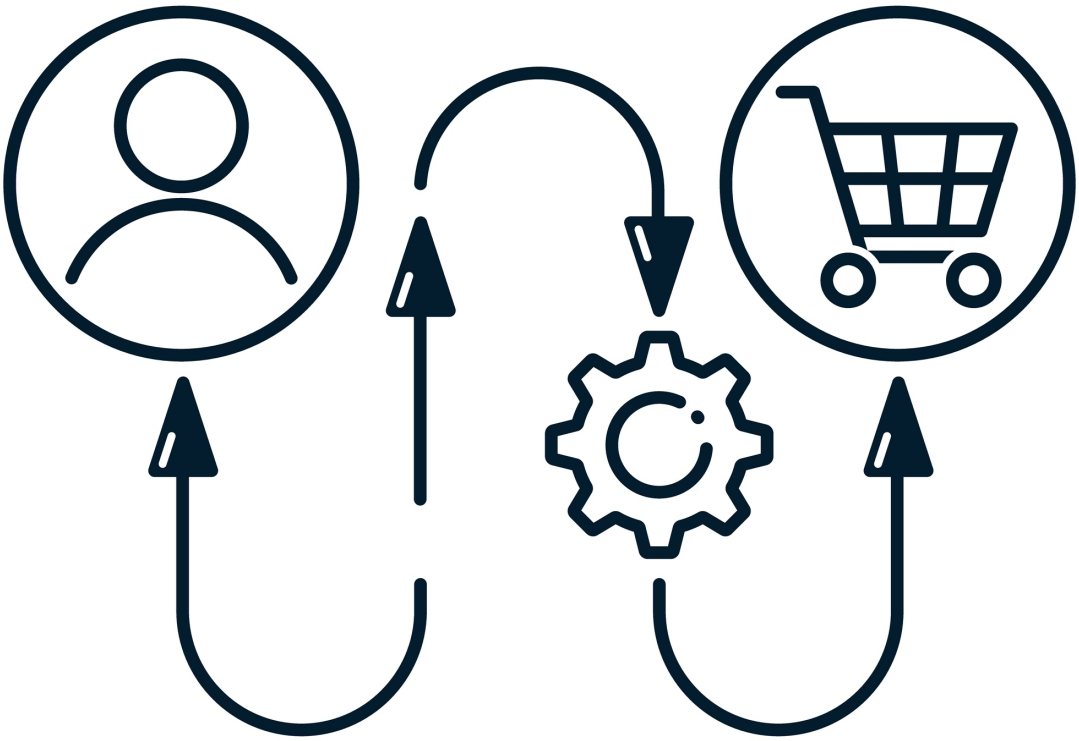
ELI
EUROPEAN
LAW
INSTITUTE

EU Consumer Law and Automated Decision-Making (ADM): Is EU Consumer Law Ready for ADM?

Interim Report of the European Law Institute



ELI

EUROPEAN
LAW
INSTITUTE

Interim Report of the European Law Institute (ELI Project on Guiding Principles and Model Rules on Algorithmic Contracts)

EU Consumer Law and Automated Decision-Making (ADM): Is EU Consumer Law Ready for ADM?

The European Law Institute

The European Law Institute (ELI) is an independent non-profit organisation established to initiate, conduct and facilitate research, make recommendations and provide practical guidance in the field of European legal development. Building on the wealth of diverse legal traditions, its mission is the quest for better law-making in Europe and the enhancement of European legal integration. By its endeavours, ELI seeks to contribute to the formation of a more vigorous European legal community, integrating the achievements of the various legal cultures, endorsing the value of comparative knowledge, and taking a genuinely pan-European perspective. As such, its work covers all branches of the law: substantive and procedural; private and public.

ELI is committed to the principles of comprehensiveness and collaborative working, thus striving to bridge the oft-perceived gap between the different legal cultures, between public and private law, as well as between scholarship and practice. To further that commitment, it seeks to involve a diverse range of personalities, reflecting the richness of the legal traditions, legal disciplines and vocational frameworks found throughout Europe. ELI is also open to the use of different methodological approaches and to canvassing insights and perspectives from as wide an audience as possible of those who share its vision.

European Law Institute Secretariat
Schottenring 16/175
1010 Vienna
Austria
Tel.: + 43 1 4277 22101
Mail: secretariat@europeanlawinstitute.eu
Website: www.europeanlawinstitute.eu

ISBN: 978-3-9505318-9-3

Cover image: Shutterstock

Project Number: P-2022-28
Approved by the ELI Council on 27 November 2023
Final Draft published on 18 December 2023

This publication was co-funded by the European Union's Justice Programme. Acknowledgement is also due to the University of Vienna, which has generously hosted the ELI Secretariat under successive Framework Cooperation Agreements since 2011. Views and opinions expressed are those of ELI's only and do not necessarily reflect those of the European Union, the University of Vienna or others. Neither the European Union nor others can be held responsible for them.

This project is co-funded by the European Union

universität wien

Table of Contents

Acknowledgements

Project Team
Project Reporters
Christoph Busch (Professor, Germany)
Teresa Rodríguez de las Heras Ballell (Professor, Spain)
Dariusz Szostek (until October 2023; Professor, Poland)
Christian Twigg-Flesner (Professor, United Kingdom)
Marie Jull Sørensen (Associate Professor, Denmark)

Further Members
Andrea Bertolini (Assistant Professor, Italy)
Anne de Vries-Stotijn (Jurist, The Netherlands)
Mateusz Grochowski (Senior Research Fellow, Germany/Poland)
Monika Jagielska (Professor, Poland)
Vanessa Mak (Professor, The Netherlands)
Damjan Možina (Professor, Slovenia)
Rania Wazir (Mathematician, Data Scientist, Austria)

Advisory Committee
Assessors
Başak Başoğlu (Associate Professor, Turkey)
Pascal Pichonnaz (Professor, Switzerland)
Marta Santos Silva (Postdoctoral Researcher, Portugal)

Further Members
Peter Istrup (until June 2023; Law Firm Partner, Denmark)
Pierpaolo Gori (Judge, Italy)
Irene Kull (Professor, Estonia)
Jesper Løffler Nielsen (Associate Law Firm Partner, Denmark)
Daniella Lupini (Lawyer, United Kingdom)
Gilberto Nava (Law Firm Partner, Italy)
Christina Ramberg (Professor, Sweden)
Marc Rotenberg (Founder of the Center on AI and Digital Policy, Adjunct Professor, USA)
Minesh Tanna (Managing Associate, Solicitor Advocate, United Kingdom)

Members Consultative Committee
Marta Santos Silva (MCC Chair)
Cristina Argelich-Comelles (Assistant Professor, Spain)
Alessio Azzutti (Research Associate, Italy)
Arvind Babajee (Corporate Jurist and Chartered Management Accountant, Mauritius)
Hugh Beale (Emeritus Professor, United Kingdom)
Luca Boggio (Professor, Italy)
Pınar Çağlayan Aksoy (Assistant Professor, Turkey)
Tomasz Chmielewski (Attorney, Poland)
David Dolidze (Associate Professor, Georgia)
Rossana Ducato (Senior Lecturer, United Kingdom)
Mateja Durovic (Professor, United Kingdom)
Mustafa Ebaid (Legal Researcher, Turkey)
Sjef van Erp (Emeritus Professor, The Netherlands)
Andrea Fejős (Lecturer, United Kingdom)
Tomàs Gabriel García-Micó (Postdoctoral Researcher, Spain)
Kadir Berk Kapancı (Assistant Professor, Turkey)
Habbine Estelle Kim (Associate Lawyer, France)
Florencia Marotta-Wurgler (Professor, USA)
Sónia Moreira (Assistant Professor, Portugal)

Ekin Ömeroglu (Assistant Professor, Turkey)
Ali Osman Ozdilek (PhD Fellow, Italy)
Marlena Pecyna (Professor, Poland)
Paola Rodas Paredes (Lecturer, Spain)
Vyara Savova (PhD Researcher and Senior Policy Lead, Bulgaria)
Renate Schaub (Professor, Germany)
Sebastian Schwamberger (Junior Professor, Germany)
Ludovica Sposini (Student, Italy)
Nata Sturua (Associate Professor, Georgia)
Antonio-Catalin Teodorescu (Student, United Kingdom)
Eric Tjong Tjin Tai (Professor of Private Law, The Netherlands)
Yanko Xavier (Professor, Brazil)

Observers
European Commission (represented by Maria Peltoniemi)
United Nations Commission on International Trade Law, UNCITRAL (represented by Alexander Kunzelmann and Corentin Basle)
International Institute for the Unification of Private Law, UNIDROIT (represented by Anna Veneziano)

ELI Project Officer
Katja Kolman (Senior Project Officer, Austria)

Executive Summary

This report is an interim output for the *Guiding Principles and Model Rules on Algorithmic Contracts* project, the focus of which is the use of automated decision-making (ADM) through algorithms, particularly Artificial Intelligence (AI) driven algorithms, for the conclusion and/or performance of contracts. An 'AI system' might be defined as 'a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment.' [1]

In this report, we offer a review of existing key EU consumer law directives to determine whether, and to what extent, they could deal with the use of deep-learning AI or deterministic algorithms in automating elements of the contracting process. For the analysis, we assume an AI system, referred to throughout as a 'digital assistant', can be deployed by a consumer to take over one or more steps usually taken by a human consumer towards concluding or performing a contract. Such digital assistants could be provided as free-standing applications as well as integrated features of smart goods.

