



Centre on Regulation in Europe
Improving network and digital industries regulation

Towards Smarter Consumer Protection Rules for the Digital Society

Project Report

Alexandre de Stree (CERRE & University of Namur)

Anne-Lise Sibony (University of Louvain)

5 October 2017



Table of contents

About CERRE	3
About the authors	4
Executive Summary and Policy Recommendations	5
1. Introduction.....	9
2. EU Consumer protection rules and the need for changes.....	11
2.1. The rationale for protecting consumers	11
2.2. Overview of the main EU consumer protection rules.....	12
2.3. General trends in the provision of goods and services.....	15
3. Principles for smart consumer protection rules	20
3.1. Education and Digital literacy.....	20
3.2. Good rule-making in general.....	20
3.3. Behavioural turn.....	23
3.4. Personalisation	26
4. Information disclosure	28
4.1. Disclosure rules under criticism	28
4.2. Smarter disclosure rules.....	30
4.2.1. What to disclose.....	30
4.2.2. What to disclose for digital services.....	33
4.2.3. How to disclose	34
4.2.4. When (and when not) to disclose	38
4.2.5. To whom should information be addressed?	40
5. Fairness beyond transparency	42
6. Effective Enforcement and Governance framework.....	45
6.1. Public enforcement	45
6.1.1. National consumer protection authorities.....	45
6.1.2. Cooperation between enforcers	47
6.2. Private enforcement	48
6.3. Technology enforcement	49
7. Service-specific consumer protection rules	50
References	52



About CERRE

Providing high quality studies and dissemination activities, the Centre on Regulation in Europe (CERRE) promotes robust and consistent regulation in Europe's network and digital industries. CERRE's members are regulatory authorities and operators in those industries as well as universities.

CERRE's added value is based on:

- its original, multidisciplinary and cross-sector approach;
- the widely acknowledged academic credentials and policy experience of its team and associated staff members;
- its scientific independence and impartiality;
- the direct relevance and timeliness of its contributions to the policy and regulatory development process applicable to network industries and the markets for their services.

CERRE's activities include contributions to the development of norms, standards and policy recommendations related to the regulation of service providers, to the specification of market rules and to improvements in the management of infrastructure in a changing political, economic, technological and social environment. CERRE's work also aims at clarifying the respective roles of market operators, governments and regulatory authorities, as well as at strengthening the expertise of the latter, since in many Member States, regulators are part of a relatively recent profession.

The project, within the framework of which this report has been prepared, has received the financial support of a number of CERRE members. As provided for in the association's by-laws, it has, however, been prepared in complete academic independence. The views expressed in this CERRE report are those of the author(s). They do not necessarily correspond to those of CERRE, to any sponsor or to any (other) member of CERRE.



About the authors

Alexandre de Streel is a Joint Academic Director at CERRE, Professor of European law at the University of Namur in Belgium and the Director of the Research Centre for Information, Law and Society (CRIDS), focusing his research on Regulation and Competition Law in the digital industries. He is a Research Fellow at the European Institute of Public Administration (EIPA) in Maastricht. Alexandre regularly advises international organisations (such as the European Commission, European Parliament, OECD, EBRD) and national regulatory authorities on regulatory and competition issues in digital and network industries. He is also an Assessor (member of the decisional body) at the Belgian Competition Authority.

Anne-Lise Sibony is Professor of EU Law at the University of Louvain (Belgium) and guest professor at Paris II and at the College of Europe in Bruges. Anne-Lise's main research interest lies in how scientific knowledge (mainly economics and psychology) is used in the legal sphere. Her current focus is on behaviourally-informed law making at EU level. She has published on EU internal market law, competition law and consumer law and is a regular contributor to *Revue trimestrielle de droit européen* and *Concurrences*. Recently, she co-edited *Nudge and the Law: A European perspective* (Hart, 2015). She is a member of the editorial boards of *Cahiers de droit européen*, *Revue trimestrielle de droit européen* and *Journal of Consumer Policy*.



Executive Summary and Policy Recommendations

Digital services offer new opportunities from which consumers benefit daily. However, they also raise a number of novel questions for consumer protection. Benefiting from the analysis and findings of the most recent academic literature, this new CERRE Policy Report makes recommendations to improve EU consumer protection rules for digital society.

Digital services are to be understood here in their broadest sense: they cover the main current legal categories, i.e. information society services, the provision of digital content, electronic communications services and audio-visual media services. The report deals with both horizontal consumer protection rules - which have recently been assessed by the European Commission - and the sector-specific rules, some of which are currently being reviewed by the EU legislature.

The Report makes a number of recommendations, which are outlined below. These are closely linked to each other and should therefore, in the authors' opinion, be adopted and implemented together.

1. Horizontal consumer protection rules need to be smarter

First, the best guardians of consumers' interests are the consumers themselves. However, for many customers, the underlying functioning of digital services is difficult to understand. **Improving digital literacy** is therefore a key requirement, if any protection regarding digital services is to be effective.

Second, the **scope of consumer protection rules should be extended** to all digital services independently of whether or not the consumer either pays a price (in money or quasi-currency) and/or provides personal data when getting or using the service.

Third, alternative means of regulation deserve attention. **Self and co-regulation** are already used in some cases and can strike, under some conditions, the right balance between predictability, flexibility, efficiency, and the need to develop future-proof solutions.

Fourth, insights from behavioural studies showing that the rationality of consumers is bounded should be better taken into account. In particular, this implies that **disclosure obligations**, which form the basis of EU consumer protection rules, should be **better tailored to observed behaviours** when it comes to defining what information should be disclosed, to whom, how and when.

(i) What information should be disclosed?

Disclosure rules should focus on what matters for consumers. For the digital service charged according to consumers' usage, it is important that this usage is communicated in an understandable format to the

consumers. Disclosure rules should also act as counter-nudge against harmful practices;

(ii) **To whom should information be disclosed?**

A distinction should be made between disclosure to humans and disclosure to machines. **Disclosure to machines should be given priority where choices need to be made on the basis of complex information** which may be more easily dealt with by computers;

(iii) **How should information be disclosed?**

For disclosures **to humans**, the governing principles include: **saliency of essential information, layering of information, a high degree of intelligibility** (including the use of examples to illustrate information given in ‘abstract’ units such as megabytes), the use of **reminders**, and possible greater reliance on **video** as a medium for disclosure. For **disclosures to machines, the key principles are machine-readability and comparability** of information from different providers;

(iv) **When should information be disclosed?**

This dimension should be given more attention as non-timely information can distort consumer decisions (as in the case of drip-pricing). Timeliness matters both for pre-contractual and post-contractual information. **Full information on price** (all unavoidable charges) should not be dripped progressively but **given upfront** and included in the headline price for automatic comparison purposes. **Information relevant to switching** decisions (such as information on use of service, change of prices or renewal) should be **given at regular intervals**, in sufficient time for consumers to take an informed decision on switching. This is especially important when contracts run for a set period of time (e.g. one year) and can only be terminated during a certain time period.

Fifth, consumer protection agencies should **explore the advantages and disadvantages of personalising disclosures**, an evolution which the progress of big data and artificial intelligence allow.

Sixth, the consequences of the **application of the open-textured legal concept of unfairness** (whether of commercial practices or contract terms) **in an algorithmic decision-making environment should be clarified**, possibly with some soft law instruments. The consequences of the fairness obligations for traders using algorithms, in terms of transparency and beyond, should be better explored with all the stakeholders and then clarified in specific guidance. Those consequences should be assessed taking into account the probable increasing use of algorithms by consumers when making their consumption decisions.



2. Enforcement of the rules needs to be more effective

Too often in Europe, when a consumer issue is identified, the focus is on changing or supplementing the rules instead of improving the enforcement. Fortunately, in its recent REFIT review, the Commission does not fall into this policy trap and does focus on improving national enforcement rather than on creating new EU rules.

First, **public enforcement** needs to be strengthened and **national consumer protection agencies need to be well staffed, independent** from any political pressure as well as from capture by corporate interests or consumer associations, and also given **power to impose sanctions** with sufficient deterrent effects. When facing new issues, those agencies may rely first on **soft enforcement** by trying to settle those issues with the digital firms, **and soft law** by adopting guidelines to clarify the application of principles-based rules to those new problems. National authorities should also **seize the opportunity offered by digital technologies**, in particular big data and artificial intelligence, to improve their operations.

Moreover, consumer protection agencies should **cooperate at national level with other specialised agencies** in charge of regulating specific aspects of the digital value chain (such as authorities in charge of data protection, competition policy, electronic communication or media services) to achieve better and more consistent decision-making across the value chain. In addition, national consumer protection agencies should better **cooperate among themselves, and with the Commission at the EU level**, to better fight pan-EU infringements of EU consumer rules, establish more consistent interpretation of rules and develop best practices.

Second, **private enforcement** needs to be strengthened. Consumers should be made more aware of their rights and should be provided with easier means of securing damages when the infringement of their rights has caused them harm.

Third, the potential of **technology enforcement** where rules move from the legislative code to the computer code should be better explored with all the stakeholders. As privacy by design is developing, **consumer protection by design** should also be explored.

3. Service-specific consumer protection rules need to be more streamlined

Consumer protection rules applicable to particular categories of digital services should be radically streamlined, in line with the principles of Better Regulation promoted by the European Commission and the other EU institutions. As the economy becomes digitalised, digital services no longer constitute specific (vertical) sectors in the economy but are its (horizontal) foundations. This implies the removal of all service-specific rules which are covered by horizontal rules, and which are not justified by public objectives which are specific to a type of digital service. This principle has not yet been fully applied by the Commission, either in its proposed review of the rules applicable to audio-visual media services or to electronic communications services. More worryingly, the principle is even less evident in the current legislative negotiations underway in the European Parliament



and the Council. This recommendation is without prejudice to any encouragement to give guidance on how horizontal rules apply to the digital sector.

It should be stressed that the above three recommendations are strongly linked to one another and that removing sector-specific rules will only be appropriate if general rules are adequate and effective.



1. Introduction

This report delivers policy recommendations which aim to better address several issues of consumer protection in the field of digital services and online platforms. Digital may relate to the *types* of services and/or to *means* of provision.

In EU law, several definitions and the scope of application of rules relate to *types* of digital services:

- The e-commerce rules refer to the information society service defined as “any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services”;¹
- The cybersecurity rules refer to digital service defined as three specific types of information society services which are the online market place, the online search engine and the cloud computing service;²
- The current horizontal consumer protection rules refer to digital content defined as “data which are produced and supplied in digital form”;³ however, the Commission has proposed to clarify and extend this definition in its proposal for a directive on contracts for digital content defined as “(a) data which is produced and supplied in digital form, for example video, audio, applications, digital games and any other software, (b) a service allowing the creation, processing or storage of data in digital form, where such data is provided by the consumer, and (c) a service allowing sharing of and any other interaction with data in digital form provided by other users of the service.”⁴
- The telecommunications rules refer to the electronic communications service, defined as a “service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services; it does not include information society services (...) which do not consist wholly or mainly in the conveyance of signals on electronic communications networks”;⁵
- The media rules refers to the audio-visual media service defined as “service as defined by Articles 56 and 57 TFEU which is under the editorial responsibility of a media service provider and the principal purpose of which is the provision of programmes, in order to inform, entertain or educate, to the general public by

¹ Art. 1(1b) Directive 2015/1535.

² Art. 4(5) Directive 2016/1148.

³ Article 2(11) CRD.

⁴ Proposed Article 2(1) COM(2015) 634.

⁵ Art. 2(c) Directive 2002/21.



electronic communications networks (...), and an audio-visual commercial communication”.⁶

EU law, in particular EU consumer protection rules, also provide for specific rules when the goods or services are provided *at a distance*, which is often done in an online manner with digital technologies.

This report mainly focuses on services which are currently legally categorised as information society services, digital content, electronic communications services or audio-visual media services.⁷

The report is divided into the following sections:

- Section 2 recalls the main rationale for having consumer protection rules, describes the current general and specific EU consumer rules and then describes very briefly the general trends in this sector,
- Section 3 proposes a framework for a smart consumer protection,
- Section 4 deals with information disclosure,
- Section 5 deals with fairness beyond transparency,
- Section 6 deals with the governance framework.

⁶ Art. 1(1a) Directive 2010/13.

⁷ For a classification, see the Peitz, Schweitzer and Valletti (2014).

2. EU Consumer protection rules and the need for changes

2.1. The rationale for protecting consumers

Consumer protection in general

According to classical scholarly analysis (for instance, Reich and Micklitz, 2014), consumer protection rules pursue the following five main aims.

