materials, and mapping the highly developed ecosystem of companies, approaches, and supplementary technologies that have evolved around targeted advertising in the U.K. (Collier, *et al.*, 2023). In this paper, we are primarily interested in how the many different parts of the U.K. state have been attempting to appropriate the capacities of ad targeting infrastructure. Drawing solely on the categories used in these adverts and the content of the adverts themselves, we explore:

1. To what extent are government bodies using Meta advertising? What topics and themes do these campaigns focus on?
2. How are public sector bodies appropriating these tools to target segments of the population?
3. Considering both the targeting and the content of the advert, what modes of government power might these campaigns represent?
4. How do the material features of the platform — namely, the categories available and the defaults, policies, and rationalities that underpin this — shape how the state acts in this space?

We use the Meta Ad Library to represent the outcomes of encounters between different government bodies and the algorithmic technologies of the platforms. By studying these outcomes in depth, and how different actors are trying to appropriate this technology in different ways, we explore the contours of this novel landscape of government communications power.

The Meta Ad Library: Infrastructure and methods

This paper draws primarily on empirical explorations of the Meta Ad Library — a recently released tool that allows researchers an unprecedented level of insight into the back end of the digital targeting ecosystem. Although it provided our empirical source for this project, it is valuable to reflect here not only on the methodological aspects of using this data but also on the role this Ad Library itself plays in governance by and of infrastructure.

The Meta Ad library is the latest iteration of a number of policy changes that have resulted from years of political pressure and legislation concerned with the potential political impact of advertising deliberately intended to destabilise democracies. The revelations that psychographically targeted ads had been distributed using personal data collected on Facebook by Cambridge Analytica and the purchasing of polarising Facebook ads by the Russian Internet Research agency led to intense government and public pressure on Internet platforms. In 2018 and 2019, Facebook [8], Twitter, and Google introduced requirements for advertisers to declare the identity and funding of political ads and started to provide reports and libraries of declared political ads that had been bought on their platforms (Leerssen, *et al.*, 2019). This disclosure also coincided with closure of APIs and Facebook's controversial attacks on researchers using scraping techniques, obliging researchers to register and use specific research APIs (Beraldo, *et al.*, 2021). Twitter [9] and TikTok declared they would not take election-related advertising at all but have struggled to enforce this. For Meta, all advertisers are currently required to register their Page with valid credentials. After the first wave of political advertisers, Meta is now validating and registering government agencies in the U.K., including security and law enforcement. This is an ongoing process, and over the first months of 2023, increasing numbers of government agencies were included. Occasionally the library interface shows a public sector ad being deleted either because it does not include a disclaimer or the advertising Page is not registered in the correct way. What also emerges is the degree to which the government is a major client for their services [10]. While much of this use has been focused on the messaging tools such as Whatsapp or Pages, it also includes marketing and support for paid advertising to engage citizens and attain policy goals.

All advertising is regulated, and the major platforms have a set of policies governing advertising behaviour [11]. However, by the end of 2023, the Meta Ad library is far ahead of the other major platforms in its requiring registration, permitting centralised platform-level auditing and providing research access to ad data, targeting, and impressions via the FORT secure interface [12]. Since the fieldwork for this research, the EU has mandated that these data on political campaigns and targeting be provided open access by all platforms operating in Europe. However, the ads provided by Google and TikTok only cover explicitly political ads — not policy and prevention advertising. Google is beginning to provide complete libraries of all ads being run, and in mid-2023, Tiktok released its open database of all commercial ads and extended a pilot research portal providing more detailed access. Alongside the requirements for transparency, there are several restrictions that apply as a result of sectorial regulations of advertisers in special ad categories: the electoral, political, and social ads, particularly those relating to credit, housing, and employment. The platforms reserve the right to take down ads in these categories and promise to publish the targeting, spending, and impression data for each. Ads registered in these categories are restricted in the use of some of the more advanced targeting techniques, such as uploading customer data and finding lookalike audiences (Meta, 2022).

After a number of iterations and criticisms of the design (*e.g.*, Edelson, 2020; Le Pochat, *et al.*, 2022; Mehta and Erickson, 2022; Scott, 2022), the scope and rigour in detecting political ads and enforcing transparency has slowly improved and also been extended by Meta in particular to include state controlled media and a broader range of organisations advertising on social issues (Rosen, *et al.*, 2019). Nonetheless, the Meta Ad Library as a data source should not be treated as accurate or comprehensive. A researcher can only access data that the platform has chosen to make available or that is generated as part of their business processes. Thus, the library provides a useful minimum, non-exhaustive sample of campaigns run over the past two years by different bodies. The vast computer-based systems which underpin the advertising platforms of companies like Meta are also continually reconfiguring in response to user activity, and the ad library reflects this — categories and inclusion filters are dynamic and so shouldn't be regarded as a 'ground truth' complete record [13]. We would caution against treating the Ad Library as an accurate dataset of purely quantitative analysis. Nonetheless, the Meta Ad library in the U.K. contains what appears to be a much more comprehensive collection of ads delivered and funded by governmental organisations than is currently the case in other countries, where the focus is on ads related to elections and political candidates. From the research perspective, in the U.K. by early 2023, the registration requirements and human and automated checking have resulted in what appears to be a comprehensive database of public sector advertising.

The Ad Library itself presents methodological challenges to researchers. The broader issues of working with datasets provided by platforms (or indeed any organisation) are increasingly well-documented, with platform epistemologies mediated by the partial datasets provided through APIs, platform logics and other biases or lenses (Soares, 2018). Advertisers and ads are being added to the database all the time: while some organisations with registered Pages have advertising histories dating from 2020 (the current database dates from 2020), there are many that have listings that start in January or February 2023. We suspect this is an artefact of the registration process, rather than that these organisations having just started advertising.

The Meta Ad Library [14] consists of two databases with entries for each ad linked by a unique identifier, one database containing information about the ad and its reach, the other about the targeting. Meta provides two public interfaces — the Ad Library, which can be searched by country and keywords used in ads, including by organisation name (registered Facebook Page name), and returns all the ads, copy, spend, potential reach, and actual impression of active and inactive ads related to that keyword or organisation; and the Ad Library Report, which offers a way to range top spending advertisers, search by location, and monitor particular advertisers. The Ad Library API, open to vetted researchers, provides a Jupyter Notebook interface, allowing direct searching of the two databases directly using SQL and processing and export of results; this is accessed through a VPN and runs on a server owned by Meta. We created researcher accounts with Meta to access these tools, which included making an application describing our intended research.

In analysing the data, we first searched a range of U.K. public sector advertisers. The searches were conducted in monthly sweeps on the 20th of the month from January to June 2023. Some generic searches, like NHS (National Health Service) generate a range of local health trusts, national online services, and specialist services. We ran queries based on advertisers paying in GBP (£), with names including ‘Police’, ‘Constabulary’, ‘NHS’, ‘Council’, and ‘Department’, then curated this dataset to remove irrelevant advertisers (such as political campaigns for local council seats). We additionally directly searched the name of every government department, local council, and police force in the U.K. These searches resulted in a dataset of 15,325 adverts from 363 advertisers. We restricted ourselves to a qualitative analysis of adverts to avoid making misleading quantitative claims about the dataset, which we acknowledge is only a partial picture. Relative numbers of ads in the dataset may not reflect higher use by different bodies (instead simply showing ads that have been captured by Meta) and these only reflect advertising on Meta, which is a single platform among many [15].