We identify two separate contractual relationships as requiring analysis: first, the contract between a provider of a digital assistant and a consumer for the supply of a digital assistant to the consumer (referred to as 'Contract 1' in this report) and the contract concluded through a digital assistant between a consumer utilising a digital assistant and a trader (referred to as an algorithmic contract, or 'Contract 2').

This ELI report takes a forward-looking perspective to consider the implications for current consumer law if digital assistants were to come into widespread use by consumers. We are cognisant of the technological limitations of current AI systems: current AI technologies (such as foundation models and generative AI, developed through machine learning) are fundamentally complex deep-learning algorithms which analyse data and, based on statistical methods, produce outputs. The functionality and reliability of any given AI system heavily depend on the system's computing power, programming of the initial algorithm, including appropriate determination of the algorithm's objectives, the training data, and any 'self-learning' capacity coded into the algorithm. Consequently, care is taken to avoid assumptions about the potential capabilities and functionalities of such digital assistants, whilst highlighting aspects of existing EU consumer law meriting clarification or calibration to facilitate the possible use of digital assistants irrespective of their range of capabilities.

The report is limited to considering the 'fitness' of current EU consumer law for ADM. In essence, it analyses how the consumer law *acquis* would cope with the widespread use of ADM. In carrying out this assessment, the focus lies on how EU consumer law can continue to ensure adequate consumer protection in an economy where digital assistants become more prevalent (the *protective* function of EU consumer law), whilst enabling the use of innovative technologies in consumer markets (the *enabling* function). For present purposes, EU consumer law would be regarded as 'ADM ready' if it can adequately deal with the use of digital assistants by consumers; this does not mean that EU consumer law, even with the adjustments suggested here, would be the optimal legal framework. Phase 2 of the project will turn to this question.

The analysis proceeds in two steps: first, we set out the general principles that should guide the adaptation of existing EU consumer law to ADM; and secondly, we assess the implications for several EU consumer law directives (those of broad application, such as the Consumer Rights Directive, the Unfair Contract Terms Directive, or the Unfair Commercial Practices Directive).

In developing the general principles, the importance of recalibrating EU consumer law in line with sustainability-promoting objectives is acknowledged. Specific proposals in this regard are not made because the focus of the report

[1] OECD, *Recommendation of the Council on Artificial Intelligence*, lit. I, first indent <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449> accessed 30 November 2023.

is on the state of existing EU consumer law, and because there are fundamental policy decisions associated with a reorientation of EU consumer law towards sustainability objectives beyond the scope of this report.

The following general principles are proposed in order to make EU consumer law 'ADM ready':

Principle 1: Atribution of digital assistant's actions to consumer

The use of digital assistants raises several difficult questions for contract law, which are extensively debated in the academic literature, but no clear consensus has emerged. These matters are primarily for national contract law, and this report does not take a stance on any of these. We do not comment on the possible application of national rules on mistake or similar doctrines in such situations. Although there has been some debate over whether AI systems (like the report's digital assistant concept) should be treated separately from those whose legal relationships they affect, for this report, we proceed from the position that the legal effects of all the actions of a digital assistant are attributed to the consumer who deployed that digital assistant. Crucially, this attribution principle requires a number of design duties/requirements for digital assistants to enable a consumer to retain ultimate control over the digital assistant (akin to the treatment of 'high-risk' AI under the forthcoming AI Act). Note that we are not proposing any changes to national laws on the validity of contracts, which might have a bearing on whether a contract is effective in the first place.

Insofar as the actions of a digital assistant go beyond what might have been expected from such an AI system by both providers and consumers, there are two possible approaches: first, such 'unexpected actions or decisions' by the digital assistant could affect the validity and the enforceability of the contract concluded with a third party (referred to as Contract 2) under national laws, an issue which is beyond the scope of this report. Secondly, the contract between the provider of the digital assistant and the consumer (referred to as Contract 1), which is a contract for the provision of digital content/services, would provide a basis for the consumer to seek redress. This issue is examined in this report.

Principle 2: Application of consumer law to algorithmic contracts

A logical consequence of this approach to attribution is that the contract concluded through a digital assistant will be between a consumer and a trader, and, therefore, falls within EU consumer law. Consequently, the utilisation of a digital assistant by a consumer would not alter the continued application of the legal obligations of a trader under EU consumer law. Indeed, one might anticipate that digital assistants could be designed on the basis of the relevant legal framework (eg, with regard to the information to be provided by a trader). However, whilst the fact that a consumer used a digital assistant would be relevant in considering whether such a consumer might ultimately be entitled to individual redress against a trader, the legal obligations of a trader under EU consumer law should remain unchanged. This would also ensure consistent treatment of situations where a consumer uses a digital assistant and those where a consumer does not.

Principle 3: Pre-contractual information duties

The information model underpins much of EU consumer law. Depending on how AI technology and its application evolve, a recalibration of the current model may become necessary, should the way in which information is gathered and used change considerably. At present, the trajectory of how digital assistants will develop remains too uncertain. Therefore, in this report, we proceed on the basis that the rationale underpinning the requirement to provide pre-contractual information would not be affected by the fact that a consumer deploys a digital assistant, even where this has independent information gathering functionality and processing capabilities (noting that not all digital assistants

would necessarily have this capacity). EU consumer law presumes that an individual within the legal definition of consumer is in a weaker position vis-à-vis a trader regarding information and bargaining power and therefore entitled to the benefit of consumer law, irrespective of their actual knowledge and/or bargaining strength. This should remain the case where digital assistants are used by consumers.

Principle 4: Non-discrimination/no barrier principles

Consumers should be free to use digital assistants, and traders should not be permitted to prohibit this in a general, arbitrary, or unjustified way, unless there are clearly defined exceptions to this (eg, to prevent manipulation). Permitting the unjustified prohibition of digital assistants or differential treatment of those consumers using digital assistants could lead to discrimination in the market between those consumers assisted by digital assistants and those who are not. The non-discrimination/no barrier principle entails both the prevention of technical measures that impede the use of digital assistants and the need for an 'ADM friendly' design of online interfaces (eg, through providing information in machine-readable form).

Principle 5: Discloure of use of digital assistant

We propose that the use of a digital assistant should be disclosed, usually through appropriate technological means (that enable a by-default design solution). This would enable the disclosure duty to be reciprocal, ie, it should apply to the use of digital assistants by traders and consumers alike. Such a disclosure requirement would be needed to consider the application of the exceptions to the 'non-discrimination' principle, as well as to alert consumers to the use of digital assistants by traders (and vice versa).

Principle 6: Protection of digital assistant from manipulation

Current EU consumer law already seeks to prevent the manipulation of consumers when deciding whether to conclude a contract and on what terms, as well as when exercising contractual rights. Such protection should be extended to encompass attempts at manipulating a digital assistant (or ADM processes generally).

Principle 7: Ability to determine parameters/disclosure of pre-set parameters

The operation of digital assistants will necessitate the setting of various parameters, although some might be pre-set by the supplier of the digital assistant (particularly when incorporated into a smart product, eg, by limiting the traders with whom orders might be placed). In accordance with the need for consumers to retain overall control, linked to the attribution principle, the existence of pre-set parameters should be disclosed and the possibility to set and revise various parameters should be provided for.

Principle 8: Digital assistants and conflicts of interest

One particular problem arising with digital assistants integrated into smart products, or those provided on online platforms, is that tension would arise between the commercial interests of the provider of the smart product or of the online platform operator and traders selling through the platform, on the one hand, and the interests of the consumer, on the other. Although one could require a digital assistant to focus exclusively on assisting a consumer, a more viable solution would be full and clear disclosure of such a possible conflict of interests.