- **Ensuring that consumers can make informed choices, in particular by preventing fraudulent misrepresentation and providing relevant information.** An imbedded assumption in EU consumer law is that consumers are market participants who vote with their feet. In this perspective, it is essential for a well-functioning market that consumers can choose between competing digital services based on correct and complete information. Thus the first function of consumer protection rules is to ensure adequate information by prohibiting fraudulent misrepresentation and by ensuring market transparency and by mandating provision of information considered essential.
- **Ensuring fluid transactions, in particular by facilitating switching from one provider to another.** Correct and complete information may in principle be enough to enable consumers to make a decision to switch providers but, in practice, consumers may face obstacles that create a gap between intent and action. To overcome this type of obstacle, EU consumer protection rules include provisions on contracts' duration and termination, portability (number, identifier, data), interoperability and switching costs.
- **Protecting consumers' legitimate expectations regarding the provision of services.** Protecting consumers' legitimate expectations is essential for sustaining trust in markets. EU law ensures that such expectations are protected through harmonised mandatory warranties, but also fairness and loyalty obligations.
- **Protecting certain general or special interests, such as health and safety or privacy.** EU law pays particular attention to certain interests, notably to the health and safety of consumers. Other special interests include the protection of privacy and personal data. Health and safety have for a long time been associated with consumer protection (within the European Commission, one single Directorate General was responsible for both). Conversely, privacy and data protection used to be seen as separate from consumer protection, but convergence is increasingly seen and both sets of rules are now within the competence of one Directorate General. Access to emergency services is another interest of special relevance to consumer protection, in connection with digital communications.

- **Facilitating dispute resolution.** This dimension of consumer protection has taken on increasing importance over the years and is likely to be further strengthened in the coming years.

Consumer protection and the internal market

Whether new rules adopted at EU level should be minimum or maximum harmonisation remains a lively debate. Consumer organisations in countries with high levels of consumer protection tend to oppose any mandatory lowering of protection standards, which usually comes with maximum harmonisation. Firms operating across borders, for their part, strongly favour maximum harmonisation, as this is the only way to remove regulatory obstacles to rolling out a commercial strategy across borders. In the field of consumer protection, the Commission has embraced the maximum harmonisation option since the 2005 Directive on unfair commercial practices. This broad approach seems unlikely to change at a time when the realisation of the Digital Single Market is a priority.

It is against this background that the analysis and proposals contained in this report should be read. If the EU does not let Member State complement consumer protection, it is all the more essential that harmonised rules are effective. In this context, the principles of smart information disclosures outlined in section 4 are worthy of special attention.

2.2. Overview of the main EU consumer protection rules

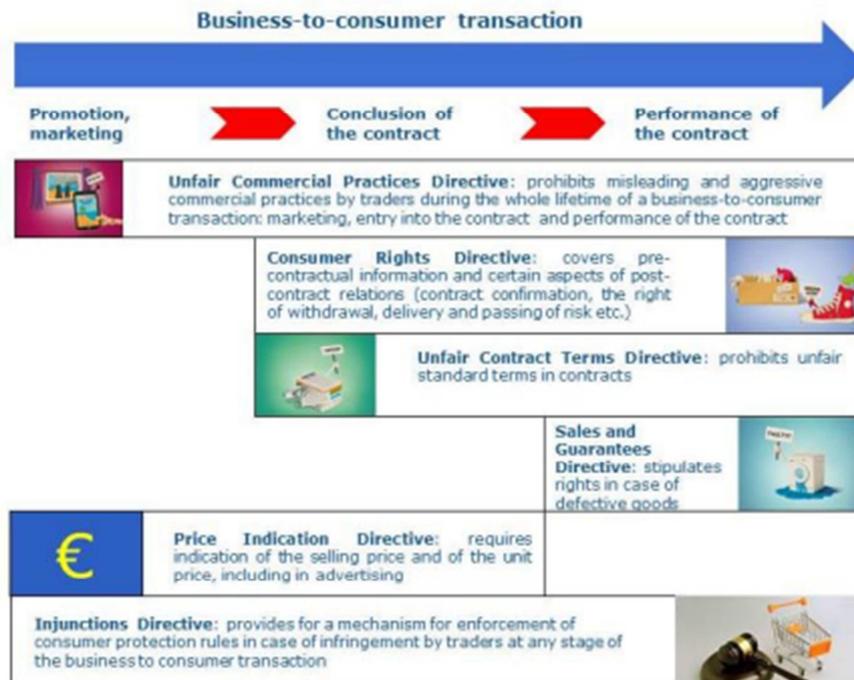
Among EU consumer protection rules applicable to digital services, some apply to all types of digital and non-digital services – the horizontal rules – while others apply only to certain types of digital services – the specific rules.

The main horizontal consumer protection rules are the following:⁸

- Council Directive 93/13 of 5 April 1993 on unfair terms in consumer contracts (Unfair Commercial Terms Directive - **UCTD**);
- Directive 2005/29 of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market (Unfair Commercial Practices Directive - **UCPD**) and the associated Commission Staff Guidance of 25 May 2016 on the implementation/application of this Directive;
- Directive 2011/83 of the European Parliament and of the Council of 25 October 2011 on consumer rights (Consumer Rights Directive - **CRD**) and the associated Commission DG Justice Guidance of June 2014 on this Directive.

⁸ The other main horizontal provisions are Directive 98/6 on consumer protection in the indication of the prices of products offered to consumers; Directive 1999/44 on certain aspects of the sale of consumer goods and associated guarantees; Directive 2006/114 concerning misleading and comparative advertising; and Directive 2009/22 on injunctions for the protection of consumers' interests.

Those rules apply to B2C contracts, i.e. when a (professional) trader⁹ deals with a (non-professional) consumer,¹⁰ but not to B2B nor to C2C contracts. As explained by the European Commission, they apply at different stages of the transactions: promotion and marketing, conclusion of the contract, and performance of the contract.



Source: European Commission Fitness Check Report, p. 7

Next to those horizontal rules, several service specific rules apply to certain types of digital services:

- Directive 2000/31 of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services in particular electronic commerce, in the Internal Market (Electronic Commerce Directive - ECD);¹¹
- The Regulatory Framework for Electronic Communications composed of several Directives and Regulations, in particular Directive 2002/22 of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal

⁹ Trader is defined as 'any natural person or any legal person, irrespective of whether privately or publicly owned, who is acting, including through any other person acting in his name or on his behalf, for purposes relating to his trade, business, craft or profession': art. 2(2) CRD, also art. 2(b) UCPD.

¹⁰ Consumer is defined as 'any natural person who is acting for purposes which are outside his trade, business, craft or profession': art. 2(1) CRD, see also art. 2(a) UCPD.

¹¹ The categorisation between horizontal and sector specific rules is not easy, especially for the e-commerce Directive whose scope is more defined according to the *means* of distribution rather than the *type* of goods or services distributed. For that reason, the Commission considers it to be a horizontal legislation: see Commission Fitness Report.



Service Directive - USD) and Regulation 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access (Open Internet Regulation - OIR);

- Directive 2010/13 of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (AVMSD)
- In addition to existing rules, a new directive for digital content is currently under discussion.¹²

In its recent fitness check on consumer and marketing law, the Commission analyses the coherence between the horizontal rules and the main sector-specific rules in the digital sector but also in other sectors such as transport or financial services. It concludes that there is a good complementary between the rules at the substantive level¹³ but possibly a lack of coordination between enforcement authorities at the procedural level.¹⁴

However, in a study for the European Commission on the regulation of electronic communications services, WIK-Cullen-CRIDS (2016) show that most of the sector-specific rules for the electronic communications services are overlapping with – and to some extent, complementing – the horizontal rules.

¹² Proposal for a directive on certain aspects concerning contracts for the supply of digital content, COM(2015) 634.

¹³ The Commission observes in the Fitness Check Report, p. 56 that: “Sector-specific legislation does not usually address all the problems that exist, particularly in dynamic sectors such as financial regulation, energy and transport. As the UCPD and the UCTD also apply to such sectors, they compensate for any gaps in the sector-specific regulation. Conversely, there is widespread recognition that sector-specific legislation protects consumers in areas where the horizontal legislative framework was deemed insufficient and the enactment of specific rules was warranted.”

¹⁴ Commission Fitness Check Report, SWD(2017) 209 at 55-58. Also Commission Evaluation of the CRD, SWD(2017) 169 at 47.

Table 1: Horizontal consumer protection law overlapping key USD provisions

	CRD	ADRD	(SD)	UCPD	UCTD
Terms & conditions (Article 20 USD)	√		√		
Publication of information (Article 20 and 22 USD)	√		√	(√)	(√)
Comparison tools (Article 21 USD)					
Publication QoS information (Article 22 USD)			√		
Minimum QoS levels (Article 22 USD)			√		(√)
Contract duration/termination (Articles 20 and 30 USD)				(√)	(√)
Provider switching process (Article 30 USD)				(√)	
Number portability (Article 30 USD)					
Dispute resolution (Article 34 USD)	√	√	√		

Source: WIK-Consult-Cullen International and CRIDS (2016: 285)

The study (2016: 297) also observes that “the analysis of possible overlaps between the regulatory framework for electronic communications and horizontal consumer protection law highlights that the legal framework is complex and not easy for the providers to apply, with correspondingly higher risk of non-compliance.”

2.3. General trends in the provision of goods and services

The provision of goods and services in Europe, and also across the world, is subject to massive changes because of the progress in the diffusion of digital technologies. Those changes call for an adaptation of the consumer protection rules because some market failures which justified the rules in the past can now be totally or partially solved by digital technologies (for instance, the increasing reliance on rating systems may solve some information asymmetries) while new market failures may appear (for instance, regarding privacy or cybersecurity). Digital technologies also call for an adaptation of the implementation of the rules as they may allow alternative and more efficient enforcement mechanisms.

Five main trends are fundamentally changing the economy and society and are linked with each other.

The increasing offer of so-called ‘free’ goods and services

The development of the digital economy leads to a multiplication of services which are offered for ‘free’ or under a ‘freemium’ model, such as search engines, apps, games, storage or social networking. Providers of such services usually generate revenue from targeted advertising based on data provided or generated by users (name, age, location, search history, posts or any other form of user-generated content).¹⁵ Subscription based alternatives are increasingly available, but consumers are not always offered the choice to pay for services. In addition, when offered the choice, many consumers display a preference for ‘free’ services supported by monetisation of their data over paying services. Thus, those services are often not paid for with money, but exchanged for attention, which is ultimately the resource that the consumer spends after having consented to the use of her data.

This may challenge the scope of application of consumer law. The Court of Justice already recognised that the e-commerce directive is applicable when the remuneration comes directly from the recipient, but also when the remuneration comes indirectly from revenues generated by advertisements.¹⁶ According to the DJ Justice Guidance,¹⁷ the Consumer Rights Directive can apply to contracts for digital content even when they do not involve a monetary payment but does not apply to other sales and services contracts without monetary payment. However, this interpretation raises legal uncertainty that needs to be clarified.¹⁸ In its recent proposal for a directive on contracts for digital content, the Commission proposes to be more explicit in stating that the directive applies when the digital content is supplied in exchange for a price or a counter-performance other than money in the form of personal data or any other data.¹⁹ It remains to be seen whether the co-legislators will side with this view.

Next to the scope of application of rules, upholding or not the analogy between money and data as a means of payment also has multiple consequences on the substance of the rules. For example, if one does analogise data with money, one will be tempted to look for a functional equivalent to reimbursement. Although it might seem both challenging technically for service providers and not necessarily a satisfactory solution for consumers, the draft directive on contracts for digital content provides that the trader should ‘give

¹⁵ On these multi-sided ecosystems, see Belleflamme and Peitz, 2015.

¹⁶ Case 291/13, *Papasavas*. ECLI:EU:C:2014:2209, point 30. Also, Recital 18 ECD also provides that: “information society services are not solely restricted to services giving rise to on-line contracting but also, in so far as they represent an economic activity, extend to services which are not remunerated by those who receive them, such as those offering on-line information or commercial communications, or those providing tools allowing for search, access and retrieval of data”.

¹⁷ Commission DJ Justice Guidance on CRD, at 64.

¹⁸ Commission Evaluation of the CRD, SWD(2017) 169 at 83.

¹⁹ Proposed Article 3(1) COM(2015) 634.



back' data to the user.²⁰ In addition, where restitution is impossible or would entail disproportionate costs, the draft directive provides for the demonetisation of the data generated by the user cancelling the contract: the data is not returned to the user, but the service provider may no longer extract revenue from its use.²¹

The increasing use of big data allowing the personalisation of services and possibly the rules

According to De Mauro et al. (2016), big data *'is the information asset characterised by such a high volume, velocity and variety to require specific technology and analytical methods for its transformation into value.'* Big data can be used and re-used for many purposes and one of them is a better targeting or personalisation of the provision of the goods or services.

As suggested by Porat and Strahilevitz (2014), big data could also be used for a personalisation of the rules, in particular the default rules and the disclosure rules which are key for consumer protection.

Promises and perils of IA for traders and consumers'

Big data is often combined with artificial intelligence tools which allow the exploitation of the dataset to improve the production and the provision of goods and services by the suppliers, but also the consumption choice of those goods and services by the consumers. Indeed, if artificial intelligence is used more and more by the suppliers, Gal (2017) explains that consumers will also rely more and more on digital or algorithmic assistants to choose or even decide their purchases.