We analysed the ads to compare different targeting strategies used and selected case studies to provide examples of each targeting approach within a range of different policy areas. Our wider case study on Muslim communities involved listing all the targeting categories present in the dataset, selecting those with a clear link to Muslim cultural identities or religious practices, and then creating a dataset of adverts including any of those categories. For each advert, we have variables describing administrative data (such as the purchaser, time of delivery, length of campaign, total cost of the campaign, and links to the ad record), audience data (basic banded ordinal category data for how many impressions were delivered and the gender, age, and location of audience segments), targeting data (including demographic, language, location, and interest categories chosen) and any additional targeting practices, such as the use of lookalike audiences. We then collated these adverts and conducted further analysis on a qualitative basis, often following up case studies by viewing creative content of the advert directly in the public library. This was conducted in an interdisciplinary team — two members ran the queries and processed the data, while the wider team reviewed case studies and examples.

This process gives us a large number of government adverts and the targeting options chosen. Although this dataset does not tell us how these targeting categories were decided on — or even whether they were selected directly by policy-makers, by communications staff, or by private sector contractors — they give us an immediate material signal of how the ad infrastructure and its embedded categories are being assembled into different material views of particular communities by the state. Despite its limitations, this is unarguably a powerful resource for exploring this strange engagement between private sector infrastructure and the mechanisms of government power. For each advert we present a screenshot of the advert’s entry in the public ad library (showing the advert, when it was run, and statistics for cost and number of impressions) alongside a targeting card summarising the categories selected by the advertiser. Many targeting and advert characteristics are reduced by the platform to categorical variables (*e.g.*, money spent coded as ‘under £100’). The ‘estimated audience size’ refers to the total number of people on Meta platforms which fit the targeting profile selected — who could potentially see the ad. The ad record also includes a unique identifier for the advert and advertiser. For this initial study, we focus our analysis solely on the targeting categories used and the advert itself, exploring the different modes that emerge.

Exploring the landscape of digital targeting in U.K. strategic communications

The Meta dataset reveals large numbers of digital behavioural campaigns being run by public bodies in the U.K. across the full range of policy areas [16]. Solely focusing on publicly funded bodies, we analysed a subset of 15,325 adverts which were run in the U.K. over the last two years, including national and devolved governments, government departments, local councils, enforcement agencies, NHS trusts, police and crime commissioners, and police forces. Each advert relates to a single segment of a campaign — some campaigns use a single segment, others involve hundreds. Following commercial practice, many campaigns used dozens of adverts with slightly different ad copy, graphics, or targeting profiles — so the total number of campaigns in the dataset is rather smaller than the number of adverts. Segment size ranged from adverts targeting less than a hundred to more than a million people; adverts targeted geographies as wide as the whole U.K. and as small as individual postcodes. This is far from the full scope of government advertising in the U.K., missing very large numbers of adverts from private sector and charitable partners, local NHS and care bodies, and other more local delivery groups that have operate to deliver public services under contract. However, we focus on this initial core set to sketch out how targeting is being used.

Our initial finding on examination of these different campaigns was that they are remarkably heterogeneous, used by a wide range of public bodies to very different ends. While some campaigns resemble a digital version of a traditional billboard campaign, others appear far more sophisticated, incorporating fine detail targeting and clear behavioural nudges. As an initial overview, we discuss the different campaign themes present in the dataset — the core topics and types of campaigns for which digital adverts are being used by government. For reasons of space, we give empirical illustration of these themes with reference to

figures in the subsequent two results sections of the paper.

Within the larger review of cases (Collier. *et al.*, 2023) we observe the following communication goals for these campaigns. This is not the policy goal — but reflects the intended ‘function’ of the communication intervention. The first goal constitutes very traditional modes of *transmitting information* to the public — often for policy announcements or changes to services. Within this, we include a set of campaigns that have an explicit *propaganda* aim, attempting to give a positive account of a particular policy or initiative for an essentially political purpose, which includes the legitimisation of government itself. The second set of campaigns reverse this for *information gathering* — soliciting input to community planning, feedback on services or intelligence about social issues or crime problems from the public. We observe a third set of campaigns which focuses on *narratives*, aiming to shape aspects of particular cultures and subcultures which are seen to be linked to policy problems. In some cases, these types have a separate purpose of countering ‘malicious’ narratives being circulated on the same platforms by hostile commercial and political actors — part of a wider central government focus on countering misinformation (U.K. Government Communications Service, 2021). Fourth, there are an increasing number of campaigns with an explicitly *behaviour change* focus — that incorporate direct, targeted nudges to produce a specific behaviour, sometimes with the threat of force. These campaigns are some of the closest to ‘cybernetic forms of communication’ campaigns, though they require substantial human intervention to create the tailoring and targeting, at least for now. And finally, the fifth set of campaigns are deployed to *enforce physical and digital territory*: fencing off locations, deploying deterrence at the border or around a security area, or symbolically asserting a presence on digital platforms.

The scope of different topics is extremely wide, though with some areas of concentration. Some of what we see is the transfer of very classic forms of government communication — largely outreach, information, and awareness raising about changes in the law, the launch of new initiatives, government schemes people can benefit from, or invitations to public outreach sessions. A number of examples of these more traditional government campaigns are provided in subsequent sections; we note particularly Figures 3, 5, 6, and 14 as examples. These campaigns, although sometimes using invasive and novel forms of digital targeting, have clearly been conducted as a digital version of a traditional campaign.

In others, we observe public bodies more obviously reacting to the novel opportunities provided by the platform — especially the use of fine-detail location and behavioural targeting. These campaigns use industry-standard strategic approaches to marketing and attempt to have a more direct impact on the behaviour of citizens. Where behaviour-change campaigns are concerned, the dataset has some areas of thematic concentration. Within law enforcement topics (which are generally over-represented) there is a focus on gender-based violence (see Figure 2), wider serious violence and knife crime — areas of either increased public debate or where there is a well-established prevention effort underway. In wider government, we observe behavioural campaigns seeking to nudge energy and sustainable transport behaviours or in concert with wider changes to welfare (see Figures 3, 5, and 10). There are particularly large numbers of health campaigns - especially around vaccination and COVID behaviours (Figures 11 to 15). Finally, we see a range of online harms-focused campaigns that target novel threats, such as misinformation and emerging forms of digital fraud, radicalisation, and grooming. In general, these campaigns are reacting to strategic priorities, often with a timely, digital, or novel focus — or are in areas where preventative or behaviour change policy strategies are already well-established.

Targeting as a mode of citizen segmentation

As this paper is primarily concerned with the appropriation (Sørensen, 1996; Williams. *et al.*, 2005) of digital targeting mechanisms and the use of targeting categories provided by Meta, we structure the rest of this section around the different targeting approaches that we have found in our empirical results. Concretely, we observe six main ways in which the public sector has been appropriating these technologies. First, we discuss the use of *demographic* approaches, *location-based* targeting, and *basic interest* targeting. We then cover more advanced modes that create complex *patchwork profiles* to reach more specific communities — including *behaviour and interest* patchwork profiles, *location* based patchwork profiles, and *lookalike* targeting.

Basic demographic targeting

The first set of ads we cover appropriate the functions of Meta’s platform in the most basic possible way, using very simple demographic targeting. Almost all campaigns used some form of age-based targeting, with many segmenting by gender. In Figure 2), for example, a Violence Against Women and Girls campaign targets young adult men in England and Wales.

Gender	Male
Age	16-39
Location	England, Wales

Figure 2: U.K. Government ‘Enough’ gender-based violence campaign and targeting card.

This is a very simple and long-standing method of targeting, used for broad national campaigns with a large, intended audience. Targeting here is used to focus the campaign on relevant groups — in this case, younger men. However, the aim is clearly not to solely deliver the campaign to a small target group — instead being part of a wider cultural conversation. For these simpler campaigns, the Meta platform provides a very broad segmentation tool — however, as can be seen in [Figure 2](#), this very large audience results in a very small number of impressions (only four to five thousand) due to the economics of ad auctions (where larger audiences have more competition for display and so a higher bid is required to show the ad). We note that some key demographic categories that governments routinely use in policy-making are not available on Meta for use in ad targeting — such as self-declared ethnicity and sexuality.

