Neutralizing Online Behavioural Advertising

Algorithmic Targeting with Market Power as an Unfair Commercial Practice

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Abstract: *Online behavioural advertising ('OBA') relies on inferential analytics to target consumers based on data about their online behaviour. While the technology can improve the matching of adverts with consumers' preferences, it also poses risks to consumer welfare as consumers face offer discrimination and the exploitation of their cognitive errors. The technology's risks are exacerbated by the market power of ad intermediaries. This article shows how the Unfair Commercial Practices Directive (UCPD) can protect consumers from behavioural exploitation through incorporating market power analysis. By drawing on current research in economic theory, it argues for applying a stricter average consumer test if the market for ad intermediaries is highly concentrated. This stricter test should neutralize negative effects of behavioural targeting on consumer welfare. The article shows how OBA can amount to a misleading action and/or a misleading omission according to Articles 6 and 7 UCPD as well as an aggressive practice according to Article 8 UCPD. It further considers how the recent legislative proposals by the European Commission to enact a Digital Markets Act (DMA) and a Digital Services Act (DSA) may interact with the UCPD and the suggested stricter average consumer test.*

Keywords: Online behavioural advertising; digital single market; consumer law; competition law; Unfair Commercial Practices Directive; market regulation; law and economics; platform economy; Digital Markets Act; Digital Services Act; EU; European Union

1 Introduction

Compared to its offline sibling, online advertising has substantially reduced the cost of targeting consumers.[1] Technologies such as Big Data and Artificial Intelligence allow to collect and analyse consumer data on an unprecedented scale and scope. Online behavioural advertising ('OBA') relies on inferential analytics to target consumers based on their online behaviour. OBA is built on inferences concerning consumers'

[1] Goldfarb, "What is different about online advertising?", 44 *Revue of Industrial Organization* (2014), 115–129, at 116.

socio-demographic information (e.g. age, gender, political and sexual orientation), personality traits and emotional states (e.g. whether someone is introverted or extroverted), and values (e.g. materialism, self-control).[2] Predictive profiles and inferred similarities define target audiences at an individual and group level.[3]

OBA provides consumers with advertising based on what advertisers identify to be their preferences. This match-improving technology is not without risks for consumer welfare. Besides affecting consumers' privacy,[4] it exploits their cognitive failures in the market and is evolving within an 'ad-tech' industry with impoverished competition between firms.[5] These risks are increasingly recognized at the policy level. In June 2020, the European Parliament called on the European Commission to ban the display of "micro-targeted advertisements and to increase transparency for users."[6] In December 2020, the European Commission proposed a Digital Markets Act (DMA) and a Digital Services Act (DSA) which both address consumer harms stemming from the market power of digital platforms, including intermediaries for online advertising.[7] In March 2021, Google then announced changes in its tracking practices which do not, however, resolve the concerns expressed in this article.[8]

To date, the behavioural targeting of consumers falls into the nexus of data protection, competition, and consumer law. At this intersection of laws lay normative concerns with the balancing of social welfare and harm, the preservation of consumer choice, and the creation of trust within the internal market.[9] If all three domains achieved their ideal levels of protection, we would see "[c]ompetitive data-driven

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[2] For the transformation of marketing through Big Data, see Erevelles, Fukawa and Swayne, "Big Data consumer analytics and the transformation of marketing", 69 *Journal of Business Research* (2016), 897–904; Matz and Netzer, "Using Big Data as a window into consumers' psychology", 18 *Current Opinion in Behavioural Sciences* (2017), 7–12.

[3] Wachter, "Affinity profiling and discrimination by association in online behavioural advertising", 35 *Berkeley Technology Law Journal* (2020, forthcoming).

[4] Ibid.

[5] Calo, "Digital market manipulation", 82 *George Washington Law Review* (2014), 995–1051; Geradin, Karanikioti and Katsifis, "GDPR myopia", TILEC Discussion Paper DP 2020-01, 11 May 2020.

[6] European Parliament, Resolution of 18 June 2020 on competition policy, P9_TA-PROV(2020)0158, para 105; see also: https://www.wired.com/story/why-dont-we-just-ban-targeted-advertising/ (last visited 15 March 2021).

[7] COM(2020), "Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act)"; COM(2020), "Proposal for a Regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC".

[8] https://blog.google/products/ads-commerce/a-more-privacy-first-web/ (last visited 15 March 2021).

[9] Cf. Preliminary Opinion of the European Data Protection Supervisor, Privacy and competitiveness in the age of big data, March 2014, at p. 2.

markets competing for well-informed consumers on all dimensions of price and quality, including level[s] of privacy protections."[10] Leaving aside the likelihood of a full empirical realization of this ideal, how to best approach it normatively already raises intricate questions. Competition, consumer, and data protection authorities across Europe have begun to investigate digital platforms such as Google, Facebook, and Amazon for their collection and monetization of consumer data.[11] At the same time, there is a budding literature on the promises and perils of borrowing concepts from one of these domains of law to apply within another in order to regulate data-driven markets. A holistic approach seeks an integrated understanding of all three domains of law.[12] Other approaches focus on conceptual imports between two domains, such as filtering data protection principles into competition law assessments.[13] Such proposals to blend the laws have very recently led to scepticism towards their dogmatic soundness: some argue that the economic reasoning behind competition and consumer law runs contrary to the individual rights logic fuelling data protection law.[14] This leaves an important side of the regulatory triangle underexplored. Consumer and competition law, even those critics concede, "mutually reinforce" each other.[15] When it comes to behaviourally targeted advertising in particular, consumer law has played a comparatively minor role in the debate so far, with a few notable exceptions.[16]

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[10] Australian Consumer and Competition Commission (ACCC), *Digital Platforms Inquiry*, Final Report, June 2019, at p. 5.

[11] See the recently opened investigation by the Italian Competition Authority against Google's practices concerning display advertising: https://en.agcm.it/en/media/press-releases/2020/10/A542 (last visited 15 March 2021); See further the references in Yakovleva, Geursen and Arnbak, "Kaleidoscopic data-related enforcement in the digital age", 57 CML Rev. (2020), 1461–1494, at 1463, fn. 7; See also: Competition & Markets Authority (CMA), *Online platforms and digital advertising*, Market study final report, 1 July 2020, at p. 159, drawing on decisions against Facebook by the German and Italian competition authorities.

[12] See recently: Philipp Hacker, "Manipulation by algorithm", working draft, manuscript on file with the authors.

[13] See recently: Robertson, "Excessive data collection", 57 CML Rev. (2020), 161–190.

[14] Yakovleva, Geursen and Arnbak, op. cit. *supra* note 11.

[15] Ibid., at 1470.

[16] See Goanta and Mulders, "'Move fast and break things'", 8 *Journal of European Consumer and Market Law* (2019), 136–146; Botta and Wiedemann, "The Interaction of EU Competition, Consumer, and Data Protection Law in the Digital Economy", 64 *Antitrust Bulletin* (2019), 428–446; van Eijk, Hoofnagle and Kannekens, "Unfair commercial practices", 3 *European Data Protection Law Review* (2017), 325–337; de Streel and Sibony, "Towards smarter consumer protection rules for the digital society", available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3063192 (last visited 15 March 2021); Helberger, "Profiling and targeting consumers in the internet of things", in Schulze and Staudenmayer (eds.), *Digital Revolution* (Nomos, 2016), pp. 135–161; Calo, op. cit. *supra* note 5; Galli, "Online behavioural advertising and unfair manipulation between the GDPR and the UCPD", in: Ebers and Cantero Gamito (eds.), *Algorithmic Governance and the Governance of Algorithms* (Springer, 2021), pp. 109–135.

To address this gap, this article focuses on European Union (EU) consumer law, specifically the Unfair Commercial Practices Directive (UCPD).[17] The UCPD protects the European consumer from unfair commercial practices which materially distort his economic behaviour by causing him to "take a transactional decision that he would not have taken otherwise" (Art. 2 (e)). This article suggests that the UCPD can mitigate OBA's harmful impacts on consumer choice if judges and national consumer authorities consider how the concentration of market power within the ad-tech industry affects the transactional decision-making of behaviourally targeted consumers. This article argues that OBA, when combined with market power, can lead to a crucial lowering of the visibility of what will be called 'non-personalized' outside options. These are adverts that do not exploit consumers' irrationalities based on their inferred cognitive make-up. The article suggests implementing considerations of market power by deploying a stricter 'average consumer test' under the UCPD. This way, the law can neutralize OBA's negative effects on consumer welfare.

The legal solution offered in this article is not to call for an outright ban of OBA, but for a case-by-case analysis with a heightened scrutiny of the market environment OBA operates in. It builds on existing provisions in EU consumer law and argues that the UCPD can play a constitutive part in mitigating consumer harms created by OBA. The recent legislative proposals for the DMA and DSA support the conclusions drawn in this article. They both featzre special obligations for digital platforms with a degree of market power that is high enough to deserve regulatory attention. However, while the DMA and DSA may (re-)introduce some contestability and transparency in platform services, they do not alleviate all regulatory concerns about OBA, as this article continues to argue.