Gal proposes a typology of those assistants on the basis of the two main dimensions affecting consumers' choice: the decision parameters used by the algorithm and the level of choice remaining in the hands of the consumers.

- Regarding the first dimension (decision parameters), Gal distinguishes between three main types of assistant: (i) the stated preferences algorithms propose some choices to the consumers on the basis of parameters freely chosen by the consumers, (ii) the menu of preferences algorithms also propose some choices for preferences to the consumers but among a pre-defined menu, and (iii) the predicted preferences algorithms make choices on the basis of parameters which are not (wholly) based on the consumers' chosen preferences.²²

²⁰ Some digital firms already offer their users the opportunity to download their data and to take them to another provider; see for instance, <https://support.google.com/accounts/answer/3024190?hl=en>

²¹ Note that, unlike reimbursement of money, this solution, if adopted, would not transfer any economic value back to the consumer. It would 'only' deprive the service provider from a profit opportunity. However, it is not obvious that it would be less costly or less technically challenging than the alternative of 'giving back' the data, since 'demonetising' it would also seem to entail isolating the data from a large pool.

²² A sub-category is the self-restraint preference algorithms, which make choices for consumers which are assumed to be best for them overall, even if they clash with their immediate preferences.

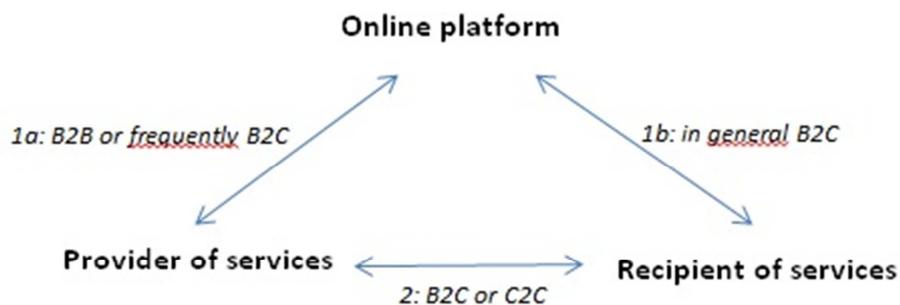
- Regarding the second dimension (level of user autonomy), Gal distinguishes between the algorithms which merely present the options that then need to be chosen by the consumers, and the algorithms that automatically negotiate and execute the transactions.

The most extreme case are the autonomous algorithmic assistants which employ predicted preferences. They create the strongest challenges to laws designed to apply to human choices, including to consumer protection rules.

The collaborative economy and the rise of C2C contracts

According to the European Commission,²³ the collaborative economy refers to business models where activities are facilitated by collaborative platforms that create an open marketplace for the temporary usage of goods or services often provided by private individuals. The collaborative economy involves three categories of actors:

- (i) The service providers who share assets, resources, time and/or skills — these can be private individuals offering services on an occasional basis (peers) or service providers acting in their professional capacity (professional services providers);
- (ii) The users of these;
- (iii) The intermediaries that connect — via an online platform — providers with users and that facilitate transactions between them (collaborative platforms)



When the service provider can be qualified as a consumer, which is often the case on the collaborative economy platforms, a C2C contract is concluded via the platform (relation 2 in the figure above). There is thus a multiplication of C2C contracts, raising new issues for the scope of consumer protection. At this stage, the Commission does not envisage broadening the scope of consumer protection rules to C2C transactions, but only to

²³ European Commission Communication of 2 June 2016 on *A European agenda for the collaborative economy*, COM(2016) 356.



increase transparency on the type (professional or consumer) of providers active on collaborative economy platforms.²⁴

The increasing convergence and substitution between traditional and OTT/App communications and media services

With the development of the app economy, consumers are increasingly substituting traditional communications or media services with communications or media delivered with an app and often without a monetary payment. In a study for the Commission, Ecorys and TNO (2016) found an accelerating take-up of online communications services and that end-users increasingly regard these services as substitutes for telecom services. A recent consumer survey done by Ipsos (2017) confirms those trends and notes that the substitution is particularly important for international calls.

This raises the question of whether traditional communications or media services should still be subject to an extensive sector-specific regulation.

²⁴ Commission Fitness Check Report, SWD(2017) 209, at 70.

3. Principles for smart consumer protection rules

Before discussing specific consumer protection issues, in particular how to best redesign disclosure rules (section 4), it is important to set out the principles on which a modern and smart consumer protection should be based. Education (3.1.) is an essential starting point, for there is no justification for imposing consumer protection obligations on businesses where consumers can educate themselves or be educated to make autonomous decisions that suit their needs. Second, any re-think of consumer protection rules should be rooted in the principles of good rule-making in general, as developed in the EU context (3.2.). Reflecting on consumer protection in 2017 also necessarily calls for taking stock of what has become a world-wide trend in policymaking, namely the behavioural turn (3.4). Lastly, a few words should be said about personalised rules (3.5), an innovative idea put forward by scholars, which has implications for consumer protection.

3.1. Education and Digital literacy

The best guardians of the consumers' interest are the consumers themselves. That is why the main role of consumer policy is to empower consumers to make the right choices for themselves, in particular by ensuring that they have the right information and the possibility to switch when needed and by protecting them against manipulative commercial practices.

The most basic dimension of this empowerment is to ensure that consumers understand the services that they are using and the conditions of their provisions. This may be complex – notably for older citizens – for digital services which are new and evolve very quickly. Hence, educating consumers in digital technologies and increasing digital literacy are key to a smart consumer protection policy and a pre-requisite for the effectiveness of any consumer protection rules. Similarly, the French Digital Council (2014: 18) recommends to “inform citizens about how platforms operate by explaining, via various digital literacy resources, the technical principles that govern platforms' basic functions and to provide an array of tools to allow the general public to have hands-on experience.”

3.2. Good rule-making in general²⁵

Good consumer protection rules should abide by the following general principles of good rule-making.

²⁵ Also Baldwin, Cave and Lodge (2012) and specifically for electronic communications services: de Streel and Larouche (2016, p. 18-19).



Proportionality

Proportionality is a general principle of EU law requiring that public intervention does not exceed what is necessary to achieve its objectives.²⁶ The principle should be applied in all legislative endeavours at EU level.²⁷

Proportionality implies that horizontal rules should be the least distortive possible to achieve the public interest objective, in this case the protection of consumers, and that the need for service-specific legislation is assessed against the background of existing horizontal legislation already applicable. Therefore, specific consumer protection rules for digital services should only be adopted when there is a clearly identified market failure that cannot be remedied by the horizontal rules.

Proportionality should also be respected by the consumer protection authorities when they implement the rules. Authorities should identify consumer harm before intervening and demonstrate how their interventions remedy such harm.

Self and co-regulation

A specific application of the principle of proportionality is the reliance on self or co-regulation when this mode of regulation can effectively protect consumers. As observed by the Commission, self and co-regulation can strike the right balance between predictability, flexibility, efficiency, and the need to develop future-proof solutions.²⁸ To be effective, the conception and the implementation of self and co-regulation should follow the best practices principles adopted by the Commission in February 2013.²⁹ Rules should be prepared by participants representing as many interests as possible, in an open manner, in good faith and with clear objectives. Then, the implementation of the rules should be clearly monitored and regularly assessed.³⁰

Self and co-regulation is used extensively to address new problems raised by rapidly developing digital services, such as:

- the Memorandum of Understanding on the sale of counterfeit goods via the Internet, which has been revised in June 2016;
- the Code of conduct on countering illegal hate speech online, adopted in May 2016,³¹

²⁶ Art. 5(3) TUE.

²⁷ See European Commission (2015), Better Regulation Guidelines, SWD(2015) 111.

²⁸ Communication of the Commission of 25 May 2016 on online platforms, COM(2016) 288, p. 5.

²⁹ See <https://ec.europa.eu/digital-single-market/en/news/principles-better-self-and-co-regulation-and-establishment-community-practice>

³⁰ In its Communication on Online Platforms at p. 9, the Commission committed to regularly review the effectiveness and comprehensiveness of coordinated EU-wide self-regulatory efforts by online platforms with a view to determining the possible need for additional measures and to ensure that the exercise of users' fundamental rights is not limited.

³¹ Commission Press Release of 31 May 2016, IP/16/1937.



- the Key principles for comparison tools of 2016, which have fed into the Commission's UCPD Guidance;³²
- The Statement of Purpose for the Alliance to Better Protect Minors Online, dealing with child safety.³³

The Commission is now hoping for the adoption by a multi-stakeholder group of key principles, to improve the presentation of standard contract terms and pre-contractual information (which is crucial as shown in section 4 below).³⁴

Legal certainty and predictability

Rules need to give sufficient certainty and predictability to suppliers as well as to consumers. This implies that rules need to make up a coherent set. In particular, consistency between horizontal and sector-specific rules is required, and rules must be simple to understand and sufficiently stable over time, especially when the investment cycle is long.

Sustainability in face of rapid and unpredictable technology and market evolutions

Digital technologies and market evolutions are often rapid and unpredictable. In this context, consumer protection rules need to be flexible enough to adapt to those changes and continuously meet their objectives.³⁵ This is best achieved with rules which, on the one hand, have a horizontal scope of application and are not dependent on the type of services and, on the other hand, are principles-based and not very specific or detailed. The current horizontal consumer protection rules meet to a large extent those two characteristics.³⁶

Moreover, for those horizontal and principled-based rules to be effective, they need to be enforced by strong, competent and independent agencies which have the capacity to adapt the implementation of the rules to changing technologies and markets.

Non-discrimination, level playing field and technological neutrality

A basic non-discrimination principle, also referred to as a regulatory 'level playing field', implies that all services which are substitutable (i.e. services that compete with one another) be subject to the same rules, when technologically possible. In addition, the

³² http://ec.europa.eu/consumers/consumer_rights/unfair-trade/comparison-tools/index_en.htm

³³ <https://ec.europa.eu/digital-single-market/en/news/members-alliance-better-protect-minors-online-commit-make-web-safer-and-better-place-minors>

³⁴ Commission Executive Summary of the Fitness Check SWD(2017), p. 208.

³⁵ In that regard, the Commission notes in the Fitness Check Report at p. 57 that: "stakeholders recognise the added value of UCPD and UCTD providing a 'safety net' that guarantees a high overall level of consumer protection and compensates for any regulatory gaps in the regulated sectors".

³⁶ In this regard, it is worth noting that the staff working document on the REFIT also emphasises that "most of the substantive law Directives covered by the Fitness Check are largely principles based, do not distinguish between online and offline environments and are fully technology neutral. Therefore, they also deal with new problems, even if they were adopted before the age of e-commerce kicked in."

stronger technological neutrality principle implies that legislation and regulation are sustainable in the face of technological evolution, that competition should not be distorted by regulation and that regulators should not try to ‘pick technology winners’ when intervening in markets.

3.3. Behavioural turn

The last few years have seen the rise of behavioural policy-making. Insights from behavioural sciences have been popularised with books such as *Nudge* by Thaler and Sunstein (2008), *Predictably Irrational* by Ariely (2008) or *Thinking Fast and Slow* by Kahneman (2011). They explained in simple terms why insights from psychology, judgement and decision-making studies and behavioural economics should be on the radar of policy makers. This is because public intervention usually seeks to achieve a change in behaviour, be it greater compliance with tax, increased retirement savings, change in eating habits to fight obesity, or wider enrolment in universities. Traditional tools such as prohibitions and monetary incentives do go some way in achieving such aims but do not always work very well. This is because humans make decisions based on an array of elements besides economic incentives and fear of sanction. What behavioural sciences bring to the policy-making toolbox is a more refined understanding of how people make decisions in various situations.

At the most general level, a key insight from behavioural sciences is that context matters – and matters a great deal. The notion put forward by Thaler and Sunstein to capture this is ‘Choice architecture’. They illustrate it with the following example: the person who places food on shelves in a canteen can choose to put the apples at eye level and the chocolate brownie just above. It is still possible to choose the chocolate brownie, but the nudge works: people eat more apples in this setting. The choice architecture influences their choice without constraints or incentives.³⁷

Behavioural policy-making includes but is not limited to public nudging of citizens into desired behaviour. This type of behaviourally informed public intervention has received a lot of attention and given rise to controversies about its legitimacy.³⁸ However, the report will only illustrate it briefly as, in the field of consumer protection, it is a different type of use of behavioural insights which is at stake, namely regulation of private nudging.

Public nudging

Behavioural insights can be and are used to nudge citizens into the desired behaviour. This is the case when the law on organ donation is changed from opt-in to opt-out based

³⁷ For a recent re-enactment of the experiment by iNudgeYou of Denmark, see <http://inudgeyou.com/en/archives/88316?> (visited 27 May 2017).