Location-based targeting

Further campaigns complement demographic targeting with lower-level geographic segmentation. At this stage, the platform tools become more complex, with many different kinds of geography available and used (from particular cities and regions to districts and postcode-level areas). A very common use targets certain cities, often restricting the ad to the area for which the advertiser (such as a local council or police force) is responsible. [Figure 3](#) shows a campaign for ‘heat banks’ targeting elderly people in the city of Manchester, with additional targeting focusing on particular areas.

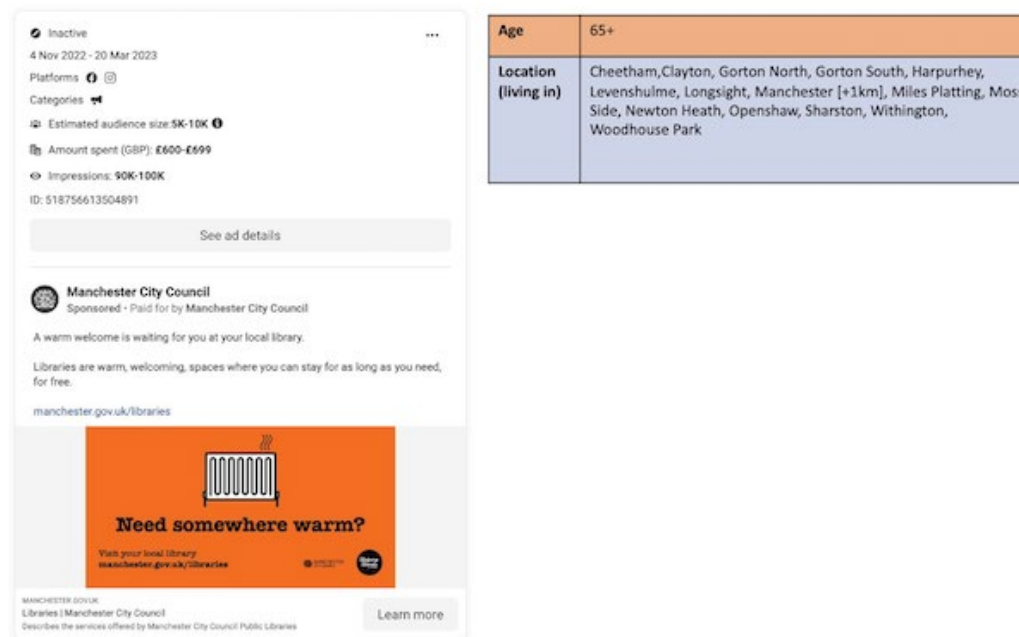


Figure 3: Manchester Council heat bank campaign and targeting card.

These geographic targeting options allow the further restriction of adverts to relevant populations — in this case by geography — and provide tools for users to sculpt the terrain of digital information interventions to match the boundaries and localities of the landscape of government power at the local level. There is also an economic function: more specific targeting enables much higher display. Compared to the campaign in [Figure 2](#), the Manchester campaign ([Figure 3](#)) achieved 90 to 100k impressions on an audience of only five to 10k people.

An example of more low-level targeting using location is given in [Figure 4](#) — a Metropolitan Police campaign. This targets individual areas of London using postcode districts, with different adverts referencing specific concerns raised by the public through local police and public confidence surveys carried out in each area.

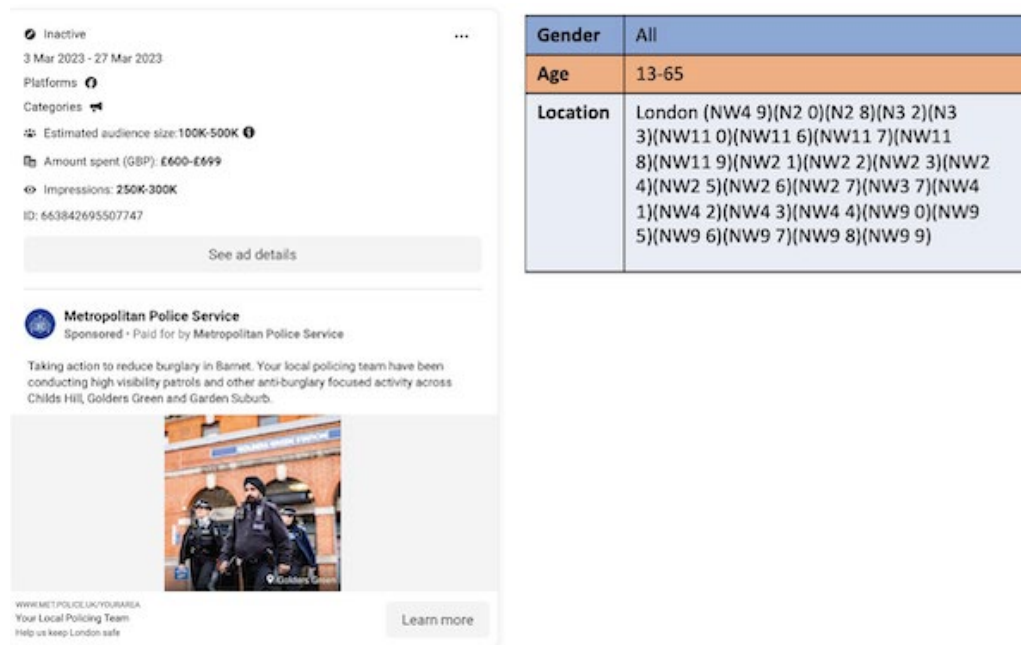


Figure 4: Metropolitan Police reassurance campaign and targeting card.

Here, the police have co-ordinated another source of data — operational data from community policing and outreach efforts recording issues that people are worried about locally — and targeted on this basis using postcode as a standardisation tool. In this campaign, the advert has a dual focus: to visually project the symbolic image of the police, on one hand, to reassure the public, and on the other, to attempt to deter crime and claim territory.

Basic interest-based targeting and segmentation

The above campaigns based on simple location and demographics account for much of the advertising on Meta. On top of this, however, many campaigns overlay interest and behavioural targeting to further address particular demographic communities. These often use simple targeting to create segments that directly reflect different groups of interest to government — particularly, parents or the unemployed. Even this basic use of interest targeting can still involve some creativity. In [Figure 5](https://www.gov.uk/government/organisations/department-for-levelling-up-housing-and-communities), a campaign by the U.K. Department for Levelling Up, Housing and Communities (<https://www.gov.uk/government/organisations/department-for-levelling-up-housing-and-communities>) encouraging people to make complaints about sub-standard social housing, the advert is clearly targeted using age, parental status, and work status at parents who are currently unemployed to reach a ‘likely living in social housing’ audience. However, the interest categories reveal a further element — those who are actively looking at DIY content — which may suggest that their home is in disrepair (and hence that they have a valid complaint about their social housing landlord).

