

# CMA market study on online platforms and advertising

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Response from the Behavioural Insights Team  
(July 2019)

## Introduction and summary of our response

BIT believes that many **consumer harms online have strong behavioural elements**. The challenges consumers face in markets - such as information overload and a tendency to accept a default option - can be exacerbated and manipulated in the online context. Especially when firms are exposed to limited or distorted competitive pressure. Part 1 of this response summarises BIT's view.

We are **optimistic about the potential for data- and behaviourally- driven approaches**. Online advertising is an intelligent place to focus the exploration of consumer harms deriving from competition, given advertising is a key driver of firm strategy (such as the incentive to create endlessly scrollable platforms and granular segmentation) as well as consumer interactions with firms (such as targeting).

Part 2 of this response offers our perspective on how to approach the issues through tools such as: data mobility, better access to redress, comprehension audits, meaningful transparency reports and deshrouding of market characteristics to incentivise shifts in firm behaviour. Part 3 offers some ideas for novel approaches to evidence gathering including online experiments to measure comprehension, sludge audits, naturalistic monitoring to capture hidden detriment and other nuances of consumer experiences.

## 1. The proposed scope of the market study

Our response to this section is structured around the three themes identified in the Statement of Scope.

### Theme 1: The market power of online platforms in consumer-facing markets

In line with our expertise, we have focussed our response in this section on the behavioural factors affecting consumer and firm decisions.

There are three underexplored areas of research we feel would illuminate the analysis of market power. First, **experimental work should be used to generate more robust and UK-specific assessments of user's beliefs and choices on online platforms.** This includes experimental work to ascertain users' price elasticity of demand for digital services (or, perhaps, their privacy elasticity of demand<sup>1</sup>), since demand-side pressure should be a fundamental restraining force on company behaviour. If users are highly unresponsive to the terms of privacy notices, they will not switch in search of more favourable terms. Platforms therefore have very little incentive to offer consumer-friendly terms and may even deploy exploitative terms in their favour.<sup>2</sup>

Elasticity could be measured using analysis of user responses to recent changes to firm privacy notices as natural experiments (e.g. capture user responses before and after data breaches like that of [British Airways](#) or [Strava maps inadvertently identifying military bases](#)). We are keen to develop robust methods for estimating elasticities and propensities to switch in complicated circumstances, moving beyond consumer surveys and into experimental designs to elicit preferences for switching.

Second, and related to this, it is worthwhile for us to **better understand consumers 'willingness to accept' to stop using platform services** such as Facebook (developing a recent US study<sup>3</sup>) and how this differs from their 'willingness to pay' to use the services, which is estimated to be much lower. This could also examine the degree and extent of addiction to online services. These are all key areas to inform the current and potential role of consumer demand on limiting market power.

Third, we feel that **more research is needed into consumers' single- and multi-homing<sup>4</sup> preferences and behaviours.** In digital advertising markets, where individuals can be segmented to receive a unique and personalised experience, the prevalence and tendency for individual users to single-home is an important part of market power assessments.<sup>5</sup> Single-homing in aggregate hence determines the extent that a given firm can exert power/leverage over certain users or user groups in an anticompetitive way.

Theme 2: Consumer control over data collection practices.

### The Behavioural Science of Online Harm and Manipulation

[Our recent paper](#) highlights a number of characteristics that exacerbate asymmetries in power between platforms and their users. The key ones of relevance to this theme are: firm

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<sup>1</sup> Mentioned in Oxera (30 September 2018) [Market power in digital platforms](#), prepared for the European Commission.

<sup>2</sup> The Bundeskartellamt has recently ruled that Facebook was committing an abuse of market power through "exploitative business terms" (see [case summary](#)).

<sup>3</sup> See Allcott, H., Braghieri, L., Eichmeyer, S., & Gentzkow, M. (2019). The Welfare Effects of Social Media (No. w25514). National Bureau of Economic Research; and Sunstein, C. (2019) [Valuing Facebook](#).

<sup>4</sup> By 'single-home', we mean a user who joins only one platform in a given market, and by 'multi-home' we mean joining more than one.

<sup>5</sup> Prat, A., & Valletti, T. M. (2018). [Attention oligopoly](#).

actions to exploit behavioural biases (for example, sludge which introduces unnecessary friction); low understanding of the ‘terms of engagement’ online; firms simulating trust; tactics to sustain endless and mindless attention; and tools to predict our preferences and extract maximum value (data or price) from users.

