

## **“Digital Agoraphobia”: an enforcement perspective**

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*“Now, everyone has a license to speak. The question is who gets heard. [...]”*<sup>1</sup>

### **Abstract**

Technological advancements have radically transformed consumers’ choice. They have empowered consumers. Yet, simultaneously, they have created new causes for consumer vulnerabilities and undermined consumers’ trust. This paper advances the claim that it is time to re-think consumer participation and enforcement tools in digital markets in order to tackle the emerging problem of “digital agoraphobia”. “Digital agoraphobia” connotes consumers’ fear, inability and lack of trust when engaging in various transactions on digital marketplaces. Despite the very substantial benefits of digital markets, this paper posits that in the light of their particular characteristics, consumer transactions entail a number of risks, which in turn complicate the exercise of consumer choice. Three main types of such constraints are identified. The first type is associated with the – seemingly – enhanced choice in online markets (“enhanced” choice constraints), whereas the second with the rather predominant model of free choice (“free” choice constraints). Finally, the third type of constraints relates to the increased delegation of choice making powers (“delegated” choice constraints). In light of these three main types of constraints on consumer choice, the paper argues that it is time to enhance procedural avenues for consumers’ participation and reconceptualise enforcement tools towards a responsive remodelling of competition law enforcement.

### **I. Introduction**

We live in a world of unprecedented technological change. The way we live our lives today, with the most essential services being only a click away, has radically transformed our

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<sup>1</sup> Aaron Schwartz, The Network Transformation - Interview (April 2007) <https://www.youtube.com/watch?v=7AG-fy-vK3w> (accessed 30 April 2018).

existence as consumers. On the face of it, markets are performing well, as the prices for services have radically decreased – or are provided for free - through the use of online platforms. We can shop for less, compare products in real time, search virtually any question, hail a cab on our mobile phone, order any kind of food and the list is endless. As such, these technological advancements have transformed consumers’ choice, yet simultaneously they have created new causes of concerns for competition on the marketplace and consumers’ role therein.

To describe this Janus-faced nature of digital markets, which entail both significant benefits as well as concomitant risks for consumers, and the inherent challenges for consumer choice, this paper uses the term “digital agoraphobia”. Agoraphobia is defined as the “extreme or irrational fear of entering open or crowded places, of leaving one’s own home, or of being in places from which escape is difficult”.<sup>2</sup> Agoraphobia constitutes an anxiety disorder, where the person suffering, experiences anxiety and fear of open spaces, travelling or leaving one’s home.<sup>3</sup> Such definitions correspond to the etymology of the word ‘agoraphobia’, its origin and structure. Agoraphobia is a compound noun deriving from two Greek words, namely ‘agora’ and ‘phobia’. ‘Agora’ is the place of assembly, the market and the marketplace, whereas ‘phobia’ is synonymous to the word fear. Hence, agoraphobia signals the fear of the marketplace.<sup>4</sup>

“Digital agoraphobia” connotes consumers’ fear, inability and lack of trust when engaging in various transactions on digital marketplaces. Despite the very substantial benefits of digital markets, this paper posits that in the light of the particular characteristics of digital markets, consumer transactions entail a number of risks, which in turn complicate the exercise of consumer choice and undermine consumer trust. The analysis focuses on those characteristics of digital markets, which may be problematic from a competition law perspective. Competition law caters for consumer choice, while consumer law enables the exercise of such choice through the provision of necessary information.<sup>5</sup> Hence, the

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<sup>2</sup> Oxford English Dictionary.

<sup>3</sup> NHS, “Agoraphobia” < <https://www.nhs.uk/conditions/agoraphobia/> > (accessed 8 May 2018).

<sup>4</sup> For use of the term “agoraphobia” as fear of the marketplace see McFadden, “Free Markets and Fettered Consumers”.

<sup>5</sup> This essentially reflects Averitt and Lande’s ‘consumer sovereignty’ theory: N Averitt and R Lande, ‘Using the “Consumer Choice” Approach to Antitrust Law’ (2007) 74 Antitrust LJ 175; N Averitt and R Lande, ‘Consumer Sovereignty: A Unified Theory of Antitrust and Consumer Protection Law’ (1997) 65 Antitrust LJ 713. N Averitt, ‘Protecting Consumer Choice: Competition and Consumer Protection Together’ in J Drexler and others (eds), *More Common Ground for International Competition Law?* (Edward Elgar 2011) 36. Nihoul comments that this is, indeed, the approach adopted in the EU. See P Nihoul, ‘Is Competition Law Part of Consumer Law?’ in J Drexler and others (eds), *More Common Ground for International Competition Law?* (Edward Elgar 2011) 46, 46.

contribution of this paper is to examine the emerging problem of “digital agoraphobia” by identifying certain constraints on consumer choice due to the very structure and functioning of digital markets, which entail practices at the borderline between competition, consumer protection and data protection laws.<sup>6</sup> The analysis focuses on final consumers acting outside professional or commercial activities.<sup>7</sup> It excludes “prosumers”, taken to mean someone that acts both as a provider and a consumer in the platform economy.<sup>8</sup>

As a result of the main technological characteristics of digital markets, focusing largely on digitisation, datafication and interconnection, we identify three main types of constraints on consumer choice. The first type is associated with the – seemingly – enhanced choice in online markets (“enhanced” choice constraints). Despite the increased choice, consumers often fail to reap the benefits due to, first, the exacerbation of consumer behavioural biases in online markets. Second, this failure can be attributed to potential competition law problems in online markets, such as personalised pricing practices. The second type of constraints is associated with the rather predominant model of free choice on online markets (“free” choice constraints). Digital markets heavily rely on data driven business models, whereby consumers use their data as currency for their respective participation. With respect to data collection, consumers can potentially be forced to give their consent, may not understand the terms and conditions to which they are consenting or even be unaware of their data being collected. Equally, problems exist with respect to the processing of such data, as consumers may not understand the role of algorithms, targeted advertising and personalisation. The third type of constraints relates to the increased delegation of choice making powers to digital assistants. Digital assistants, such as Amazon Alexa or Apple Siri, can perform a range of tasks following a voice order and support many smart appliances in the Internet of Things. Such choice delegation entails implicit risks for the long term exercise of consumer choice.

In light of these three main types of constraints on consumer choice, we argue that it is time to reconceptualise consumer participation in retail digital markets and revise the enforcement tools, in order to tackle the emerging problem of “digital agoraphobia”. Adjusting the existing regulatory framework, including competition law, to address the challenges of

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<sup>6</sup> See M Patterson, *Antitrust Law in the New Economy* (Harvard University Press 2017) 4.

<sup>7</sup> For the various consumer images in EU law see D. Leczykiewicz and S. Weatherill (eds), *The Images of the Consumer in EU Law: Legislation, Free Movement and Competition Law* (Hart Publishing 2016)

<sup>8</sup> Michele Finck, “Digital Regulation: Designing a Supranational Legal Framework for the Platform Economy” (2017) (LSE Law, Society and Economy Working Papers 15/2017) 5.

digital markets is not straightforward and has fuelled a lot of controversy. However, a point that all stakeholders agree on is the strengthening of consumers' rights in digital markets.<sup>9</sup> The question then is how to effectively enlist consumers as active market participants through an improvement of the relative enforcement avenues. Thus, while acknowledging the complexity from a substantive enforcement perspective, the focus of this paper is improving enforcement proceedings.

In claiming a procedural solution to address digital agoraphobia, this paper adopts the following structure. First, section II sets the scene by analysing the distinct characteristics of digital markets and framing the problem of “digital agoraphobia”. “Digital agoraphobia” is framed by reference to the three main types of constraints on consumers' choice in digital markets. Section III then discuss these three types of constraints in turn, namely “enhanced” choice constraints, “free” choice and “delegated” choice constraints. The discussion of these constraints sheds light to the various problems and risks consumers face in digital markets, which may undermine consumer trust, and result in “digital agoraphobia”. Section IV then explores the idea that “digital agoraphobia” may be partly attributed to the failure of the current enforcement toolbox to cater for consumer needs in digital markets and explores collective redress and hybridisation of enforcement as two possible solutions.

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<sup>9</sup> See, for example, Monopolkommission, “Competition Policy: Challenges of digital markets” (2015) (Special Report No 68) 7; BEIS, “Modernising Consumer Markets” (Consumer Green Paper) (April 2018).

## II. Digital Markets: characteristics and the framing of “digital agoraphobia”

The fourth Industrial Revolution has been hailed for its great promises, while highlighting the inherent perils of fast pace technological advancements,<sup>10</sup> and is characterised by unprecedented speed in technological breakthroughs such as Artificial Intelligence (AI), machine learning (ML) and the Internet of Things (IoT), enabling mass digitisation and interconnection.<sup>11</sup> The OECD has identified digitisation and interconnection as the two technological pillars driving digital transformation.<sup>12</sup> Digitisation fuels datafication,<sup>13</sup> which can be viewed as the third technological pillar driving digital transformation, allowing the extraction of value from large data sets.<sup>14</sup> Digitisation, interconnection and datafication drive ever expansive data – driven business models.<sup>15</sup> Google, for example, has ventured from its original search engine business to other business sectors ranging from operating systems, hardware, and household technology to telecommunications infrastructure and autonomous vehicles, and “has succeeded where Genghis Khan, communism and Esperanto all failed: It dominates the globe”.<sup>16</sup>

Since the focus of this paper is on digital markets catering to final consumers, platform markets and the retail IoT play an increasingly important role.<sup>17</sup> Platforms create online market fora disrupting the provision of goods and services in a variety of sectors. The European Commission (Commission) has underlined their exponential growth and the large variety of

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<sup>10</sup> Klaus Schwab, *The Fourth Industrial Revolution* (WEF 2016).