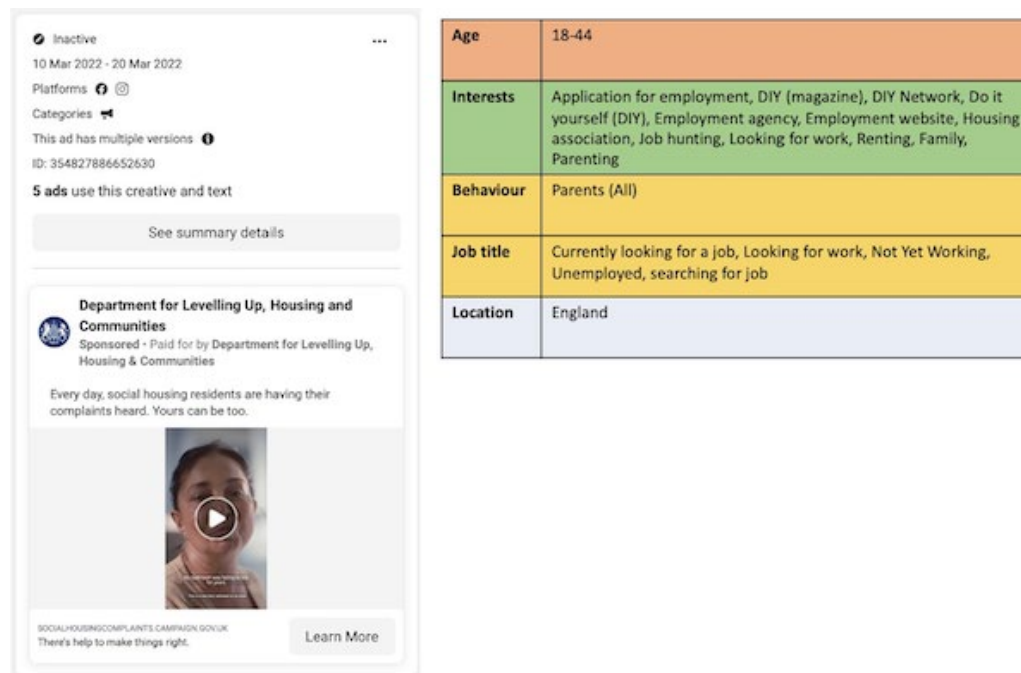


Figure 5: Social Housing campaign advert and targeting card.

Patchwork profiles — Interests and behaviours

As we have shown, the targeting modes used vary significantly between campaigns, with some targeting very simple demographic segments in the U.K. (such as all men over 30 in a particular area), and others using more involved behaviour- and interest-based targeting. Where behaviours align directly with commercial interests — for example, targeting messages at parents or those with an interest in DIY — we see strong alignment with the default features of the targeting platform, and so few categories are needed. However, commonly campaigns build far more complex profiles by combining a large number of interest sub-categories for inclusion and exclusion. This is especially the case where the target group is one in whom the commercial advertisers for whom the platform was designed are unlikely to be interested or where a sensitive category of interest, such as ethnicity or sexuality, has been prohibited or removed by the platform. In other cases, it is clear from the categories themselves that other sources of research — from marketing consultancies, administrative sources, commissioned research, or internal studies — are being used.

Since early 2022, Facebook has explicitly prohibited targeting based on a range of sensitive personal characteristics — most notably, self-identified ethnicity. However, government often has legitimate (or apparently legitimate) reasons for targeting particular groups — including by ethnicity, religion, or sexuality — in its capacity for delivering support. In these cases, we see the state advertisers combining large numbers of interest, demographic, location, and behavioural categories into bespoke segments (especially where direct sensitive category targeting is now disallowed — health, race and ethnicity, political affiliation, religion, and sexual orientation, etc.). We call these patchwork profiles.

An example of these profiles, targeting on interests, can be found in [Figure 6](#). This refers to a campaign seeking participation in an event with local police and council leaders regarding hate crime. The targeting combines many different interest categories relating to Muslim identity. As can be seen, this profile uses not only inclusions but also exclusions to create its segment — in this case, to remove people interested in the U.S. far right and various behaviours (such as drinking or gambling). We refer to this campaign in our subsequent case study section. Location data here is used simply to restrict the advert to the relevant council area — a more traditional approach.

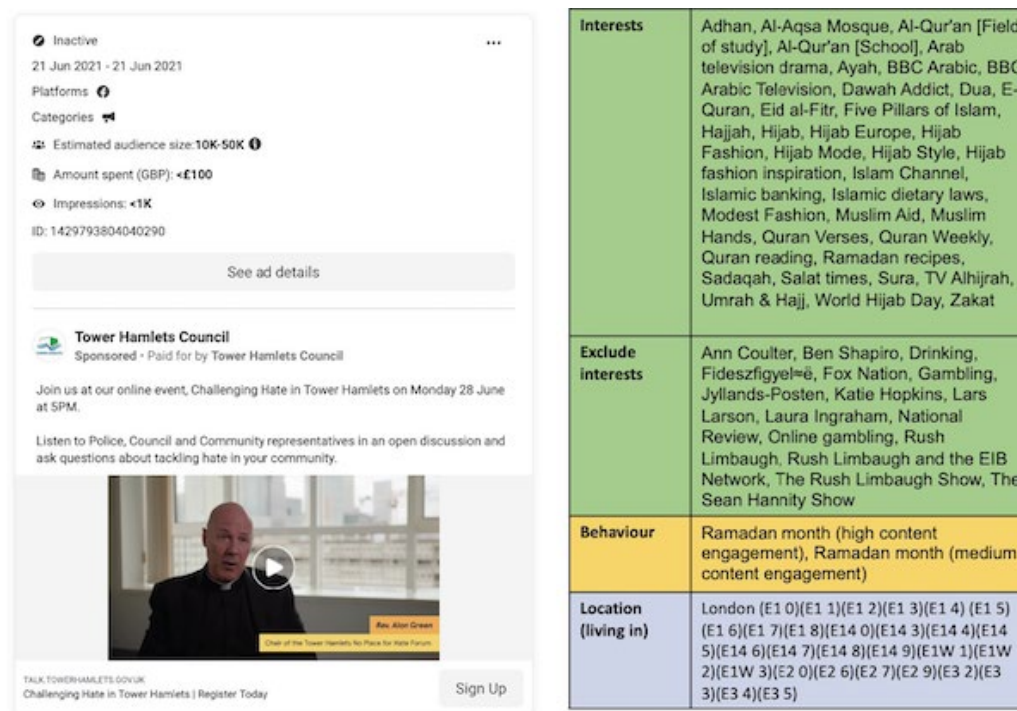


Figure 6: Tower Hamlets Council hate crime engagement campaign and targeting card.

The patchwork profile used in [Figure 6](#) — the Tower Hamlets campaign — also includes a behavioural targeting component that could be argued as extremely invasive. This is ‘Ramadan month (high content engagement)’ — an example of Meta’s extensive behavioural surveillance infrastructure, which is created by detecting how much users engage with content online during Ramadan, and generating from this a category that can be used as a proxy for Muslim identity.

Patchwork profiles — Locations

In addition to using interests and behaviours to approximate protected categories, the state is able to make use of other forms of data — including location — to create patchwork targets on the basis of categories like ethnicity. [Figure 7](#) shows a series of recruitment ads for security services, which used both location targeting and targeting based on the universities at which the audience were registered:

Inactive ...

23 Mar 2021 - 24 Mar 2021

Platforms

Categories

Estimated audience size: 10K-50K

Amount spent (GBP): <€100

Impressions: 1K-2K

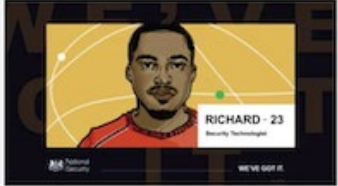
This ad has multiple versions

ID: 494495981705956

See ad details

UK government
Sponsored · Paid for by UK Government

When it comes to security, we are at the cutting edge. Roles for the digital-savvy, we've got it.