The report then moves on to consider how several existing EU consumer law directives would operate in situations where a consumer deployed a digital assistant, and several recommendations are made for modifying these directives to facilitate the use of digital assistants. The assessment is that all the directives under consideration are almost 'ADM ready' and require mostly minor adjustments to remove any potential legal obstacles. We additionally recommend the adoption of a small number of new provisions to align with the eight Principles.

The overall conclusion, therefore, is that EU consumer law is capable of dealing with the future use of digital assistants by consumers, and also by traders in their dealings with consumers. It can be made fully 'ADM ready' through minor adjustments or additions to existing directives. A central element of the recommendations is the development of design requirements for digital assistants to enable their use for consumer contracting where this would be more effective than suggesting new consumer law rules. On this basis, the analysis suggests that the use of digital assistants would not pose a significant challenge to the coherence of EU consumer law. Indeed, the combination of the proposed attribution principle (key for the algorithmic contract) and the contract for the supply of the digital assistant to resolve liability issues (which would be within the scope of the Digital Content and Digital Services Directive and the Consumer Sales Directive, depending on the type of digital assistant) would provide a suitable approach to address the issues emerging from the future use of digital assistants.

List of Abbreviations

ADM = automated decision-making

AI = Artificial Intelligence

ECD = E-Commerce Directive

EU = European Union

CJEU = Court of Justice of the European Union

CRD = Consumer Rights Directive

DCD = Digital Content and Digital Services Directive

DSA = Digital Services Act

OECD = Organisation for Economic Co-operation and Development

SGD = Consumer Sales Directive

UCPD = Unfair Commercial Practices Directive

UCTD = Unfair Contract Terms Directive

UNCITRAL = United Nations Commission on International Trade Law

Introduction

The evolution of technology requires a continuous evaluation of whether existing laws can address all the issues created by the deployment of such technologies in context.[2] In recent years, the rapid advances in a variety of digital technologies have prompted a review of many aspects of the law to address the challenges arising from the use of digital technologies. No area of law has been untouched by this, although the extent to which adaptations of existing laws have had to be made varies.

ELI's project on *Guiding Principles and Model Rules on Algorithmic Contracts* seeks to identify the legal challenges of algorithmic contracting[3] for contract law and to identify potential solutions. The main output from this project will be the elaboration of both *Guiding Principles and Model Rules* that could influence the development of national and European legislation, as well as work undertaken elsewhere (eg, by UNCITRAL). The present report is an interim report that focuses on EU consumer law. Its main purpose at this stage of the project is to inform reform discussions about EU consumer law already in development. Some of the suggestions in this report are provisional and still require further refinement as part of the elaboration of the *Guiding Principles and Model Rules on Algorithmic Contracts*, and we intend to prepare a revised version of this report once the *Guiding Principles and Model Rules* have been adopted. Furthermore, the comments and suggestions in this report are made in the context of consumer contracts, although some of the matters we touch on are of relevance for all contract types. However, as the focus is on consumer contracts, we will not comment further on contracts which are not consumer contracts in this report, nor should anything we say be understood as requiring changes to national contract laws beyond provisions implementing the EU's consumer *acquis*. The second part of the project, the elaboration of the *Guiding Principles and Model Rules*, will cover both B2C and B2B contracts.

This interim report focuses on several key directives in EU consumer law selected to this end, where considerable development has taken place in recent years to address new challenges for the deployment of digital technologies in a consumer context, most notably the Digital Content and Digital Services Directive (2019/770/EU; DCD).[4] The next challenge for consumers could be the progressive automation of contracting through digital technologies for automating decision-making processes. Rapid advances in the key Automated Decision-Making (ADM) technology of Artificial Intelligence (AI) could facilitate the automation of some or all the stages of a typical contracting lifecycle. This, in turn, leads to the question of how well current EU consumer law is prepared for the potential use of ADM.[5] The report concentrates on this specific question.

This report tackles this question by examining several key EU consumer law directives: the Unfair Contract Terms Directive (UCTD),[6] relevant provisions of the E-commerce Directive (ECD),[7] the Unfair Commercial Practices Directive (UCPD),[8] the Consumer Rights

[2] Eg, Ryan Hagemann, Jennifer Huddleston Skees and Adam Thierer, 'Soft Law for Hard Problems: The governance of emerging technologies in an uncertain future' (2018) 17 *Colorado Technology Law Journal* 37, esp pp 54–62.

[3] Cf Lauren Heny Scholz, 'Algorithmic Contracts' (2017) 20 *Stanford Technology Law Review* 128.

[4] Directive (EU) 2019/770 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services [2019] OJ L 136/1.

[5] This report is not specifically concerned with how AI could be utilised to take over the task of reading terms and conditions to check for potentially unfair terms (compliance checking). See Francesca Lagioia, Agnieszka Jabłonowska, Rūta Liepina, and Kasper Drazewski, 'AI in Search of Unfairness in Consumer Contracts: The Terms of Service Landscape' (2022) 45 *J Consum Policy* 481; Noam Kolt, 'Predicting Consumer Contracts' (2022) 37 *Berkley Tech.* L.J. 71.

[6] Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts [1993] OJ L 95/24.

[7] Directive 2000/31/EC 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 [2000] OJ L 178/1.

[8] Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council [2005] OJ L 149/22.

Directive (CRD),[9] the Directives on Consumer Sale of Goods (SGD)[10] and the DCD, and the recently agreed replacement of the Distance Marketing of Financial Services Directive with new provisions added to the CRD.[11] These Directives were selected by the Project Team because of their core relevance to consumer contract law. Directives dealing with specific contracts (other than the sale of goods or supply of digital content/services) were not considered for this report,[12] but would also ultimately need to be reviewed along similar lines. For this reason, the report distils general issues regarding the impact of AI-driven ADM for EU consumer law together with comments on the specific directives. Reference will also be made to related measures;[13] whilst these are not reviewed specifically within the context of this report, they provide an important legal context for the suggestions made in this report.

[9] Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council [2011] OJ L 304/64.
The Consumer Rights Directive and the Unfair Commercial Practices Directive were amended by Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules [2019] OJ L 328/7 ('the Modernisation Directive'). This introduced some provisions relevant to digitalisation. As the Modernisation Directive is an amending directive, we have not considered it separately but in the context of the amended directives.

[10] Directive (EU) 2019/771 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the sale of goods, amending Regulation (EU) 2017/2394 and Directive 2009/22/EC, and repealing Directive 1999/44/EC [2019] OJ L 136/28.

[11] Cf European Commission, Proposal for a Directive of the European Parliament and of the Council amending Directive 2011/83/EU concerning financial services contracts concluded at a distance and repealing Directive 2002/65/EC, COM (2022) 204 final. Political agreement was reached in June 2023, and both Parliament and Council adopted the proposal in October 2023. At the time of finalising this report, the new Directive had not yet been published in the Official Journal.

[12] Eg, the Consumer Credit Directive (Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC [2008] OJ L 133/66), Package Travel Directive (Directive (EU) 2015/2302 of the European Parliament and of the Council of 25 November 2015 on package travel and linked travel arrangements, amending Regulation (EC) No 2006/2004 and Directive 2011/83/EU of the European Parliament and of the Council and repealing Council Directive 90/314/EEC [2015] OJ L 326/1), or Timeshare Directive (Directive 2008/122/EC of the European Parliament and of the Council of 14 January 2009 on the protection of consumers in respect of certain aspects of timeshare, long-term holiday product, resale and exchange contracts [2008] OJ L 33/10).

[13] Eg, the General Data Protection Regulation (GDPR; Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC [2016] OJ L 119/1), Digital Services Act (DSA; Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC [2022] OJ L 277/1); or the forthcoming AI Act.

II. Context: What Is ADM, And How Could It Be Used In A Consumer Context?

(a) What is ADM?

The acronym ADM stands for 'Automated Decision-Making'. In this context, it means a process utilising digital technologies to achieve the automation of a decision-making process that would otherwise be undertaken by humans. The key digital technology relevant for this report is AI.