<sup>11</sup> Klaus Schwab, “The Fourth Industrial Revolution: what it means, how to respond” (World Economic Forum)(14 January 2016) < <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/> > (accessed 2 April 2018); Chris Tully, “How Can Space Support the Fourth Industrial Revolution?” < <http://spaceneews.com/sponsored/industrial-revolution/> > (accessed 2 April 2018).

<sup>12</sup> OECD, *Digital Economy Outlook 2017*, page 25.

<sup>13</sup> Datafication connotes the turning of all aspects of life into data. See Kenneth Cukier and Viktor Mayer-Schoenberger, *The Rise of Big Data: How It's Changing the Way We Think About the World* (Foreign Affairs, 2013) 35.

<sup>14</sup> Mark Lycett, “‘Datafication’: making sense of (big) data in a complex world” (2013) 22 *European Journal of Information Systems* 381.

<sup>15</sup> Monopolkommission, “Competition Policy: Challenges of digital markets” (2015) 3.

<sup>16</sup> Charles Duhigg, “The Case Against Google” (The New York Times Magazine, 20 February 2018) < <https://mobile.nytimes.com/2018/02/20/magazine/the-case-against-google.html?referer=https://t.co/cjSnYsGuwX?amp=1> >

<sup>17</sup> Pointing to terminological challenges and attempting a definition see Michele Finck, “Digital Regulation: Designing a Supranational Legal Framework for the Platform Economy” (2017) (LSE Law, Society and Economy Working Papers 15/2017) 3.

activities they cover, which include “online advertising platforms, marketplaces, search engines, social media and creative content outlets, application distribution platforms, communications services, payment systems, and platforms for the collaborative economy”.<sup>18</sup> *Peer platforms*, as an overarching category, act as intermediaries providing the online marketplace where providers and consumers interact through various forms of internet empowered digital communications.<sup>19</sup> *Platforms* can be subdivided to *commercial* and *non-commercial*. *Sharing economy or collaborative economy platforms*<sup>20</sup> are commercial peer platforms. Sharing economy, to the extent that it may involve a monetary exchange,<sup>21</sup> needs to be distinguished from *genuine sharing economy platforms*, which involve the sharing of extra assets and have the potential to promote sustainable consumption.<sup>22</sup> *Social network platforms*, such as Facebook, Instagram and Twitter, on the other hand, enable social interaction between users for free, while capitalising on their user’s expanding member basis on the advertising side. A term used by the German National Competition Authority is “*audience providing platforms*”, which provide a “free” service and are financed through advertising.<sup>23</sup> Another, very accurate term, focusing on the business model of these platforms is *attention merchants*, i.e. firms that strive to attract users attention to sell it to advertisers.<sup>24</sup> *Search engines* are also a type of platform and can be divided in horizontal search engines, answering general queries with Google having the lion share, and vertical search engines addressing specific queries, for example on hotel bookings or restaurants.<sup>25</sup> Digital platforms within the IoT have revolutionised consumer markets, such as wearables. Digital assistants markets is growing at

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<sup>18</sup> Commission (EU), “Online Platforms and the Digital Single Market Opportunities and Challenges for Europe” (Communication) (25 May 2016) 2.

<sup>19</sup> FTC, ““Sharing” Economy Issues Facing Platforms, Participants & Regulators” (FTC Staff Report, November 2016) 3; OECD, “Protecting Consumers in Peer Platform Markets – Exploring the Issues” (2016), 7.

<sup>20</sup> Arun Sundararajan, *The Collaborative Economy: Socioeconomic, Regulatory and Policy Issues*, Report carried out for the European Parliament’s IMCO Committee (2017), 3 [http://www.europarl.europa.eu/RegData/etudes/IDAN/2017/595360/IPOL\\_IDA\(2017\)595360\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2017/595360/IPOL_IDA(2017)595360_EN.pdf).

<sup>21</sup> See, Giana M. Eckhardt and Fleura Bardhi ‘The Sharing Economy Isn’t About Sharing at All’ (2015) *Harvard Business Review* available at <<https://hbr.org/2015/01/the-sharing-economy-isnt-about-sharing-at-all>> (accessed 31 Oct 2017); FTC, ““Sharing” Economy Issues Facing Platforms, Participants & Regulators” (FTC Staff Report, November 2016) 10-11.

<sup>22</sup> Michèle Finck & Sofia Ranchordás, “Sharing and the City” (2016) 49 *Vanderbilt Journal of Transnational Law* 1299, 1302.

<sup>23</sup> Bundeskartellamt, “Background information on the Facebook proceeding” (19 December 2017) <[http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Diskussions\\_Hintergrundpapiere/2017/Hintergrundpapier\\_Facebook.pdf?\\_\\_blob=publicationFile&v=6](http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Diskussions_Hintergrundpapiere/2017/Hintergrundpapier_Facebook.pdf?__blob=publicationFile&v=6)> distinguishing between the market for social networks (Facebook), professional networks (LinkedIn, Xing), messaging services (WhatsApp, Snapchat) and other social media (YouTube/ twitter), though the German NCA does acknowledge that they may be partly substitutable.

<sup>24</sup> Tim Wu, *The Attention Merchants: How Our Time and Attention Are Gathered and Sold* (2017)

<sup>25</sup> Monopolkommission, “Competition Policy: Challenges of digital markets” (2015) 6.

an exponential pace.<sup>26</sup> In 2017, Fitbit, Alexa, Apple Watch 2 and Google home have taken off.<sup>27</sup>

Given the multiplicity of platforms, reflected even in the abundant terminology used to describe them, any attempted definition is prone to appear either too narrow or too wide.<sup>28</sup> Common to all, is the role of data and algorithms. Data driven platforms and their running algorithms depict black box qualities,<sup>29</sup> which have come under scrutiny.<sup>30</sup> These powerful algorithms fuelled by data are omnipresent and enable various applications of narrow AI.<sup>31</sup> Narrow AI through ML performs an unprecedented range of automated tasks; digital assistants (such as Siri, Cortana, Alexa), shopping and search environment personalisation (Amazon, Google), tailored film and music environments (Netflix, Spotify) and personalised online environments via social media applications.<sup>32</sup>

Lack of transparency in algorithmic decision making raises various ethical questions and highlights the need for increased transparency and accountability.<sup>33</sup> The “right to explanation” for automated algorithmic decision making in the General Data Protection Regulation (GDPR)<sup>34</sup> attempts to address these concerns, yet it is vague and rests upon judicial clarification.<sup>35</sup> Apart from the legal issue as to the correct future interpretation of the “right to explanation” for automated decision making (and how broadly and narrowly it will be applied),

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<sup>26</sup> <https://www.statista.com/statistics/589077/worldwide-virtual-digital-assistants-consumer-market/> ; James Brown, “Digital Assistants – Giving Life To Artificial Intelligence” (Huffington Post, 23 November 2017) < [http://www.huffingtonpost.co.uk/entry/digital-assistants-giving-life-to-artificial-intelligence\\_uk\\_5a15a6fce4b009b331ad7693](http://www.huffingtonpost.co.uk/entry/digital-assistants-giving-life-to-artificial-intelligence_uk_5a15a6fce4b009b331ad7693) >

<sup>27</sup> Jessica Wade, “Wearable Technology Statistics and Trends 2018” (15 November 2017) <https://www.smartinsights.com/digital-marketing-strategy/wearables-statistics-2017/>

<sup>28</sup> Commission (EU), “Synopsis Report on the Public Consultation on the Regulatory Environment for Platforms, Online Intermediaries and the Collaborative Economy (2016) 6; Parliament (EU), “Motion for a European Parliament Resolution on Online Platforms and the Digital Single Market” (2016/2276(INI), para 6 <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A8-2017-0204+0+DOC+XML+V0//EN> (accessed 9 May 2018).

<sup>29</sup> Frank Pasquale, *The Black Box Society* (Harvard University Press 2015).

<sup>30</sup> EP Report of 31 May 2017 on online platforms and the digital single market.

<sup>31</sup> On the distinction between general and narrow or weak and strong AI see Big Innovation Centre, “What Is AI?” (Report prepared for the 1st meeting of the All-Party Parliamentary Group on Artificial Intelligence)(2017); Future Advocacy, “An Intelligent Future? - Maximising the opportunities and minimising the risks of artificial intelligence in the UK”; Government Office for Science, “Artificial intelligence: opportunities and implications for the future of decision making” (2015).

<sup>32</sup> Maria Ioannidou, Written Evidence to the House of Lords Select Committee on Artificial Intelligence: Response to the call for evidence (5 September 2017).