GOV.UK/TRADER/SUPPORTSERVICE
WE'VE GOT IT
Careers in National Security

[Learn More](#)

Gender	All
Age	22-54
School	Aston University, Birmingham City University, City University London, Coventry University, De Montfort University Leicester (DMU), King's College London, Lancaster University, Leeds Beckett University, Leeds Trinity University, London Metropolitan University, Loughborough University, Manchester Metropolitan University, Newcastle University, Queen Mary University of London, SOAS University of London, The University of Manchester, The University of Sheffield, University of Bradford, University of East London, University of Hull, University of Leeds, University of Leicester, University of Lincoln, University of Liverpool, University of Nottingham
Location	Barking (IG11 0){(IG11 7), Birmingham (B18 5){(B18 7){(B19 2){(B19 3){(B4 7){(B6 5){(B7 5), Bristol (BS2 9){(BS5 0), Croydon (CR0 2), Erith, Greenwich (DA18 4), Leicester (LE1 2), Liverpool (L8 2), London (E16 3){(E16 4){(E5 8){(E9 5){(E9 6){(N15 4){(N15 5){(N17 0){(N17 6){(N17 8){(N18 2){(N7 9){(N9 0){(N9 7){(N9 8){(NW10 0){(NW10 4){(NW10 8){(NW10 9){(NW6 5){(SE1 6){(SE13 6){(SE14 5){(SE14 6){(SE15 1){(SE15 2){(SE15 3){(SE15 4){(SE15 5){(SE15 6){(SE17 1){(SE17 2){(SE17 3){(SE18 5){(SE2 9){(SE25 4){(SE25 5){(SE25 6){(SE28 0){(SE28 8){(SE4 2){(SE5 0){(SE5 7){(SE5 9){(SE6 1){(SE6 2){(SE6 4){(SE8 3){(SE8 4){(SE8 5){(SW2 1){(SW9 8), Manchester (M14 4){(M16 7), Mitcham, Bromley (CR4 1), Sutton in Ashfield (NG17 6), Thornton Heath, Bromley (CR7 6){(CR7 7){(CR7 8)

Figure 7: Intelligence Services recruitment campaign and targeting.

The adverts (which ran for a single day — 23 March 2021) featured predominantly young Black British people and were clearly targeted at small areas of cities with a large Black community; this shows that these adverts have the capacity for (and are being used for) targeting based on ethnicity via postcode alone (two postcode areas having been combined here to overlap the entirety of the Mossdale area of Manchester). Although the advert audience size appears large in absolute terms — ten- to fifty-thousand people — in practice it was extremely finely targeted.

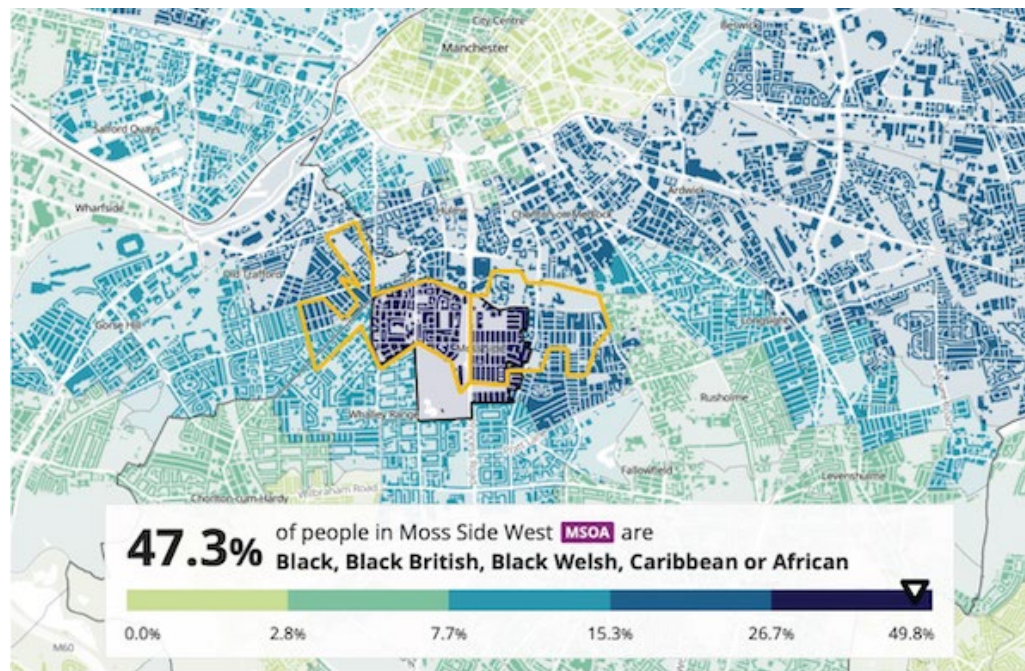


Figure 8: Manchester postcode districts M14 4 and M16 7 overlaid on Census ethnicity statistics from 2021 (screenshot from <https://www.ons.gov.uk/census/maps/choropleth/identity>).

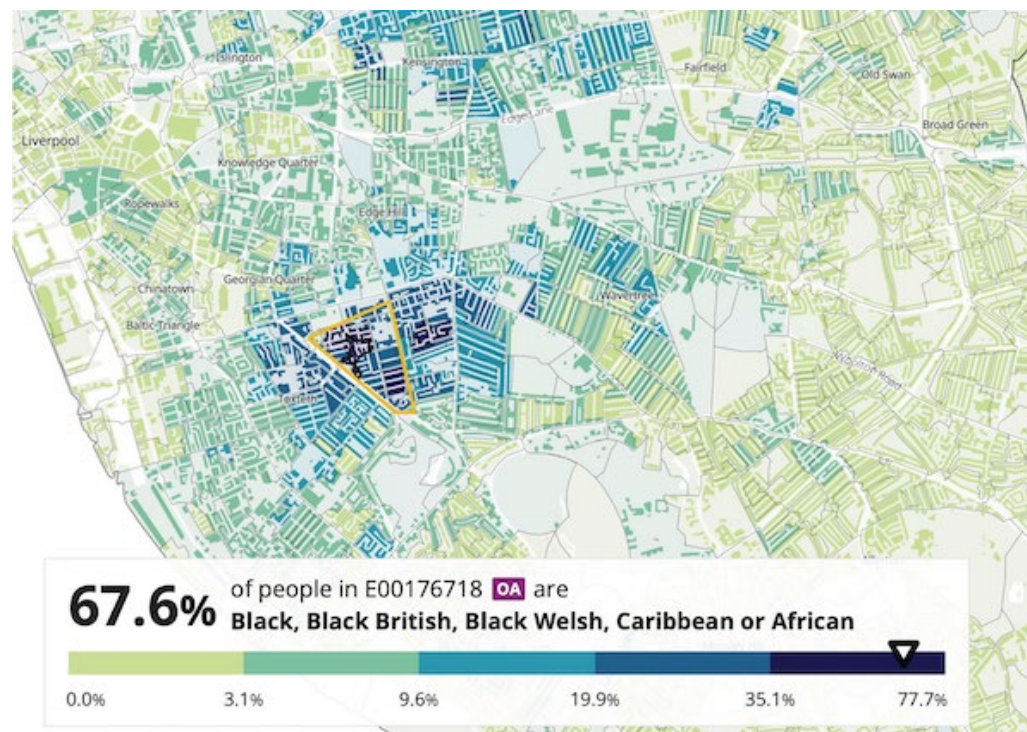


Figure 9: Liverpool postcode district L8 2 overlaid on Census ethnicity statistics from 2021 (screenshot from <https://www.ons.gov.uk/census/maps/choropleth/identity>).

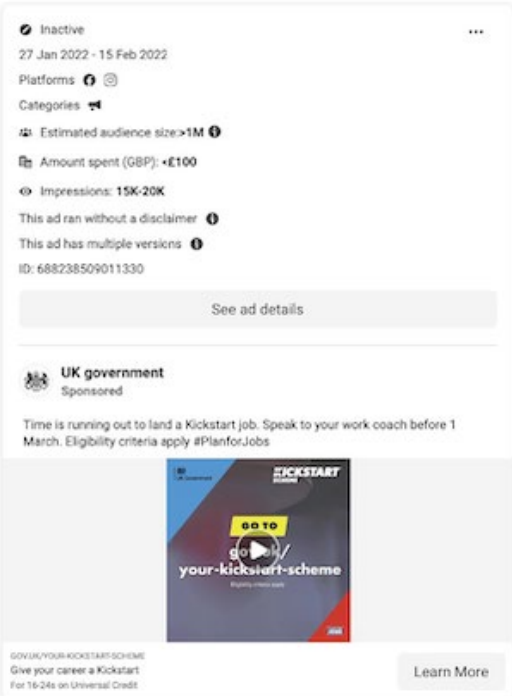
In this case, an external dataset created directly by the state — the Census — has been used to circumvent the platform’s restrictions on targeting via ethnicity. By co-ordinating this dataset to the targeting infrastructure, using postcode as an intermediating standard, the state can create its own bespoke profiles.