It has been mentioned before that data-driven markets require new conceptual frameworks to address novel risks of consumer harm created by emerging technologies.[18] As not every potential harm is worthy of legal intervention, section 2 lays out those negative effects behavioural targeting can have on consumer welfare that do require regulation. Section 3 adds the consideration of market power to the picture. Drawing on current research in economic theory, it will be shown that the incentives of (monopoly) ad intermediaries, advertisers and consumers can

[17] Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market, O.J. 2015, L 149/22.

[18] Calo, op. cit. *supra* note 5.

structurally be misaligned when it comes to revealing consumers preferences. Based on these considerations, the concept of 'non-personalized' outside options will be developed. Their protection is paramount to safeguarding consumer choice in the digital age, as consumers risk being siloed in their market choices based on their inferred cognitive and behavioural dispositions.

Section 4 integrates the findings of the previous sections into a novel assessment of OBA under the UCPD. It shows how a stricter 'average consumer test' is necessary to protect non-personalized outside options. The UCPD generally conceptualizes European consumers as acting more or less rationally, which has led to difficulties when seeking to incorporate insights from behavioural economics.[19] To avoid this problem, this article explores the fact that the UCPD allows to consider the reaction of an average 'targeted' consumer.[20] Therefore, if consumers are targeted precisely for certain irrationalities in their transactional decision-making, it is not circular to assume that the average consumer in that targeted group of consumers will behave exactly (as irrational) as predicted by inferential analytics. Section 4 concludes that lowering the visibility of non-personalized outside options can amount to a misleading action (Art. 6 UCPD), a misleading omission (Art. 7 UCPD), or an aggressive practice (Art. 8 UCPD). Section 5 then revisits the results in light of the DMA and DSA proposals. It considers how increased competition between ad intermediaries as a result of the proposals having passed into law would likely shift the problem addressed in this paper from the stage of data analytics to that of data acquisition. In this case, a stricter average consumer test under the UCPD would again be able to neutralize consumer harms from OBA's data collection with market power.

2 Behavioural Targeting and Consumer Welfare

In advertising, innovation historically follows from advertisers' systematic use of trial and error to explore what triggers consumers to buy the products they promote.[21] Statistical methods may have first entered the industry via the use of coupons. As coupons must be returned to be redeemed, advertisers can learn which advertisements

[19] Suggesting a behavioural update of the UCPD: Trzaskowski, "Lawful distortion of consumers' economic behaviour", 27 EBLR (2016), 25–49.

[20] Following the useful typology in: Cartwright, "The consumer image within EU law", in: Twigg-Flesner (ed.), *Research Handbook on EU Consumer and Contract Law* (Edward Elgar, 2016), 199–220,

[21] Akerlof and Shiller, *Phishing for Phools* (Princeton University Press, 2015), p. 45.

work and which ones do not.[22] By now, much of the advertising business has moved online where the greater availability of consumer data and technological capacity allow to identify similarities between consumers using Big Data analytics.[23] Trial and error remains an important strategy, as online advertisers are constantly tweaking their models to predict which consumer will click on which ad.[24] As consumers are the unwitting subjects of these experiments, attention must be given to the impact of targeted advertising on consumer welfare (2.1) and to those risks which are worthy of legal intervention (2.2).

2.1 Economic Effects of Targeted Advertising

For something so ubiquitous as advertising, it might be surprising to learn that economists have long been concerned with the question of why consumers respond to ads in the first place. Three major views emerged.[25] The first view understands advertising to be persuasive. Adverts alter consumers' preferences and create artificial product differentiation. The second view holds advertising to be informative. Many markets are characterized by imperfect consumer information as search costs can hinder consumers from learning about products' existence, their price, and their quality. This can lead to market inefficiencies to which advertising is an endogenous response offered by the market itself. Instead of altering consumers' preferences or primarily conveying information, the third view holds that advertising is complementary to the advertised product. In this view, consumer preferences are stable. For those who, for example, value 'social prestige' a product that is appropriately advertised can thus generate greater prestige in its consumption.

While all views can claim some plausibility, the 'persuasive' and 'informative' views disagree over the social value of advertising. As a result, they have radically different normative implications and regulatory consequences.[26] In the persuasive view, advertising can have anti-competitive effects and offers no real value to consumers. It manipulates consumers into buying products they do not really want to buy and harms

[22] On the use of coupons, cf. ibid., p. 55.

[23] See further: Mittelstadt and Floridi, "The ethics of big data", 22 *Science and Engineering Ethics* (2016), 303–341; Grindrod, *Mathematical Underpinnings of Analytics* (OUP, 2015).

[24] See https://applift.com/blog/multi-armed-bandit-machine-learning-a-b-testing (last visited 15 March 2021).

[25] This overview is taken from: Bagwell, "The economic analysis of advertising", in: Armstrong and Porter (eds.), *Handbook of Industrial Organization*, Volume 3 (Elsevier, 2007), pp. 1701–1844, at pp. 1705–1706.

[26] Ibid., at p. 1706.

competitors who sell those products that consumers would have bought otherwise.[27] In the informative view, advertising can have pro-competitive effects: consumers receive valuable additional information about the product as well as its producer at a low cost. Advertising thus promotes competition between established firms and facilitates market entry for new competitors.[28]

As regards targeted advertising, current economic theory considers two positive effects it can have on consumer welfare: First, a better matching of consumers with ads of their preferred products or services and, second, an expansion of supply as more consumers are served.[29] Targeting and personalization may amplify advertising's informative effect. Economists also consider the negative effect of offer discrimination for different types of consumers, likely taking the form of price discrimination, i.e. the charging of different prices based on consumers' perceived ability or willingness to pay.[30] For some consumers, this could be good news as those with limited ability to pay may be offered lower prices for products they otherwise could not afford.[31] Many consumers, however, will likely pay more, especially those with limited choice of whom to buy from or with a limited inclination to 'shop around'.[32] Offer discrimination runs contrary to improved matching and supply expansion and each effect's relative strength determines the overall effect of targeted advertising on consumer welfare. It can thus be positive or negative.[33] There is strong theoretic support for the claim that the nature and structure of the advertising market influences the strength of the mentioned effects on consumer welfare.[34] Section 3 will address this issue further.

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[27] For a legal discussion on this point (focused on U.S. competition law), see Woodcock, "The obsolescence of advertising in the information age", 127 *Yale Law Journal* (2018), 2270–2341, at 2272.

[28] Regulators appear to have switched their view to this one in the past, see ibid., at 2272–2273.

[29] Cf. Marotta, Zhang, and Acquisti, "The welfare impact of targeted advertising technologies", *forthcoming* (manuscript on file with authors), at 23-24; An older version of the manuscript can be found here: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2951322 (last visited 15 March 2021). See also: Bourreau, de Streel and Graef, *Big Data and competition policy*, Project Report, Centre on Regulation in Europe, 16 February 2017, at 53.

[30] For these two points, see: Marotta, Zhang, and Acquisti, op. cit. *supra* note 29, at 23. For a behaviourally informed discussion of algorithmic price discrimination, see: Bar-Gill, "Algorithmic price discrimination", 86 *University of Chicago Law Review* (2019), 217–254. Empirical evidence of individually personalized online pricing has so far only been anecdotal, although algorithms are already used to personalize ranking, advertising and perhaps discounts, cf. CMA, *Pricing algorithms*, 8 October 2018; For an overview of price discrimination practices in the market, see, ACCC, op. cit. *supra* note 10, at p. 517.

[31] ACCC, op. cit. *supra* note 10, at p. 517.

[32] Ibid. See further: Strahilevitz, "Toward a positive theory of privacy law", 126 *Harvard Law Review* (2013), 2010–2042.

[33] Marotta, Zhang, and Acquisti, op. cit. *supra* note 29, at 23–27.

[34] Ibid.

It is unrealistic to assume that every consumer will be made worse off by behaviourally targeted advertising in each and every transaction. Moreover, while there is conflicting anecdotal evidence as to whether OBA achieves the results it promises, the actual effectiveness of targeted advertising must remain an open empirical question for this article.[35] In light of the fact that Google's ad exchange alone likely processes tens of billions of individually targeted ad spaces daily, the article proceeds by assuming that targeted advertising can indeed influence consumer decision-making, whether persuasively or informatively.[36]

2.2 Risks Worthy of Legal Intervention

As mentioned, not every conceivable harm affecting a subset of consumers is worth legal intervention. However, there are at least six risks to consumers' interests and their economic welfare that require regulatory attention.

First, there is the sensitivity of the inferences drawn and their privacy-invasiveness.[37] Peoples' control over their identity, reputation, and informational self-determination can be eroded by OBA and inferential analytics.[38] Second, inherently linked to the first point is the risk that Big Data-driven targeting may lead to biased decision-making and discriminatory outcomes.[39] Data protection and non-discrimination law are the foremost areas which will have to address these risks.