<sup>33</sup> Maria Ioannidou, Written Evidence to the House of Lords Select Committee on Artificial Intelligence: Response to the call for evidence (5 September 2017).

<sup>34</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L119/1.

<sup>35</sup> British Academy/ Royal Society, *Data management and use: Governance in the 21st century*, 39.

there is also the technical issue, as to how such explanation is at all feasible. Self-learning algorithms learn from past experience.<sup>36</sup> For many ML algorithms, the decisional process can be unpacked. We can observe what the ML algorithms have learned (for example a category, a cluster, or a predicted value) and how they learned, i.e. what features were used in order to learn and the assigned weight to their values.<sup>37</sup> Deep-learning algorithms – as a subclass of ML algorithms - are a category of neural network based algorithms based on complex computation over multiple features, which complicates the explanation of the respective decision making process.<sup>38</sup> In order to understand the algorithmic decision making process, regulators should be granted access to the algorithm and the algorithm's data set. The former may be granted under a white box basis, i.e. access to the code itself or a black box basis, where regulator does not have access to the code itself but can execute the code and has access to the output. Access to the code itself may be denied on the basis of IP protection or trade secrets.<sup>39</sup> Harari encapsulates the prevalence of data and algorithms in our modern society in the concept of "Dataism".<sup>40</sup>

The discussion on the complexity and various business models in the platform economy serves to highlight the challenges consumers face, and are encapsulated in the term "digital agoraphobia". The technological characteristics of digital markets, focusing largely on digitisation, datafication and interconnection impact on consumer choice in various different ways. "Digital agoraphobia" is construed widely to include instances of conscious and unconscious fear of the digital market place and the concomitant impact on consumer choice. An example of conscious constraints is when consumers feel exploited when they have to agree to the platforms' terms and conditions handing over access to their personal data on a "take it or leave it" scenario. According to the European Data Protection Supervisor (EDPS), when the market operator is dominant, then consent becomes illusory.<sup>41</sup> An example of unconscious

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<sup>36</sup> Algorithms and Collusion - Note from the European Union (OECD, 21-23 June 2017), para 2.

<sup>37</sup> Avigdor Gal, "It's a Feature, not a Bug: On Learning Algorithms and what they teach us" (7 June 2017) (OECD, DAF/COMP/WD(2017)50) para 11. For a definition of deep learning see Government Office for Science, "Artificial intelligence: opportunities and implications for the future of decision making" (2015), 7.

<sup>38</sup> Avigdor Gal, "It's a Feature, not a Bug: On Learning Algorithms and what they teach us" (7 June 2017) (OECD, DAF/COMP/WD(2017)50) para 12.

<sup>39</sup> Avigdor Gal, "It's a Feature, not a Bug: On Learning Algorithms and what they teach us" (7 June 2017) (OECD, DAF/COMP/WD(2017)50) paras 14-16.

<sup>40</sup> Yuval Noah Harari, "Homo Deus: A Brief History of Tomorrow" (Penguin 2015); Yuval Noah Harari, "Yuval Noah Harari on big data, Google and the end of free will" (Financial Times, 26 August 2016) <https://www.ft.com/content/50bb4830-6a4c-11e6-ae5b-a7cc5dd5a28c> (accessed 28 March 2018).

<sup>41</sup> Preliminary Opinion of the European Data Protection Supervisor, Privacy and competitiveness in the age of big data: The interplay between data protection, competition law and consumer protection in the Digital Economy, 26 March 2014, EDPS/2014/06, para 79.



constraint includes instances, where the consumer falsely perceives that it has exercised his choice freely; yet this takes place in a controlled digital personalised environment.<sup>42</sup> Another example comes from the digital assistants’ markets, where consumers increasingly delegate trivial day-to-day tasks to digital assistants, without necessarily acknowledging the impact on their decision making powers and future well-being.<sup>43</sup>

Based on the risks digital markets pose to consumer autonomy and the exercise of consumer choice, this paper identifies three main types of constraints on consumer choice: “enhanced” choice constraints, “free” choice constraints and “delegated” choice constraints.<sup>44</sup> These constraints can be attributed to the main technological characteristics of digital markets (datafication, interconnection, algorithmic decision making, artificial intelligence), which enable better controlling of online consumer behaviour. To the extent that the identified constraints have the same drivers, they are inevitable overlaps between them.

“Enhanced” choice constraints, refer to two situations. First, to the actual enhanced choice on online markets. In such instances, choice may be constrained by various consumer biases. Second, “enhanced” choice constraints include instances of perceived enhanced choice on online markets, where consumers exercise their choice in a personalised environment, the type of the personalised Truman Show scenario.<sup>45</sup> Both categories of “enhanced” choice constraints are unconscious, and can undermine consumers’ trust, since online markets will fail to deliver to consumers’ expectations. “Free” choice constraints cover those risks associated with “free” choice, primarily the use of data as currency in digital markets.<sup>46</sup> “Free” choice constraints can be conscious, in situations where consumers knowingly accept a dominant platform’s privacy policy, for lack of any alternative. Unconscious “free” choice constraints include instances, where the consumers are manipulated into granting access to their data without realising the scale of such access. Lastly, “delegated” choice constraints refer to the delegation of trivial (for the time being) choice making powers to algorithmic assistants or digital butlers. First, such “delegated” choice within the IoT fosters datafication and

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<sup>42</sup> Ariel Ezrachi and Maurice Stucke, *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy* (HUP 2016) referred to our own Truman Show.

<sup>43</sup> Michal Gal, “Algorithmic Challenges to Autonomous Choice”

<sup>44</sup> Maria Ioannidou, Written Evidence to the House of Lords Select Committee on Artificial Intelligence: Response to the call for evidence (5 September 2017).

<sup>45</sup> Ariel Ezrachi and Maurice Stucke, *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy* (HUP 2016) .

<sup>46</sup> Daniel Rubinfeld and Michal Gal, “The Hidden Costs of Free Goods: Implications for Antitrust Enforcement” (2016) 80 *Antitrust L.J.* 521

exacerbates constraints on choice similar to “enhanced” and “free” choice constraints. Second, in the long run, such delegation can impact on the consumer choice making powers and the consumer well-being.

In the following analysis, we unpack the impact of these three types of identified constraints on consumer choice. We do not cover every possibly risk on consumer choice in digital markets, but focus on potential competition law problems. Consumers are viewed as actors, which can invigorate the competitive process and the constraints analysed impede consumers to rise as active market participants.

### III. “Digital Agoraphobia”: the tripartite paradigm of choice constraints

#### a. “Enhanced” Choice Constraints: “Digital market manipulation”

“Enhanced” choice constraints encapsulate both instances of actual enhanced choice due to interconnectivity and increased transparency in digital markets and perceived enhanced choice, where online firms rely on datafication and algorithms to create personalised online environments or individually target consumers. In the first instance, consumers’ choice is constrained, since firms exploit consumer behavioural biases and present the available options in a given way, without though necessarily limiting these options. In the second instance, the various options are artificially presented to consumers in a limited manner. Both types of “enhanced” choice constraints represent examples of “digital market manipulation”,<sup>47</sup> and deprive consumers’ autonomy in exercising choice. “Digital market manipulation”, as coined by Ryan Calo, takes the main tenets of behavioural economics and market manipulation theory to the digital world.<sup>48</sup> It posits that market manipulation, essentially “nudging” consumers for profit can be accelerated in the digital world,<sup>49</sup> since such manipulation is combined with large scale data.

#### 1. Real “Enhanced” Choice: exacerbating behavioural biases through choice presentation

The online marketplace uses specific choice architectures to control consumer cognitive biases,<sup>50</sup> and gear consumers towards a specific choice without necessarily limiting the available choices. It is more about how the various choices are presented. Digital markets, while opening up a wealth of options, they equally create opportunities for deliberate confusion and manipulation. Crucial to exercising choice is for consumers to have *access* to the necessary

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<sup>47</sup> R Calo, “Digital Market Manipulation” (2014) *The George Washington Law Review* 995.

<sup>48</sup> See, for example, Amos Tversky and Daniel Kahneman, “Judgment Under Uncertainty: Heuristics and Biases” (1974) 185 *Science* 1124; Christine Jolls et al, “A Behavioral Approach to Law and Economics” (1998) 50 *STAN. L. REV.* 1471; Jon D. Hanson and Douglas A. Kysar, “Taking Behavioralism Seriously: Some Evidence of Market Manipulation” (1999) 112 *HARV. L. REV.* 1420; Dan Ariely, “Controlling the Information Flow: Effects on Consumers’ Decision Making and Preferences” (2000) 27 *J. CONSUMER RES.* 233; Richard Thaler and Cass Sunstein, *Nudge: Improving Decisions about Health, Wealth and Happiness* (2008).

<sup>49</sup> R Calo, “Digital Market Manipulation” (2014) *The George Washington Law Review* 995, 100-1003.

<sup>50</sup> Eliza Mik, “The erosion of autonomy in online consumer transactions” (2016) 8 *Law, Innovation and Technology* 1, 12.

information, the ability to *assess* this information and act upon it.<sup>51</sup> While digital markets increase potentially access to information, their technical characteristics may allow online firms to control consumers’ ability to assess the given information.<sup>52</sup> Behavioural economics have framed various consumer behavioural biases, present at these various stages, which constrain consumers in exercising their choice and concern both the quality and quantity of the given information.<sup>53</sup> Provided that digital markets increase quantity, digital tools can influence the quality of the given information.