With AI-driven ADM as the focus of this report, it is necessary to provide a working definition of AI, or 'AI system'. The Organisation for Economic Co-operation and Development (OECD) defines an 'AI system' as:

> *a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment.*[14]

We note that the European Parliament's amendments to the proposed AI Act include the following revised definition of 'artificial intelligence system (AI system)' which mostly mirrored an earlier version of the OECD's definition:

> *a machine-based system that is designed to operate with varying levels of autonomy and that can, for explicit or implicit objectives, generate outputs such as predictions, recommendations, or decisions, that influence physical or virtual environments.*[15]

The final version of the AI Act is expected to be updated to align with the latest version of the OECD's definition. In its *Guiding Principles for Automated Decision-Making in the EU*, ELI defined ADM as:

> *a computational process, including AI techniques and approaches, that, fed by inputs and data received or collected from the environment, can generate, given a set of pre-defined objectives, outputs in a wide variety of forms (content, ratings, recommendations, decisions, predictions, etc).*[16]

This definition reflects the Commission's original proposal of the AI Act,[17] but if the European Parliament's (EP) amendment aligning the definition with the latest OECD's definition is adopted, the notion of 'AI system' should be understood in line with the final version of the AI Act.

These definitions share the common feature that ADM involves a data-driven and algorithmic process leading to a variety of outputs. In the OECD/EP definitions, the outputs (can) influence physical or virtual environments. The type of outputs/decisions this report focuses on are those which influence the *legal position* of natural and legal persons (*viz* consumers and traders). Such outputs could be decisions on whether, when, and on what terms to conclude a contract. For the present purpose, 'algorithmic processes' include both deterministic algorithms[18] and machine-learning algorithms,

---

[14] OECD, *Recommendation of the Council on Artificial Intelligence,* lit. I, first indent <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449> accessed 30 November 2023.

[15] Amendments adopted by the European Parliament on 14 June 2023 on the proposal for a regulation of the European Parliament and of the Council on laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD)) - P9_TA(2023)0236, 14 June 2023, Art 3(1) as amended.

[16] European Law Institute, *Guiding Principles for Automated Decision-Making in the EU* – ELI Innovation Paper (ELI, 2022), p 8.

[17] COM (2021) 206, Art 3(1).

[18] These are algorithms which are programmed to follow a set number of steps and will produce the same output for the same input data, ie, there is no self-learning capacity.

including foundation models and generative AI.

ADM is already used in a variety of ways by traders when marketing their products to consumers and for concluding contracts. Many websites rely on a form of ADM to receive and process orders placed by consumers. In this sense, one-sided ADM for contract conclusion is already common practice and has not raised specific legal concerns about the effectiveness of contracts concluded in this way – no-one would now question the legal effectiveness of this form of contracting. ADM has also been widely used for marketing purposes, although this has not been without controversy, particularly when based on algorithmic profiling leading to personalised pricing.[19]

The varied uses of ADM by traders already invite consideration of whether current EU consumer law adequately addresses such practices and offers sufficient protection to consumers, and recent amendments have already addressed some of these issues, eg, with regard to rankings or recommender systems.[20]

(b) 'ADM-Readiness'

The report seeks to establish the extent to which EU consumer law is already 'ADM-ready' as well as any immediate adjustments required to make it so. Essentially, we ask how the consumer law *acquis* would cope with the widespread use of ADM. In carrying out this assessment, we focus on how EU consumer law can continue to ensure adequate consumer protection in an economy where digital assistants become more prevalent (the *protective* function of EU consumer law), whilst enabling the use of innovative technologies in consumer markets (the *enabling* function). It is crucial that current levels of consumer protection are maintained (cf Article 38 of the Charter of Fundamental Rights), but it is also important to understand consumer law as part of a wider regulatory infrastructure for the digital single market.

For present purposes, EU consumer law would be regarded as 'ADM-ready' if it can adequately deal with the use of digital assistants by consumers, and gauging its ADM readiness is asking no more than what, if anything, would need to be done to enable the use of digital assistants without jeopardising current levels of consumer protection. However, the analysis in this report should not be understood as implying that current EU consumer law with the adjustments we suggest would be the optimal legal framework for the use of digital assistants by consumers. Nor should it be understood as suggesting that EU consumer law already covers all the issues that might arise: for instance, the possibility of *consumers* manipulating traders or other consumers through digital means could become an issue but is currently one that has barely been addressed in EU law.[21] The second phase of the project will go beyond the limited adaptation of existing law and analyse the issues and solutions to ensure that the law provides a strong framework for the use of ADM in contracts generally.

(c) ADM in Consumer Contracts

The automation of different stages in the lifecycle of a consumer contract (which will almost always involve ADM, whether AI-driven or not) is already underway. Common examples include the automation of payment obligations through direct debits, or the possibility to set-up a subscription for the delivery of goods at set intervals as well as the automatic renewal of contracts at the end of the agreed contract period. Moreover, in the pre-contractual phase, a consumer can utilise a variety of ADM tools, such as search engines or price comparison sites, to reach a decision as to whether and on what terms to conclude a contract. These situations are not the focus of this

[18] These are algorithms which are programmed to follow a set number of steps and will produce the same output for the same input data, ie, there is no self-learning capacity.

[19] See eg, Tim W Dornis, 'Personalisierte Vertragsanbahnung und Privatautonomie' (2022) 8 *Zeitschrift für die gesamte Privatrechtswissenschaft* 311; Frederik Zuiderveen Borgesius and Joost Poort, 'Online Price Discrimination and EU Data Privacy Law' (2017) 40 *Journal of Consumer Policy* 347; or Willem H van Boom, Jean-Pierre van der Rest, Kees van den Bos and Mark Dechesne, 'Consumers beware: online personalised pricing in action' (2020) 33 *Social Justice Research* 331.

[20] Cf the changes made by the Better Enforcement and Modernisation Directive (2019/2161/EU).

[21] New point 23a in the Annex to the UCPD (2005/29/EU) refers to the use of bots by traders to acquire event tickets in order to resell them. Private individuals may do something similar, and would thereby effectively manipulate both traders and consumers.

report, as they are assumed to be familiar scenarios that are sufficiently addressed by existing legal rules.

Rather, this report looks beyond these existing and well-established mechanisms. It is assumed that AI-driven ADM applications might be developed[22] which would allow consumers to automate the steps they would otherwise have to take themselves to conclude a contract, going beyond purely information gathering and actually creating a legally binding obligation on the consumer. Furthermore, such applications may also further automate a consumer's performance obligations (which will in most cases mainly, but not solely, be the obligation to make payment).[23] We will refer to such applications as **digital assistants** in this report.[24] Thus far, consumers have mainly experienced algorithmic processes in the form of digital *voice* assistants,[25] leaving consumers to take the final step towards concluding a contract.[26] The automation of the decision to conclude a contract itself has yet to become prevalent, except for auto-renewing subscription-style contracts. The same is true for the automation of performance on a larger scale than existing recurring payment arrangements. A future involving digital assistants on the consumer side, thereby effectively taking (human) consumers out of the decision-making loop, could lead to the suggestion that consumer law might need to be recalibrated if the use of digital assistants were to significantly alter the paradigm situation on which consumer law is based, ie, if the assumed weaker position of a consumer in terms of knowledge and bargaining strength vis-à-vis a trader underpinning consumer law[27] were to be considerably changed by consumers utilising digital assistants. We note that the Court of Justice of the European Union (CJEU) has taken the view that actual knowledge of an individual has no bearing on their status as a consumer;[28] consequently, the fact that a consumer uses a digital assistant resulting in better information or improvements to their bargaining position need not necessarily mean that the default assumption in EU consumer law will change.

However, there are important *caveats*. Whilst significant advances have been made in AI in recent times both with regard to data processing and analytics capacity and complexity of outputs, it is important to bear in mind that current AI technologies (such as foundation models and generative AI, developed through machine learning) are fundamentally complex algorithms which analyse data and, based on statistical methods, produce outputs. As such, the functionality and reliability of any given AI system heavily depend on the programming of the initial algorithm, including appropriate determination of the algorithm's objectives, the training data, and any 'self-learning' capacity coded into the algorithm.[29] The capability of a particular algorithm will also depend on its programming and design. For instance, not every algorithm/ADM process is capable of independently seeking and verifying external data rather than operating based on data provided in a more limited way. Therefore, analysing the ADM-readiness of EU consumer law will, to some extent, be speculative as to the capability of any digital assistants that could be used by consumers to take over their actions towards concluding and performing a contract. In the discussion below, we explain where assumptions about the capability of digital assistants are made and how these would impact on the ADM-readiness of EU consumer law.

---

[22] There are early versions of AI-based assistants, such as Auto-GPT and AgentGPT, which could be the stepping stones towards the digital agents taken as the focus of this report.

[23] The kinds of contracts we focus on involve those where payment of money is exchanged for goods, services or digital content/services. Contracts involving the provision of personal data in exchange for access to digital content/services would raise additional questions regarding the lawfulness of data processing under the GDPR where the contract is concluded through a digital assistant. A solution for this might be a design requirement that would not complete the conclusion of the contract unless a consumer has expressly consented to the provision of their personal data.