### Evidencing consumer understanding

BIT has also conducted highly relevant research into consumer understanding of contractual documents online, namely terms and conditions and privacy notices. BEIS recently published our experimental work which tested consumer comprehension of terms in different contexts under 24 different presentation formats.<sup>6</sup> One of the standout findings across all experiments was that participants, even when primed and incentivised to absorb information, correctly recalled just 40-60% of key terms (such as the types of information collected by the company, and the third parties that information will be shared with). We have also conducted experiments with the NHS looking at comprehension and clarity of data consent. The research found that understanding of the various types of data consent options (e.g. personal data being used for “planning” and/or “research”) was very low. Additionally, providing people with more granular detail about how their personal data is used can actually create greater confusion.<sup>7</sup>

We feel much more could be done to evidence the extent that consumers are currently able to exercise informed consent at the point of joining a service, and subsequently manage their consent preferences. Most importantly, the onus for ensuring appropriate consumer comprehension should fall with companies.

### Consent and sludge audits

A research approach that would be highly informative at the outset of this market study would be to conduct a mystery shopping ‘audit’ of current practices to see (a) how many of the key points of privacy notices are understood by users immediately following sign-up; (b) how long it takes the average user to withdraw permissions (plus, potentially, gauges for effort such as the number of clicks).

BIT has conducted such ‘audits’ with respect to gambling operators, for instance, to map risky behavioural practices in order to steer subsequent interventions to be trialled.<sup>8</sup> This would clearly identify issues at the outset but could also form the baseline for expected improvements, or act as a guide for setting ‘maximum acceptable friction’ standards in future (e.g. the maximum number of clicks from the homepage to close an account).<sup>9</sup> This approach

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<sup>6</sup> Behavioural Insights Team for the Department for Business, Energy & Industrial Strategy (18 July 2019): [Improving consumer understanding of contractual terms and privacy policies: evidence-based actions for businesses](#). See also our [blog for a high-level summary](#) and the [technical report](#) for full details on our methodology.

<sup>7</sup> Behavioural Insights Team (10 October 2018). [Data sharing and the importance of choice architecture in healthcare: new results](#).

<sup>8</sup> Behavioural Insights Team. (2018). Can behavioural insights be used to reduce risky play in online environments? Available from: [https://about.gambleaware.org/media/1869/gambleaware-phase-iii-report\\_updated-v1.pdf](https://about.gambleaware.org/media/1869/gambleaware-phase-iii-report_updated-v1.pdf)

<sup>9</sup> Similarly to work by Lauren Willis into ‘comprehension audits’: Willis, L. E. (2015). Performance-Based Consumer Law. *University of Chicago Law Review*, 82.1309-1409.

could be further bolstered by collecting data on actual customer behaviour. Given research that has indicated several factors that can lead to people not acting in accordance with their own preferences<sup>10</sup>, these exercises would help illuminate any ways that firms may engage with users that would be expected to yield better outcomes for the firm, rather than the user. We refer to this approach later in suggested methods of measuring competition and consumer detriment.

### Universal by design

When conducting user research, it is helpful to capture how comprehension and time/effort vary across demographic groups as well as those with lower levels of digital literacy. We are in favour of service design being accessible by default, given challenges and concerns around identifying, segmenting and redesigning services for vulnerable people.

## Theme 3: Competition in the supply of digital advertising in the UK.

We recommend that regulators use a wider range of behavioural tools not just to 'engage' consumers, but to design markets to fundamentally shift the incentives on firms to change their behaviour. A lack of transparency of the structure and functioning of the supply of digital advertising is, in itself, a cause for concern if market players are unable to identify and evaluate opportunities, and make well-informed decisions. Further, given the divergence in size of the tech 'giants' relative to other firms operating in the 'ad tech stack', other suppliers also lack power when it comes to exercising effective choice, and hence subject to the same 'sludge' tactics.

As well as experiments into consumer behaviour discussed elsewhere in this paper, we would therefore encourage experimentation into supplier behaviour. Such experiments could help diagnose what particular features of the market are important for supplier choice and preferences (e.g. how transparency over the conditions of an auction affects bidding behaviour); which aspects informing choice are misunderstood; and where and when effective supplier choice may be undermined.