Case study: (Re)constructing Muslim communities through Meta

Our early investigations of this dataset provide glimpses of how different parts of the state attempt to construct — via an assemblage of intermediaries, categories, data sources, practices, and private media buying agencies — particular social groups of interest for targeting. For this final empirical section, we focus on a community sharing a single protected characteristic on which Meta policy does not allow direct targeting: Muslim religious identity. Despite this policy, a vast range of secondary interest and behaviour characteristics are used by advertisers to reconstruct a Muslim audience; this provides a unique opportunity to compare the choices of categories from the large set of options which government bodies use for this purpose, granting an insight into their own constructions and ideas of Muslim publics. We explore how different state bodies have attempted to reach people of Muslim faith (sometimes as part of a wider target group, especially ethnic minorities) using the affordances of the targeting system.

First, we can compare the kinds of profiles used by U.K. and Scottish Government to target a Muslim audience. These relatively complex profiles synthesise a range of behavioural aspects into patchwork profiles, and both clearly incorporate multiple different groups, of which Muslim citizens are only one part. While

the U.K. focuses on diaspora national identities and religion (including markers for other faiths alongside Islam), the Scottish Government campaign incorporates more civic aspects (such as charities) though also includes some behavioural categories around religious practice, and is more directly focused on a solely Muslim audience. Some of this variation may be due to distinctive national approaches to targeting — others, due to the different topics of the two campaigns.



Age	18-24
Interests	Afro-textured hair, Bangladesh Cricket, Boonaa Mohammed, Eid al-Fitr, Evangelicalism, Glossary of Islam, God in Islam, Hinduism, India national cricket, Jumia, Muslimah Sholehah, Pakistan national cricket team, Pentecostalism, Popcaan, Ramadan (calendar month), SB.TV, Safaricom, Sizzla, West Indies cricket team, Wizkid (musician), Yasmin Mogahed
Behaviour	Parents with adult children (18-26 years), Parents with teenagers (13-17 years)
Lived in	Bangladesh, Ghana, India, Jamaica, Mexico, Nigeria, Philippines, Senegal, South Africa, Uganda, Zimbabwe
Location	UK (Excluding Northern Ireland)

Figure 10: U.K. Government Kickstart scheme advert and targeting card.

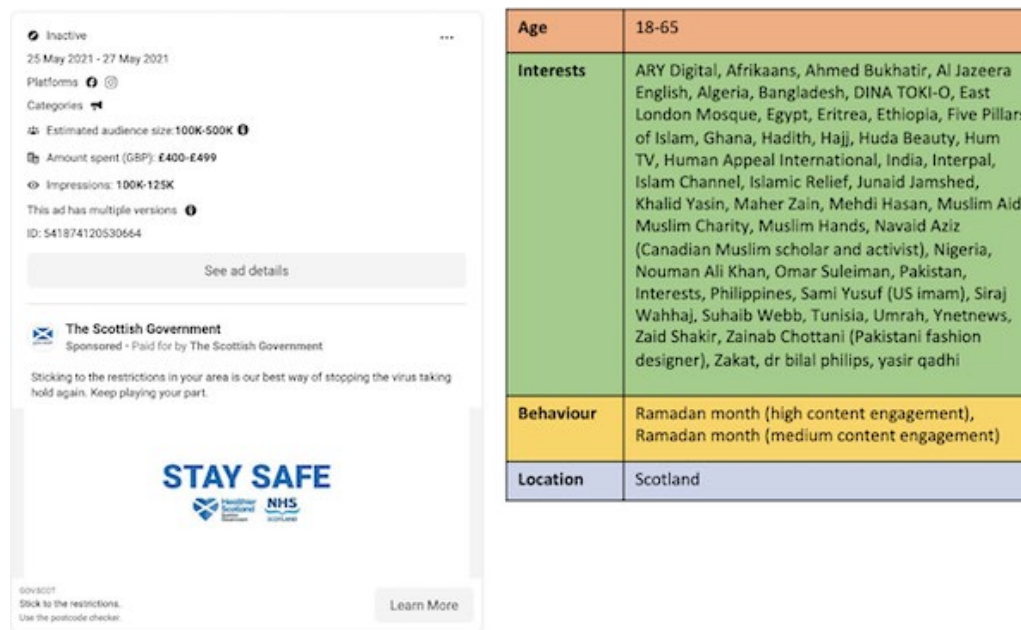



Figure 11: Scottish Government COVID restrictions advert and targeting card.

We can also observe clear differences between different local councils (Figures 12 to 14), which have some overlaps with the central government categories used but vary widely in sophistication and detail. The first two profiles (Figures 12 and 13) are very similar, while Figure 6 in the previous section, the campaign by Tower Hamlets Council, is a clear patchwork profile. While some focus on Islamic theology and practice, others have a wider cultural focus, including food and fashion as well as religion.

Inactive
9 Apr 2021 - 28 Apr 2021
Platforms
Categories
Estimated audience size: 10K-50K
Amount spent (GBP): <£100
Impressions: <1K
This ad ran without a disclaimer
This ad has multiple versions
ID: 215899200295057

See ad details

Luton Council
Sponsored



LUTON GOV.UK Learn More

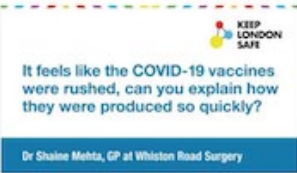
Age	18-65+
Interests	Glossary of Islam, Hafiz (Quran), Muslim world, Quran reading
Location (living in)	Luton

Figure 12: Luton Council COVID-19 vaccination campaign and targeting card.

Inactive
8 Apr 2021 - 23 Apr 2021
Platforms
Categories
Estimated audience size: 5K-10K
Amount spent (GBP): <£100
Impressions: <1K
This ad ran without a disclaimer
This ad has multiple versions
ID: 202658484635955

See ad details

Hackney Council
Sponsored



HACKNEY GOV.UK Learn More

Age	18-65+
Interests	Glossary of Islam, Hafiz (Quran), Islamic calendar, Islamic theology, Muslim world
Location (living in)	London [E1 6][E10 5][E10 7][E15 2][E17 7][E2 7][E2 8][E2 9][E5 0][E5 8][E5 9][E8 1][E8 2][E8 3][E8 4][E9 5][E9 6][E9 7][EC1V 1][EC1V 2][EC1V 9][EC2A 2][EC2A 3][EC2A 4][EC2M 2][EC2M 3][N1 3][N1 4][N1 5][N1 6][N1 7][N1 8][N1 8][N15 6][N16 0][N16 5][N16 6][N16 7][N16 8][N16 9][N4 1][N4 2][N5 2]

Figure 13: Hackney Council COVID-19 vaccination campaign and targeting card.

Although the Luton and Hackney campaigns both address vaccine hesitancy, they do so in different ways. The Luton campaign interviews various cricketers who have had the vaccine, while the Hackney campaign (which relies on postcode targeting as well) instead takes a specific misinformation narrative and counters it in depth with an interview with a local GP. The use of these approaches by the National Health Service appears radically different again. Though they vary in detail, in both of the selected NHS example campaigns (Figures 14 and 15), Muslim identity is subsumed in a chaotic mix of superimposed cultural constructions.