Third, within the core remit of consumer law lies the fact that behavioural advertising exploits consumers' cognitive quirks and irrationalities which can trigger irrational future behaviour and lead to vulnerabilities in the market.[40] For example, extroverted investors have been positively linked with a willingness to pay higher prices for financial assets and buy more financial assets when they are overpriced.[41]

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[35] Procter & Gamble has reportedly cut back its budget for targeted online advertising, cf. https://www.wsj.com/articles/p-g-slashed-digital-ad-spending-by-another-100-million-1519915621 (last visited 15 March 2021). Basecamp, a tech company, allegedly ran a successful targeted campaign on Facebook, cf. https://www.wired.com/story/why-dont-we-just-ban-targeted-advertising/ (last visited 15 March 2021).

[36] For this estimate, see: Srinivasan, "Why Google dominates advertising markets", available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3500919 (last visited 15 March 2021), at 11.

[37] Wachter and Mittelstadt, "A right to reasonable inferences", *Columbia Business Law Review* (2019), 494–620.

[38] Ibid., at 510.

[39] Ibid., at 505; See also: Wachter, Mittelstadt and Russell, "Why fairness cannot be automated", available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3547922 (last visited 15 March 2021). Wachter, op. cit. *supra* note 3.

[40] See Calo, op. cit. *supra* note 5, at 999.

[41] See Oehler, Wendt, Wedlich and Horn, "Investors' personality influences investment decisions", 19 *Journal of Behavioral Finance* (2018), 30–48.

The exploitation of consumers' irrationality is neither limited to advertising nor digital markets. As 'market manipulation theory' holds, if individuals behave systematically nonrational, it follows from an economic perspective that others will exploit those tendencies for gain.[42] Online advertising could greatly increase manipulative effects as Big Data technologies may prove to be more efficient at spotting profitable deviations from rational behaviour as traditional methods of social science laboratory research.[43]

Moreover, consumers' interaction with the market is to a large and unprecedented degree mediated by data-collecting digital technologies. Modern technologies not only design *how* consumers are interacting with the market; firms can increasingly choose *when* to approach consumers.[44] Take 'hyper-targeting' as an example: as one researcher on Big Data consumer analytics puts it, "[i]t's about sending the right message to the right person at the right time [...]. Assuming I consider myself an extrovert, for example, and I'm in an extroverted situation, that might be the best time to approach me."[45] As our outward behaviour changes with context, Big Data analytics allows for dynamic psychological states to be inferred. "If you're at home you're probably less extroverted than when you are hanging out with friends at a party [...]."[46] Advertisers knowing whether an individual is currently in an extroverted mood can infer their susceptibility to particular recommendations,[47] for example for investment advice. What some call 'attention markets' or the 'attention economy' has laid bare a regulatory 'blind spot' for dealing with advertising intruding our attention.[48] Whereas in pre-digital times obstrusive advertising may have harmed consumers by annoying them, psycho-targeted advertising might cause economic harm even to those who welcome the involuntary exposure to ads.[49] One key difference between a supermarket strategically placing candy bars at the checkout and OBA is that with the latter, online consumers are permanently in the checkout lane, which is neatly tailored to their

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[42] Hanson and Kysar, "Taking behavioralism seriously: The problem of market manipulation", 74 *NYU Law Review* (1999), 630–749, at 635. See also: Hanson and Kysar, "Taking behavioralism seriously: Some evidence of market manipulation", 112 *Harvard Law Review* (1999), 1420–1572.

[43] Calo, op. cit. *supra* note 5, at 1011.

[44] Ibid., at 1003–1004.

[45] https://www8.gsb.columbia.edu/articles/ideas-work/understanding-nuances-big-data (last visited 15 March 2021)

[46] Ibid.

[47] Ibid.

[48] Wu, "Blind spot", 82 *Antitrust Law Journal* (2019), 771–806, 772. See further: Evans, "The economics of attention markets", available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3044858 (last visited 15 March 2021); Peitz, "Economic policy for digital attention intermediaries", available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3654009 (last visited 15 March 2021).

[49] Cf. Bagwell, op. cit. *supra* note 25, at 1723.

inferred tastes. OBA is not just a quantitative change in practices of targeted advertising offline, although it undoubtedly is. Rather, it presents a new form of persuasion that combines personalization and systematization in a way that gives advertisers more control of the interaction with consumers.[50]

Fourth, the ad-tech industry is currently characterized by the strong market power of few competitors.[51] This can lead to adverse consequences for consumers in terms of price, quality, and choice. OBA is evolving in an environment of advertising networks that connects advertisers with publishers.[52] These networks tap into databases featuring both online data, such as users' interaction with a website, and offline data, such as location data, in order to build predictive consumer profiles.[53] Individual users are matched to target audiences via real-time bidding, itself a technological innovation allowing advertisers to outbid each other to place an advertisement on a publisher's website.[54] Google currently operates both the leading exchange and the leading intermediaries which publishers and advertisers must use to trade.[55] When a bid request is placed within the ad network, it includes information about the user. The Interactive Advertising Bureau's 'content taxonomy' contains hundreds of potentially sensitive fields, which include 'Heart and Cardiovascular Diseases', 'Mental Health', and 'Sexual Health' whilst Google's 'publisher verticals' include 'Reproductive Health', 'Substance Abuse', and 'Politics'.[56] With OBA, the personalization of advertising meets the market power of a few dominant players, if not a single dominant firm.

Fifth, the opaqueness of the technology and the low awareness of its utilization by consumers are threatening transparency-based approaches to regulation.[57] For example, even if the Terms and Conditions of digital platforms mention the use of OBA and similar methods, it cannot be assumed that consumers are actually reading them, let alone understand their implications. Empirical research has shown that OBA raises

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[50] Calo, op. cit. *supra* note 5, at 1021.

[51] See the market shares in section 3.1.

[52] For an overview, see Geradin and Katsifis, "An EU competition law analysis of online display advertising in the programmatic age", 15 *European Competition Journal* (2019), 55–96.

[53] Article 29 Data Protection Working Party, Opinion 2/2010 on online behavioural advertising (22 June 2010), pp. 5 and 7.

[54] Geradin and Katsifis, op. cit. *supra* note 52. For an update, see also: Geradin and Katsifis, "'Trust me, I'm fair'", 16 *European Competition Journal* (2020), 11–54.

[55] Srinivasan, op. cit. *supra* note 36, at 5.

[56] Cf. Information Commissioner's Office, Update report into adtech and real time bidding (20 June 2019), at p. 13. Not all information is used for profiling individuals, as some is used to enable advertisers to prevent their ads from being placed on unsuitable websites, cf. ibid.

[57] See Wachter, Mittelstadt and Floridi, "Why a right to explanation of automated decision-making does not exist in the General Data Protection Regulation", 7 *International Data Privacy Law* (2017), 76–99.

serious concerns because consumers do not clearly understand how it works and how to control disclosure of their online behaviour.[58]

Sixth and finally, the behavioural inferences drawn are not verifiable. They cannot only be counterintuitive and unpredictable; they can also be wrong.[59] It is impossible to predict with certainty that a certain consumer will buy a new car next year. At worst, false predictions can lead to her being offered products inferior to the ones she would have found otherwise, or even ones damaging personal health and finances.[60] For example, inferring that someone makes impulsive decisions could give reason to show her ads for gambling.

The third and fourth risk, the exploitation of consumers' irrationalities and the market power of ad intermediaries, constitute the major concern of this paper. The opaqueness and the non-verifiability of inferences will continue to inform the analysis.

3 Considering Market Power

This section explains why considering market power under the UCPD is an important improvement for consumer protection. It begins by relating the structure of the ad-tech market to the incentives of its actors (3.1). By drawing on the European Commission's *Google Shopping* decision, the section then introduces the concept of the protection of 'non-personalized' outside options (3.2).

3.1 Market Structure and Incentives

It is important to recognize two aspects of the online-advertising market environment: First, among competition experts the notion of 'bottleneck power' has gained traction. The 2019 Report of the Stigler Committee on Digital Platforms at Chicago Booth ('Stigler Report') defines it as "a situation where consumers primarily single-home and rely upon a single service provider (a "bottleneck"), which makes obtaining access to those consumers for the relevant activity by other service providers prohibitively costly."[61] The Stigler Report explicitly cites a report by the U.K. Digital Competition Expert Panel ('Furman Report', as chaired by Jason Furman). The Furman Report also

[58] Ham, "Exploring how consumers cope with online behavioral advertising", 36 *International Journal of Advertising* (2017), 632–658, at 634.

[59] Wachter, Mittelstadt and Russell, op. cit. *supra* note 39; Wachter, op. cit. *supra* note 3.

[60] Acquisti, Taylor and Wagman, "The economics of privacy", 54 *Journal of Economic Literature* (2016), 442–492, at 464.