A revised focus on shifting supplier behaviour and commercial strategies places the onus on firms rather than consumers to do the 'heavy lifting' in problem markets. Ultimately, a market where firms are genuinely and transparently acting in the best interests of consumers - and not seeking to take advantage of behavioural biases - is one in which firms can be trusted by consumers without being penalised, and which retains essential market freedoms underpinning competition.

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<sup>10</sup> Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2008). How are preferences revealed?. *Journal of public economics*, 92(8-9), 1787-1794.

## 2. The potential remedies identified in the Statement of Scope

We have chosen to provide comment on the remedies where BIT feels it can offer the most value. Below we provide advice and guidance concerning **data mobility; better protections for consumers and their data;** and **improving firm transparency.**

**Potential remedy 1: Increasing competition through data mobility, open standards and open data.**

**Ensuring customers have easy access to their data, and the freedom to effectively utilise their data with competitors or intermediaries, is a necessary factor for consumer choice in platform markets.** At present, the balance of power stands strongly with platforms: users on both sides of the platform risk losing their built-up profile, preferences or reputation if they choose to switch, and/or losing connectivity with those on the platform they used to use. BIT agrees that data *mobility* is key in fostering customer fluidity and hence demand-side competitive pressure among firms, but **effective operationalisation of data mobility is key.** When it comes to portability, customers should be able to easily instruct an intermediary or alternative service provider to access and port their data, with confidence and trust in a risk- and hassle-free process.<sup>11</sup> The principles of ease, understanding, trust and transparency, backed by rigorous user testing as demonstrated in our recent T&Cs research, should inform the implementation of data standards and open data.<sup>12</sup>

**Use consumer data and behavioural insights to identify detriment, improve the consumer redress process and shed light on poor practices.** This can include including opening up access to complaints data for use by consumer-focused agencies such as Citizens Advice, or [Resolver](#). Aggregation of complaints data in combination with data science techniques such as social media web-scraping, could allow identification of industry trends, trendsetters in terms of redress, or as a tool to direct customers towards firms with better practices. Customers should also be supported to submit constructive complaint data. Core behavioural tenets would suggest making feedback prompts to feedback timely (e.g. at the point of having submitted an order), and easy to engage with. For instance, feedback mechanisms should facilitate effective categorisation (where the user selects pre-set options which are informed by analysis of past complaints), and accurate feedback (through well-tested questions and effective defaults which do not steer consumers) that enable firms to take actionable steps to address issues. In sum: increasing the value of the complaints

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<sup>11</sup> Ofgem's recent collective switching trial highlights the potential power of third-party approaches to initiating switches, with an eightfold increase in the numbers of customers switching, and an average saving of £300 per customer. Ofgem (5th December 2018): [Active choice collective switch trial: final results](#).

<sup>12</sup> Behavioural Insights Team for the Department for Business, Energy & Industrial Strategy (18 July 2019): [Improving consumer understanding of contractual terms and privacy policies: evidence-based actions for businesses](#). See also the [Open Banking Customer Experience Guidelines](#) for a good example of guidance for firms, based on user testing and continuously refined over time.

process by making it simple for customers to engage with, and by promoting open access to this data will put greater onus on firms to take meaningful steps to address their customers' issues.

### **Potential remedy 2: Giving consumers greater protection in respect of data**

BIT agrees that the terms with respect to data usage are generally not informative, or are simply too taxing for users to want to engage with, as BIT's own research (noted in our response to Theme 2) has confirmed.

Psychologically people often stick with the default choice for many reasons, including because they may take it as an implicit recommendation,<sup>13</sup> or fear a poorer outcome by making an active choice, so avoid choosing.<sup>14</sup> Firms can exploit this so-called [status-quo bias](#) by setting defaults that may lead consumers into particular behaviours; for example, most websites make the default to accept cookies that allow tracking and personalisation. "Smarter" defaults which permit the user to set their own conditions and rules around how their data are used could leverage people's status-quo bias to better ends.

Firms could be incentivised to innovate in how they guide and prompt individuals to set, for instance, smarter privacy defaults with respect to what data they share (e.g. through behavioural science-informed privacy dashboards, or toggles).

### ***Deshrouding markets***

Improving transparency around how firms use the data they hold on their users is an additional lever to drive positive impacts on consumer behaviour and outcomes. One way to promote such transparency and accountability is to compel firms (particularly those with high user traffic such as social media and news platforms) to produce regular reports on key metrics.