Age	18-26
Interests	Buddhism, Buddhist studies, Hindu philosophy, Hinduism, Islamic studies, Islamism, Judaism, LGBT community, LGBT culture, LGBT social movements, Muslim holidays, Muslim world, Sikh scriptures, Sikhism
Location (living in)	Southport

Figure 14: Southport NHS survey campaign and targeting card.

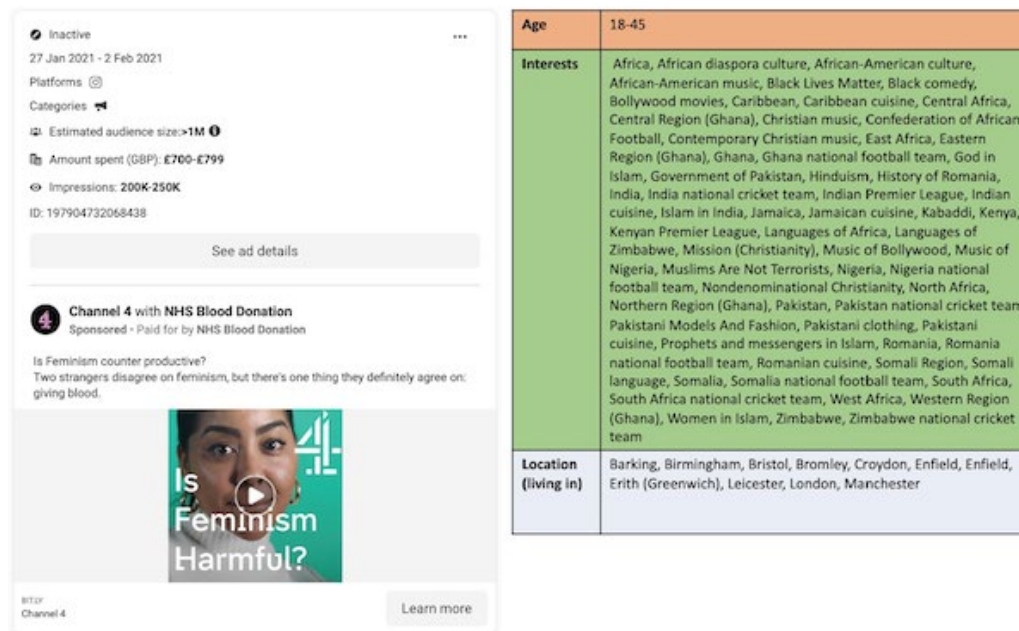


Figure 15: NHS Blood Donation campaign and targeting card.

Finally, we conclude with a particularly stark example of poor ethical practice. At the time of writing in the U.K., migration policy is currently a focus of significant media and political attention coalescing around the issue of small boat crossings of refugees across the Channel and the housing of refugees making asylum claims within the U.K. (Davies, *et al.*, 2021). The U.K. Home Office has combined an extremely authoritarian and restrictive asylum policy regime (which closes off almost all legal migration routes to refugees) with behavioural advertising. This targets refugees in Belgium and France seeking to cross the Channel with messages emphasizing the danger of the crossing and with the threat of coercive power, the intention to imprison them if caught. The delivery of this campaign was particularly complex — involving more than 600 segments across a range of languages, with different copy and targeting approaches for each, running in waves. This approach is much closer to the cybernetic ideal of behavioural government — not through narratives, but direct messages intended to activate a behavioural response and increase perception of danger.

As an example, a single segment in this campaign, aiming to create the ‘refugee trying to get to the U.K. from Europe’ can be seen in [Figure 16](#).

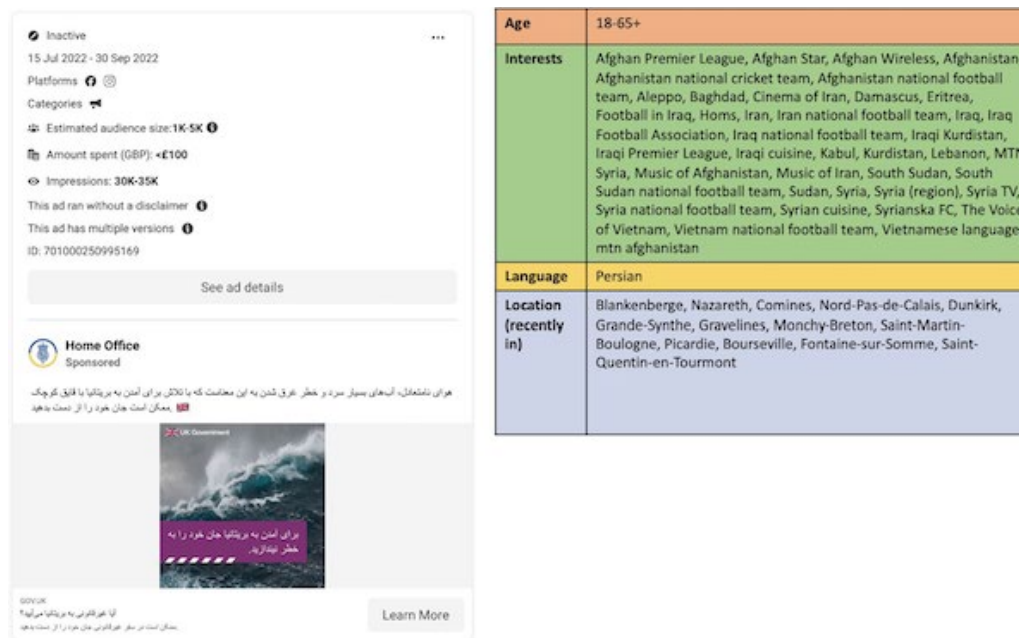


Figure 16: Home Office anti-refugee deterrence campaign and targeting card.

This patchwork profile combines location and interests, ‘away from family’ and ‘away from hometown’ behaviours. But these heavily targeted segments ran alongside much wider profiles; for comparison, another advert in the same campaign targeted all Arabic speakers who had been ‘recently in’ Brussels. This ad was delivered to large numbers of people clearly outside the target group who had recently visited Brussels, presumably for holiday or business, in locations as diverse as Oman and Bangladesh [17].

As can be seen, these different public institutions use very different aspects of behaviour, belief, and identity to attempt to reach Muslims in the U.K. Creating decodings and reconstructions of U.K. Muslim identity as built up through traces left by online behaviour. Some of these foreground religious belief and practices, including engagement with theological content, interest in particular religious centres, and, most strikingly and invasively, increased online activity during Ramadan (although this is a feature of Muslim life heavily used by advertisers and facilitated by Meta [18]). Others address a Muslim cultural identity through food, music, sports, and clothes. Some explicitly incorporate a more politicised identity, while others focus on country of origin as a marker. Some are short and fairly simple — a single direct proxy for Muslim identity read-off directly from the platform — and others build in a range of behaviours and beliefs. However, what is striking is the flatness and exclusivity of these constructions, despite their apparent complexity; there is little space for non-religiously observant Muslims or those whose primary cultural identification differs from the norm imagined by the state and marketing professionals. Many of the patchwork profiles induce an odd blurring effect, where two or more profiles (often for very different social groups) have clearly been merged.

Finally, we should note that many of these state campaigns, including the Home Office’s refugee campaign, have been blocked or taken down by Meta, often because they did not identify themselves as political or issue ads. This suggests that Meta themselves are still playing an important structural role in modulating some aspects of how government use these ads beyond the categories themselves, through takedowns, restricting views based on ad quality and running the auctions.