[24] Cf the notion of an 'intelligent agent' used by Arno R Lodder and Marten B Voulon, 'Intelligent Agents and the Information Requirements of the Directives on Distance Selling and E-commerce' (2002) 16 *International Review of Law*, Computers & Technology 277.

[25] See Karin Sein, 'Concluding Consumer Contracts via Smart Assistants: Mission Impossible under European Consumer Law' 7 (2018) *Journal of European Consumer and Market Law* 179; see also Christoph Busch, 'Does the Amazon Dash Button Violate EU Consumer Law? Balancing Consumer Protection and Technological Innovation in the Internet of Things' (2018) 7 *Journal of European Consumer and Market Law* 80.

[26] On the legal implications of this, see eg, Noga Blickstein Shcory and Michal S Gal, 'Voice Shoppers' (2022) 88 *Brooklyn Law Review* 111.

[27] See eg, Case C-488/11 *Asbeek Brusse and de Man Garabito v Jahani BV* ECLI:EU:C:2013:341, para 31, or case C-537/13 *Birutė Šiba v Arūnas Devėnas* ECLI:EU:C:2015:14, para 22.

[28] See eg, Case C-110/14 *Horațiu Ovidiu Costea vSC Volksbank România* SA ECLI:EU:C:2015:538, para 21.

[29] Cf Inioluwa Deborah Raji, Aaron Horowitz, Elizabeth Kumar and Andrew Selbst, 'The fallacy of AI functionality' (2022) *FAccT* 959.

Finally, it must also be acknowledged that we did not have robust market data at our disposal regarding the possible development and marketing of digital assistants used as the focus for the report. Furthermore, consumer demand for such digital assistants is also difficult to gauge without clear data on perceptions of, and willingness to adopt, AI-driven automation of contract conclusion and/or performance. To that extent, the report makes assumptions about the possible applications of digital assistants that might eventually be put on the market. Nevertheless, a forward-looking perspective is merited because of the fast pace at which technology is evolving and it is possible to anticipate key changes in the law that would become necessary not only to prepare the law for the arrival of digital assistants but also to visualise a possible legal framework for the development of consumer-facing applications.[30] As such, we intend to provide a key focal point for the debates which are likely to arise in the near future.

(d) Constellations for Using Digital Assistants in a Consumer Context

For the purposes of this report, several different constellations about the possible use of digital assistants can be considered. In essence, digital assistants could be deployed by either consumers, traders, or by both. Where a trader uses a digital assistant, this could be integrated into the trader's website or app, or it could be a digital feature of a physical product. For instance, the manufacturer of a coffee maker for coffee pods could include a digital assistant that automatically places orders for new coffee pods with a trader connected with that manufacturer. Orders could be based on the number of times the machine has been operated to make coffee and therefore how many pods have been used. A slightly more sophisticated functionality might re-adjust the purchase order to the preferences of the consumer inferred from the varieties more frequently used to make coffee within a given period of time.

We might anticipate that many consumers would acquire an application which incorporates digital assistant functionality, either as a free-standing digital application downloaded onto their device or integrated into a smart product but not exclusively linked to a particular trader (in contrast to the coffee machine example). Thus, the digital assistant will aid the consumer in searching for best offers, comparing products, and finally selecting the preferred choice based on certain pre-determined criteria.

The digital assistants used by either party could be provided by a third party. This will almost certainly always be the case where a consumer uses a digital assistant application. Traders might also rely on a third-party supplier, but in some instances might have developed this (or personalised this from a standard version) internally. For present purposes, it is not significant whether a trader uses a third-party digital assistant or not as much of the analysis applies to either constellation. However, the fact that consumers will usually have acquired their digital assistant application from a third-party supplier will be relevant to assessing the ADM readiness of EU consumer law with regard to unexpected contracts.

Typical ways in which a digital assistant might be provided are:

> (i) A smart product with an integrated digital assistant (eg, a coffee machine with automatic reordering options based on data on the machine's user, or the apocryphal fridge which takes over grocery management and reordering);
>
> (ii) A separate digital assistant application (whether for a smartphone or computer) which can be configured to manage certain types of purchases for a consumer;
>
> (iii) A platform which provides an integrated digital assistant to make purchases from traders on the same platform;
>
> (iv) A 'home-made' or open-source type of digital assistant.

For the purposes of this report, we confine the discussion to situations (i)-(iii). There are additional complications that arise with (iv) which are beyond

[30] At the same time, we are mindful of the risks associated with regulating too far into the unknown. ELI's suggestions seek to strike the balance in an appropriate place.

the scope of this report, but which will be considered in the second phase of this project.

Furthermore, for the ADM readiness test, we consider two contractual relationships:

Contracts for the provision of a digital assistant (Contract 1): The first category concerns contracts between consumers and traders for the provision of a digital assistant to be deployed by the consumer. These will also be referred to as 'digital assistant contracts' in this report. The conclusion of these contracts does not necessarily involve any form of 'algorithmic contracting'.

Algorithmic contracts (Contract 2): The second category concerns contracts between consumers and traders that are concluded through a digital assistant. These contracts will be referred to as 'algorithmic contracts' in this report. The notion of 'algorithmic contract' is not intended to designate a new category of contract; rather, it denotes a consumer contract where the conclusion of the contract, and possibly elements of the consumer's performance obligations, are taken over by a digital assistant. We use the term 'algorithmic contract' as an overarching category to describe any contract where a digital assistant is used by any or both parties (in B2C relationships) in the conclusion of the contract, and in any other stage of the contracting lifecycle.

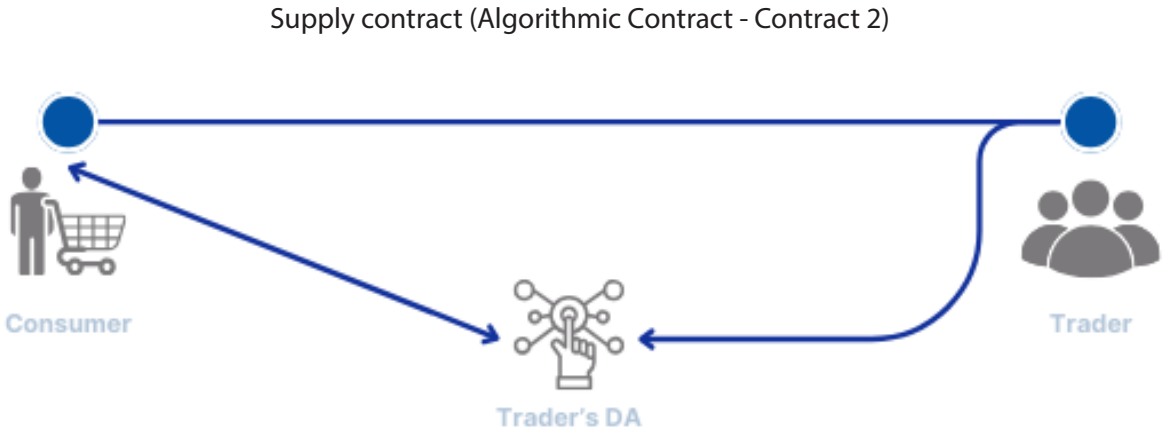


Diagram 1: Trader (i) uses digital assistant (DA) to receive and process orders from consumers, or (ii) provides digital assistant to automate orders placed by consumers with the trader.