³⁸ There is a vast literature on issues of legitimacy of (public) nudging. See e.g. Rebonato (2012), White (2013); Conly (2013); Sunstein (2014).

on the insight that inertia is a very strong tendency. Indeed, the status quo bias is a very well-documented behavioural trait.³⁹ The phrase refers to our tendency not to depart from the default option, even though this would be both possible and advantageous. It has been shown to be one of the strongest behavioural phenomena observed. One implication is that if people have to specifically register as donors, there will be far fewer donors in the population than if people are presumed to be donors and can opt-out. The impact of such defaults is massive (changing the proportion of donors from around 5% to above 90%). Another example of public nudging is when tax authorities reformulate the letter they send out to late tax payers based on the insights that people are sensitive to what psychologists call ‘social norms’: if others do it, we want to do it too. For this reason, it is effective when asking people to pay their taxes to refer to the proportion of taxpayers in their community who have already paid.⁴⁰

Regulation of private nudging

Behaviourally informed policymaking is much broader than public nudging. It extends, importantly in the field of consumer protection, to the regulation of private nudging. Indeed, long before the term ‘nudge’ caught on, sellers had been using consumer psychology to sell more. Wise sellers in bazaars have been doing this skilfully for centuries, and marketers have theorised it. What changes with the behavioural turn in policymaking is better awareness, on the part of public authorities, of how behavioural traits may be exploited by traders. Behavioural sciences bring to policymaking a language for analysing more precisely what is going on in B2C interactions and tools for intervening when it is deemed necessary. For example, the prohibition of inertia selling in the Consumer Rights Directive is directly inspired by behavioural knowledge about the impact of default options.⁴¹ E-commerce websites can no longer pre-tick a box to nudge consumers into adding a service ancillary to a main purchase (such as travel insurance when purchasing an air ticket).

³⁹ The seminar study on status quo bias is Kahneman, Knetsch and Thaler (1991). For a reader-friendly account, see R. Thaler and Sunstein (2008) p. 34. For an in-depth study of implications in the field of contracts, see Korobkin (1997). For a study focused on consumer contracts (not limited to this particular bias), see Bar-Gill (2012).

⁴⁰ The UK study was conducted by the Behavioural Insights Team in 2011 and is reported in their ‘Annual Update’ (2010–11) p. 15–16, available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/60537/Behaviour-Change-Insight-Team-Annual-Update_acc.pdf (last accessed on 27 May 2017); The Belgian study is not published but has been presented at the Federal Ministry for the Economy at a conference on April 20 2017, presentation available at http://fodfin.files emailing.belgium.be/files/a_fodfin/data/File/Inning/Presentaties/Behavioural-insights-and-tax-compliance-in-Belgium%2C-De-Neve-en-Spinnewijn.pdf (visited on 27 May 2017).

⁴¹ CRD, Art. 22. On direct behavioural inspiration for this provision, see Behavioural Insights Applied to Policy (BIAP) 2016 at p. 11 (report drawn up by the Foresight and Behavioural Insights Unit, at the Joint Research Centre of the European Commission), available at http://publications.jrc.ec.europa.eu/repository/bitstream/JRC100146/kjna27726enn_new.pdf (accessed 26 May 2017) at p. 8.



An empirical approach to policymaking.

Behavioural policymaking is inherently evidence-based. Strong policy relevant behavioural evidence may already exist, in which case it is legitimate to ground public intervention on existing behavioural studies. This was the case for the prohibition of inertia selling. The status quo bias is one of the best documented behavioural phenomena, and it was, therefore, possible to ground the ban on inertia selling on a literature review. In many cases, however, existing behavioural studies will not suffice. Available evidence may be too narrow or may have been produced in contexts that differ markedly from the one in which intervention is envisaged. In addition, in real-life situations, as opposed to a controlled environment in the lab, many factors may be simultaneously at play, and several behavioural traits may be present.

For these reasons, care must be taken on how to operationalise behavioural insights in a way that suits the particular context of intervention. Existing literature will suggest a course of action (e.g. countering a known bias), lab experiment may help refine understanding of behaviour in context, and fine tuning of public intervention will usually require testing. To this end, randomised control trials (RCTs) have become the tool of choice. The methodology is directly inspired from that which is traditionally used for testing effectiveness of medical treatment. It consists in comparing in a systematic way the effect of one or more treatments (or public interventions) with the effect of no treatment (or public intervention). Subjects of the experiment are randomly assigned to one of the treatment groups or a control group.⁴²

Building expertise

Behavioural policymaking is now at a stage in its development when it is still perceived as innovative, yet it is already scaling across the globe. There is enough experience to build on to guide the first steps of new units within national governments. The UK behavioural insights team has compiled principles for effective behavioural intervention in its EAST model, where EAST stands for 'make it Easy, Attractive, Social and Timely'.⁴³ At the same time, there is still a lot to learn.⁴⁴ In many situations, we still lack hindsight, notably on persistence in time of effects triggered by behavioural intervention (e.g. will the smarter

⁴² The UK Behavioural Insights Team was the first to draw up guidelines on how best to conduct RCTs for the purposes of policy design. L. Haynes, O. Service, B. Goldacre, D. Torgerson (2012). In the case of tax reminders, for example, an extensive RCT was conducted in the UK and another larger one more recently in Belgium. Late-payers were randomly assigned to different conditions: some received the old reminder letter (control condition) and others received one of the variants considered for adoption by the tax authority, all of which made some appeal to the social norm, for example by mentioning the proportion of tax payers who had already paid in the city or in the region where the tax payer lives. Interestingly, results were somewhat different in Belgium and in the UK, which confirms the usefulness of testing and represents a potential challenge for intervention at the EU level.

⁴³ Service, Hallsworth, Halpern, Algate, Gallagher, Nguyen, Ruda, Sanders (2014).

⁴⁴ A conclusion of the OECD events mentioned above was the need to consolidate methodological guidance over and above the conduct of RCTs. See summary of the events (on file with the authors).

reminder induce better tax compliance for several years after the letter was received?), though this aspect is increasingly receiving attention.⁴⁵ As will be shown in section 4 below, the behavioural turn in policymaking is of particular relevance for consumer protection and the design of smart information disclosure.

Before tuning to information disclosure, however, another inspiration for policy reform needs to be mentioned. Unlike the behavioural turn, it is not a trend that has already received practical applications at the time of writing. Rather, it is a strand of innovative scholarship that deserves in our view to be part of the conversation about reform of consumer protection rules.

3.4. Personalisation

In a seminal article, Porat and Strahilevitz (2014) outline the perspective of personalised rules. This is a very innovative idea which runs against the notion that legal rules should be general. Their line of thinking is mainly developed in the article in relation to default rules.⁴⁶ However, as the authors point out, it may also be transposed to disclosures in the context of consumer protection: if stable differences can be observed between categories of consumers, why should we keep mandating the same disclosures to everyone? We knew intuitively that our capacity to process information is limited and behavioural sciences have adduced ample empirical confirmation of this. If this is so, why overload consumers with information that may be useful to others but is unnecessary to them? For example, the risks associated with consuming a product for pregnant women are clearly only relevant to a specific category of consumers. In the age of big data, when traders have so much information about shoppers and can finely categorise them, it should be technically feasible to customise disclosures.

Porat and Strahilevitz (2014) advocate a regime where, when consumers are purchasing online, their Big Data profiles should be used to help determine which disclosures they see. This would eschew the current unsatisfactory situation where single males who live alone are shown warnings about the effects that medication may have on pregnant women. Better targeting information has the potential to alleviate the risk of information overload and warnings fatigue.⁴⁷ In the EU context, such a proposal would need to be vetted for compatibility with data protection rules, an endeavour which is beyond the

⁴⁵ See for example Belgian Tax reminder RCTs, showing a minor effect on tax payment on time one year on.

⁴⁶ To introduce their proposal, the two researchers take an example from inheritance law: “Empirical research has shown that married fathers are more likely than married mothers to bequeath all their property to their spouses (55% compared to 34%). Moreover, according to these studies, men bequeath significantly larger shares of their estates to their spouses (80% of estates are willed to widows versus 40% to widowers)”. Taking stock of these empirical findings of significant differences between two categories of addressees of inheritance rules, they provocatively ask “if men’s testamentary preferences differ systematically from women’s, why should intestacy laws continue to be gender neutral?”.

⁴⁷ Convincingly, the authors note that such personalisation need not be confined to the online world. Consumers visiting in brick-and-mortar shops are by and large equipped with smartphones that can scan barcodes and could display relevant information based on the consumer profile.



scope of this paper. Also, personalised rules may reduce the legal predictability and increase the costs of enforcement. Yet, it is in itself a thought-provoking proposal which in our view deserves consideration while respecting the principle of proportionality and to which the report briefly returns below.

Interestingly, some initiatives by digital firms also allow the consumer to personalise their protection. For instance, Google has set up dashboard to allow its users to personalise their settings.⁴⁸

⁴⁸ <https://myaccount.google.com/>

4. Information disclosure

4.1. Disclosure rules under criticism

Mandatory disclosure rules are the tool of choice in EU Consumer Law. This largely has to do with the fact that they display several internal-market-friendly features. Initially, other types of consumer protection rules (e.g. regulating packaging or selling arrangements) were present at national level and constituted barriers to trade, because traders needed to adapt their marketing strategies to comply with every set of national consumer protection rules. Harmonising these rules was a formidable task, for which the EU legislature did not have a mandate. Therefore, a more modest approach had to be developed, and it fell under the responsibility of the Court to review national legislation (including consumer protection rules) which created obstacles to free movement.

In this context, information requirements seemed to constitute the silver bullet that would both help achieve the internal market and ensure a satisfactory level of consumer protection. Indeed, if one accepts that consumers only need to be well informed to make the choices that suit them best, it follows that the varied national consumer protection rules, which, precisely because of their sheer variety, created impediments to trade, could be dispensed with. EU level information regulation appeared as a superior option. This internal market logic underpins much of existing consumer protection rules and explains why the EU has always favoured information requirements. Such requirements are minimally intrusive (both from the point of view of national private laws and from the point of view of business strategies), compliance costs are relatively low for businesses and, as long as one holds on to the 'information paradigm', consumers are deemed to be protected.

In recent years, however, information regulation has come under strong criticism. Some scholars argue it is not only unfit for the purpose of protecting consumers (because people do not read the information) but also counter-productive and costly.⁴⁹ Even those who take a more nuanced view agree that mandatory disclosure requirements are more apt to create a level playing field for businesses than to protect consumers. This is because numerous empirical studies show that consumers indeed often do not read the information, do not understand it when they read it, or do not act upon it even if they do. Information requirements are also criticised because of their sheer number.⁵⁰

⁴⁹ Ben-Shahar and Schneider (2014).

⁵⁰ See Bar-Gill and Ben-Shahar (2013), referring to a 'cornucopia' of information requirements (in CESL and more generally). The Consumer Rights Directive alone lists no less than 20 items of mandatory pre-contractual information to be given before any online purchase. See also Norwegian Consumer Protection Agency (2016).



Against this background, scholars and policy-makers have increasingly relied on the insights from behavioural sciences to explore both smarter information disclosures and alternatives to information provision.⁵¹

One key insight from behavioural sciences regarding information disclosure is that the way in which information is disclosed (and not just the content) as well as the timing of disclosure, matter a great deal. For example, the way in which information is displayed on a bill will affect how well people will understand it and be able to act upon it, for example to switch providers.⁵² Other studies show that the explicit nature of information can make a very large difference in how people process it. For example, information about the cost of a loan can be given in different ways, putting forward the interest rate, the amount of monthly repayment, the total financial cost, or any combination of the above. It has been shown in lab experiments that consumers' choice was strongly impacted by which information was explicit and which was left implicit.⁵³

In the same vein, studies about price transparency show that even where no component of the price is hidden, splitting the full price into two or more components affects consumer choice. It makes a difference if the price is displayed as a discount from a standard unit rate (which will vary from supplier to supplier) or as per unit rate (with a standardised unit) coupled or not coupled with information about estimated annual bill (based on usage of service by an average consumer).⁵⁴

These are just a few examples from an increasingly rich knowledge base about how consumers react to the framing of information in general. They illustrate how disclosure rules could be made more effective by taking a behavioural turn. In this regard, the upshot of behavioural studies is that the rule-makers should no longer focus exclusively on the content of information to be disclosed but pay close attention to how and when information is given to consumers. By testing what disclosures work best empirically, it is possible to design smarter disclosure rules.

⁵¹ See Bar-Gill (2012). For a survey of government initiatives, see OECD (2017), collecting over one hundred case studies, including twelve in the area of consumer protection. The literature on behavioural consumer protection is vast and growing. Specifically on disclosure requirements in the EU context, Elshout, Elsen, Leenheer, Loos, Luzak et al. (2016) ; Helleringer and Sibony (2017).

⁵² An empirical study which was run in Chile tested several templates for electricity bills and showed that by changing the way information is displayed, consumer's confidence in the bill, perception of clarity and understanding as well as satisfaction with the bill increased by as much as 50%: OECD (2017), p. 65. New template increased confidence in bill by 47.2%, clarity by 50.6%, understanding by 49.3% compared to the previous bill (study conducted on a sample of more than 800 consumers). While such results cannot be readily transposed to another situation, OECD highlights their relevance for other markets such as telecoms.