[61] Stigler Committee on Digital Platforms, *Final report*, 2019, at p. 105.

expresses concern about market power over a "bottleneck in a digital market."[62] According to these reports, bottlenecks appear where consumers "experience high switching costs, such as loss of valued personal data or reputational indicators at the point of switching; contract terms that deter switching; technical barriers to switching, such as complex switching processes or a lack of interoperability between the old service and the new or second service; tying services, which can be by contract or technical; and the inertia of defaults."[63]

The DMA and the DSA directly address these 'bottlenecks'.[64] The DMA is designed to complement EU competition law.[65] It addresses economic harms resulting from 'gatekeeper' platforms that garnered considerable market power.[66] The concept of market power refers to the ability of a company to appreciably behave independently of its competitors, customers, and consumers.[67] The DSA is concerned with societal harms stemming from the dissemination of illegal content, platforms' content moderation decisions as well as manipulative techniques in online advertising and algorithmic processes.[68] The DSA features special obligations for 'very large online platforms' (VLOPs) reaching a certain minimum percentage of European citizens.[69] The status as 'gatekeeper' or 'VLOP' thus indicates a degree of market power high enough to deserve regulatory attention beyond the remit of competition law.

As the U.K. Competition & Markets Authority (CMA) reports, Google's market share for search in the U.K. has been around 90% over the past ten years.[70] Not surprisingly, Google has been found to earn more than 90% of the search advertising spend.[71] Facebook's platforms (Facebook.com, Instagram, and WhatsApp) had a 75% share of the time spent on social media platforms in the U.K. in 2019.[72] In the market of display advertising – which includes open and operated channels such as Facebook as well as open display markets such as on online newspapers – around 60% of the

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[62] Digital Competition Expert Panel, *Unlocking digital competition*, March 2019, p. 55. The report draws on the research on "competitive bottlenecks" in: Armstrong and Wright, "Two-sided markets, competitive bottlenecks, and exclusive contracts", in: 32 *Economic Theory* (2007), 353–380.

[63] Report cited *supra* note 61, at pp. 105–106.

[64] See, for example, European Commission, Impact Assessment Report, 15 Dec. 2020, SWD(2020) 363 final, p.2.

[65] DMA, para 9.

[66] DMA, p. 1.

[67] Cf. Lynskey, "Grappling with 'data power'", in: 20 *Theoretical Inquiries in Law* (2019), 189–220, at 192.

[68] DSA, p. 3–4.

[69] Art. 25 DSA.

[70] CMA, *Online platforms and digital advertising*, Market study interim report, 2019, at p. 66.

[71] Report cited *supra* note 11, para 2.61.

[72] Report cited *supra* note 70, at p. 92 (excluding YouTube).

revenues went to Google and Facebook combined.[73] In the open display market, publishers sell their ad inventory through intermediaries who auction it to advertisers.[74] Some of the most important intermediaries in this market are owned by Google.[75] As mentioned, it runs both the leading exchange as well as the leading intermediaries that publishers and advertisers must use to trade. For many consumers these major platforms have become 'must haves': 37% of the total time spent by U.K. users online in February 2020 was on sites owned by Google or Facebook and the CMA has noted rise in their use during the current COVID-19 pandemic.[76]

In the digital platform economy, market power may be measured by several indicators such as market share, barriers to entry, or profitability, depending on which particular market is under scrutiny.[77] Outside of EU competition law, the DMA and DSA proposal each have their own indicators of market power for digital platforms which, in the case of the DMA, is comprised of a bundle of quantitative and, in a second assessment, also qualitative indicators.[78] Rather than selecting a single measurement of market power, this article proceeds by focusing on why market power matters for behaviourally targeted consumers: it forecloses the availability of non-personalized advertising online (see section 3.2).

The ad intermediaries' market power is related to a second important aspect about the online advertising market. Current research in economic theory by Marotta, Zhang, and Acquisti shows how conflicts of interest between a monopolist ad intermediary and consumers can arise as regards the revelation of information about consumers by the intermediary to advertisers.[79] The authors consider two types of information that can be collected from personal consumer data and revealed to advertisers: consumers' preferences and their purchasing power.[80] While advertisers would always prefer having both types of information disclosed to them, a strategic ad intermediary that is able to choose which type of information to reveal can be

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[73] Report cited *supra* note 11, para 2.62 (including YouTube).
[74] Report cited *supra* note 70, at p. 48.
[75] Ibid. See also Google's position in the market according to Geradin, Karanikioti and Katsifis, op. cit. *supra* note 5.
[76] Report cited *supra* note 11, para 4.12.
[77] Franck and Peitz, "Market definition and market power in the platform economy", Centre on Regulation in Europe, Report (2019), p. 8; Lynskey, op. cit. *supra* note 67.
[78] See further: de Streel, "Digital Markets Act: Policy Choices and Conditions for Success", available at: https://promarket.org/2021/01/13/digital-markets-act-explainer-european-regulation-big-tech/ (last visited 15 March 2021).
[79] Marotta, Zhang, and Acquisti, op. cit. *supra* note 29.
[80] Ibid., at 12.

incentivized to disclose consumers' purchasing power, but not their preferences. Revealing too much about consumer preferences can soften the competition between advertisers in the auction for the advertisement. Advertisers bid higher for the segment of users which is more relevant to their product and bid lower for the less relevant segment.[81]

According to this research, whether or not consumers benefit from, or are harmed by, the disclosure of their information depends on how homogenous they are in terms of their preferences and their purchasing power. In markets where consumers' degree of differentiation in both types is low, consumers have a strong preference for their information to be protected. Revealing any type of information would lead to unwanted product and price personalization. In markets where consumers are highly differentiated in their preferences but homogenous in their purchasing power, they would want the advertisers to know their preferences but not their purchasing power, as matching would improve but prices would stay low. Where consumers have homogenous preferences but are highly differentiated in their purchasing power, consumers benefit if advertisers know their purchasing power, since improving the matching is not as important. Only when consumers are highly differentiated along both variables, they remain indifferent towards the availability of information about them in the ad market.[82]

Advertisers knowing the preferences of consumers is thus not necessarily a 'win-win' for consumers and advertisers alike. Moreover, (monopolist) ad intermediaries have incentives to selectively reveal information that is not always in the best interest of consumers.[83] These theoretical results in the economics of privacy have implications for consumer and competition policy, as both advertisers and consumers risk being harmed by the intermediary. Targeting may also focus on the wrong type of information, depending on the consumer structure of the market. Moreover, if the ad intermediary is incentivized to invest in harvesting information about consumers' purchasing power but less so information about their preferences, then consumers do not benefit as much from better matched ads but can suffer from price discrimination.

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[81] Ibid., at 27–31. See further: Celis, Lewis, Mobius and Nazerzadeh, "Buy-It-Now or Take-a-Chance", 60 *Management Science* (2014), 2927–2948. For more references to the economic theory behind this claim, see Bourreau, de Streel and Graef, op. cit. *supra* note 29, at 53.

[82] Marotta, Zhang, and Acquisti, op. cit. *supra* note 29, at 24–26.

[83] Ibid., at 29.

Targeting may be less precise than it would need to be to benefit consumers through a matching effect that carries enough weight to render the overall effect positive.

There is thus reason to believe that regulatory intervention is needed to protect consumer welfare, both in cases where advertisers receive all information the intermediary has collected about consumers as well as when a strategic intermediary shares its information only selectively. Ironically, data protection law may aggravate the situation, as the incumbents of ad-tech rely on the General Data Protection Regulation (GDPR) to avoid sharing their consumer data with competitors.[84]

As regards the required regulatory tools, this paper argues for the application of EU consumer law and the UCPD in particular with an added view on market power for two reasons. First, barring further insight from economists to the contrary, it seems likely that increased competition alone will not prevent misaligned incentive structures from emerging. One may criticize the monopoly assumption in the research by Marotta, Zhang, and Acquisti as unwarranted. However, as shown above, the ad intermediary industry is in fact heavily dominated by very few actors. The emergence of dominant digital platforms is not solely due to the conduct of the firms but also the structure of the markets themselves. Several features may distort markets even if the incumbent firms do not engage in abusive conduct: economies of scale or scope; network effects; switching costs; asymmetric and limited information; and consumers' behavioural biases.[85] There are benefits for advertisers to joining an ad network that has plenty of websites at its disposal and is able to reach large numbers of consumers. The more websites are in an ad network, the more attractive it becomes for advertisers, which in turn makes it attractive for more websites to join.[86] EU competition law can do little to remedy market failures that are not connected to firms' sanctionable behaviour.[87]

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[84] Srinivasan, op. cit. *supra* note 36, at 30; Geradin, Karanikioti and Katsifis, op. cit. *supra* note 5, at 39. However, the GDPR provides only limited protection against inferential analytics, cf. Wachter and Mittelstadt, op. cit. *supra* note 37, at 498.