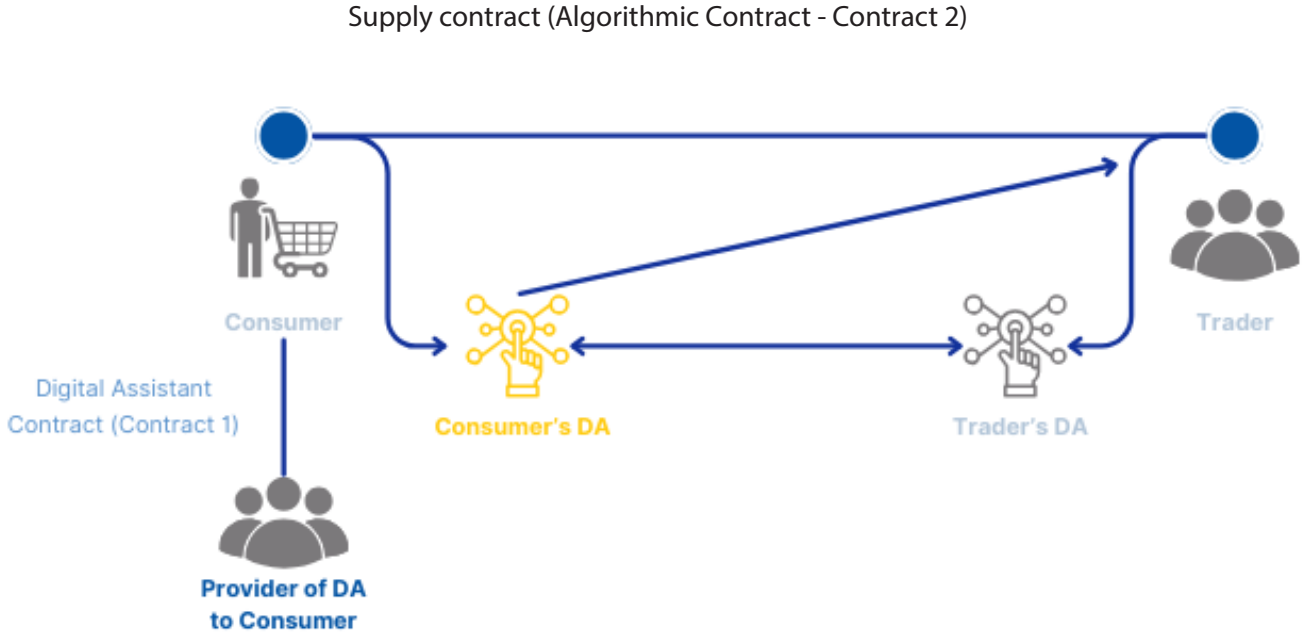


Diagram 2: Consumer deploys digital assistant (DA) obtained from third-party providers, leading to the conclusion of contracts between the consumers and a trader either through (i) the trader's digital assistant or (ii) directly with the trader.

III. Common Principles for ADM-Readiness

In this analysis, we consider three different permutations of trader-to-consumer (or B2C) contracts utilising ADM: (i) a consumer has deployed a digital assistant through which a contract with a trader is concluded; (ii) a consumer concludes a contract with a trader who uses a digital assistant for the conclusion of the contract; and (iii) both consumer and trader use digital assistants for the conclusion of the contract. For all three scenarios, some common principles should apply. In a sense, these could constitute a 'general part' of a future EU law on algorithmic contracting. General provisions reflecting these common principles could either be added as a separate chapter on algorithmic contracting in the CRD (see the proposal for Art 22a ff below) or the UCPD, or could be core elements of a separate, new legal instrument on algorithmic contracts if this were the preferred approach to enhance the acquis. These principles should also inform the review of consumer law directives not specifically covered by this report.

Until now, the focus of EU consumer law has been on supporting consumers in their consumption decisions. However, it has been recognised that sustainable consumption must become a feature of EU consumer law and that recalibration of EU consumer law towards fostering sustainable consumption is needed.[31] The report does not make any specific recommendations about how sustainability could be integrated into any new rules on ADM/algorithmic contracts. We acknowledge that digital assistants could be designed in a way that would make sustainable consumption a central element of the decision-making process to provide a counterbalance to simply fostering consumption, eg, by slowing-down the purchasing process, by operating with 'green defaults' or by providing 'green nudges',[32] to provide a consumer with an opportunity to reflect on whether they really wish to proceed. It is beyond the scope of this interim report to engage fully with this issue, but it will be considered for the elaboration of the *Guiding Principles and Model Rules on Algorithmic Contracting*.

Defining Key Terminology: Digital Assistant and Algorithmic Contract

In this report, we use the terms 'digital assistant' and 'algorithmic contract'. For our purposes, we understand these terms thus:

> *'Digital Assistant' means an algorithmic decision-making system, deployed by a consumer or trader, with or without the ability to continue to learn after deployment, which analyses data provided to it, to undertake pre-defined steps towards one or more of negotiation, conclusion, or performance of a contract.*

This definition refers to 'data provided' to the digital assistant without specifying the kind of data that might be provided. As discussed below, this data could include parameters set by the consumer and the information a trader is required under consumer law to give to a consumer, but it could also include data sourced separately by a digital assistant. The range of data that would be utilised by a particular digital assistant would depend on the purpose(s) for which it was designed to be used.

> *'Algorithmic Contract' means a contract in respect of which one or both parties use a digital assistant for the purpose of one or more of negotiating, concluding, or performing the contract.*

In this context, performance is understood to cover those aspects of the contract which could be performed through the digital assistant. It is not intended to cover other forms of practical automation, such as automated warehousing logistics, or eg, the automatic printing of a book on demand.

---

[31] Cf the New Consumer Agenda, COM (2020) 696 final, 13 November 2020; Proposal for a Directive as regards empowering consumers for the green transition through better protection against unfair practices and better information COM (2022) 143 final, 30 March 2022 (provisional agreement between Council and Parliament reached on 19 September 2023).

[32] See eg Evelyne Terryn and Elias Van Gool, 'The Role of European Consumer Regulation in Shaping the Environmental Impact of E-Commerce' (2021) 10 *Journal of European Consumer and Markets Law* 89.

Both definitions are intended to be technology neutral.[33] Furthermore, with the report's focus on consumer contracts, we have chosen the label 'digital assistant', but the definition is sufficiently broad to cover ADM processes which might not obviously fit the idea of an assistant. For present purposes, 'digital assistant' best captures the focus.

As part of any adjustments to existing EU consumer law directives, legal definitions of these two terms might also be required; in that case, they could be added to all the existing EU consumer law directives as necessary. Alternatively, in the case of the 'algorithmic contract' definition, it might suffice to include an explanation of this in the recitals to the relevant directive(s),[34] without a need to include a definition in the legal provisions.

Principles Governing the Use of Digital Assistants/ADM in Consumer Law

This part develops key principles for ensuring the ADM-readiness of the EU's consumer acquis. We stress that the focus at this stage is on the implications which the use of digital assistants would have on the application of *existing* consumer law. There are issues regarding the use of digital assistants by consumers which will have to be addressed in due course, but these are beyond the scope of this report. In particular, we do not consider, at this stage, a situation where a consumer utilises a digital assistant to manipulate the decision-making process of a trader. The implications of using a digital assistant for manipulative, abusive, or unfair purposes will be considered in phase 2 of this project.

Principle 1: Attribution of Digital Assistant's Actions

In **II.d**, it was noted that digital assistants could be deployed by both consumers and traders, and that consumers would usually deploy a digital assistant application provided to them by a third party. An important question arises regarding the extent to which the actions of a digital assistant should be legally binding on a consumer and whether there are instances when this should not be the case. For the analysis, we proceed on the basis that the deployment of a digital assistant by a consumer entails that all the actions by the digital assistant (especially the decision to conclude a particular contract) are treated in law as the actions of the consumer (**attribution of all decisions by a digital assistant to the consumer**), and, therefore, that contracts are concluded between consumer and trader even where one or both parties have deployed digital assistants (Contract 2 - Algorithmic Contracts). The status of consumer and trader of the parties should be determined without considering that either party was assisted by the deployment of a digital assistant.

It is important to point out that the use of digital assistants and the attribution of their actions raises several difficult questions for contract law.[35] These are extensively debated in the academic literature, but no clear consensus has emerged.[36] The academic debates focus on matters which are primarily of concern to national contract laws in general, but this report does not address contract law generally. Currently, EU (consumer) law does not regulate the process of contract conclusion itself. Furthermore,

[33] Performance automated using 'smart contracts' (whether blockchain-based or not) would be within the scope of the 'algorithmic contract' notion (cf Nick Szabo, 'The idea of smart contracts' (1987) <https://nakamotoinstitute.org/the-idea-of-smart-contracts/> accessed 7 November 2023. This is because smart contracts (as self-executing computer programmes generally following an if-then logic and therefore akin to deterministic algorithms) are one tool for facilitating transactions: *See ELI, Principles on Blockchain Technology, Smart Contracts and Consumer Protection* (ELI, 2023) p 10.

[34] As noted earlier, ELI's focus is on B2C contracts, although these definitions are of general application.

[35] Seminally, Tom Allen and Robin Widdison, 'Can computers make contracts?' (1996) 9 *Harvard Journal of Law & Technology* 26.