⁵³ OECD (2017:67). For example, consumers were more likely to opt for longer loans when informed explicitly about monthly repayment and shorter loans when informed explicitly about the cost of borrowing, as compared to when informed explicitly only about the interest rate. See also Helleringer (2016) (lab experiment finding a significant difference between explicit and implicit information about how the commission of a financial intermediary is calculated and whether her interests are aligned or not with that of the investor).

⁵⁴ OECD (2017:71).

4.2. Smarter disclosure rules

In this section, the report elaborates on smarter disclosure rules by asking four simple questions: what to disclose? how? when? and to whom? These are discussed in turn, bearing in mind that disclosures should facilitate choice between competing products or services, including when such choice involves switching between service providers.

4.2.1. What to disclose

As the examples mentioned in the previous section suggest, detailed study of how consumers react to information and, more precisely, to different framing and timing options can lead to mandate explicit, salient or timely disclosure of certain information. The technique (mandatory disclosure) is not new. The change that the behavioural turn brings about consists in refining the definition of what information should be disclosed, taking into account our cognitive limitations. Two examples will illustrate this point before articulating more general principles.

Disclosing use data

Current disclosure rules focus on product (or service) attributes. This is insufficient because, in many markets, such as telecoms, choosing the best offer entails knowing one's usage for the service. This will be the case until all services move to flat fees, if indeed they do. Because consumers often misperceive their own use pattern, it is necessary to give them data about their use of a service.⁵⁵ This is currently done in the telecoms sector with itemised billing, giving information about total calling time domestically and cross-border, numbers of text messages and data consumption. Similar information should be made available for all digital services. Attention should also be given to how and to whom this information is given (see below).

Choosing information to be disclosed to offset seduction by partial information

Which information is disclosed to consumers explicitly or prominently can impact consumer choice, as all marketers are well aware. By choosing carefully how to present information, traders can organise a form of seduction by information. While traders should remain generally free to distinguish their offers from those of competitors also by being creative in the ways they inform consumers, the law should nonetheless set boundaries in certain cases.

The study just mentioned how loans illustrate a case in point. Considering that duration is the single most important variable for profitability of loans, banks, brokers and possibly online comparators (depending on their arrangement with financial services providers) have an incentive to present information about cost of loans in the way that will nudge

⁵⁵ Bar-Gill (2012), p. 33sq.

consumers towards choosing longer loans. Based on the study cited above, it is reasonable to assume that financial operators will therefore tend to feature monthly repayments prominently. It would then seem reasonable to mandate that, if they do so, they should also disclose the total cost of borrowing. To offset private nudging of consumer in the interest of banks, public regulation would mandate a counter-nudge in the form of information which has been shown to make consumers revise their choice on loan duration. More generally, information mandates should be thought of as counter-nudges and considered where traders have a clear incentive to nudge consumers in a way that is detrimental to their interests. Whether or not a specific information mandate should be added to existing ones should follow the principles of good governance recalled in section 3.3.

General principles on what to disclose

More generally, mandated disclosures should be guided by the following principle: they should aim to offset risks of consumer harm caused by commercial strategies which leverage known behavioural traits. To avoid uncertainty and over-regulation, the legislature should have regard to the following considerations:

- i) Some degree of private nudging of consumers is inherent to marketing and not all commercial practices which exploit consumers' behavioural traits call for intervention;
- ii) Intervention in the form of mandated disclosure should be designed to act as effective 'counter-nudges' where a given commercial practice creates a risk of likely and significant harm;
- iii) The cost of and likelihood of errors should be documented empirically;
- iv) Information overload should be taken into account with a view to streamlining information requirements and focusing mandated disclosure on a small number of key items of information.

These principles call for the following remarks:

- i) Taking a behavioural turn in consumer protection should be equated neither with broader nor with more intrusive regulation of marketing practices. It is about making the regulation smarter and more effective;
- ii) The loan example illustrates the family of situations where there is a risk of likely and significant harm. It is indeed well established that most people are very bad at handling numerical information and therefore very sensitive to framing effects. Since monetary stakes in taking a loan are high for consumers, it makes sense to regulate how pre-contractual information is framed. While the legislature should give priority to interventions which are apt to ameliorate the most serious problems consumers face, this does not mean that smaller problems should be ignored, especially if they can be

tackled with proportionate intervention that does not entail very high compliance costs for businesses. An example of such intervention which would seem to deserve further consideration concerns disclosure of price changes in the case of standing orders.

Standing orders for certain goods, ranging from an annual order of socks to monthly or weekly supplies of household products, are developing. This practice can be mutually beneficial for businesses – as it stabilises orders – and for consumers – as it saves them precious time. At the same time, from a behavioural standpoint, it is clear that this practice creates a status-quo situation: once the standing order is placed, if the consumer does nothing, they will continue to receive regular supplies.

With standing orders, the risk is that consumer inertia be exploited to increase prices after the standing order is placed. With the development of smart bots acting as personal assistants, this risk may in time be mitigated by the possibility that consumers would entrust their A.I. companion with the task of checking they still get the best deal. However, until such services scale, it would seem appropriate to mandate disclosure of price rise of products for which the consumer has a standing order. For example, an email would have to be sent to inform consumers about the price rise. This information should be given in a timely manner, so as to allow the consumer to modify or revoke their standing order (see below section ‘When to disclose’);

- iii) In line with the principle of an evidence-based and outcome-oriented policy,⁵⁶ it is important to document empirically the concerns about consumer harm as well as the underlying mechanisms behind consumer decisions. In this regard, it should be noted that lab experiment and surveys may be very helpful;⁵⁷
- iv) At present, mandated disclosures are arguably too broad and not always focused on consumer needs. Both the E-commerce directive⁵⁸ and the Consumer rights directives⁵⁹ mandate the provision of numerous items of information for distance selling. Yet, some information may still be missing. For example, it is common practice for e-commerce websites not to display

⁵⁶ Behavioural Insights Applied to Policy (BIAP) 2016, p. 11.

⁵⁷ A recent and convincing illustration of this type of investigation has been conducted on the Irish market for telecom / internet / TV services. The researchers tried to understand what variables influenced attitudes to switching. Importantly, they found that half of the (representative) sample displayed a strong resistance to switching, which, they remarked, is a concern from a policy perspective. While it certainly is, it also means that information in whatever form, may not be sufficient for these consumers to feel ready to switch and that different types of intervention aiming at competence building could be more appropriate (see above). See P. Lunn, S. Lyons (2017), finding that ‘bill shock’ and savings larger than 20 %, as well as having children in the household played an important role, but only for those who displayed some predisposition to switch and concluding that further research is needed to better understand the link between intention and action.

⁵⁸ Articles 5 and 6 ECD.

⁵⁹ Articles 5 and 6 CRD.

from the outset which countries they deliver to. Importantly, disclosure mandates are general rules: all websites must disclose the same items of information to all consumers. In a big-data world, however, websites present customised advertisements, offers and even prices. Could they not customise information too?

4.2.2. What to disclose for digital services

As explained at the outset of this Report, digitalisation refers to the type of a service (such as online intermediation, digital content, electronic communications, audiovisual media) and /or the mode of distribution using online technologies. Both aspects of digitalisation require specific transparency and information disclosure.

The first dimension of transparency relates to the legal qualification of each actor involved in the provision of the service and, consequently, their rights and obligations. This is particularly the case for online intermediation platforms which can, under some circumstances, benefit of the liability exemption of the e-commerce Directive. This is also the case of the service providers on the collaborative economy platforms which, depending of the circumstances, may be qualified as a trader or as a consumer. Consumers should know what are the obligations of each provider involved in the value chain.

The second dimension of transparency relates to the characteristics of the digital service as well as their means of payment and consequently the legal consequences when the consumer expectations are not fulfilled. As digital services are new, rapidly evolving and their functioning is often poorly understood by many consumers, this second dimension of transparency is particularly key to create customer trust and encourage transactions. Disclosure of information should relate to:

- The quality of products: in that regard, users' reviews now play a crucial role in conveying information on quality. Hence, it is key that those reviews are not manipulated;⁶⁰
- The algorithms: when an algorithm is involved in the provision of the service, a certain understanding of the criteria used and a clarification of how the different results were obtained should be provided. For instance, for a search engine, paid placement or inclusion should be clearly indicated.⁶¹ For comparison website, the criteria used should be clearly indicated;⁶²
- The monetary prices which is given as counter-performance for getting the services or the data which may be collected when the services are used and

⁶⁰ UCDP Guidance, p. 136.

⁶¹ UCDP Guidance, p. 130.

⁶² UCDP Guidance, p. 132 and Key principles for comparison tools.

which can generate revenue through the display of advertising to the users of the services.

Often, those elements of information will be provided voluntarily by the firms because of competition between them and also because they have a common interest in maintaining trust in digital services. When that is not the case, consumer rules should impose such information disclosure while respecting the principle of proportionality.

4.2.3. How to disclose

In this sub-section, the report reviews various qualitative aspects of information disclosure and highlights the value of an empirically-informed approach to some of the issues.

Disclosure in layers

Under the current regulatory framework, traders have to disclose numerous items of information. In addition, they choose to communicate many more, usually in the form of Terms and Conditions (T&Cs) in particular to limit liability and organise litigation. In certain cases, there is also a need to convey complex or technical information. If a large amount of information is presented in bulk, consumers will not read it. It is therefore essential to layer information. Similar layering of information could be beneficial to consumer also for pre- and post-contractual information on e-commerce websites.

The online environment is particularly well-suited for testing various ways to layer consumer information. While in certain countries and in certain sectors, such as energy, regulators have mandated the use of a uniform template for bills, it would not seem desirable to mandate a single structure of information for all online stores and services across Europe. It would be difficult to standardise how providers should engage with consumers both practically, because of the sheer diversity of e-commerce situations and normatively, because a number of firms may oppose such attempts to curb their commercial freedom. However, taking consumer protection seriously in the online world entails greater attention to how information is presented and organised. For example, whether T&Cs are presented in a default exposure format or whether one has to click and open another window to see them has been found to make a significant difference.⁶³

Regulating with standards and safe harbour

A balanced approach to regulating how information is delivered could consist in a combination of standards and safe harbour. Mandatory rules would remain general, setting standards such as user-friendliness or ease of navigation. Such standards are general, much like the existing standards of 'clear and intelligible language', except they would extend beyond language to architecture and layout of information. Online sellers,

⁶³ M. Elshout et al. (2016).

service and content providers would be at liberty to implement these general standards as they see fit. Standards are freedom-preserving but their drawback is that they do not offer good legal certainty. To tackle this issue, a safe harbour could be provided in the form of non-mandatory templates: if a website respects one of the approved templates, it would be deemed to comply with the mandatory standard. Guidance for user-friendly information disclosure online should be drafted by a body involving all stakeholders. In addition, it would be desirable that this body have access to behavioural expertise and can fund empirical studies to make empirically-informed recommendations.

Another option would be for the Commission to issue guidelines, in line with existing work on the implementation of the Unfair Commercial Practices Directive (UCPD).⁶⁴ However, this may have the drawback of being a slow process. Either approach could be combined with other non-regulatory instruments creating reputational incentives to excel in user-friendliness, for example, national and European prizes for clear presentation, best layout or best architecture of an e-commerce website.

Labelling terms and conditions

Another avenue for dealing with information overload is the labelling of terms and conditions (T&Cs). Instead of facilitating access to information by decreasing length or enhancing navigability, this approach takes stock of the fact that consumers generally do not read, and offers effortless information about the quality of T&Cs. Consumers would be given information about the overall quality of T&Cs through a quality label.

This approach was tested in a study on attitudes towards T&Cs, commissioned to inform the ongoing review of EU consumer and marketing law and the Digital Single Market proposals.⁶⁵ Researchers found that a quality label combined with the message 'these terms and conditions are fair' had a positive impact. In the case of domestic online purchases, consumers trusted the website most if the label was from a national consumer authority and for cross-border purchases, consumers trusted the website most if the label was from a European consumer organisation.⁶⁶ Consumers tested certification through a consumer organisation more than a consumer feedback cue.

A variant, which has not been tested in the study and which could deserve consideration if consumer organisations cannot undertake the work of certifying fairness of T&Cs, would be to have groups of consumers reviewing the T&Cs. Consumer panels would not have to consist of consumers with direct experience of a particular website. This idea is inspired by the work of Ben-Shahar and Strahilevitz, who make a similar suggestion in the context of interpreting consumer contracts, arguing that consumers rather than jurists should set

⁶⁴ Guidance on the implementation/application of directive 2005/29 on unfair commercial practices, SWD(2016) 163 final.

⁶⁵ Elshout et al. (2016).

⁶⁶ Elshout et al. (2016), p. 12.

the standard for interpreting contractual language.⁶⁷ The “survey interpretation method” they advocate has already been applied to interpret precontractual messages and helps elicit in a reliable way more consumer-friendly wording of contracts.