[85] Motta and Peitz, "Intervention triggers and underlying theories of harm: Expert advice for the Impact Assessment of a New Competition Tool" (2020), at p. 8.

[86] To some degree, there are structural similarities between the markets for social media and online advertising. Social media platforms are subject to 'same-side' network effects which occur when the value of the platform is larger when more of the same type of user are joining the platform. Advertising is subject to 'cross-side' network effects which occur when the value of the service is larger for a certain group of users, when more users from a different category of users are using the service, cf. Tucker, "Digital Data, Platforms and the Usual [Antitrust] Suspects", 54 *Review of Industrial Organization* (2019), 683–694, at 685.

[87] Motta and Peitz, op. cit. *supra* note 85, at p. 3.

Even in more competitive environments it is questionable whether ad networks may ever be small enough to not collect enough data about consumers so that targeting based on preferences and purchasing power would be impossible. This article therefore does not assume that the intermediaries' market power increases necessarily in lockstep with their ability to collect ever more data. There is some evidence that using more data to make predictions is not always useful in order to increase accuracy. Rather than more data, what matters for performance in data-driven industries is the quality of the algorithm and the engineering team behind it.[88]

Second, the concept of 'market power' is not the singular domain of EU competition law, as the European Electronic Communications Code shows with its special regime for communications providers with 'significant market power'.[89] The UCPD could therefore absorb the concept wherever market dominance in ad-tech exacerbates the risk of consumer harm.[90]

3.2 Protecting 'Non-Personalized' Outside Options

What could considering the market power of ad intermediaries within the UCPD look like? Abstractly speaking, consumer law consists of a set of norms aiming to protect consumers from market practices which are damaging to their interests. Some of these practices may be misleading or otherwise deceptive and might result from asymmetries of information or unequal bargaining power.[91] Competition law also addresses imbalances to the detriment of consumers, albeit from a different angle. In a seminal piece on consumer sovereignty, the division of labour between competition and consumer law has been described as follows: Antitrust violations impair the "menu of options" available to consumers. They stem from market failures "in the general marketplace *external* to consumers."[92] Consumer protection violations, on the

[88] Tucker, op. cit. *supra* note 86, at 686–687, referring to: Neumann, Tucker, and Whitfield, "How effective is third-party consumer profiling and audience delivery?", available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3203131 (last visited 15 March 2021).

[89] Cf. Art. 63 Directive 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code, O.J. 2018, L 321/36.

[90] Cf. the ACCC's concerns about market dominance leading to discriminatory and exclusionary targeting, expecially for "consumers with a low socio-economic background", cf. report cited *supra* note 10, at 448.

[91] See Albors-Llorens, "Competition and consumer law in the European Union", 33 YEL (2014), 163–193, at 169.

[92] Averitt and Lande "Consumer sovereignty", 65 *Antitrust Law Journal* (1997), 713-756, at 714, orig. ital.

other side, impair the individual's ability to choose. They flow from "*internal* market failures," which take place "inside the consumer's head."[93]

In the current state of the online advertising market, in which advertisers demand neatly targeted audiences for their products and both the supply of online advertising space on digital platforms as well as the auctioning of ads through intermediaries is highly concentrated, the distinction between external and internal market failures risks collapsing. The (external) 'menu of options' consumers are meant to rationally choose from is catered by advertising intermediaries with an inferred knowledge of consumers' (internal) behavioural irrationalities. With technology such as OBA, the risk is that consumers' internal ability to choose between options determines the external set of options they are choosing from.

In one way, this collapse is the logical result of improved technologies for behavioural targeting. In another way, it is the particular outcome of a market structure in which the personalization of adverts proceeds with little competition within the chain of ad intermediaries. The fewer companies exchange inferential models of consumer preference and choice and the stronger their market power, the harder it becomes for consumers to threaten 'exiting' the behavioural selection of outside options presented to them through online advertising. While incumbents of ad-tech are constantly tweaking their inferential models, advertisers have optimized their adverts to the technology already in use.[94] Not only consumers 'single-home', meaning they rely on one or a few digital platforms. Advertisers single-home as well as they are incentivized to use only one intermediary to avoid the risk of bidding against themselves.[95] Despite their constant tweaking, the emergence of entirely new inferential models of consumer behaviour is thus unlikely to occur in the current market. Consumers are not only receiving ever more personalized ads, this personalization is also driven by few market actors, hindering innovation.

If the allocation of market power within ad-tech enables OBA to provide consumers with few choices beyond a set of behaviourally selected options, then informed consumer choice, understood as the core remit of EU consumer law, is itself threatened. For example, if the audience selection for digital ads across platforms and other websites draws on the same algorithm and/or set of consumer data, consumers

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[93] Ibid.

[94] https://applift.com/blog/multi-armed-bandit-machine-learning-a-b-testing (last visited 15 March 2021).

[95] Srinivasan, op. cit. *supra* note 36, at 38.

experience with more or less awareness that their algorithmically inferred profile dominates the selection of ads they see.[96] At the extreme, this development could leave consumers with no alternative but to opt for the inferentially selected option(s) or else exit the market.

The stronger the link between external and internal market failures appears to be in a given market, consumer law benefits from considering the availability of non-personalized outside options. Lowering the visibility of available outside options may already be enough to distort consumers' transactional decision-making in an unfair manner. In 2017, the European Commission fined Google for abusing market dominance as a search engine by giving illegal advantage to its own comparison shopping service, Google Shopping.[97] The Commission held that by reducing the visibility of rival comparison shopping services Google stifled competition on the merits in comparison shopping markets, depriving European consumers of genuine choice and innovation.[98] The Commission held it to be likely that Google's conduct reduces the ability of consumers to access the most relevant comparison shopping services.[99] Search users, the Commission found, tend to consider that search results that are ranked highly in generic search results on Google's general search results pages are the most relevant for their queries.[100] They click on them irrespective of whether other results would be more relevant for their queries.[101] It seems unlikely that Google itself was not aware of the effect that the ranking of search results has on its users. It thus exploited a cognitive error that consumers were predictably making. The Commission further noted that information provided by Google about differences in the underlying ranking mechanisms was "likely to be understandable only by the most knowledgeable users."[102]

Clearly, adverts are different from search results. Advertisers do not have to provide links to alternative offers by competitors. To the contrary, they are bidding higher than their rivals in an auction of online ad space precisely to have their ad and

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[96] Pricing algorithms may lead to tacitly coordinated outcomes, for example when competing sellers use the same algorithm or data pool to determine prices, cf. Ezrachi and Stucke, *Virtual Competition* (Harvard University Press, 2016).

[97] Case AT.39740 – *Google Search (Shopping)* (27 June 2017).

[98] Cf. https://ec.europa.eu/commission/presscorner/detail/en/IP_17_1784 (last visited 15 March 2021).

[99] *Google Search (Shopping)*, op. cit. *supra* note 98, para 597.

[100] Ibid., para 598.

[101] Ibid.

[102] Ibid., para 599.

no other delivered. The ad auctions themselves, however, are more similar to the indexing and ranking of search results. Their outcomes determine how consumers perceive their options in the market and how likely they are to act upon them. If few ad intermediaries which trade algorithmically inferred consumer profiles dominate the market, the visibility of options in the market which are not based on those profiles is lowered. This effect can aggravate the behavioural exploitation of consumers' irrationalities. In capturing this lies the added value of considering market power within the UCPD. Even if the DMA were to pass into law and reintroduce some contestability in the ad intermediary market, platforms' market power may still cause consumer harm through OBA as the problem likely shifts from the stage of data analytics to that of data acquisition (see section 5).

Lastly, importing market power analysis into consumer law raises the question of whether every abuse of a dominant position violating EU competition law also qualifies as a violation of the UCPD. A trend towards convergence between both areas of EU law as regards their policy objectives has already been noted.[103] The UCPD explicitly states that it indirectly protects fair competition (Recital 8 to the UCPD) and an abuse of dominance under EU competition law can include "conduct which is directly exploitative of consumers."[104] In those cases, a violation of the UCPD should also be considered. The question then becomes which institution is best positioned to police this behaviour. While an answer is outside of the scope of this article, it should also be borne in mind that the UCPD of course not only applies to digital platforms but to all kinds of online and offline markets. Outside of digital settings, traders already lack the unprecedented control over the interaction with consumers through combining personalization and systematization that data-driven markets offer. It will therefore be interesting to see what institutional improvements of law enforcement the DMA and DSA proposals will be able to bring into existence.

4 Applying the UCPD to OBA

This section explores how the concept of market power can be incorporated into an assessment of a UCPD violation. It begins by clarifying how the UCPD applies to OBA (4.1). Next, it explains the functioning of the UCPD's average consumer test and how

[103] Albors-Llorens, op. cit. *supra* note 91.

[104] European Commission, Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, O.J. 2009, C 45/7, para 7.

it could be made stricter in order to protect non-personalized outside options (4.2). Finally, it analyses the legality of the data analytics behind OBA under market power by applying the stricter average consumer test (4.3).