With respect to the given information, *framing bias* represents the situation, where depending on how the information is presented, consumers act accordingly, thereby influencing consumers’ ability to assess the information.<sup>54</sup> Framing bias can be exacerbated in an environment where consumers are presented with a lot of information. This information can be purposefully presented in a confusing manner creating the problem of *confusopoly*.<sup>55</sup> Furthermore, despite the available information on online markets, consumers depict levels of *inertia* in processing such information. As verified by a CMA report, also termed as “ranking effect” or “position bias”, consumers focus on the returned search results and very rarely go beyond the first search results page.<sup>56</sup> Consumers’ inertia is the more problematic, given the evidence suggesting that consumers lack knowledge with respect to the ranking of the respective results and whether these are non-organic sponsored advertisements.<sup>57</sup> Presenting search results in a specific manner, does not only control consumers’ ability to assess the information but directly control access to information, given the existing consumer inertia.

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<sup>51</sup> See OFT 1224. This is referred to as the OFT “Access, Assess, Act” Framework. See Ofgem, “What can behavioural economics say about GB energy consumers?” (21 March 2011). OFT, Ofgem, CMA, “State of the Market Assessment” (27 March 2014) para. 3.1; CC3 (Revised), “Guidelines for market investigations: Their role, procedures, assessment and remedies” (April 2013) para. 296.

<sup>52</sup> See, for example, the ongoing CMA investigation in the online hotel booking sector. < <https://www.gov.uk/cma-cases/online-hotel-booking> > (accessed 15 June 2018).

<sup>53</sup> On the different biases see M. Stucke, “Behavioral Economics at the Gate: Antitrust in the Twenty-First Century” (2007) 38 Loyola U. Chi. L.J. 513; OFT 1224, “What does Behavioural Economics Mean for Competition Policy?” (March 2010) paras 5.527 – 532. See also OFT1324, “Consumer Behavioural Biases in Competition: a Survey” (Final Report) (May 2011). Behavioural Insights Team, “Applying Behavioural Insights to Regulated Markets” (26 May 2016).

<sup>54</sup> A. Tversky & D. Kahneman, “The Framing of Decisions and the Psychology of Choice” (1981) SCIENCE 211.

<sup>55</sup> Confusopoly was first coined in S Adams, *The Dilbert Future* (Harper Collins 1997). J. Mehta and R. Sugden, “Making Sense of Complex Choice Situations” in J Mehta (ed), *Behavioural Economics in Competition and Consumer Policy* (2013) available at <http://competitionpolicy.ac.uk/documents/8158338/8193541/CCP+economics+book+Final+digital+version+-+colour.pdf/30214557-cace-4b0b-8aac-a801bbde87bc> <accessed 15 September 2016> 41.

<sup>56</sup> CMA, “Online search: Consumer and firm behaviour - A review of the existing literature” (7 April 2017), paras 4.31 and 6.8.

<sup>57</sup> CMA, Digital comparison tools market study - Update Paper (28 March 2017); Algorithms and Collusion - Note from the United Kingdom (OECD, 21-21 June 2017), paras 35-36.

Regulators are currently examining consumers’ perception, when engaging in online transactions. For example, the CMA has launched a market investigation into the online hotel booking sector looking at problems with respect to the accuracy of information on sites, and whether such information may mislead consumers.<sup>58</sup> This investigation follows the digital comparison tools investigation, which highlighted the importance of the provision of accurate information, amongst a variety of issues.<sup>59</sup> In addition, the UK Behavioural Insights Team is in the process of publishing a concise guides for business on how to present terms and conditions and privacy notices online.<sup>60</sup>

## **2. Perceived “Enhanced” Choice: limiting choice through algorithmic personalisation**

Exacerbating the situation presented above, where, in theory, choice is not limited, digital markets also present the potential to control access to information and present choices in a personalised manner. Such personalised presentation of the available options impedes the very access to the available information online and consequently consumers’ ability to assess it.

Big data fuelling powerful algorithms enabling automated decision making create an online customised environment, described as “filter bubble” or “eco chamber”.<sup>61</sup> As such, what we see in an online environment presents our very own version of the world and given the variety of interests involved, this picture – alarmingly enough – may very well be distorted. To give an example, what we see in our search results may not necessarily correspond to our needs, but merely promote the search engines’ interests, as is allegedly the case in the Google Shopping case.<sup>62</sup> By constantly accumulating data on our preferences, powerful platforms may target us individually with products, which otherwise we would not potentially buy or at we would buy at a lower prices. Ezrahi and Stucke term such conduct behavioural

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<sup>58</sup> CMA, “CMA launches consumer law investigation into hotel booking sites” (27 October 2017) (Press Release) < <https://www.gov.uk/government/news/cma-launches-consumer-law-investigation-into-hotel-booking-sites> > (accessed 25 April 2018).

<sup>59</sup> CMA, “CMA launches consumer law investigation into hotel booking sites” (27 October 2017) (Press Release) < <https://www.gov.uk/government/news/cma-launches-consumer-law-investigation-into-hotel-booking-sites> > (accessed 25 April 2018).

<sup>60</sup> BEIS, “Modernising Consumer Markets” (Consumer Green Paper) (April 2018), para 130.

<sup>61</sup> Algorithms and Collusion - Note from the European Union (OECD, 21-23 June 2017), para 3.

<sup>62</sup> Case AT.39740 Google Search (Shopping).

discrimination.<sup>63</sup> Examples of behavioural discrimination include search discrimination, targeted discounting and dynamic pricing and has attracted the attention of competition authorities.<sup>64</sup>

b. **“Free” choice constraints**

“Enhanced” choice constraints analysed above include the exploitation of consumer biases on a much bigger scale and personalisation in order to exploit consumers, in a bid to steer their consumption decisions. The reliance on consumers’ data can raise similar data protection and privacy concerns as the second type of constraints, namely “free” choice constraints discussed herein. “Free” choice constraints are singled out because they are linked to the provision of “free” services in an advertising financed business model. In certain digital markets, for example social networks, search engines or genuine sharing platforms,<sup>65</sup> consumers participate without paying any monetary value for the services provided. Despite the lack of monetary exchange, consumers pay for those services with their data and the value of data as currency is universally accepted.<sup>66</sup> Data lies at the core of various business models in the digital economy, which monetise data through targeted behavioural advertising.

Large accumulation of personal data conferring substantial market power may lead to an abuse of a dominant position, by virtue of quality degradation in the provision of privacy protection.<sup>67</sup> Such practices may undermine consumer trust in the following way. First, directly, in situations, where digital platforms have substantial market power, consumers’ may be forced to give away their personal information, for lack of other options (conscious “free”

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<sup>63</sup> Ariel Ezrachi and Maurice Stucke, “How Your Digital Helper May Undermine Your Welfare, and Our Democracy” (2017) *Berkeley Technology Law Journal* (Forthcoming) 16-17.

<sup>64</sup> OFT1489, “Personalised Pricing” (May 2013) 10.

<sup>65</sup> For genuine sharing platforms, consumers may have to pay a small premium to join or a membership fee, as is the case with Couchsurfing and HomeExchange. See Vassilis Hatzopoulos and Sofia Roma, “Caring for Sharing? The Collaborative Economy Under EU Law” (2017) 54 *Common Market Law Review* 81, 87.

<sup>66</sup> Commission (EU), Proposal for a Directive of the European Parliament and of the Council on certain aspects concerning contracts for the supply of digital content, COM(2015) 634 final, Article 3(1); European Parliamentary Research Service - Rafał Mańko, *Contracts for Supply of Digital Content* (October 2017) PE 608.748, 9; Case AT.39740 Google Search (Shopping), paras 158, 320; House of Lord Select Committee on European Union, “Online Platforms and the Digital Single Market” (10th Report of Session 2015–16) paras 203-206

<sup>67</sup> Written Evidence by Ariel Ezrachi and Maurice Stucke. House of Lord Select Committee on European Union, “Online Platforms and the Digital Single Market” (10th Report of Session 2015–16) para 171; EDPS, “ EDPS Opinion on online manipulation and personal data” (Opinion 3/2018) (19 March 2018) 17. The commercial significance of data as an element of market power has been incorporated in Article 18(3) German Competition Act.

choice constraints).<sup>68</sup> More worryingly though, indirectly, consumers’ trust can be undermined in the long run, where consumers do not understand the scale of data accumulation and processing (unconscious “free” choice constraints), in a digital world where super-platforms act as gatekeepers.<sup>69</sup>

The Bundeskartellamt, the German competition authority, with respect to its Facebook investigation has stressed that the risk of “free choice” is the loss of control,<sup>70</sup> and examined whether Facebook’s terms and conditions amounted to the imposition of unfair terms to its users by asking them either to accept the “whole Facebook package” or not using the platform at all (“exploitative business use”).<sup>71</sup> This case represents an example of a conscious “free” choice constraint, since consumers are forced to accept Facebook terms and conditions. However, it also presents an example of an unconscious “free” choice constraint, to the extent that the investigation focused on the terms and conditions relating to data obtained from third party sources. The Bundeskartellamt concluded in its preliminary assessment that the collection and use of data by Facebook from third-party sources is abusive.<sup>72</sup> Users may not necessarily realise that Facebook collects their data when using WhatsApp or Instagram, both owned by Facebook, or when browsing third-parties’ websites with embedded Facebook features (i.e. ‘like’ button or ‘Facebook’ login). This data is collected, even when the web tracking feature is blocked by the user.