Discussion

Having established the current scope and emerging practice of online advertising by the U.K. public sector, we turn to the modes of government power that these campaigns might represent and what can we tentatively say about the role of the material features of the specific platforms in shaping how the state acts in this space — the way this power is moderated and mediated by the ad infrastructures (Gillespie, 2017). We focus first on how we see the state attempting to appropriate these platforms to exert power, then on the balance of power between nation state users and the platforms themselves.

It is tempting to describe government adoption of AdTech targeting mechanisms by reading the values written in the infrastructure as reflecting an essentially cybernetic vision of society, with power operating through reaction, feedback, and autopoiesis (Reijers, *et al.*, 2023). Platforms allow the articulation and delocalisation of the network power of the state through contemporary digital infrastructures. Imagined as a pathway to automated generation and optimisation of content, repeated feedback, and finer-grained targeting suggests a move beyond the monolithic message of the traditional brand or government department to one which is agile and individualised. But in practice, we observe something rather different — an apparently *ad hoc* and fluid mix of different modes of power and categorisation as suggested above. Rather than the straightforward performance of the rationalities and categories stabilised within the infrastructures of the state, commercial marketing, or ad platforms, we find instead the targeted advertising platforms acting as a site around which a large ecosystem of actors are involved in a distributed process of experiment, social learning and action, only weakly under the guidance of centrally identified best practice and rules of government communication, permitting the state to exert social power in fairly diverse modes — within which only small glimpses of a cybernetic rationality can be seen.

The goals of these campaigns are not easily-separated from the groups they attempt to reach and how they are constructed. The ability to target and reach particular population groups defined by age, ethnicity, and location is intimately linked to the attempts to exert power or govern subgroups of the population (Guyan, 2022). While some targeting approaches may be a strategy associated with bureaucratic efficiency, designed to ensure that ads win auctions and are shown economically to relevant people (*e.g.*, ads shown to carers and parents of young children about a change in the law), others appear as attempts to shape the narrative environment and influence behaviour. Additionally, the infrastructure is being used to extend the supportive and coercive functions of government to the ‘hard to reach’ groups to whom the state has historically struggled to communicate through conventional means. However, this approach requires the reconstitution of these groups so they can be seen and reached through ad infrastructures. Materially, categories surfaced dynamically by online behaviour (however flawed) are being used as primary markers for state interventions. There is a re-sorting (Gandy, 2021) to re-identify through the categories of the ad platform who counts as a member of a community, and hence, who is exposed to these exercises of government power. Some who might benefit from these messages — through support schemes, for example — will not see them if they don’t fit the profile (or if they turn off ad customisation). Others will be exposed to messages simply because of the cultural interests they share with the target group. Some will be hyper-exposed to these adverts, and some will be missed entirely. This re-sorting raises empirical questions of how these aggregations of categories might themselves prove performative, reproducing themselves as publics who have been exposed to very different forms of government communication power (Mason, *et al.*, 2015). Rather than the relatively static categories of traditional segmentation, these are chaotic, partial and constantly changing.


But these advertisers — including the state — do not simply take the categories as received. Just as commercial and political advertisers have struggled over the years to find ways to make sense of and appropriate the enormous and diverse set of signals that digital citizens leave in the digital infrastructures, government communications professionals, and their private sector partners are going through the same process of social learning. Communications and marketing professionals need to de-code the categories, meanings, and behaviours they represent as proxy signals, and re-assemble them in line with their own knowledge of the groups they seek to target. In circumventing the material restrictions of the platform, state bodies follow commercial practice in building up patchwork profiles out of the micro-categories provided, this time driven by policy, not business goals. Public sector actors can mobilise considerable exogenous resources — an external material network of government and commercial data sources, money, a corporate supplier ecosystem, paid marketing professionals, and time — to appropriate the system to their needs. Rather than retaining a commercial or neoliberal logic, the categories are very plastic and not solely built from consumer behaviour; users of the Internet do not solely create signals via purchasing products but act as reasonably authentic cultural and economic citizens, interacting with a diversity of non-commercial cultural material and networks.

Thus, the power engagements between platform and state mobilise aspects of both category and network modes of power together. The ad targeting system we have studied could be seen as a network fully centralised around Meta. In this model, the targeting categories and the interfaces that activate them mediate access to Meta’s vast network of surveillance and communications delivery technologies (DeNardis, 2012). The ecosystem of private marketing consultancies and providers, long used by government for social marketing, allows them to create their own intimate cultural and behavioural profiles of sensitive groups — allowing, much as any other marketer, the creation of complex proxy profiles. Through this co-ordination of categories, state bodies and the platform together create new networked spaces through which power can be exerted; as an extremely powerful advertiser, the government has substantial sway to negotiate with

the platform what categories become and remain available. The older ways in which states see their citizens, such as the Census or its own administrative data from services, data standards such as postcodes and zip codes become another way of connecting the ad infrastructure up to wider networks of epistemic power that allow the state's own infrastructures of data collection — and ultimately, its own category systems and profiles — to coordinate with those of Meta. Rather than a full recentring of the network around the state and away from the platform, we argue this instead is progressively binding the two closer together — as their interfaces and systems seek out points of connection and control.

Conclusion

We have begun to fill an important gap in the literature related to both government communication and governance modes and the use and impact of Internet platforms. As an exercise in infrastructural power or governing through infrastructure, the targeted ads ecosystem provides a fascinating view into the state's attempts to reconstruct and exert power over its citizens. Although the practices we discuss have their roots in very old approaches to governance, these tentative steps at reconfiguring them for digital societies suggests radically novel modes of emerging power. Contesting a static view of a material network of control points or a directly performative infrastructure, we instead find that the state has retained a profound capacity to co-ordinate its own networks of power, categories and data to build messy approximations of citizen groups as patchwork profiles — demonstrating the intimacy and plasticity of these category systems. The new capacities this gives the state for shaping the public are sobering — however, at present, we see little evidence of a seductive hegemonic project or totalising cybernetic governance. Instead, we see a heterogeneous melange of approaches, exactly as one might expect in an emergent phase before successful models have been stabilised.

We have focused on the topics, models, and targeting methods used by these adverts — which are indeed important aspects of material cultural power. Our future research, as well as further exploring this dataset, proposes speaking to the creatives who design these adverts, exploring the international spread of these approaches and wider investigation of this developing mode of power. The richness and depth of this data show the possibilities for these libraries to be a crucial vehicle for accountability and transparency. Although Meta has led these efforts, it is clear that the public needs these libraries for all platforms. We only looked at a single platform here, but Snapchat, X.com (formerly Twitter), Google, Tiktok, Amazon, and Microsoft are all players, as are the smaller platforms, such as dating apps, which are crucial to accessing younger audiences and are actively used by the U.K. government as well. Much of the advertising that we studied was strikingly old-fashioned, based on staid assumptions about stereotyped social groups underlying apparently sophisticated behavioural targeting. There is also little to no evidence that these communications do produce their intended effects. But this doesn't necessarily matter — the use of these systems by government is itself an attempt to exercise power and to reterritorialize the Internet. 

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Notes

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3. <https://www.facebook.com/business/ads/ad-targeting>.
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15. U.K. Office of Communications (Ofcom) (2023), Use of online communication platforms — Total U.K. population (16–24 year olds): Facebook, 77% (69%), and Instagram 57%, (91%). Tiktok 42% (85%), Snapchat 34% (88%). Snapchat and TikTok are the main social media platforms for 16–24. These figures do not show how often someone might open the app or length of time using.
16. The Ad Library only contains ads post Aug 2020, and appears that new material is being added all the time from the closed database — so any figures and examples give are only valid on the date cited.
17. We discuss this in more depth in an article for *New Lines Magazine* at <https://newlinesmag.com/reportage/the-uk-uses-targeted-facebook-ads-to-deter-migrants-now-meta-is-releasing-the-data/>.
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Influence government, platform power and the patchwork profile: Exploring the appropriation of targeted advertising infrastructures for government behaviour change campaigns

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