[36] Eg, Samir Chopra and Laurence White, 'Artificial Agents and the Contracting Problem: A solution via an agency analysis' (2009) *University of Illinois Journal of Law, Technology and Policy* 363; Lauren Henry Scholz, 'Algorithmic Contracts' (2017) 20 *Stanford Technology Law Review* 128; Eliza Mik, 'From Automation to Autonomy: some non-existent problems in Contract Law' (2020) 36 *Journal of Contract Law* 205; Vincent Ooi, 'Contracts formed by software: an approach from the law of mistake' (2022) *Journal of Business Law* 97; Friedemann Kainer and Lydia Förster, 'Autonome Systeme im Kontext des Vertragsrechts"' (2020) 6 *Zeitschrift für die gesamte Privatrechtswissenschaft* 275; Louisa Specht and Sophie Herold, 'Roboter als Vertragspartner? Gedanken zu Vertragsabschlüssen unter Einbeziehung automatisiert und autonom agierender Systeme' (2018) 21 *MMR Zeitschrift für IT-Recht und Recht der Digitalisierung* 40; Moritz Hennemann, *Interaktion und Partizipation* (Tübingen 2020), 99 et seq.

this position regarding the attribution of a digital assistant's actions should not be understood as encroaching on the territory of national rules on mistake or similar doctrines.

Attribution Principle Combined with Design Requirements to Retain Human Control

In ELI's view, the attribution principle would need to be combined with requirements that enable a consumer to retain sufficient control over their digital assistants to justify this attribution. We suggest that the following control mechanisms should be introduced:

> (1) The possibility of approving or objecting to the conclusion of a contract arranged through a digital assistant before it is legally binding. Although either possibility is conceivable, a right to object to, or to halt, the process of concluding a contract would be more consistent with the automation objective of using a digital assistant in the first place. In practical terms, this could be done by a notification eg, via a smartphone app to alert a consumer that a contract is about to be concluded, and to provide a brief time window to react before the contract becomes legally binding.
> In ELI's view, a right to object to/halt the conclusion of a contract would be preferable to the introduction of a 'grace period' for algorithmic contracts, ie, a right for consumers to withdraw from algorithmic contracts after conclusion. It will already be the case that, for many such contracts, consumers will have a right of withdrawal under the CRD. An additional grace period would frequently overlap with this right. Insofar as certain contracts are currently excluded from the right of withdrawal, it would be preferable to review the list of exclusions and restrict this if deemed appropriate.
>
> (2) The ability to set (and review) the parameters which a digital assistant uses to reach its decisions. This is further developed as Principle 7, below.
>
> (3) The right to suspend, or disconnect, a digital assistant. Consumers should not be bound by an obligation to use a digital assistant without the ability to pause its operations, or to switch it off altogether. The precise scope of this right may depend on the kinds of business models, or monetisation strategies, which might emerge in connection with digital assistants, particularly where these are an integrated feature of physical goods.

All these requirements will be fleshed out fully in the forthcoming *Guiding Principles and Model Rules*, to be elaborated later in this project. ELI's provisional assessment is that the **control mechanisms mentioned here would have to be a feature of every digital assistant to be provided to consumers**. A legal requirement would best be expressed as a design duty or similar, perhaps akin to product safety regulation (adopting a 'consumer control by design' approach). Provided that consumers are given ultimate control over the decisions taken by their digital assistant, the attribution of the digital assistant's decisions to the consumer would generally not be problematic. We note that these proposals would broadly align with the EP's proposed new Article 4a of the AI Act which, if adopted, would inter alia require an AI system to comply with the requirement that it must allow human oversight and control. Indeed, the ELI recommendations should align with the treatment of 'high-risk AI systems' (which could eventually include digital assistants) under the AI Act, once adopted, and we will take full account of the final version of the AI Act in the *Guiding Principles and Model Rules*.

Unanticipated Decisions, Attribution, and National Rules on Validity

One concern often discussed is the potential for self-learning AI to take decisions or actions which were entirely unanticipated, ie, decisions which were outside the range of decisions a self-learning algorithm might take, as anticipated by the algorithm's creators. Ultimately, such occurrences would still flow from the design of the underpinning algorithm, including the self-learning aspect, but it is conceivable that an AI algorithm may eventually exceed the anticipated decision-making range. For the purposes of this report, the position is that such occurrences in the context of a digital assistant deployed by a consumer would not change the attribution of the digital assistant's actions vis-à-vis the trader to the consumer, but would be an instance

of non-conformity resulting in liability of the provider of the digital assistant under the digital assistant contract (Contract 1).[37]

We acknowledge that there may be instances when the algorithmic contract between the trader and consumer could potentially be invalidated in such circumstances under the applicable national law. Furthermore, there might be practical difficulties for a consumer to seek redress under the contract for the provision of the digital assistant (Contract 1). We will address these aspects further in the *Guiding Principles and Model Rules*. Here, we proceed on the basis that the design features we think should be legally required would suffice and that a contract concluded because of the consumer's failure to halt the conclusion of the contract would remain binding. Therefore, we will not elaborate on this issue, as this report focuses on reviewing the selected directives in light of the future use of ADM. For the second part of the project, the elaboration of the *Guiding Principles and Model Rules*, we will consider the need to coordinate with national rules dealing with mistakes and vitiation of consent. In principle, a differentiated treatment of consumers and ADM-assisted consumers in this regard is not intended.

We also stress that we regard this attribution rule as being distinct from national law approaches to legal representation or agency. Although the *Guiding Principles and Model Rules* may ultimately contain provisions drawing on agency law, what we say should not be understood as saying that a digital assistant should be equated with an 'agent' in the legal sense, and nothing said in this report should be regarded as interfering in national laws on agency/representation.

Attribution of Information

A related question regarding the attribution of a digital assistant's actions is the attribution of any information (data) given to the digital assistant by a trader, or, depending on the digital assistant's design, obtained by the digital assistant separately. As discussed below (see Principle 3), information required to be provided by a trader would be given to a consumer at the same time as it is given to the digital assistant (perhaps at the time of triggering the opportunity to object to the conclusion of a contract). Insofar as a digital assistant might be equipped with the functionality to seek out information independently,[38] we suggest that only such additional information obtained by a digital assistant as is available to the consumer (eg, through a log of such information that could be provided to the consumer by a digital assistant, if that could feasibly be included in the digital assistant's design) should be attributed to a consumer.

[37] See the discussion of the Consumer Sales and Digital Content Directives below.
[38] Here, we re-emphasise our *caveats* about both the potential and (lack of) reliability of current AI systems regarding information/data, noted above.

Principle 2: Application of Consumer Law to Algorithmic Contracts

An algorithmic contract (Contract 2) is essentially a contract between a trader and a consumer concluded through a digital assistant; therefore, such a contract would be subject to **all the (consumer) legislation applicable to the relevant contract type** (or equivalent contractual stage including the pre-contractual phase) in the same way as if it had been negotiated and/or concluded or performed without the use of a digital assistant.

Algorithmic contracts where one party is a consumer are **consumer contracts**. The legal effects of the contract are attributed to the consumer, and any pre-contractual/contractual action (might) affect the consumer's rights, or their legal or contractual status. This flows from the principle of attribution of the legal effects of a digital assistant's actions. Looking at the definition of consumer algorithmic contracts in terms of attribution provides a simple solution and avoids the uncertainty that would result from categorising a contract as a consumer contract based on factual criteria such as the use or the support by a digital assistant. Such factual elements will certainly be relevant in signalling that legal effects might be attributed to the consumer who uses, operates, or is supported by a digital assistant but they should not suffice in isolation to classify the contract. Thus, the digital assistant may be operated by a third party and yet the consumer has consented to be bound by the contract concluded through the digital assistant.

The application of consumer protection safeguards depends on the status of the contracting party to whom the legal effects are attributed. This implies that the protective rules of consumer law continue to protect the person to whom the legal effects of the contract are attributed or whose legal status or contractual status is affected. Thus, the application of the consumer protection regimes should not be affected by the fact that a consumer has used a digital assistant. Indeed, it seems undesirable that a person should no longer be treated as a consumer for the sole reason that they were assisted by a digital assistant.