The Cambridge Analytica scandal presents another example of and unconscious “free” choice constraint. Cambridge Analytica, a data analytics firm, was given access to data of millions of Facebook users. The data was obtained by the independent app developer Global Science Research (GSR). GSR developed a personality quiz app which was installed by ca

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<sup>68</sup> Preliminary Opinion of the European Data Protection Supervisor, Privacy and competitiveness in the age of big data: The interplay between data protection, competition law and consumer protection in the Digital Economy, 26 March 2014, EDPS/2014/06, para 79.

<sup>69</sup> Orla Lynskey, “Regulating Platform Power” (LSE Law, Society and Economy Working Papers 1/2017) which argues in favour of the “gatekeeper” notion over platform power, 10.

<sup>70</sup> Bundeskartellamt, “Background information on the Facebook proceeding” (19 December 2017) < [http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Diskussions\\_Hintergrundpapiere/2017/Hintergrundpapier\\_Facebook.pdf?\\_\\_blob=publicationFile&v=6](http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Diskussions_Hintergrundpapiere/2017/Hintergrundpapier_Facebook.pdf?__blob=publicationFile&v=6) >

<sup>71</sup> Bundeskartellamt, “Background information on the Facebook proceeding” (19 December 2017) < [http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Diskussions\\_Hintergrundpapiere/2017/Hintergrundpapier\\_Facebook.pdf?\\_\\_blob=publicationFile&v=6](http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Diskussions_Hintergrundpapiere/2017/Hintergrundpapier_Facebook.pdf?__blob=publicationFile&v=6) >

<sup>72</sup> Bundeskartellamt, “Preliminary assessment in Facebook proceeding: Facebook’s collection and use of data from third-party sources is abusive” (19 December 2017) < [http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Pressemitteilungen/2017/19\\_12\\_2017\\_Facebook.pdf?\\_\\_blob=publicationFile&v=3](http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Pressemitteilungen/2017/19_12_2017_Facebook.pdf?__blob=publicationFile&v=3) >

270,000 Facebook users. The app collected data not only from the users but also their friends, through the friends permission feature; hence, the reported ca 87 million users affected.<sup>73</sup> The collection of this data was allowed by the agreed terms between Facebook and GSR and users that installed the app granted their consent under their agreement with Facebook. Users' consent has rightly been challenged, since allegedly people did not understand to what they were consenting to. Friends permission was terminated in 2014; yet it remains unknown how many app developers were given such permission.<sup>74</sup> GSR passed on the data to Cambridge Analytica, in what may be a breach of the terms of agreement with Facebook; yet, as has been pointed out, Facebook did not make adequate use of its monitoring and enforcement powers against app developers.<sup>75</sup> According to Daphne Keller, “[Facebook] more than anyone, could have identified the problem sooner. And the overall privacy design of FB apps has been an open invitation for developments like this from the beginning. This is a story about an ecosystem full of privacy risk, and the inevitable abuse that resulted.”<sup>76</sup>

### c. Delegated” choice constraints

As technology develops with the ever-changing landscape of digital markets, consumer choice delegation progressively intensifies. Such choice delegation may concern the parameters of preference and choice formation as well as the act of choice. For example, when asking Google a query, research shows that consumers rarely check beyond the first page.<sup>77</sup> As such, Google's algorithms influence consumers' choice formation, through the revelation of options, which may amount to – what has been termed by Karen Yeung – as a “hyper-nudge”.<sup>78</sup> However, it is still the consumer that performs the final act of choice. Instances, where the final act of

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<sup>73</sup> Cecilia Kang and Sheera Frenkel, “Facebook Says Cambridge Analytica Harvested Data of Up to 87 Million Users” (The New York Times) < <https://www.nytimes.com/2018/04/04/technology/mark-zuckerberg-testify-congress.html> > (accessed 13 June 2018).

<sup>74</sup> Paul Lewis, “Utterly horrifying: ex-Facebook insider says covert data harvesting was routine” (The Guardian) (20 March 2018) < <https://www.theguardian.com/news/2018/mar/20/facebook-data-cambridge-analytica-sandy-parakilas> > accessed 21 March 2018.

<sup>75</sup> Paul Lewis, “Utterly horrifying: ex-Facebook insider says covert data harvesting was routine” (The Guardian) (20 March 2018) < <https://www.theguardian.com/news/2018/mar/20/facebook-data-cambridge-analytica-sandy-parakilas> > accessed 21 March 2018.

<sup>76</sup> Daphne Keller, “Data Analytics, App Developers, and Facebook’s Role in Data Misuse” (Q&A with Sharon Driscoll) (20 March 2018) < <https://law.stanford.edu/2018/03/20/data-analytic-companies-app-developers-facebooks-role-data-misuse/> > accessed 21 March 2018.

<sup>77</sup> Case AT.39740 Google Search (Shopping), paras 454-457.

<sup>78</sup> Karen Yeung, ‘Hypernudge’: Big Data as a Mode of Regulation by Design’ (2016) 1 Information, Communication & Society 19.



choice is reserved for consumers, involve 1<sup>st</sup> generation delegation. Within this category algorithms can influence the formation of preferences with different intensity.<sup>79</sup>

In the past three years, we have observed a rise in the development of digital assistants or digital butlers,<sup>80</sup> which provide a prime vehicle of choice delegation. Nearly every smartphone and computer comes with an incorporated digital assistant.<sup>81</sup> Digital assistants (Amazon Alexa, Apple Siri, Microsoft Cortana, Google Assistant, Samsung Bixby) are voice enabled operating systems that perform a range of (ever-growing) tasks following a voice order and support smart appliances within the IoT.<sup>82</sup> Apart from specific commands to call/email/message people or play a specific song, by granting access to consumers' contacts and search history, digital assistants may predict their needs and make suggestions. In the IoT, devices are equipped with advanced technological features that allow them to place orders and make payments. Gal and Elkin Koren term such autonomous purchasing decisions by-passing the input of consumers as “algorithmic consumers”,<sup>83</sup> which account for delegation 2.0. Algorithmic consumers is the most advanced type of digital assistants, which make autonomous decisions for consumers based on data input and algorithms and perform the act of choice.

Such choice delegations appears appealing saving time and search costs, nonetheless there are certain risks entailed, which constrain delegated choice (“delegated” choice constraints)and undermine consumers' trust. Ezrachi and Stucke have cautioned against the adverse effects of digital assistants on competition and welfare as well as their wider and more gloomy impact on democracy.<sup>84</sup> Digital assistants are likely to exacerbate the negative effects discussed in relation to “enhanced” and “free” choice constraints. Equally, they may affect

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<sup>79</sup> For a distinction between first generation consumer algorithms and autonomous algorithmic assistants as well as a detailed taxonomy of digital assistants see Michal Gal, “Algorithmic Challenges to Autonomous Choice” (forth). See also Michal Gal and Nina Elkin Koren, “Algorithmic Consumers” (2017) 30 Harvard Journal of Law and Technology 1, 6.

<sup>80</sup> Ariel Ezrachi and Maurice Stucke, “How Your Digital Helper May Undermine Your Welfare, and Our Democracy” (2017) Berkeley Technology Law Journal (Forthcoming). Other terms employed include smart assistants, virtual assistants, algorithmic assistants, algorithmic consumers.

<sup>81</sup> Tyler Lacombe, “Virtual assistant comparison: Cortana, Google Assistant, Siri, Alexa, Bixby” (29 August 2017) < <https://www.digitaltrends.com/computing/cortana-vs-siri-vs-google-now/> > accessed 26 March 2018.

<sup>82</sup> Tyler Lacombe, “Virtual assistant comparison: Cortana, Google Assistant, Siri, Alexa, Bixby” (29 August 2017) < <https://www.digitaltrends.com/computing/cortana-vs-siri-vs-google-now/> > accessed 26 March 2018.

<sup>83</sup> Michal Gal and Nina Elkin Koren, “Algorithmic Consumers” (2017) 30 Harvard Journal of Law and Technology 1.

<sup>84</sup> Ariel Ezrachi and Maurice Stucke, “How Your Digital Helper May Undermine Your Welfare, and Our Democracy” (2017) Berkeley Technology Law Journal (Forthcoming).

consumers' choice making power and general well-being in a different way. By delegating mundane everyday tasks to digital assistants or autonomous devices, consumers are deprived of a sense of accomplishment, which may impact their happiness in the long run.<sup>85</sup> Delegated choice constraints can be divided into market/economic, hybrid and societal/non economic.