BIT are currently advising on these mechanisms in work with [DCMS on Transparency Reports](#) and with [UKRN on Performance Scorecards](#). Key metrics should, amongst other things:

- Use standardised definitions and monitoring systems across platforms;
- Focus on a single or composite score to represent platform performance; and
- Use simple and relatable language to communicate the results.

These reports should detail how firms are dealing with complaints; their steps and successes in safeguarding data and privacy; and how they are addressing online harms like misinformation and disinformation on their sites. League tables could be published, for example, allowing consumers an at-a-glance view of how various intermediaries fare in terms of factors such as average savings achieved, number of complaints received (and effectively

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<sup>13</sup> McKenzie, C. R., Liersch, M. J., & Finkelstein, S. R. (2006). Recommendations implicit in policy defaults. *Psychological Science*, 17(5), 414-420.

<sup>14</sup> Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *Journal of Economic perspectives*, 5(1), 193-206.

resolved), and Net Promoter Scores. Where firms fail to improve to CMA-defined minimum acceptable standards, firms should be required to take specific remedial actions.

**Potential remedy 4: Improving transparency and oversight for digital advertisers and content providers**

BIT supports the introduction of improved transparency and oversight for digital advertisers and content providers, in order to “deshroud” this market and ensure competitive services.

Our ‘deshrouding’ argument covered in the previous section equally applies to business-to-business interactions: transparency over the practices and behaviours of platforms - towards those on both the consumer and business sides of the market - should drive behaviour of firms seeking to advertise on the platform. In both the consumer and advertising contexts, behavioural insights can be used to leverage data on platforms to drive better practices.

### 3. CMA’s proposed approach to evidence gathering

BIT welcomes the breadth of CMA’s intended approach to gathering evidence to include soliciting information and data from firms as well as engaging in new research endeavours. Here we offer suggestions for innovative research methods to capture evidence on competition and consumer behaviour.

Online environments (and the data captured therein) are ripe for experimentation, with many online platforms already engaged in A/B testing.<sup>15</sup> BIT stresses the importance of experimental research as a means of generating *causal* insights. Where data doesn’t already exist, field studies should be conducted or, alternatively, laboratory experiments can be used to simulate the online environment (or facets of it) to understand influences on consumer behaviour.

Research method	Questions to apply to	Relevant evidence
<p>Use <b>online experiments</b> to: (a) measure comprehension of real-world privacy notices and users’ ability to exercise genuine and informed choice using privacy settings/dashboards; and (b) quantify the cost of consumer detriment due to ‘sludge’<sup>16</sup></p> <p>Use <b>‘flip tests’</b>, where new information is exposed (or flipped over) for only a short time before disappearing, to more closely mimic users’ real-world browsing behaviour.</p>	<p><b><i>What information do consumers understand and engage with?</i></b></p> <p>e.g. What is the right type, and volume of information necessary for consumers to make informed choices?</p>	<p>BIT’s past experimental research has led to a best practice guide on designing effective privacy notices, and terms and conditions.<sup>17</sup></p>
	<p><b><i>How do sludge practices harm consumers?</i></b></p> <p>BIT’s online experimental platform, Predictiv, is prototyping a means of <b>quantifying the cost of sludge to consumers</b>. This can be used to estimate one form of consumer detriment in this market study. Self-reported measures could complement this approach by capturing consumers’ purchase regrets and other such reactions.</p>	<p>Recent research on so-called “<b>dark patterns</b>” has indicated numerous ways that sites and apps use to misdirect or confuse.<sup>18</sup></p>

<sup>15</sup> Kramer, A. D., Guillory, J. E., & Hancock, J. T. (2014). Experimental evidence of massive-scale emotional contagion through social networks. *Proceedings of the National Academy of Sciences*, 111(24), 8788-8790.

<sup>16</sup> ‘Sludge’ These are practices designed to interfere with, or make behaviour difficult, such as requiring a phone call to end a subscription (where an email was sufficient to sign up).

<sup>17</sup> BEIS (18 July 2019): [Improving consumer understanding of contractual terms and privacy policies: evidence-based actions for businesses](#).