4.1 The Applicability of the UCPD to OBA

The scope of the UCPD covers "any act, omission, course of conduct or representation, commercial communication including advertising and marketing, by a trader, directly connected with the promotion, sale or supply of a product to consumers" (Art. 2 (d)). The definition of a 'trader' (Art. 2 (b)) covers not only traders who act on their own account but also persons, including consumers, acting "in the name of" or "on behalf of" another trader. This allows holding a trader jointly liable with another trader for infringements committed by the latter on behalf of the former. For example, a company placing advertisements in the media on behalf of another company is a trader according to the UCPD and an app store provider remains liable under the UCPD even if liability for the content of an app primarily lies with its developer.[105] Likewise, ad intermediaries are 'traders' within the meaning of the UCPD if they auction targeted advertising space and draw revenues from the targeting.[106]

The UCPD only prohibits commercial practices from businesses to consumers which are unfair. Practices which do not affect consumers' economic interests are not within its scope.[107] For a practice to be deemed fair, it has to pass several layered tests. First, certain practices that fall under the blacklist in Annex I are always prohibited. Second, a commercial practice could constitute a misleading action (Art. 6), a misleading omission (Art. 7), or be regarded as aggressive (Art. 8) by using harassment, coercion, or undue influence (Art. 9). The practice is then prohibited if it "causes or is likely to cause" the average consumer "to take a transactional decision that he would not have taken otherwise" (Art. 6, 7, and 8). According to the general clause in Article 5, a commercial practice is unfair if it is contrary to the requirements of professional diligence and thus prohibited, but only so if it "materially distorts or is likely to materially distort the economic behaviour of the average consumer," which likewise means to cause the consumer to take a transactional decision he would not have taken otherwise (cf. Art. 2 (e)).

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[105] European Commission, Guidance on the implementation/application of Directive 2005/29/EC on unfair commercial practices, 25 May 2016, COM(2016)320 final, p. 30.

[106] Cf. ibid., p. 110.

[107] Recital 6 to the UCPD.

The UCPD is a measure of maximum harmonization. Member States must not enact stricter rules. A general prohibition of a commercial practice is only in accordance with the UCPD if it is listed in the Annex I of banned practices. All other practices are probed on a case-by-case basis.[108] The decision is then left for the national court to make. Maximum harmonization means that Member States must not only prohibit all commercial practices which are deemed 'unfair' according to the Directive, but also allow all practices which fall within the material scope of the Directive and are not unfair.[109] In the law, there is thus "collateral damage" by design – in some situations, some consumers' economic interests will lawfully be harmed.[110]

Consumer protection under the UCPD always has to be based on the transactional decision-making of a consumer.[111] In *Trento Sviluppo*, the ECJ stated that the concept of a transactional decision is "broadly defined," it "covers not only the decision whether or not to purchase a product, but also the decision directly related to that decision, in particular the decision to enter the shop."[112] It is important to note that the formulation "causes or is likely to cause" does not require proof of an actual distortion of the consumer's decision-making. A merely hypothetical consideration of the likelihood of a distortion is enough to pass the threshold. This is an actual feature the UCPD holds for consumers in digital markets who will often lack access to relevant data about the audience selection of advertisements and alternative ads they could have seen instead.

It follows from the above that OBA as an advertising practice falls within the remit of the UCPD. OBA as such thus may or may not violate the UCPD.[113] The research interest of this paper, however, lies also in identifying how the UCPD would be able to give the market structure of online advertising its due weight. The recent DMA and DSA proposals signal the need to address the dominance of digital platforms outside the remit of competition law. The following sub-section therefore develops an interpretation of the UCPD that is sensitive towards OBA's market environment.

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[108] See, for example: Case C-13/15, *Criminal proceedings against Cdiscount SA*, ECLI:EU:C:2015:560, para 19.

[109] Weatherill, *EU Consumer Law and Policy*, 2nd edition (Edward Elgar, 2013), at 239.

[110] Trzaskowski, op. cit. *supra* note 19.

[111] For a legal definition of 'transactional decision', see Art. 2 (k) UCPD.

[112] Case C-281/12, *Trento Sviluppo srl,Centrale Adriatica Soc. coop. arl v. Autorità Garante della Concorrenza e del Mercato*, ECLI:EU:C:2013:859, para 36.

[113] Arguing for a violation as an 'aggressive practice': Galli, op. cit. *supra* note 16.

4.2 Towards a Stricter Average Consumer Test

The most straightforward way to address concerns about targeted advertising as regards consumer welfare would be to empirically assess how targeted consumers actually behave. Behavioural economics offers a framework that allows to account for consumers' deviation from rationality and advertisers' exploitation thereof.[114] Behavioural research shows that *all* consumers are to various extents predictably irrational.[115] The UCPD, however, only regards certain groups of consumers which predictably deviate from standards of reasonable choice as 'vulnerable'. This entails a regulatory decision to not regard all behavioural exploitation as a failure of the market in need of correction.

The current default positions in EU competition law and economic regulation assume consumers to be 'standard' consumers, whereas consumer law addresses 'average' consumers.[116] Historically, standard consumers are economic actors who respond rationally and predictably to changes in the market and remain unaffected by the environment in which they exercise choice.[117] Average consumers are likewise expected to behave rationally, albeit with some room for deviation, being "reasonably well informed, observant, and circumspect."[118] Following this still rationalistic paradigm, the UCPD conceptualizes its average consumer as a normative ideal and "not a statistical test."[119] The Directive states that "[n]ational courts and authorities will have to exercise their own faculty of judgment, having regard to the case law of the ECJ, to determine the typical reaction of the average consumer in a given case."[120]

The UCPD does not uniquely define its average consumer. Instead, it features three types of average consumers.[121] The 'standard average consumer' is "reasonably well-

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[114] Calo, op. cit. *supra* note 5.

[115] See: Trzaskowski, op. cit. *supra* note 19.

[116] See Decker, "Concepts of the consumer in competition, regulatory, and consumer protection policies",13 *Journal of Competition Law & Economics* (2017), 151–184, at 184.

[117] Ibid., at 183.

[118] Cf. Recital 18 to the UCPD. The ontology of consumer law is insofar richer as it anticipates the existence of particularly vulnerable consumers (cf. Recital 19 to the UCPD) and allows for a gradual decline of rationality along stereotypical consumer types, cf. the typology in Wilhelmsson, *Twelve Essays on Consumer Law and Policy* (University of Helsinki, 1996); cited after: Cartwright, op. cit. *supra* note 20, at 205.

[119] Cf. Recital 18 to the UCPD. See further: Weatherill, "Who is the 'Average Consumer'?", in: Weatherill and Bernitz (eds.), *The Regulation of Unfair Commercial Practices under EC Directive 2005/29* (Hart, 2007), pp. 115–138; Abbamonte, "The Unfair Commercial Practices Directive and its general prohibition", in: Weatherill and Bernitz, op. cit., pp. 11–23; Howells, "Introduction", in: Howells, Micklitz and Wilhelmsson, *European Fair Trading Law* (Routledge, 2006), 1–26.

[120] Ibid.

[121] Following the useful typology in Cartwright, op. cit. *supra* note 20, at 200–201.

informed and reasonably observant and circumspect."[122] Second, there is a refinement of this standard with the 'average targeted consumer', who becomes relevant whenever "a commercial practice is specifically aimed at a particular group of consumers, such as children."[123] It is then "desirable that the impact of the commercial practice be assessed from the perspective of the average member of that group."[124] The 'average targeted consumer' thus lends itself as the benchmark by which to assess behaviourally targeted advertising whenever it singles out an identifiable group of consumers. Finally, there is the 'average vulnerable consumer', who is particularly susceptible due to "certain characteristics such as age, physical or mental infirmity or credulity", which allow traders to reasonably foresee that their practices will only distort the economic behaviour of these consumers.[125] The difference between the 'average targeted consumer' and the 'average vulnerable consumer' seems to lie in the fact that the former may be targeted precisely because of their personal characteristics relevant to consumption, whereas the latter may not be targeted in particular but nevertheless fares predictably badly under the practice in question.[126] Children, who regularly also qualify as 'vulnerable', are not the only consumers who tend to be misled by being targeted. Just consider non-native speakers, highly indebted people, and bereaved family members.[127] These are not necessarily 'vulnerable' consumers who may nevertheless be harmed by behavioural targeting.