*Market/economic constraints* on delegated choice include the accumulation of market power by the platforms that develop and control digital assistants. Platforms developing digital assistants strive to win consumers,<sup>86</sup> since the more people using the digital assistants, the more data they accumulate in order to improve the services the digital assistant offers and the more appealing the latter becomes for the development of products and services that are compatible with the platform. In effect, the economic theories of harm related to the accumulation of market power by digital assistants echo the ones emanating from the conduct of powerful platforms, what was above termed as constraints on perceived “enhanced” choice. In creating a personalised environment, platforms offer consumers a range of choices. What consumers often do not understand though is how this range of offers is formed. By promoting their own services, they may demote other options, which better fit consumers' needs, thereby degrading quality.<sup>87</sup> As digital assistants gain popularity and consumers rely more and more on them, the more data they accumulate on our personal preferences, can in turn exacerbate such effects.<sup>88</sup>

*Hybrid constraints* on delegated choice concern the impact of digital assistants on the increased accumulation of personal information, which may raise data protection/ privacy issues.<sup>89</sup> At the same time, data accumulation and processing influence competition law analysis. Similar to “free” choice constraints, data accumulation confers market power and may lead to an abuse of dominant position. *Societal/non-economic constraints* include the impact of delegated choice on consumers in the long-run. By delegating our decision making power, we deny ourselves a sense of accomplishment. As digital butlers develop and venture out into

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<sup>85</sup>Gal, “Algorithmic Challenges to Autonomous Choice” (forth) 23.

<sup>86</sup> Anurag Harsh, “The Fight for the Ultimate Digital Butler as Google invades iOS” (21 May 2017) (Huffington Post) < [https://www.huffingtonpost.com/entry/google-assistant-sounds-warcry-right-before-wwdc-2017\\_us\\_591fc7d0e4b0e8f558bb26a5](https://www.huffingtonpost.com/entry/google-assistant-sounds-warcry-right-before-wwdc-2017_us_591fc7d0e4b0e8f558bb26a5) > accessed 26 March 2018; Danny Yadron, “Google Assistant takes on Amazon and Apple to be the ultimate digital butler” (18 May 2016) (Guardian) < <https://www.theguardian.com/technology/2016/may/18/google-home-assistant-amazon-echo-apple-siri> >.

<sup>87</sup> See text to above.

<sup>88</sup> Ariel Ezrachi and Maurice Stucke, “How Your Digital Helper May Undermine Your Welfare, and Our Democracy” (2017) Berkeley Technology Law Journal (Forthcoming) 17.

<sup>89</sup> On several privacy concerns related to digital butlers see Ariel Ezrachi and Maurice Stucke, “How Your Digital Helper May Undermine Your Welfare, and Our Democracy” (2017) Berkeley Technology Law Journal (Forthcoming) 9-13.

more complex decision making areas,<sup>90</sup> the impact on consumer making powers will be significant. Gal and Elkin Koren alluded to possible negative impact on algorithmic decision-making on our well-being, yet this hypothesis is yet to be tested.<sup>91</sup> It is however a valid hypothesis, as marketing research suggests that consumers draw satisfaction from the act of choice.<sup>92</sup> Further, as we delegate decision-making powers, our preference making capacity will be negatively affected.<sup>93</sup> As Gal puts it, our decision making power is like a muscle, which needs to be exercised, otherwise negative externalities can impact consumers' decision making powers across their life choices.<sup>94</sup> If we delegate choices about ourselves to an algorithm, how will we be able to shape our identity?<sup>95</sup>

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<sup>90</sup> Even though the fate of Facebook M, suggests that such development may take longer to materialise. Erin Griffith and Tom Simonite, "Facebook's Virtual Assistant M is Dead. So are Chatebots" (8 January 2018) < <https://www.wired.com/story/facebooks-virtual-assistant-m-is-dead-so-are-chatbots/> > accessed 26 March 2018.

<sup>91</sup> Michal Gal and Nina Elkin Koren, "Algorithmic Consumers" (2017) 30 *Harvard Journal of Law and Technology* 1, 17.

<sup>92</sup> Yiannis Gabriel, "Identity, choice and consumer freedom – the new opiates? A psychoanalytic interrogation" (2015) 15(1) *Marketing Theory* 25, 29. Michal Gal, "Algorithmic Challenges to Autonomous Choice" (forth) 16-17.

<sup>93</sup> Julie Cohen, *Configuring the Networked Self* (2012).

<sup>94</sup> Michal Gal, "Algorithmic Challenges to Autonomous Choice" (forth) 21.

<sup>95</sup> Michal Gal, "Algorithmic Challenges to Autonomous Choice" (forth) 22.

#### **IV. Tackling Digital Agoraphobia: procedural solutions**

The practices falling under the three types of constraints discussed above can be seen as competition law problems, yet they may also raise various data protection and consumer law concerns. This paper rather than discussing substantive solutions, it provides a taxonomy of potential competition law problems impacting on consumer choice and undermining consumer trust in digital markets and examines ways of addressing these problems through increased consumer participation in enforcement mechanisms. As the UK Department for Business, Energy and Industrial Strategy (BEIS) in its recent Green Paper, ‘Modernising Consumer Markets’ acknowledges, for digital markets to deliver for consumers, consumers need to feel confident with the exercise of their rights and to be equipped with sufficient avenues of redress.<sup>96</sup>

Confidence in exercising their rights and the existence of mechanisms to safeguard these rights build the image of empowered consumer. In the Commission words, empowered consumers are able to “*make optimal decisions by understanding their own preferences and the choices available* to them. They know their rights, recognise when these have been breached and if so, complain and seek redress when necessary”<sup>97</sup> (emphasis added). Consumer empowerment as a process relies on the provision of information, enabling the exercise of consumer choice, complemented by the necessary tools of redress, in case things go wrong.<sup>98</sup> The three types of constraints discussed above tamper with consumers’ ability to access and assess the relevant information, and thereby impact on the outcome of the empowerment process and consumers’ access to digital markets. The act of choice, as the outcome of the empowerment process, may lead to consumer harm and consumers’ need to be equipped with the necessary tools to redress such harm. This approach to consumer empowerment corresponds to what Micklitz has termed “access justice”, namely the mechanisms allowing

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<sup>96</sup> BEIS, “Modernising Consumer Markets” (Consumer Green Paper) (April 2018), para 11.

<sup>97</sup> Commission (EU), “Consumer Empowerment in the EU” (2011) para. 1. See also M. Nardo, M. Loi, R. Rosati, A. Manca, “The Consumer Empowerment Index” (EUR 24791 EN – 2011) (CEI) 14.

<sup>98</sup> See *ibid.* 18, attempting to construct a working definition of empowerment, points to “consumer knowledge, skills and assertiveness”.

consumers to participate in markets (access to markets) as well as the instruments allowing them to enforce their rights (access to justice).<sup>99</sup>

Since access to digital markets is premised on information, the different choice constraints highlight the startling information asymmetries between consumers and digital platforms. At the same time, interconnection and virtual networks can facilitate access to digital markets through grass root civil society movements . As Alemanno puts it, “thanks to the information revolution, lobbying is no longer the prerogative of well-funded groups”.<sup>100</sup> Furthermore, individual consumers can directly participate and influence outcomes through review and rating mechanisms. Platforms such as Uber and Airbnb have developed their own trust system.<sup>101</sup> Such mechanisms help in minimising information asymmetries<sup>102</sup> and hence lead to a more informed participation. Rating systems impose an oversight over sellers, services and businesses online and operate as a type of soft regulation or “spontaneous self-regulation”.<sup>103</sup> With respect to platforms, regulation may lag behind, and hence rating mechanisms perform a quasi-regulatory function resulting in an – often – complex trust infrastructure.<sup>104</sup> Despite the contribution of reviewing mechanisms to building trust, additional public safeguarded are needed.<sup>105</sup>

Improving mechanisms to enhance access to justice provides an alternative avenue to minimise information asymmetries, thereby also enhancing consumer access to digital markets. In this paper we explore two mechanisms, increasing consumers’ access to justice; collective actions and the “responsive” remodelling of competition law enforcement towards a more participatory tripartite model and the adoption of hybrid remedies. The tripartite participatory

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<sup>99</sup> H. Micklitz, “Social Justice and Access Justice in Private Law” (EUI Working Papers – Law 2011/02) available at < [http://cadmus.eui.eu/bitstream/handle/1814/15706/LAW\\_2011\\_02.pdf](http://cadmus.eui.eu/bitstream/handle/1814/15706/LAW_2011_02.pdf)> (accessed 9 November 2017) 21-23.

<sup>100</sup> Alberto Alemanno, “Consumers or Citizens? How the 4<sup>th</sup> Industrial Revolution can Help People Change Law and Policy?”; Albert Alemanno: ‘Lobbying for Change: Find Your Voice to Create a Better Society’ (London, Iconbooks, 2017)

<sup>101</sup> Nick Grossman, “White Paper: Regulation, the Internet Way - A Data-First Model for Establishing Trust, Safety, and Security | Regulatory Reform for the 21st Century City” (8 April 2015) < <https://datasmart.ash.harvard.edu/news/article/white-paper-regulation-the-internet-way-660> >

<sup>102</sup> FTC, ““Sharing” Economy Issues Facing Platforms, Participants & Regulators” (FTC Staff Report, November 2016) 31-33.