<sup>18</sup> Mathur, A., Acar, G., Friedman, M., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark Patterns at Scale: Findings from a Crawl of 11K Shopping Websites. *arXiv preprint arXiv:1907.07032*. Retrieved from: <https://arxiv.org/pdf/1907.07032.pdf>



<p><b>Incentivise users of online platforms to experience a change</b> over short to medium term, and record changes in behaviour or sentiment using <b>naturalistic monitoring techniques</b>.</p>	<p><b><i>What level of value do people place in the online platforms they use? What are the welfare impacts of using these platforms?</i></b></p> <p>Recent research has demonstrated the value of these approaches when investigating the welfare effects of Facebook.<sup>19</sup> The approach could be expanded to investigate user experience and impacts across a range of social media sites.</p> <p>Integrating more qualitative “naturalistic monitoring”<sup>20</sup> techniques into the approach would offer clearer insights towards user sentiments.</p>	<p>Examples of naturalistic monitoring techniques include Experience Sampling (ESM)<sup>21</sup> and Day Reconstruction (DRM).<sup>22</sup> These methods could potentially capture experiences of hidden detriment and the nuance of consumer experiences.</p> <p>The DRM can be used to uncover individuals’ true preferences (by measuring directly people’s desires and behaviour)<sup>23</sup> and can help identify self-control failures in consumer behaviour.<sup>24</sup></p>
<p><b>Use laboratory experiments and economic games</b> to investigate consumers price elasticity.</p>	<p><b><i>How does consumer preference towards firms change with amendments to firm policies?</i></b></p> <p>Experimental techniques can reveal consumer’s preference to switch provider or stop using a service following changes to prices or contractual terms, and hence the degree of market power a firm has over consumers.</p> <p>Example: Users’ elasticity of demand to past changes in privacy terms could be estimated by using usage data before and after a firm implements a change in a privacy policy.</p>	<p>BIT have conducted multiple experiments to elicit consumer choice in the lab environment, such as in our work on the Financial Capability Lab.<sup>25</sup></p>

<sup>19</sup> Allcott, H., Braghieri, L., Eichmeyer, S., & Gentzkow, M. (2019). *The welfare effects of social media* (No. w25514). National Bureau of Economic Research. Retrieved from:

<https://pacscenter.stanford.edu/wp-content/uploads/2019/05/SSRN-id33086402.pdf>

<sup>20</sup> Lades, L. K., Martin, L., & Delaney, L. (2018). Informing behavioural policies with data from everyday life. *Behavioural Public Policy*, 1-19.

<sup>21</sup> Larson, R. & Csikszentmihalyi, M. (2014). The Experience Sampling Method. In: *Flow and the Foundations of Positive Psychology*. Springer, Dordrecht.

<sup>22</sup> Kahneman, D. et al. (2004). A survey method for characterizing daily life experience: the day reconstruction method. *Science*, 306(5702), 1776-80.

<sup>23</sup> See pp. 9-11 in Lades, L. K., Martin, L., & Delaney, L. (2018). Informing behavioural policies with data from everyday life. *Behavioural Public Policy*, 1-19.

<sup>24</sup> Delaney, L. & Lades, L. K. (2017). Present Bias and Everyday Self-Control Failures: A Day Reconstruction Study. *Journal of Behavioural Decision Making*, 30(5), 1157-1167.

<sup>25</sup> <https://www.fincap.org.uk/en/articles/the-financial-capability-lab>

<p>Use <b>social media scraping and text mining techniques</b> to measure public consumer sentiment towards firms.</p>	<p><b>Does consumer sentiment on public forums correspond with complaints lodged directly to firms?</b></p> <p>Using data from consumer social media profiles (open source or via informed consent procedures), could enable CMA to capture a much broader understanding of consumer detriment. This can be used to triangulate with industry data. It can also provide a richer understanding of people's experiences</p> <p>Example: Consumers might tend to raise particular issues in tweets, for instance, that are less evidence in actual complaints data (e.g. privacy practices they discover and find creepy). While consumers may not lodge a complaint or request a refund, they may share their experiences on their social media accounts.</p>	<p>Academics have used social media data to capture user sentiment and predict health and well-being outcomes.<sup>26 27</sup></p>
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<sup>26</sup> Eichstaedt, J. C., Smith, R. J., Merchant, R. M., Ungar, L. H., Crutchley, P., Preoțiu-Pietro, D., ... & Schwartz, H. A. (2018). Facebook language predicts depression in medical records. *Proceedings of the National Academy of Sciences*, 115(44), 11203-11208.

<sup>27</sup> Eichstaedt, J. C., Schwartz, H. A., Kern, M. L., Park, G., Labarthe, D. R., Merchant, R. M., ... & Weeg, C. (2015). Psychological language on Twitter predicts county-level heart disease mortality. *Psychological science*, 26(2), 159-169.