In the same way, it could seem apt to produce a reliable assessment of fairness of T&Cs, which could then be expressed in short form with a quality label. Consumer organisations may not have the resources to conduct numerous evaluations of T&Cs internally but may be able to organise the work of consumer panels along the lines just described. One advantage of this solution, besides burden sharing, is that T&Cs would not be evaluated by experts but by real consumers. This could work for the assessment of whether T&Cs comply with the ‘plain and intelligible language’, the standard of ‘user-friendliness’, as well as for the substantive assessment of fairness.

Disclosing in intelligible units

In many markets for electronic services, information about usage needs to be disclosed both at the pre-contractual stage and during the life of the contract. For example, when subscribing a phone plan or a contract for the storage of electronic data, consumers are offered a menu of options catering for different needs (e.g. options for data roaming ranging from 80 MB to 5 GB per month). Except for the most tech savvy, it is often difficult for consumers to know what these numbers represent.

The difficulty originates in two interlinked but analytically distinct problems. First, consumers often do not know precisely how much they use or will use the service (usage data problem). Second, they do not have a clear representation of what units represent (unit comprehension problem).⁶⁸

Both problems compound each other in some online markets, as the following example illustrates. If a person needs to choose between several options for data storage, it would help them to know how many photos and audiobooks can be stored on 10 GB. This would ameliorate the unit comprehension problem. However, the person would still run into the usage data problem if they don’t know how many photos and audiobooks they have and how many they are likely to add annually. This is without taking into account the added complexity of photos taking more space if they are high resolution and the person is not cognisant of the resolution of either their phone or their camera. How then is it possible to make numerical information about services more intelligible?

It is possible here to think again of crowdsourcing and take inspiration from a project conducted by Barrio, Goldstein and Hofman about how to improve Comprehension of Numbers in the News.⁶⁹ The starting point of this project was that people often do not

⁶⁷ Ben-Shahar and Strahilevitz (2017).

⁶⁸ The first problem also exists in markets where there is no difficult unit to process, for example, many people are unsure how much they will use a gym even though they can easily visualise what a visit to the gym means.

⁶⁹ Barrio, Goldstein and Hofman (2016).



really understand numbers in the news. Reading that heavy rain has caused a downpour of 12 hectolitres per square kilometre or that the budget of a ministry has been cut by 18 million € does not exactly 'speak' to most of us. We need context to understand numbers. Context can come from a comparison or a percentage for example.

To help provide context for numbers found in the news, researchers crowdsourced the task of writing what they called 'perspectives', i.e. sentences helping make sense of numbers. In this way, several perspectives were collected for every piece of numerical information. They were then rated by other users, so that the task of selecting the most helpful one was also crowdsourced. For example, a sentence taken from a newspaper reads *"Facebook, which made \$1.5 billion in profit on \$7.9 billion in revenue last year, sees particular value in promoting its TV-like qualities, given that advertisers spend \$200 billion a year on that medium"*. The best-rated perspective for this sentence read *"To put this into perspective, 7.9 billion dollars annual revenue is about 25 dollars for every person in the U.S."*

Of course, the helpfulness of a perspective is context-dependant and would have to be adapted to the European, national or local contexts. It remains that the idea of crowdsourcing the production of 'perspectives' would seem to deserve attention in the context of making information about online services more helpful for consumers. Just like the project which aimed at improving understanding of numbers in the news should result in 'edited' versions of news articles appearing online, so too could it be helpful for consumers to allow perspectives to be redacted into online information regarding online services.

Whether such add-ons could help consumers deal with difficult choices would have to be tested. If they do prove useful, the next stage would be to see whether market-based solutions could emerge for scaling the practice, or if some form of regulatory intervention would be needed. An intermediary solution could be that where an online operator or comparator allows crowdsourced perspectives to be added to its website, this would count towards the assessment of its overall user-friendliness for the purpose of labelling the website as consumer friendly.

Disclosing in engaging ways

While lengthy terms and conditions are notoriously too dull to be read, some of the information they contain may be relevant to consumers, whether at the pre-contractual stage (e.g. information on cancellation of order and return policy) or during the contract (e.g. information on complaints or arbitration). Packaging the same information in short and engaging video capsules may significantly change the way consumers engage with the information (provided that these videos are pushed towards consumers in a timely manner). Traders, consumer associations and consumer protection agencies alike should

be encouraged to make greater use of images, videos and other creative ways to present information.

4.2.4. When (and when not) to disclose

In addition to framing, the timing of information is crucial. From a consumer perspective, it is for example far more timely to find information about how to return a good in the box rather than having to look for it in the confirmation email received after placing the order or on the e-commerce website where the purchase was made. While this example is rather benign, in some cases, receiving information at the wrong time can be outright harmful, as in the case of bait advertising or drip pricing (described and discussed below).

To some extent, existing rules already do take account of the time dimension. A now historical illustration of early concerns with timing of information relates to roaming charges. So long as roaming charges were in force in the EU, it was specifically at the time when consumers of mobile telecom services crossed a border that their telecom operator had to remind them of applicable roaming charges.⁷⁰ Another instance of EU consumer protection rules taking timing into account is the prohibition of bait advertising, i.e. the practice of luring a consumer into a store by advertising a very advantageous offer without disclosing the existence of limited stocks and only then, when the consumer shows up at the store, explaining that the offer was only valid for as long as stocks lasted.

⁷¹

While these examples show a welcome readiness of the EU legislature to factor in time when designing consumer protection rules, it remains that the time dimension, which plays a crucial role in how we process information, is not sufficiently acknowledged in existing legislation. This is true both at the pre-contractual stage and during the life of consumer contract. At the pre-contractual stage, the absence of a clear prohibition of drip-pricing is a case in point. This is discussed below. During the life of a consumer contract, very few rules on mandatory disclosure apply. Indeed, the regulatory focus is still largely on pre-contractual information, given through specific mandatory disclosures and T&Cs. Yet, as the authors of the study on consumers' attitude towards T&Cs remark, much of this information is given at a time when it is not relevant for consumers. This is especially the case of information contained only in the T&Cs, which usually appear at the very end of the ordering process, at a time when the consumer has already made a choice. Drip pricing and auto-renewal of subscriptions illustrate how current rules do not take timing sufficiently into account.

⁷⁰ Regulation 531/2012 on Roaming on Public Mobile Communications.

⁷¹ Unfair Commercial Practices Directive Annex I, n° 5, defining bait advertising as "Making an invitation to purchase products at a specified price without disclosing the existence of any reasonable grounds the trader may have for believing that he will not be able to offer for supply or to procure another trader to supply, those products or equivalent products at that price for a period that is, and in quantities that are, reasonable having regard to the product, the scale of advertising of the product and the price offered".

Pre-contractual information on price: the example of drip pricing

It is quite common to present prices split into several components. In the online world, this practice can, in addition, be tailored and, importantly, timed through an algorithm. A familiar example is reservation of a flight, where the price which appears at the beginning of the booking process, say on a search engine, is only one component of the price (headline price) to which other components need to be added. If these supplements are revealed gradually through the booking process, the practice is called 'drip pricing' (price components are 'dripped' gradually). A particularly pernicious form of drip pricing is when surcharges are revealed towards the end of a lengthy online buying process and cannot be avoided.⁷² Having reached the end of the booking process, the consumer is engaged (in a psychological, not a legal sense) and is therefore very reluctant to go back, even though running the comparison with competing services might yield a different result if the unavoidable surcharge were added to the headline price.

Studies have shown that, among the various ways of splitting a price into several components, drip pricing are the most harmful to consumers.⁷³ In particular, they are more harmful than bait advertising, a practice that is *per se* prohibited under current EU legislation. OECD has drawn attention to the harmfulness of this practice, and it would seem timely for the EU legislature to consider banning it. While it may arguably already fall foul of the prohibition of misleading practices under Article 6 of the UCPD, it would nonetheless make a practical difference for enforcement authorities and consumers if it were included in the black list. In practice, unavoidable surcharges should be added to the headline prices for the purposes of price comparison. Whether comparators are smart enough to do this without regulatory intervention is doubtful.

Post-contractual information on renewal

Auto-renewal is very common in consumer contracts for digital services. This commercial practice is a way to leverage consumers' status quo bias. Since this bias is known to be strong, it is likely that this practice results in many more consumers renewing their contracts than they would otherwise do and it is questionable whether that is an entirely fair practice. While it is not suggested to impose opt-in for renewal of contracts, a solution which would be both impractical for consumers and very detrimental to firms, an information requirement about renewal would seem a balanced approach. A reminder sent sometime before the renewal date comes up seems to be an apt tool to offset to some extent the power of the status quo bias.

⁷² An example which led to enforcement action in the UK is a surcharge for paying with any usual credit or debit card: OFT (2011), "retailers' surcharges for paying by credit or debit card", following a 'super-complaint' by consumer organisation Which?, cited in OECD (2017), p. 85.

⁷³ See OFT (2013).



Reminders have been shown in different contexts to be very effective if well timed and carefully drafted.⁷⁴ Mandating renewal reminders seems an apt way to protect consumers against exploitation of the status quo bias. The compliance costs with such a requirement would seem minimal, as sending an email or an SMS would be automated.

4.2.5. To whom should information be addressed?

In consumer law as it stands, information – mandatory information disclosure – is understood as disclosure to humans. Consumers themselves are the addressee of information based on which they are meant to take informed decisions. While this works well for a range of simple decisions, it is well established that humans do not do very well when it comes to complex optimisation involving many variables. Machines are simply better than us at comparing options on markets such as telecoms, where there is a degree of intrinsic complexity.⁷⁵

In these instances when comparing offers is a cognitively taxing task, automated comparators can be of great help to consumers. In the years to come, more sophisticated personal assistants (see above) may well change the game of choosing between competing offers, at least in some markets. In view of both existing reality (automated comparators) and likely future developments (intelligent automated personal assistants), it is necessary to consider the addressee of information when designing information rules. Depending on the technological progress of the digital personal assistant, disclosure rules may have to be redesigned with a view to addressing, not imperfectly rational consumers, but sophisticated intermediaries.⁷⁶

The same information is relevant whether it is a human or a bot processing it: both will need product information and product-use information. But humans and machines have different needs and processing capacities. Humans have limited cognitive and computing abilities, and if they are the addressees of the information, the focus should be on making it simple. Information requirement should focus on essential information presented in a user-friendly way. When machines are processing the information, it can be more abundant and complex and needs to be given in a machine-friendly format.⁷⁷

⁷⁴ For example, in the context of hospital appointments (often fixed long in advance), one in ten appointments at UK hospital was missed. Hospitals started sending patients reminders via text message and it had some impact. To see whether reminders could be even more effective, the behavioural insights team ran a randomised control trial to test various alternative wordings. The result was that the content of the reminder did matter. More precisely, informing consumers about costs of missed appointments to the NHS was the most effective: Hallsworth, Berry, Sanders, Sallis, King et al. (2015).

⁷⁵ On how contract design can add complexity to consumers' choice, see Bar-Gill (2012), introduction and chap 4 on phone contracts (p. 185 sq.).

⁷⁶ Bar-Gill (2012), p. 5.

⁷⁷ Bar-Gill (2012), p. 37.



Operators may be reluctant to share usage data directly with third parties, whether the regulator running a comparison tool or private operators of comparison services, or personal assistants. This attitude is understandable both for business and for privacy reasons. The way to go is to require operators to disclose service-use information to consumers, both in a format that is user-friendly, so that they can have an idea, and in a machine-readable format. It would then be up to consumers to transfer the data they received from their service provider to a comparison tool of their choosing to obtain assistance in comparing available offers on the market.

Data on use of service should therefore not only be mandated in the form of itemised billing with salient key information. In addition, operators should have a duty, provided it is proportionate, to make service-use data available in a format that consumers can transfer to comparison services.

5. Fairness beyond transparency

Fairness obligations in EU Law

Beyond information disclosure and transparency, which are the cornerstone of EU consumer policy, EU law prohibits unfair commercial practices as well as unfair contract terms. The relevant provisions are very openly textured and leave the definition of unfairness largely open. Within the meaning of these provisions, fairness covers transparency, but also goes beyond it.

- A commercial practice is unfair when it (i) is contrary to the requirements of *professional diligence*, and (ii) *materially distorts or is likely to materially distort the economic behaviour* with regard to the product of the average consumer whom it reaches or to whom it is addressed, or of the average member of the group when a commercial practice is directed to a particular group of consumers.⁷⁸ In particular a commercial practice is unfair when it is misleading (hence the transparency in a broad sense is not achieved) or aggressive.
- A contract term which has not been individually negotiated is unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer.⁷⁹

Implications of those fairness obligations for algorithmic traders

The application of such open concepts is complex as they may cover many different practices. To increase legal certainty and predictability for suppliers and consumer alike, the Commission has listed in its UCPD Guidance a series of practices in the online world⁸⁰ that have been or can be considered as unfair. Nearly all of those practices relate to the correct information about the role of the online platforms or the suppliers active on those platforms, the relationship between the platforms and suppliers or the main characteristics of the services sold. The Commission is now considering adopting similar guidance for the UCTD.⁸¹

Also in their practices, the national consumer protection authorities have clarified the application of the fairness obligation in contract terms to digital services providers. In an interesting trans-EU case regarding social networks,⁸² in November 2016, EU consumer

⁷⁸ Article 5(2) UCPD.