<sup>103</sup> Marta Cantero Gomito, ‘Regulation.com. Self-Regulation and Contract Governance in the Platform Economy: A Research Agenda’ (2017) 9 European Journal of Legal Studies 53, 59.

<sup>104</sup> Arun Sundararajan, The Collaborative Economy: Socioeconomic, Regulatory and Policy Issues, Report carried out for the European Parliament’s IMCO Committee (2017), 21 [http://www.europarl.europa.eu/RegData/etudes/IDAN/2017/595360/IPOL\\_IDA\(2017\)595360\\_EN.p df](http://www.europarl.europa.eu/RegData/etudes/IDAN/2017/595360/IPOL_IDA(2017)595360_EN.p df).

<sup>105</sup> Michele Finck, “Digital Regulation: Designing a Supranational Legal Framework for the Platform Economy” (2017) (LSE Law, Society and Economy Working Papers 15/2017) 15.

model includes a more direct involvement of third party actors, such as consumer organisations, alongside the competition authorities and undertakings. Hybrid remedies comprise remedies offered in the course of public enforcement mechanisms, which bring direct tangible or intangible benefits to private parties.

#### **a. Collective actions**

Devising effective collective action mechanisms has the potential to tackle “digital agoraphobia”, defined as the fear of consumers to participate in the digital market place, in two ways. First, it increases access to justice, instils confidence in exercising consumers rights and provides a vehicle for redress in mass harm situations, which are commonplace in the light of the globalisation and increased digitalisation.<sup>106</sup> Second, and as an ancillary benefit, effective collective actions can raise consumer awareness and improve the provision of information.<sup>107</sup> Given the information asymmetries in digital markets, such procedural instruments contributing to consumer education can indirectly benefit consumers’ access to markets as well.

The structure of effective collective action mechanisms has been on the EU policy agenda for some time now, however their potential to cater for mass harm situations in digital markets has been highlighted more recently in the case law, policy discussions and legislative developments. In the EU legal order, discussions over the lack of collective action mechanisms have culminated in the non-binding Commission Recommendation on collective redress.<sup>108</sup> Prior to this Recommendation, the only binding legal instrument was the Injunctions Directive enabling competent consumer organisations to bring actions for injunctions to the collective consumer interest.<sup>109</sup> Efforts to adopt binding collective actions for damages for competition law violations have failed.<sup>110</sup> This recommendation adopted a horizontal approach and provided a number of non-binding suggestions to the Member States. In assessing the

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<sup>106</sup> Commission (EU), “Proposal for a Directive on representative actions for the protection of the collective interests of consumers, and repealing Directive 2009/22/EC” COM(2018) 184 final, 11 April 2018, 1.

<sup>107</sup> M Ioannidou, *Consumer Involvement in Private EU Competition Law Enforcement* (OUP 2015) 66.

<sup>108</sup> Commission (EU), ‘Recommendation of 11 June 2013 on Common Principles for Injunctive and Compensatory Collective Redress Mechanisms in the Member States Concerning Violations of Rights Granted under Union Law’ [2013] OJ L201/60. For a concise account of EU developments on collective redress see Ioannidou (n--) 108-111

<sup>109</sup> Directive 2009/22/EC of the European Parliament and of the Council of 23 April 2009 on injunctions for the protection of consumers' interests (O.J.E.U. L 110/30 of 1.5.2009 ) codifying Directive 98/27/EC

<sup>110</sup> A proposal was included in the Draft Damages Directive 2009, which was later withdrawn. See M Ioannidou.

effectiveness of the Recommendation, the Commission noted that its impact is minimum, several Member States are yet to introduce collective redress, whereas the existing mechanisms are very diverse.<sup>111</sup>

Given the existing need for workable collective action mechanisms, the Commission in its “New Deal for Consumers” includes a proposal to amend the Injunctions Directive to include a harmonised mechanism for collective redress for consumer harm.<sup>112</sup> Such change is warranted given the shortcomings of the Injunctions Directive, revealed by the Fitness check,<sup>113</sup> namely its limited scope and the lack of redress for affected consumers.<sup>114</sup> The proposal for amending the Injunctions Directive increases its scope and strengthens consumer organisations potential to bring injunctions but most importantly collective redress orders. With respect to the scope, it covers a wider range of possible violations, including data protection law violations. Even if not expressly stated, it allows for opt-out collective actions at national level,<sup>115</sup> implicitly rejecting the hostility expressed against such actions in the Recommendation,<sup>116</sup> and allows for flexible cy-pres distribution, in the case of small value consumer claims (Article 3(6)(b) ).

The legislative proposal on the amendment of the Injunctions Directive (if adopted) provides a horizontal instrument. At the same time, corresponding with current market developments, sectoral instruments in the field of data protection law were also adopted. These instruments can be potentially employed for the practices constraining consumer choice discussed above, since these practices can be problematic from both a data protection and a competition law perspective. The adoption of such instruments in the GDPR stands in contrast and should be contextualised in the light of previous attempts to adopt collective redress mechanisms specifically for competition law violations. GDPR is influenced by a competition

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<sup>111</sup> Commission (EU), “Report on the on the implementation of the Commission Recommendation of 11 June 2013 on common principles for injunctive and compensatory collective redress mechanisms in the Member States concerning violations of rights granted under Union law (2013/396/EU)” COM(2018) 40 final, 25 January 2018, 4, 21.

<sup>112</sup> Commission (EU), “Proposal for a Directive on representative actions for the protection of the collective interests of consumers, and repealing Directive 2009/22/EC” COM(2018) 184 final, 11 April 2018.

<sup>113</sup> For the relevant documentation see [http://ec.europa.eu/newsroom/just/item-detail.cfm?item\\_id=59332](http://ec.europa.eu/newsroom/just/item-detail.cfm?item_id=59332) (accessed 26 April 2018),

<sup>114</sup> Commission (EU), “Proposal for a Directive on representative actions for the protection of the collective interests of consumers, and repealing Directive 2009/22/EC” COM(2018) 184 final, 11 April 2018, 2.

<sup>115</sup> See Article 6(1) of the Proposal.

<sup>116</sup> Commission (EU), ‘Recommendation of 11 June 2013 on Common Principles for Injunctive and Compensatory Collective Redress Mechanisms in the Member States Concerning Violations of Rights Granted under Union Law’ [2013] OJ L201/60, paras 21-24.

rationale, both in terms of substance,<sup>117</sup> as well as the imposed sanctions,<sup>118</sup> and such shift may highlight the existing need to employ such mechanisms in digital markets.

*Schrems v Facebook* provides a concrete example. Schrems as the lead claimant for seven assigned consumer claims sought to bring a claim against Facebook for data protection law breaches in Austria. Despite the seemingly low number of assigned claims, it was rather clear that this action represented a test case, since through Schrems' webpage more than 25,000 people have assigned similar claims and more than 50,000 were on the waiting list.<sup>119</sup> On the first preliminary question, the Court of Justice of the European Union ruled that Schrems, despite being an avid data protection advocate having pursued various actions against Facebook since 2011, qualified as a consumer.<sup>120</sup> Hence, he could invoke Article 16 of Council Regulation (EC) No 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters,<sup>121</sup> providing for an exception to the general rule on jurisdiction. Article 16 exceptionally allows consumers to sue in their country of domicile for disputes pertaining to consumer contracts. In relation to whether Schrems qualifies as a consumer and therefore can invoke article 16, the CJEU employed a more liberal teleological interpretation, while acknowledging on the basis of previous case law that the notion of consumer must be strictly construed.<sup>122</sup> However, on the second question, the CJEU held that Schrems could not sue Facebook in Austria on behalf of consumers that are not party to the contract dealing thus a fatal blow to similar collective actions. With respect to that point, Article 16 was interpreted indeed in a strict manner, declared by the CJEU.<sup>123</sup>

Article 80 GDPR now has the potential to 'resurrect' such actions. Schrems has already established a non-profit body, Non-of-your-business (NOYB), in order to bring privacy claims

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<sup>117</sup> See Article 20 GDPR on the right to data portability. The right to data portability has at its core a consumer empowerment rationale, in that it seeks to facilitate consumer switching. On the right to data portability see, amongst others, Aysem Diker Vanberg and Mehmet Bilal Ünever, "The right to data portability in the GDPR and EU competition law: odd couple or dynamic duo?" (2017) *European Journal of Law and Technology* 1; Orla Lynskey, "Aligning data protection rights with competition law remedies? The GDPR right to data portability" (2017) *ELRev* 793.

<sup>118</sup> See Article 83(5) GDPR providing for fines of up to € 20 million or 4% of global annual turnover.

<sup>119</sup> Case C-498/16 *Schrems v Facebook AG* Bobek Opinion (14 November 2017) ECLI:EU:C:2017:863, para 16.

<sup>120</sup> Case C-498/16 *Maximilian Schrems v Facebook Ireland Limited*, ECLI:EU:C:2018:37, paras 39-41.

<sup>121</sup> [2001] OJ L 12/1 now repealed by Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matter, [2012] OJ L 351/ 1. According to Article 66(1) of Regulation No 1215/2012, this regulation is applicable to legal proceedings instituted on or after 10 January 2015.

<sup>122</sup> Case C-498/16 *Maximilian Schrems v Facebook Ireland Limited*, ECLI:EU:C:2018:37, para 29.