When considering the effects of OBA on consumer decision-making, regulators, authorities and courts should use the figure of the 'average targeted consumer'. At this point of the legal analysis, the consideration of market power would be most effective. Here, the availability of 'non-personalized' outside options should be assessed. Instead of working with *ex ante*-identified groups of vulnerable consumers, an *ex post* analysis should consider two questions: first, how likely is it that the targeted consumers are seeing an advert which is trying to exploit a predictable irrationality in their transactional decision-making? Second, from the point of view of market power, how likely is it that the same targeted consumers would have received adverts which are relevant to them and are not based on the same exploitative profile of their mental

[122] Recital 18 to the UCPD.
[123] Ibid. See also Art. 5 (2) (b) UCPD.
[124] Ibid.
[125] Recital 19 to the UCPD. See also Art. 5 (3) UCPD. See further: Weatherill, op. cit. *supra* note 109, at 243.
[126] Cf. again Cartwright, op. cit. *supra* note 20.
[127] Ibid., at 208.

make-up? If the first question is likely positive and the second likely negative, these consumers' economic decision-making is very probably unfairly distorted. The 'trader' will then have used both market power as well as data against consumers to a degree which is worth an *ex post* legal intervention. Consider, for example, immigrants who do not speak the language of the country they immigrated to. Imagine they are targeted by advertisements which exploit their fear of losing their residence status and try to sell them expensive language degrees which, in fact, are not recognised by the local authorities. Since it is unlikely that this group consumes anything but online news (as they cannot read the local printed press or understand the local radio and television news), the market power of online ad intermediaries puts them at a particular risk: no matter which online news website they visit, they tend to receive the same kind of targeted advertising, including the potentially harmful language degree ads.

To iterate, the argument made here is not that every monopolist or market actor with significant market power breaches the UCPD. However, dominant market actors that engage in the exploitation of consumers' cognitive errors should be under stricter assessments of EU consumer law, particularly in digital markets. The special regimes the proposed DMA and DSA envisage for digital platforms shows that the European Commission is willing to consider their market power outside of the remits of competition law. *Vice versa*, not every exploitation of consumers' irrationality violates the UCPD. 'Puffery', the boastful exaggeration of a product's or service's qualities is mostly considered fair play in advertising.[128] Behavioural targeting under market power is different: Someone in an extroverted state of mind receiving an offer to invest might well believe that this is a good moment to invest, even if the investment is overpriced. At the same time, it is unlikely that this person ever receives moderate investment advice, whether being in an extroverted state of mind (as advertisers with overpriced offers pay to reach this person now) or not (as those advertisers are unlikely to pay to reach this person now).

How likely is it that a stricter average targeted consumer test is going to be adopted? First of all, the UCPD's rational-consumer paradigm may provide an obstacle.[129] This paradigm has already provoked behaviouralist critiques claiming that its benchmark is overly demanding since actual consumers do not behave particularly rationally but

[128] See, for example: Leiser, "AstroTurfing, 'CyberTurfing' and other online persuasion campaigns", 7 *European Journal of Law and Technology*, 1–27, at 6.
[129] Galli, op. cit. *supra* note 16, at 126–127.

instead predictably irrationally.[130] The ECJ has so far only limitedly opened itself to behaviourally informed assumptions. In its older case law, the Court explicitly rejected "ordering an expert's report or commissioning a consumer research poll."[131] In its more recent case law, while not deviating from its rationalistic standard the ECJ at least enriched its benchmark with behavioural considerations. The Court considered the exploitation of psychological effects from distracting information in commercial messaging as well as consumers' ability to appreciate relevant information that has been correctly given to them.[132] The case law signals at least some openness towards behavioural insights. With OBA under review, however, judges and regulators would not necessarily have to look for empirical psychological evidence. Instead, from the point of the of the 'average targeted consumer' they could simply assume that the consumer, albeit otherwise rational, deviates from rationality in precisely those aspects that she is behaviourally targeted for (see further under 4.3). The current legislative proposals by the European Commission could facilitate the informational base for this kind of inquiry. If adopted, the DSA would require advertising intermediaries with considerable market power to store the adverts they run, including targeting metrics, in an advertising repository.[133] This could potentially already be all the information judges and regulators would need to assess which psychological trait has been targeted in which population and to what degree of success.

Further, as shown in section 2, OBA is not simply old-fashioned print advertising gone online, but instead a complex technological evolution that is at the same time non-transparent for average consumers and providing them with a direct link to the checkout lane for the advertised products or services. The "simplificatory function" behind the rationalistic average consumer standard does not reflect this information asymmetry in digital markets.[134] In *Orange Polska*, the ECJ recently stated that "especially in a sector as technical as the telecommunications services sector, [...] it

[130] Cf. Incardona and Poncibo, "The average consumer, the unfair commercial practices directive and the cognitive revolution", 30 *Journal of Consumer Policy* (2007), at 21–38; see also: Trzaskowski, op. cit. *supra* note 19; Sibony, "Can EU Consumer Law Benefit from Behavioural Insights?", 6 *European Review of Private Law* (2014), 901–942.

[131] Case C-210/96, *Gut Springenheide GmbH and Rudolf Tusky v. Oberkreisdirektor des Kreises Steinfurt, Amt für Lebensmittelüberwachung*, ECLI:EU:C:1998:369, para 31.

[132] Case C-428/11, *Purely Creative Ltd and Others v. Office of Fair Trading*, ECLI:EU:C:2012:651, para 38; Case C-195/14, *Bundesverband der Verbraucherzentralen und Verbraucherverbände – Verbraucherzentrale Bundesverband e.V. v. Teekanne GmbH & Co. KG*, ECLI:EU:C:2015:361, para 37.

[133] Art. 30 DSA.

[134] Sibony, op. cit. *supra* note 130, at 909; Galli, op. cit. *supra* note 16, at 27.

cannot be denied that there is a major imbalance of information and expertise between the parties."[135] The case, however, concerned a model for concluding and amending contracts and did not address matters of advertising *per se*.

Finally, there is some evidence from the ECJ's broader jurisprudence that lowering the availability of outside options violates consumer-protection norms without needing an *ex-ante* defined group of vulnerable consumers to be affected. The *Schmuckhandels* case concerned the practice of organizing "jewellery parties" in a private house.[136] At issue was not the UCPD but the interpretation of the old Articles 28 and 30 EC (now 34 and 36 TFEU). The ECJ acknowledged that the sale of jewellery in private homes requires accounting for "the potentially higher risk of the consumer being cheated due to a lack of information, the impossibility of comparing prices or the provision of insufficient safeguards as regards the authenticity of that jewellery and the greater psychological pressure to buy where the sale is organized in a private setting."[137] As much as "psychological pressure" relates to the 'internal' mind of the consumer, the "lack of information", the "impossibility of comparing prices" and the "insufficient safeguards" at least also concern the outside options of the consumer in the market. With OBA, the average targeted consumer may find it difficult to receive information about options and prices outside of those advertised to her online.

The more recent case law of the ECJ signals a certain openness towards behavioural considerations which in turn provides ground for the adoption of a stricter average consumer test. At the same time, this test could be implemented without having to resort to empirical psychological research. Instead, OBA' metrics could provide the assumed behavioural effects on otherwise rational consumers.

4.3 Market Power and Inferential Analytics under the UCPD

How would OBA fare under a stricter average targeted consumer test? In the logic of the UCPD this requires asking whether targeted advertising and market power interact so that consumers take transactional decisions they would otherwise not take. To iterate, the negative effect of market power considered here is the diminishing of non-personalized outside options as consumers risk being siloed into groups according to their inferred cognitive characteristics. There are five ways in which this could violate

[135] Case C-628/17, *Prezes Urzędu Ochrony Konkurencji i Konsumentów v. Orange Polska S.A.*, ECLI:EU:C:2019:480, para 36.

[136] Case C-441/04, *A-Punkt Schmuckhandels GmbH v. Claudia Schmidt*, ECLI:EU:C:2006:141.

[137] Ibid., para 29.

the UCPD: as a blacklisted action, a misleading action, a misleading omission, an aggressive action, or as failing the general test.

Let us begin with misleading actions according to Article 6 UCPD. According to the European Commission in *Google Shopping*, reducing the visibility of rival comparison-shopping services stifled competition on the merits and deprived European consumers of genuine choice and innovation. Without its market power, Google could not have had this effect on the market for comparison-shopping services. If ad intermediaries lower the visibility of non-personalized outside options, how is the 'average targeted consumer' likely to behave? If we assume that advertising has persuasive powers (see section 2.1), then it is not circular to argue that they are likely to behave in line with the inferential prediction of their transactional behaviour. As argued above (section 2.2), with OBA, extroverted individuals and impulsive shoppers receive offers they would otherwise not receive, at moments in time where they would otherwise not receive them. This makes it likely that they are taking transactional decisions that they would not take otherwise, leading to a distortion of their economic decision-making that violates the UCPD.

This conclusion raises the question of how ad intermediaries could avoid this charge without giving up market share or stopping OBA altogether. If this amounts to a *de facto* ban of OBA, an amendment of the UCPD's Annex I might then be the normatively 'cleaner' solution, as it lists all banned commercial practices. However, despite some political clout for such a ban (see Introduction), the effects of targeted advertising on consumer welfare are somewhat ambiguous, as shown in section 3.1. A ban of all OBA practices, even if conditioned on market power, may prove to be disproportionate. Dominant ad intermediaries, which offer exploitative, highly persuasive behavioural targeting, may thus have to run their targeting while risking that their practices could be classified as misleading actions in an *ex post* analysis under the UCPD. Given that UCPD case-law on OBA is currently absent, the next section addresses whether the DMA/DSA proposal could defuse this problem.