⁷⁹ Article 3(1) UCTD.

⁸⁰ The Commission analyses the practices of the e-commerce marketplace, the app stores, the collaborative economy platforms, the search engines, the comparison tools, the user review tools, the social media, the collective buying platforms as well as certain forms of pricing practices (dynamic, discrimination and personalised).

⁸¹ Commission Executive Summary Fitness Check, SWD(2017) 208, p. 4.

⁸² Commission Press release of 17 March 2017, IP/17/631;
http://ec.europa.eu/newsroom/document.cfm?doc_id=43713

authorities, under the leadership of the French consumer authority and with the support of the European Commission, sent a letter to three social networks (Facebook, Twitter and Google+) asking them to clarify some contract terms and to remove terms which were considered as unfair under the UCTD. In March 2017, those national consumer authorities and the European Commission met with the companies to discuss possible solutions without having to resort to formal enforcement action. In the context of this CPC action, the national consumer protection agencies adopted within the Consumer Protection Cooperation Network a common position concerning the protection of the consumers on social networks.

On the basis of the publicly available information, the main issues discussed are the following:

- Sponsored content cannot be blended in search results, but should be identifiable as such;
- Terms of services cannot confer unlimited and discretionary power to social media operators on the removal of content;
- Social media networks cannot deprive consumers of their right to go to court in their Member State of residence;
- Social media networks cannot require consumers to waive mandatory rights, such as their right to withdraw from an on-line purchase;
- Terms of services cannot limit or totally exclude the liability of Social media networks in connection with the performance of the service;
- Social media networks cannot unilaterally change terms and conditions without clearly informing consumers about the justification and without given them the possibility to cancel the contract, with adequate notice;
- Termination of a contract by the social media operator should be governed by clear rules and not decided unilaterally without a reason.

The companies and the CPC network are currently discussing the application of these new principles in the specific context of their individual terms and conditions, unique services and in the context of existing EU case law.

The application of the fairness obligation raises new and complex issues in an algorithmic-decision environment, therefore the consumer protection authorities should clarify what it entails and how it can be monitored. According to the French Digital Council (2014:27), an algorithmic platform is unfair when its own interest is not aligned with that of its users, yet this position needs to be clarified further. For the authors, the application of the open concept of fairness entails two categories of obligations:

- First, some transparency obligations which cover, on the one hand, the specific disclosure obligations explicitly foreseen in the horizontal (as mentioned above) and sector-specific rules and, on the other hand, broader transparency

obligations which are not explicitly mentioned in the consumer protection directives and yet derive from the fairness principle. To increase the legal certainty and improve effectiveness, this second category of implicit transparency obligations should be made more explicit either in amending the hard law or, preferably, in adopting precise soft-law guidance. As explained in the Fitness Check report, the Commission is envisaging more clarity on the transparency requirement applicable to online intermediaries. For example, as explained by the French Digital Council (2014:27), if a search engine deliberately alters its algorithm to the effect that, instead of displaying suggestions suited to the user's inferred preferences, promotes stock that needs to be cleared out rather than goods that are most suited to the user's affinities.

- Second, some fairness obligations beyond transparency. In particular, it is important to explore and clarify when an automated algorithm may cause misleading or aggressive practices against a consumer.

Implications of those fairness obligations for algorithmic consumers

Another issue raised by Gal (2017:37) is whether the emergence of clever algorithmic assistants better able to detect unfair commercial practices or unfair contract terms should reduce the liability of suppliers committing such practices. With Gal, the authors submit that it should not be the case and that suppliers should not take cynical advantage of algorithmic assistants, even if the enforcement priorities may change.

6. Effective Enforcement and Governance framework

As noted by the Commission, the quickly developing digital environment, which enables traders to target massive numbers of consumers rapidly and makes it possible for rogue traders to discontinue or restart a detrimental practice quickly, requires strong enforcement.⁸³ And as this report already notes, the rapid and unpredictable evolution of the sector requires the use of principles based rules which are more flexible but which may be less easy to implement. Therefore, a good governance framework is particularly important to enforce the consumer protection rules in the digital sector. This framework should be based on effective public authorities complemented with strong private enforcement and clever use of the new technological enforcement possibilities.

6.1. Public enforcement

6.1.1. National consumer protection authorities

Independent and expert consumer agencies with credible sanctioning power

There is a tendency in EU policies to establish strong and independent national regulatory authorities to implement EU law next to the administration and the judicial system. This has been the case for the implementation of the sector-specific rules in the financial sector and the network industries as well as for the implementation of horizontal rules regarding competition policy or data protection. This tendency could now be extended to the implementation of consumer protection rules. EU law should consider imposing the establishment of national consumer protection authorities, whether self-standing or combined with other authorities (competition authority and sectoral regulators). The important point is that minimal requirements regarding expertise, resources, independence and accountability should be adopted.

Those authorities should also be well informed, which implies extensive investigation powers as well as close cooperation with consumer protection associations.⁸⁴

To ensure an effective enforcement of the rules related to digital services, those authorities should have expertise in big data and AI and be staffed, among other things, with computer scientists and data analysts. They should also have access to resources to commission empirical studies. As recommended by the French Digital Council (2014:13),

⁸³ Commission Fitness Check Report SWD(2017) 209, p. 27.

⁸⁴ For instance, in Germany there is a well-functioning model of responsibilities amongst the consumer associations, the sector-specific NRA and the general competition authority which is characterised by a very close and interlinked cooperation. The exchange of information between BNetzA and the market watch organisation "Digitale Welt" for example has proven very valuable in identifying focus areas of complaints in the context of an early-warning-system.



they should develop knowledge and understanding of the digital world in support of a strategic approach. This could be achieved by different means, one of them being the setting-up of a permanent and structured dialogue with digital stakeholders.

Those agencies should also have the power to impose, in case of breaches of consumer law, sanctions with deterrent effects. The Commission observes that those sanctions vary considerably among Member States and often do not have sufficient deterrent effects.⁸⁵

Rely on soft-law and soft enforcement to clarify principles-based rules in a dynamic sector

Principles-based rules have the advantage of being flexible enough to adapt to fast evolving sectors such as digital services, but may increase legal uncertainty which, in turn, can undermine the effectiveness of their enforcement and raise the costs of regulation. To alleviate this drawback, enforcement agencies should adopt guidance or other soft-law instruments to clarify the application of regulatory principles to specific sectors and/or specific practices. This is what the Commission did in 2016 when updating the UCPD Guidance to the evolution of the practices in the online sector or what the Commission may do regarding the UCTD.

For new issues, public agencies may also rely on soft enforcement i.e. not immediately opening a formal case where an infringement of consumer protection is detected in an area with legal uncertainty because of the novelty of the practice or context. Priority should be given to resolving the case amicably and giving guidance, while the threat of opening formal proceeding ensures full cooperation. This is what the Commission and several national consumer agencies have been doing recently regarding certain practices of certain social networks in the EU and, in a previous case, regarding app stores and in app purchases.⁸⁶

Regtech

National authorities should also seize the opportunity offered by digital technologies, in particular big data and artificial intelligence, to improve their operations and the enforcement of the law. As suggested by the French telecom regulator ARCEP, regulatory agencies could act as platforms which regulate with data.⁸⁷ This implies, on the one hand, that authorities get as much data as possible from the consumers and, on the other hand, that they give general data to consumers through an extensive open data policy. For instance, consumer protection agencies could establish or approve price comparators or, for telecom services, publish a clear mapping of the different telecom networks coverage with their quality. Going one step further, it could be envisaged that they provide

⁸⁵ Commission Fitness Check Report SWD(2017) 209, p. 31.

⁸⁶ http://europa.eu/rapid/press-release_IP-14-847_en.htm

⁸⁷ The regulation with data is actively promoted by the French telecom regulator ARCEP, see <https://www.arcep.fr/index.php?id=13329>

personalised information to the consumers. This may require envisaging regulation of companies' profiling activities to ensure that consumers profiles are used not only to target ads but also target information.

6.1.2. Cooperation between enforcers

Coordination at the National level

At the national level, the consumer protection authorities are not alone in regulating the digital value chain and protecting consumers. They intervene next to other horizontal agencies, such as competition authorities, data protection authorities or network security agencies and other sectoral agencies such as telecom or media regulators. To ensure consistent and effective decisions for the whole digital value chain, it is important that consumer protection authorities cooperate closely with other specialised agencies, which is unfortunately not always the case.⁸⁸ For example, an online shop could be dealing with the consumer authority for information obligations and contract terms, the data protection authority when dealing with personal data of shoppers and a sectoral regulator, depending on the exact nature of its activity. It is highly desirable that agencies work in similar and coordinated ways so that companies can expect a consistent treatment and coherent procedures with different agencies.

EU law may impose an efficient cooperation between national agencies but should leave the form of the cooperation to each Member States according to their national circumstances. Already today, several models are relied upon:

- In some Member States, one agency is in charge of consumer protection, competition law enforcement and regulation of network industries. This is the case in Spain and the Netherlands;
- In other Member States, competition authorities are in charge of consumer protection. This is the case in the UK, Italy and Poland (as well as in the US);
- In other Member States, the consumer protection agency (sometimes a unit within a government department) has established formal cooperation agreements with the other agencies involved in the digital value chain;
- In some Member States, the regulatory authorities have the power to apply horizontal consumer protection rules in their regulated sectors.

Coordination at the EU level

As digital services are often provided on an EU or even global basis and evolve quickly, it is also crucial that the consumer protection agencies cooperate closely and swiftly with each other and with the European Commission. Fortunately, this European coordination is increasing over time. Since 2007, national consumer protection agencies run, an annual

⁸⁸ Commission Fitness Check Report SWD(2017) 209, p. 57.

‘EU sweep’, which is EU-wide screening of websites.⁸⁹ It takes the form of simultaneous, coordinated checks to identify breaches of consumer law and take appropriate national enforcement actions. As shown by the Commission,⁹⁰ those actions have led to a significant reduction in consumer law infringements. National authorities have also coordinated other actions, such as recently in the online car rental sector⁹¹ or for social networks.⁹²

However, this coordination is insufficient, and is why the Commission proposed a revision of the Consumer Protection Cooperation Regulation in 2016.⁹³ The reform aims to equip national consumer protection authorities with sufficient power and possibility to cooperate to fight effectively against pan-EU infringements of consumer law.

6.2. Private enforcement

Centralised and public enforcement is inevitably limited as public financing and public information are constrained, even when the authorities use the full potential of big data and artificial intelligence. Therefore, it should be complemented by an active decentralised and private enforcement. The current EU consumer protection rules already aim at stimulating private enforcement by giving several means of actions to consumers when their rights are been infringed:⁹⁴

- They can take an action before an administrative authority or a court. They can act individually or, in some cases, collectively. They can ask for an injunction and for damages;
- They can request the mediation, in particular via the European Consumer Centres for cross-border cases or via out-of-court dispute resolution;
- They can lodge a complaint before the national consumer protection agencies.

However, any of those actions requires that consumers are aware of their rights and their possible violation. The recent Commission Fitness check on consumer and marketing law shows a lack of awareness of the rules by the providers and by the consumers, in particular for digital services. Therefore, the Commission intends to “run targeted awareness-raising campaigns for consumers and traders. It will also work on training and

⁸⁹ The EU sweep have focused so far on: airlines (2007, UCTD), mobile content (2008, UCPD), electronic goods (2009, UCPD and CSGD), online tickets for cultural and sports events (2010, UCTD and UCPD), consumer credit (2011, the Consumer Credit Directive, UCPD and UCTD), digital content (2012, UCTD and UCPD), travel services (2013, UCTD and UCPD), guarantees on electronic goods (2014, CSGD), CRD (2015), online holidays booking (2016).

⁹⁰ Commission Fitness Check Report SWD(2017) 209, p. 75.

⁹¹ See Commission Press Release of 19 January 2017, IP/17/86.

⁹² Commission Press release of 17 March 2017, IP/17/631.

⁹³ COM(2016) 283.