<sup>123</sup> Case C-498/16 *Maximilian Schrems v Facebook Ireland Limited*, ECLI:EU:C:2018:37, paras 43, 48.



based on the GDPR new armoury.<sup>124</sup> Article 80 GDPR lends support to Schrem’s arguments on the existence of a need ‘in principle’ for effective consumer collective actions in the EU. This point was acknowledged by AG Bobek in *Schrems v Facebook*, albeit it coupled with the cautionary tale that it is not the role of the courts to create such collective redress mechanisms at “the stroke of a pen”.<sup>125</sup> Such actions are now enshrined in the GDPR and, depending on judicial interpretation, may allow overcoming stricter jurisdictional rules.<sup>126</sup> According to Article 80 GDPR, data subjects may mandate properly constituted organisations to the public interest to lodge complaints with the competent authorities and to exercise the rights to receive compensation.<sup>127</sup> However, for lodging an action for damages, the representative entity needs an express consumer mandate.<sup>128</sup> Compensation may account both for material and non-material damage (Article 82).

The introduction of collective actions for damages for violations of data protection law, coupled with the proposed horizontal initiative to amend the Injunctions Directive, possess the potential to redress consumer harm, build momentum and educate consumers, thereby addressing constraints on choice and the respective (actual or potential) data manipulation. However, pragmatic considerations with respect to funding of such actions, may impede the bringing of such claims.<sup>129</sup> Collective actions need thus to be complemented with additional participatory avenues.

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<sup>124</sup> See <https://noyb.eu> .

<sup>125</sup> Case C-498/16 *Schrems v Facebook* AG Bobek Opinion (14 November 2017) ECLI:EU:C:2017:863, para 123.

<sup>126</sup> See recital 147 GDPR acknowledging that “[w]here specific rules on jurisdiction are contained in this Regulation, in particular as regards proceedings seeking a judicial remedy including compensation, against a controller or processor, general jurisdiction rules such as those of Regulation (EU) No 1215/2012 of the European Parliament and of the Council (1) should not prejudice the application of such specific rules.”.

<sup>127</sup> Article 80 GDPR provides that 1. The data subject shall have the right to mandate a not-for-profit body, organisation or association which has been properly constituted in accordance with the law of a Member State, has statutory objectives which are in the public interest, and is active in the field of the protection of data subjects’ rights and freedoms with regard to the protection of their personal data *to lodge the complaint on his or her behalf*, to exercise the rights referred to in Articles 77 (*Right to lodge a complaint with a supervisory authority*), 78 (*Right to an effective judicial remedy against a supervisory authority*) and 79 (*Right to an effective judicial remedy against a controller or processor*) on his or her behalf, and to exercise *the right to receive compensation* referred to in Article 82 on his or her behalf where provided for by Member State law.

2. Member States may provide that any body, organisation or association referred to in paragraph 1 of this Article, in- dependently of a data subject’s mandate, has the right to lodge, in that Member State, a complaint with the supervisory authority which is competent pursuant to Article 77 and to exercise the rights referred to in Articles 78 and 79 if it considers that the rights of a data subject under this Regulation have been infringed as a result of the processing.

<sup>128</sup> This is expressly stated in Recital 142 GDPR.

<sup>129</sup> For a proposal on workable funding rules see M Ioannidou, *Consumer Involvement in Private EU Competition Law Enforcement* (OUP 2015) 144-147.

## b. “Responsive” remodelling of competition law enforcement

“Responsive” remodelling of competition law enforcement advocates in favour of an increased consensual participation of affected stakeholders in the enforcement process coupled with the more frequent use of hybrid remedies.<sup>130</sup> Hybrid remedies comprise restorative remedies offered or imposed by competition authorities in the course of public enforcement, which capitalise on already spent public resources in order to bring benefits to affected parties. Past Commission and NCA practice provide scarce instances of such remedies.<sup>131</sup>

Such an approach to competition law enforcement has the potential to better address problematic practices, affecting consumer choice in digital markets, which have attracted the scrutiny of competition authorities. Such high profile investigations highlight a deep sense of discontent between various stakeholders. For example, in *Google Shopping* the Commission concluded that Google had committed an abuse of dominance favouring its own comparison shopping service in the search results and demoting competitors’ shopping services. Consumer organisations argued that Google’s conduct harms consumers, since it undermines their ability to choose from a range of products.<sup>132</sup> The Commission imposed a record EUR 2.42bn fine and required Google to adopt a remedy securing equal treatment between its own and rival comparison shopping services.<sup>133</sup> \

During the Google investigation, the Commission received many complaints and requests from firms and consumer organisations to be involved as third parties and sent a very high number of information requests.<sup>134</sup> This reality suggests that the views of various stakeholders with opposing interests were heard, however the remedy adopted to materialise equal treatment did not appease competitors and consumers.<sup>135</sup> The above example begs the

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<sup>130</sup> For a detailed exposition of this theory see M Ioannidou, Competition law enforcement: the case for “responsive” remodelling of enforcement policy.

<sup>131</sup> On these cases see M Ioannidou, *Consumer Involvement in Private EU Competition Law Enforcement* (OUP 2015) 172-175.

<sup>132</sup> A Reyna, “How Google is eroding consumers’ freedom to choose” (14 March 2018) <<http://www.beuc.eu/blog/how-google-is-eroding-consumers-freedom-to-choose/>> (accessed 14 June 2018).

<sup>133</sup> Commission Decision of 27.6.2017 relating to proceedings under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the Agreement on the European Economic Area (AT.39740 - Google Search (Shopping)).

<sup>134</sup> See, Google Search (Shopping), paras 38-105.

<sup>135</sup> See N Hirst, “Vestager kicks off new chapter in Google Shopping probe” (POLITICO) (16 February 2018) <<https://www.politico.eu/article/commission-probes-google-shoppings-antitrust-remedy-document/>> accessed 14 June 2018,

question, how is it possible that after a resource intensive investigation with the involvement of multiple stakeholders, the imposition of a very high fine and an equal treatment remedy no stakeholder is satisfied. The answer can be attributed to the complexities of digital markets, the high economic stakes involved and the adversarial nature of the enforcement processes.

“Responsive” remodelling of competition law enforcement has the potential to address various enforcement challenges in digital markets. The “responsive” remodelling benchmark is informed by the theories of responsive regulation and restorative justice.<sup>136</sup> The basic tenets of responsive regulation relied upon is the enforcement pyramid and tripartism.<sup>137</sup> The enforcement pyramid comprises a pyramid of sanctions, from the less to the most intrusive, which instructs regulators, “when to punish and when to persuade”.<sup>138</sup> Tripartism advocates the involvement of public interest groups, such as consumer organisations in regulatory processes. Restorative justice elements relied upon primarily comprise restorative processes, such as the voluntary participation of offenders and victims as well as restorative values, such as the restoration of the inflicted harm.

The theory of “responsive” remodelling, instructs competition authorities, when investigating an alleged competition law infringement, to adopt a flexible approach and employ consensual processes. Within these processes, they should enable a consensual and more instructive participation of stakeholders, such as consumer organisations and data protection authorities, alongside the competition authority and the firm under investigation. Despite existing examples of stakeholders’ participation, as the Google case shows, to date this participation takes place in an adversarial manner. “Responsive” remodelling to the contrary, instructs in favour of consensual solutions, which will enable a better understanding of possible competition law infringements in digital markets and the construction of the ensuing sanctions and remedies. Furthermore, remedies adopted as the outcome of these processes should allow, if possible, for the restoration of the harm to affected parties.

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<sup>136</sup> I Ayres and J Braithwaite, *Responsive Regulation: Transcending the deregulation debate* (OUP 1992); J Braithwaite, *Restorative Justice and Responsive Regulation* (OUP 2002).

<sup>137</sup> I Ayres and J Braithwaite, *Responsive Regulation: Transcending the deregulation debate* (OUP 1992) chapters 2 and 3.

<sup>138</sup> J Braithwaite, *Restorative Justice and Responsive Regulation* (OUP 2002) 29

## **V. Conclusions**

Digital markets in the fourth industrial revolution present many challenges for enforcers, regulators and policy makers and very often test the limits of current rules calling for respective adjustments or additional regulatory interventions. This paper has focused on the challenges these markets pose to consumer choice by virtue of the increased datafication, interconnection and the use of complex algorithms.

The contribution of this paper rests first on the concise categorisation of the constraints impacting consumer choice in digital markets. The constraints on choice discussed in this paper can be attributed to various practices, which may be problematic from a competition law perspective. Such discussion has the potential to prompt the debate for a better enforcement and regulatory reaction to such problems. Steering away from proposing substantive solutions, the paper then focused on two main procedural suggestions enhancing consumer participation and redress. Such proposals are particularly timely, given the newly introduced collective actions in the GDPR and the recent Commission proposal to amend the Injunctions Directive. Of course, such proposals are not a panacea to the identified constraints on consumer choice and cannot do away with the alleged need of continuous oversight over digital markets. At the same time though, collective actions and “responsive” remodelling can contribute to an increased consumer participation and information proliferation and can also deliver benefits to affected parties. They also present an alternative tool for consumer education.