There are two ways in which behavioural targeting under market power could also amount to a misleading omission according to Article 7 UCPD. First, consumers could be required to receive information that they are being behaviourally targeted in a way that allows the average targeted consumer to understand its consequences. This may

prove very difficult to achieve.[138] As the Commission stated in *Google Shopping*, only the 'most knowledgeable users' are likely to understand the information provided by Google about the underlying ranking mechanisms.[139] One may assume that reasonable consumers who understand Google's ranking mechanisms would ignore the highest-ranking query results and merely click on those links more relevant to them. Most average users, however, will regularly lack that understanding. Following the argument above (sections 3.2 and 4.2), it is likewise unwarranted to assume that consumers understand how the inferential analytics behind OBA work.

Second, if we assume that behaviourally targeted adverts are persuasive, then analogous to the argument made about misleading actions not showing non-personalized ads amounts to a misleading omission. Moreover, not showing consumers adverts which are matching their preferences when it is actually beneficial to them is thus also misleading. If a retail investor only receives offers to invest whenever she is in an extroverted state, but not if she is in an introverted state, then this has the potential to distort her economic decision-making in an unfair manner. Ad-tech providers could exonerate their practices from a violation of the UCPD by demonstrating that the targeting of consumers in their network is not absolute, hence not significantly lowering the visibility of non-personalized outside options, or at least not exclusively exploitative.

Building on the analysis above, OBA with market power may also constitute an aggressive practice (Art. 8 UCPD) by "harassment, coercion, [...] or undue influence" (Art. 9 UCPD). It has been argued before that OBA operates with an asymmetry of information between traders and consumers that could constitute 'undue influence'.[140] According to Article 2 (j) UCPD, undue influence is "exploiting a position of power in relation to a consumer so as to apply pressure, even without using or threatening to use physical force, in a way which significantly limits the consumer's ability to make an informed decision". Having intricate knowledge about the consumer's psychological make-up and cognitive abilities could hold persuasive potential that passes this threshold.[141] An aggressive practice would also have to impair the consumer's freedom of choice (Art. 8 UCPD). With market power, OBA's

[138] Difficult, but not impossible, see: Wachter, Mittelstadt and Russell, "Counterfactual explanations without opening the black box", 31 *Harvard Journal of Law & Technology* (2018), 841–887.

[139] *Google Search (Shopping)*, op. cit. *supra* note 97, para 599. See above section 3.2.

[140] Galli, op. cit. *supra* note 16; Hellberger, op. cit. *supra* note 16.

[141] Ibid., at 157.

persuasiveness may increase significantly, especially in cases such as the example above, in which immigrants are lacking their host country's language skills and have adverts for language degrees follow them around the websites they visit.

Lastly, OBA under market power could fail the UCPD's general test if it is "contrary to the requirements of professional diligence" (Art. 5 (2) (a) UCPD). Previous research has argued that the mandatory GDPR norms such as informed consent define a bare minimum of professional diligence in the digital platform economy.[142] While the GDPR requirements are outside the scope of this article, the notion of informed consent will be revisited again in the next section. This cursory analysis showed that with a stricter average consumer test, OBA combined with market power may constitute a misleading action, a misleading omission, and an aggressive practice.

5 Revisiting the Results in Light of the DMA/DSA Proposals

As mentioned, the DMA and DSA propose special obligations for digital platforms with market power. There is thus the question of whether or not the proposals may defuse risks dominant ad intermediaries pose for behaviourally targeted consumers.

The DMA indeed seeks to provide advertisers and publishers with access to advertising metrics held by gatekeeper platforms (Art. 6 (1) (g) DMA). Business users shall also gain access to gatekeepers' usage data (Art. 6 (1) (i) DMA). The data advantage of dominant ad intermediaries may thus weaken if the DMA passes into law. Whether or not this would lead to a decoupling of OBA practices and the market power of ad intermediaries is however an open question. Some of the structural features of platforms such as network effects may persist even if the market in question has become more contestable (see section 3.1). Although advertisers may gain access to OBA-enabling data themselves, as long as their audiences are still being auctioned by a gatekeeper singling out dominant ad intermediaries under the UCPD is still justified.

If the market for auctioning online ad space actually becomes less concentrated, market power becomes less of an issue, at least at this stage of the behavioural targeting. From a consumer's perspective, it remains to be seen whether this more competitive intermediary market would also lead to more variation in the consumer profiles being auctioned. In as much as the predictive consumer profiles are inferred from social media data, another highly concentrated platform market, the problem shifts from the stage of inferential analytics to that of data acquisition. Article 5 (a)

[142] Goanta and Mulders, op. cit. *supra* note 16, at 144.

DMA prohibits gatekeeper platforms only from combining personal data from their core services with that of other services they offer (or third-party personal data) if the end users have not provided their consent. As the following paragraphs will show, data acquisition by social media platforms with market power raises problems under the UCPD that are structurally similar to the analysis above.

Unless consumer consent to data sharing practices becomes a more efficient tool under the DMA, there is little reason to believe that the average consumer will have a better understanding of the data collecting, data sharing and personal profiling digital platforms engage in. Previous research has shown that by promising a free product when actually it collects and then monetizes data from users, Facebook may fail several fairness tests in the UCPD.[143] Privacy scholars have for some time now argued that consumers' lack of power to choose data-protecting alternatives makes it difficult to argue that their widespread consent to sharing their personal data with platforms is the outcome of a rational choice and therefore in no need of regulatory correction.[144] As the CMA reports, while a majority of consumers prefers advertising relevant to them, only 13% of respondents of one study said that they were happy for online companies to collect and use their data to show more relevant adverts or information.[145] The report further states that "a large proportion of consumers may make decisions about platforms that they might not otherwise make [...] because they feel that they have little choice."[146] Research on coping behaviour on social media suggests that users try to avoid online behavioural advertising when they can.[147] Some digital platforms such as Facebook offer no opt-out of the sharing of personal data. Others offer opt-outs, but make the choices involved little transparent and nudge consumers into choosing options that benefit the interests of the platforms.[148] Overall, the choice architecture of many digital platforms amplifies consumers' cognitive biases and makes it thus harder for consumers to engage with platforms' privacy settings.[149]

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[143] Goanta and Mulders, op. cit. *supra* note 16, 146; For a similar argument, see: Helberger, op. cit. *supra* note 16, 146–147; The European Commission seems to endorse a similar view, cf. European Commission, Behavioural Study on Advertising and Marketing Practices in Online Social Media, Final Report, 1 October 2018, p. 96.

[144] See the debate in: Report cited *supra* note 11, paras 4.46–4.58; See further: Kuner et al., "When two worlds collide", 4 *International Data Privacy Law* (2014), 247–248; For a critique, see Yakovleva, Geursen and Arnbak, op. cit. *supra* note 11, 1478.

[145] Report cited *supra* note 11, para 4.68.

[146] Ibid., para 4.118.

[147] Ham, op. cit. *supra* note 58.

[148] Report cited *supra* note 11, paras 4.126–4.130, 4.145.

[149] Ibid., para 4.207.

Similar to the argument made above, at the stage of data acquisition digital platforms' market power could trigger a stricter average targeted consumer test under the UCPD. It is reasonable to assume that with market power in social media, consumers share more personal data than they would if the market offered viable privacy-protecting alternatives. European consumers thus receive more personalized advertising than they otherwise would which may lead them to take more transactional decisions than they otherwise would.

6 Conclusion

As the CMA states in its 2020 report on digital advertising, consumer trust can suffer significantly from high levels of personalization.[150] This article has shown that consumers' mistrust is not unwarranted. Their welfare risks being harmed through behavioural targeting and the concentration of market power in the ad-tech industry.

By drawing on key insights from current economic theory, this article suggests a novel assessment of market power under the UCPD to factor in the dominance of ad intermediaries. It argues in favour of a stricter average consumer test to prevent consumers from being siloed in their market choices according to their inferred cognitive dispositions. It is suggested that OBA under market power can amount to a misleading action and/or omission according to Articles 6 and 7 UCPD as well as an aggressive practice according to Article 8 UCPD. Current EU consumer law therefore offers a remedy for harms done by online advertising practices.

The proposed DMA and DSA will likely further improve the normative position of behaviourally targeted consumers. While the DMA and the UCPD differ in several important aspects, as the DMA is *ex ante* regulation seeking to support competitors and the UCPD is *ex post* regulation aiming to protect consumers, they hold great potential to become mutually reinforcing. Information unearthed in DMA or DSA investigations will likely provide judges and regulators with knowledge about market power as well as targeting practices that help to apply the stricter average consumer test under the UCPD suggested in this article.

[150] Ibid., para 4.77.