⁹⁴ Commission Fitness Check Report SWD(2017) 209, at 27-33.



capacity building of legal practitioners and consumer organisations and on creating a new Consumer Law Database”.⁹⁵

Then, some available remedies, such as injunctions, could be expanded to cover more areas of consumer legislation and further harmonise the procedural conditions.⁹⁶ Also the conditions to get damages in case of consumer rights infringements could be further harmonised and facilitated, as was done in 2014 for competition law infringements.⁹⁷

6.3. Technology enforcement

An alternative means of enforcement, promoted by Lessig (2006), consists in moving the rules from the legislative code to the computer code. This is used with privacy by design, which is based on the following principles: (i) proactive not reactive (preventative not remedial), (ii) privacy as the default, (iii) privacy embedded into design, (iv) full functionality (positive-sum, not zero-sum), (v) end-to-end lifecycle protection, (vi) visibility and transparency, (vii) respect for user privacy.⁹⁸

Similar principles for ‘consumer protection by design’ could be established. For instance, an obligation to personalise information disclosure could be written in the code of the algorithm. Obviously, this is a new avenue for regulation that should be further explored in a dialogue between authorities, the digital firms and the consumer associations.

⁹⁵ Commission Executive summary of the Fitness check, SWD(2017) 208, p. 4.

⁹⁶ Commission Fitness Check Report SWD(2017) 209, at 86.

⁹⁷ Directive 2014/104 of the European Parliament and of the Council of 26 November 2014 on certain rules governing actions for damages under national law for infringements of the competition law provisions of the Member States and of the European Union, O.J. [2014] L 349/1.

⁹⁸ Resolution on the Privacy by Design of October 2010 of the 32nd International Conference of Data Protection and Privacy Commissioners.

7. Service-specific consumer protection rules

As explained in Section 2, service-specific consumer protection rules applicable to some types of digital services (such as electronic communications services or audio-visual media services) sometimes overlap with the horizontal rules; they sometimes clarify the implementation of the horizontal rules to certain types of digital services; and they sometimes complement the horizontal rules in protecting interests specially related to some types of digital services. When the service-specific rules overlap or clarify the horizontal rules, their relevance can be questioned, especially with the increased convergence between the different types of digital services. More generally, the application of the principles for good rule-making, in particular the principles of proportionality, sustainability and non-discrimination, calls for a fundamental revision of the digital services-specific consumer protection rules

Proportionality and Sustainability

In line with the proportionality principle, it is necessary that specific legislation is subject to a strict test as to whether it adds any value over and above existing general legislation.⁹⁹ This could be a two-prong test: (1) is there a consumer detriment which is not addressed under the existing horizontal rules? (2) can it be addressed with new horizontal rules applicable to any technology?

This strict test cannot be an abstract test based on an examination of the legal texts only; it must also encompass implementation issues. This is why, as discussed in section 6 above, the EU and its Member States must commit sufficient resources to the enforcement of general legislation when it comes to digital services. Otherwise, a failure at the enforcement level opens the door to the enactment of specific legislation (which in turn might not be sufficiently well enforced), a scenario that can hardly be satisfactory.

Against that background, the authors find that much of what is currently included in the consumer protection specific legislation on digital services or proposed in the reviews of the electronic communications or audio-visual media services could be simplified or withdrawn in favour of more general legislation for two main reasons.¹⁰⁰

First, as the economy becomes digitalised, digital services are no longer (vertical) sectors of the economy but its very (horizontal) foundation. Hence, the service-specific rules applicable for (some types) of digital services should now be replaced by horizontal rules.

Second, a large part of the current service-specific rules deals with transparency, switching or dispute resolution, or privacy, all issues which are already covered by horizontal provisions, albeit sometimes in a more general and less far-reaching manner.

⁹⁹ This section is partly based on de Streeck and Larouche (2016).

¹⁰⁰ Renda (2017) is also calling for an improvement and a refinement of the general legislation on consumer protection instead of extending sector-specific rules to communications OTTs.



Thus, a removal of service-specific rules in favour of horizontal rules would greatly enhance the clarity and navigability of the regulatory framework for businesses and enforcement authorities alike and can only benefit consumers. If legal certainty so requires, some guidelines on the application of horizontal rules to digital services could be adopted, as was the case for the UCPD. To ensure a uniform interpretation throughout the internal market, the Commission would be best placed to produce those guidelines, incorporating enforcement experience from national authorities and discussion with businesses.

Moreover, the primacy of general legislation should apply not only within EU law, but also to Member State legislative initiatives as well. Accordingly, the authors recommend a strengthening of the Directive on technical regulation for information society services.¹⁰¹ First of all, its scope of application should be extended to all digital services, and not only include Information Society Services. Secondly, a requirement should be added whereby national legislative proposals concerning digital services that do not offer added value as compared to existing general legislation should be notified to the Commission, which may question its proportionality.

The replacement of service-specific rules by horizontal rules will also achieve the principle of sustainability as horizontal rules are often principles-based, hence more flexible to adapt to fast and unpredictable technology and market evolutions.

Level-playing field

If part of service-specific regulation was maintained, it should meet the principle of non-discrimination and apply the same rules for the services which are seen by consumers as substitutable.¹⁰²

In that regard, the increasing substitution between traditional and OTTs/apps telecommunications¹⁰³ and medias services should be better taken into account and lead to an increasing convergence between the rules applied to those different types of digital services.

¹⁰¹ Directive 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services, OJ [2015] L 241/1.

¹⁰² Also Communication of the Commission of 25 May 2016 on Online Platforms and the Digital Single Market, COM(2016) 288, at 6

¹⁰³ which the Commission defines as “number-independent interpersonal communications services” in its proposal for an European Electronic Communications Code, COM(2016) 590.



References

- Ariely D. (2008), *Predictably Irrational: The Hidden Forces That Shape Our Decisions*, HarperCollins.
- Baldwin R., Cave M., Lodge M. (2012), *Understanding Regulation: Theory, Strategy and Practice*, 2nd ed, Oxford University Press.
- Bar-Gill O. (2012), *Seduction by Contract: Law, Economics and Psychology in Consumer Markets*, Oxford University Press.
- Bar-Gill O. and O Ben-Shahar (2013) 'Regulatory Techniques in Consumer Protection: A critique of European Consumer Contract Law', 50 *Common Market Law Review* 109.
- P. J. Barrio, D. G. Goldstein and J. M. Hofman, (2016), Improving Comprehension of Numbers in the News, *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI'16)* <http://www.cs.columbia.edu/~pjbarrio/papers/numeracy.pdf> (last accessed 27 May 2017).
- Ben-Shahar O. and C. Schneider (2014), *More than You Wanted to Know: The Failure of Mandated Disclosure*, Princeton University Press.
- Ben-Shahar, O. and L. Strahilevitz (2017), "Interpreting Contracts via Surveys and Experiments", *University of Chicago Coase-Sandor Institute for Law & Economics Research Paper* No. 791. Available at SSRN: <https://ssrn.com/abstract=2905873> or <http://dx.doi.org/10.2139/ssrn.2905873> (last accessed 27 May 2017).
- Belleflamme P. and M. Peitz (2015), *Industrial Organisation: Markets and Strategies*, 2nd ed., Cambridge University Press.
- Behavioural Insights Applied to Policy (BIAP) 2016 at 11 (report drawn up by the Foresight and Behavioural Insights Unit, at the Joint Research Centre of the European Commission), http://publications.jrc.ec.europa.eu/repository/bitstream/JRC100146/kjna27726enn_new.pdf (last accessed 26 May 2017).
- Conly S. (2013), *Against Autonomy—Justifying Coercive Paternalism*, Cambridge University Press.
- Deloitte (2016), *Impact of the European Commission's Draft Directive on Contract Rules for the Supply of Digital Content*, Final Report.
- de Streel A. and P. Larouche (2016), *An Integrated Regulatory Framework for Digital Networks and Services*, CERRE Policy Report
- de Streel A. and C. Hocepiéd (2017), *Optimal regulatory model for telecommunications services in the EU*, Study for the IMCO Committee of the European Parliament.



De Mauro, A., M. Greco and M. Grimaldi (2016), "A Formal Definition of Big Data Based on its Essential Features", *Library Review* 65(3), 122-135.

Domingos P. (2015), *The Master Algorithm, The Machine Learning Revolution*, Basic Civitas Books.

Ecorys and TNO (2016), *Future trends and business models in communication services*, Study for the European Commission.

Ecorys et al. (2016), *Consumers' attitudes towards Terms and Conditions*, Study for the European Commission.

Elshout, M., M. Elsen, J. Leenheer, M. Loos, I. Luzak et al. (2016), *Consumers' attitudes towards Terms and Conditions*, Study for the European Commission.

Ezrachi A. and Stucke M.E. (2016), *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy*, Harvard University Press.

French Digital Council (2014), *Platform neutrality*, Opinion 2014-2

Gal M.S. (2017), *Technological Challenges to Autonomous Choice*, Working paper

Gal M.S. and Elkin-Koren N. (2017), "Algorithmic Consumers", *Harvard Journal of Law and Technology*, forthcoming

Gartner (2016), *Top Strategic Predictions for 2017*.

Hallsworth, M. D. Berry, M. Sanders, A. Sallis, D. King et al. (2015), *Stating Appointment Costs in SMS Reminders Reduces Missed Hospital Appointments: Findings from Two Randomised Controlled Trials*, *PLOS ONE* 10(10): e0141461. <https://doi.org/10.1371/journal.pone.0141461> (last accessed 26 May 2017).

Haynes, L., O. Service, B. Goldacre, D. Torgerson (2012), *Test, Learn, Adapt: Developing Public Policy with Randomised Controlled Trials*, <http://38r8om2xjhhl25mw24492dir.wpengine.netdna-cdn.com/wp-content/uploads/2015/07/TLA-1906126.pdf> (last accessed 26 May 2017).

Helleringer, G. (2016), *Trust Me, I Have a Conflict of Interest! Testing the Efficacy of Disclosure in Retail Investment Advice*, *Oxford Legal Studies Research Paper No. 14/2016*.

Helleringer G. and A.-L. Sibony (2017), "European Consumer Protection Through the Behavioural Lense", *Columbia Journal of European Law* 23/3, 607-646.

Ipsos (2017), *Consumer Survey* prepared for ETNO

Kahneman D., J. L. Knetsch, R. H. Thaler (1991), "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias", *Journal of Economic Perspectives* 5 (1): 193–206.

Kahneman D. (2011), *Thinking Fast and Slow*, Farrar, Straus and Giroux.



Korobkin R. (1997), "The status quo bias and contract default rules", *Cornell Law Review*, 83: 608–687.

Lessig L. (2006), *Code and Other Laws of the Cyberspace – Version 2.0*, Basic Book.

Lunn, P. S. Lyons (2017), Consumer switching intentions for telecoms services: evidence from Ireland, Munich Personal RePEc Archive, <https://www.esri.ie/publications/consumer-switching-intentions-for-telecoms-services-evidence-from-ireland/>

Mayer-Schönberger V. and Cukier K. (2013), *Big Data: A Revolution that will transform how we live, work and think*, Eamon Dolan/Mariner Books.

Norwegian Consumer Protection Agency (2016), *APPFAIL: Threats to Consumers in Mobile Apps*

Noto La Diega G. (2015), "Uber law and awareness by design: An empirical study on online platforms and dehumanised negotiations", *European Journal of Consumer Law*, 383-413.

OECD (2017), *Lessons from Around the World*, OECD Publishing.

OFT (2013), Study n° 1501, *Partitioned Pricing Research*, available at: http://webarchive.nationalarchives.gov.uk/20140402142426/http://www.oft.gov.uk/shared_ofteconomic_research/OFT1501.pdf.

Pasquale F. (2015), *The Black Box Society: The Secret Algorithms That Control Money and Information*, Harvard University Press.

Peitz M., H. Schweitzer and T. Valletti (2014), *Market Definition, Market Power and Regulatory Interaction in Electronic Communications Markets*, CERRE Study.

Porat A. and L.J. Strahilevitz (2014), "Personalizing Default Rules and Disclosure with Big Data", *Michigan Law Review* 112, 1417-1478

Rebonato R. (2012), *Taking Liberties—A Critical Examination of Libertarian Paternalism*, Palgrave Macmillan.

Reich N. and H. W. Micklitz (2014) *EU Consumer Law*, Intersentia, 2014

Renda A. (2017), *Reforming e-communications services: A critical assessment*, Study for the IMCO Committee of the European Parliament.

Scholz L.H. (2017), "Algorithmic contracts", *Stanford Journal of Law and Technology*.

Stucke M. and Grunes J. (2016), *Big Data and Competition Policy*, Oxford University Press.

Sunstein, C. R. (2014), *The Ethics of Influence: Government in the Age of Behavioral Science*, Cambridge University Press.

Thaler R. and C. Sunstein (2008), *Nudge: Improving Decisions about Health, Wealth, and Happiness*, New Haven, Yale University Press.



UK House of Lords (2016), *Online Platforms and the Digital Single Market*, Report of the Select Committee on European Union.

White, M. D. (2013), *The Manipulation of Choice: Ethics and Libertarian Paternalism*, Palgrave MacMillan.

WIK-Consult and TNO (2015), *Over-the-Top (OTT) players: Market dynamics and policy challenges*, Study for the European Parliament.

WIK-Consult, Cullen International and CRIDS (2016), *Substantive issues for review in the areas of market entry, management of scarce resources and general end-user issues*, Study for the European Commission.