It is important to note that a digital assistant may not always lead to better decision-making. In particular, a consumer may 'use' a digital assistant, but the system may have been designed to operate to promote the interests of the trader and thus create a conflict-of-interest situation (see also Principle 8, below). In such a situation, the protection offered by EU consumer law directives (such as the UCPD) might be more important.[39]

A corollary of the continued application of consumer law based on the status of the parties to the algorithmic contract rather than how that contract was concluded is that the obligations of a trader under the various consumer law directives are not affected by the fact that a consumer does or does not use a digital assistant to make decisions with a legal effect. Not only will the functionality of each digital assistant vary, but one might also anticipate that digital assistants designed to be deployed by consumers are developed considering the obligations on a trader.[40]

For example, several EU consumer law directives impose obligations on traders to provide information (especially the CRD and UCPD). There could be instances where a particular digital assistant is designed in such a way that it will seek to obtain and verify relevant information itself.[41] This could allow such a digital assistant to counteract insufficient or misleading information by supplementing it. Despite the trader's failure to comply with its obligations, the decision taken through the digital assistant would have been 'fully informed'. This would be relevant where a consumer would otherwise have been

[39] In this report, we do not comment on how the relevant private international law rules on the applicable law might be affected by the use of digital assistants. This will be considered in the second phase of the project.

[40] In this regard, one might consider design guidance/requirements that would encourage digital assistant developers to have full regard to the applicable consumer law rules.

[41] There are caveats to note here. As stated in the text, the assumption is that the digital assistant would seek relevant and accurate information only, but it might be the case that the digital assistant also seeks irrelevant information or 'hallucinates' information that could result in a worse decision than that taken by a consumer.

entitled to compensation for losses due to insufficient or misleading information. The corrective effect of a digital assistant would be relevant to establishing loss and the necessary causal link with the lack of information. This could lead to the conclusion that there is no individual redress claim because the decision of the consumer was not influenced by the missing or misleading information because the digital assistant acted with all the relevant information. It would not affect the liability of a trader that fails to comply with its obligations in the context of public enforcement and/or collective enforcement proceedings, however.

Nevertheless, this would not affect the possibility of imposing sanctions on a trader for not providing all the required information fully, timely and correctly. In this regard, the wider role of EU consumer law to regulate market conditions by imposing obligations on traders generally needs to be borne in mind. Moreover, traders will usually be dealing with both consumers using digital assistants and consumers who do not; therefore, the obligations of traders should not depend on the use of a digital assistant by consumers.

Furthermore, it should be clarified that a trader cannot seek to evade responsibility for actions taken by 'their' digital assistant which infringed consumer law and which are attributed to the trader merely because the breach of consumer law was the result of the decisions made by the digital assistant.

Principle 3: Pre-Contractual Information Duties Continue to Apply

Following on from the comments above regarding the continued relevance of consumer law, the importance of pre-contractual information duties as a core feature of EU consumer law merits separate treatment. Consumer law is to a large extent built on the assumption that informed consumers will take informed (rational) choices. Although this assumption has been challenged by research into consumer behaviour,[42] it persists, and pre-contractual information duties are still a very important part of the consumer *acquis*.[43] The rationale for such duties is that consumers should be equipped with all the information they require to make rational decisions, and that, without such duties, there would be a significant information asymmetry between consumer and trader.[44]

It might be questioned whether the possibility for consumers to use digital assistants to assist with the conclusion of contracts would affect this rationale. Indeed, it might be thought that the potential of digital assistants to gather information independently might undermine the information-based paradigm of EU consumer law altogether. It is conceivable that some digital assistants could be designed to fill information gaps, verify data, compare, aggregate, and combine available data, or even (language modelling systems) express in a comprehensible and customised way, considering the consumer's characteristics or preferences, any information provided by the trader,[45] or seek out information relevant for the envisaged transaction even where this is not covered by specific pre-contractual information duties. However, in the

[42] Eg, Andreas Oehler and Stefan Wendt, 'Good Consumer Information: The Information Paradigm at its (Dead) End?' (2017) 40 *Journal of Consumer Policy* 179; Ognyan Seizov, Alexander J Wulf and Joasia Luzak, 'The Transparent Trap: A Multidisciplinary Perspective on the Design of Transparent Online Disclosures in the EU' (2019) 42 *Journal of Consumer Policy* 149.

[43] Christoph Busch, 'The Future of Pre-Contractual Information Duties: From Behavioural Insights to Big Data', in: Christian Twigg-Flesner (ed), *Research Handbook on EU Consumer Law* (Elgar, 2016) 221 et seq.

[44] For a critical analysis of AI and information duties, see Mateusz Grochowski, Agnieszka Jablonowska, Francesca Lagioia and Giovanni Sartor, 'Algorithmic Transparency and Explainability for EU Consumer Protection: Unwrapping the Regulatory Premises' (2021) 8 *Critical Analysis* L 43.

[45] Cf Marco Lippi, Contissa Giuseppe, Lagioia Francesca, Hans-W Micklitz, Palka Przaemyslaw, Giovanni Sator and Paolo Torroni, 'Consumer Protection Requires Artificial Intelligence" (2019) 1 *Nature Machine Intelligence* 168.

assessment, it would be a fallacy to assume such potential as a default capability of all digital assistants. Whether such features are present will depend on how AI technology and its application evolve. It might well be that digital assistants will only be designed to seek out the information that should be provided by traders in accordance with existing EU law. However, if the technology were such as to enable digital assistants to reliably manage information more effectively than consumers, particularly the way in which information is gathered and used, a recalibration of the current model might become necessary. At the present time, the trajectory of how digital assistants will develop remains too uncertain, and one might doubt that it currently offers sufficient reliability and robustness to assume that the information paradigm would cease to be relevant.

Therefore, in this report, we proceed on the basis that the rationale underpinning the requirement to provide pre-contractual information would not be affected by the fact that a consumer might use a digital assistant. Starting from first principles, any improvement to the consumer's position regarding information due to the use of a digital assistant should not affect the obligation to provide pre-contractual information even when a digital assistant is used.[46] The CJEU has held that the rationale for EU consumer law rules is 'distinct from the concrete knowledge the person may have, or from the information the person actually has'[47] and that 'the expertise which that person may acquire' cannot 'deprive him of the status of a 'consumer'….'[48] In short, the obligation to provide information is not related to the absence of the knowledge which that information would provide. Duties to inform are general duties and not dependent on the actual knowledge of a consumer; consequently, a trader's obligation to provide information is not affected by the consumer's use of a digital assistant. It would be irrelevant that a consumer using a digital assistant does not actually see this information because the digital assistant will take over the task of processing and acting on the information.[49] Similarly, the fact that a digital assistant might be more capable than any human to process pre-contractual information given by traders and thus make a better-informed decision than a consumer would also be irrelevant.[50]

The capability of digital assistants in this regard will depend on the state-of-the-art regarding AI algorithms as well as the commercial decisions by digital assistant providers as to the functionalities that would be offered. Should a particular digital assistant be designed to actively seek out relevant information, a question may arise as to how this would affect the trader's obligation to provide information. Traders may wish to ensure that they can somehow flag the information they provide in compliance with legal duties to ensure that a digital assistant does not seek conflicting or contradictory information and base its decision on the information it has sought itself rather than the information provided by the trader. Given the current state-of-the-art, misinformation coming from a digital assistant is a real risk, and the possibility of using digital assistants to reliably fill consumer's information gaps and verify data is still in the realm of the potential. Instead, the misinformation risk is real: recent large-scale language models (LLMs) and chatbots based on this type of AI are only good at producing output that sounds plausible. However, they cannot be relied on to produce true and verified information.[51]

When it comes to pre-contractual information duties in EU consumer law, therefore, the trader's obligations

[46] In the case of a digital assistant integrated into a smart product, or provided by an online platform, no steps for the provision of pre-contractual information might be needed but the confirmation of such information to the consumer would still be required (Articles 7(2) and 8(7) of the CRD (2011/83/EU)).
[47] Case C-110/14 *Horațiu Ovidiu Costea vSC Volksbank România SA* ECLI:EU:C:2015:538, para 21.
[48] Case C-498/16 *Schrems v Facebook Ireland Ltd.* ECLI:EU:C:2018:37, para 39. See also case C-423/97 *Travel Vac SL v Sanchis* [1999] ECR I-2195.
[49] Digital assistants for consumer use might be designed specifically with the provision of information mandated by the various EU consumer law directives in mind.
[50] The possible advantages of a digital assistant in this regard depend on whether the digital assistant is influenced with bias, etc, which some argue will be the case, see Ari Ezra Waldman, 'Power, Process, and Automated Decision-Making' (2019) 88 *Fordham Law Review* 613-632, pp 613–614.
[51] Cf Noam Kolt, 'Predicting Consumer Contracts' (2022) 37 *Berkley Tech. L.J.* 71 (providing empirical data).

should be treated as separate from any potential ability of a digital assistant to seek out information. To the extent that any information acquired by a digital assistant independently, and in addition to the information given by a trader, is erroneous, any recourse on the consumer's part would have to be against the provider of the digital assistant under Contract 1 (for the provision of the digital assistant).

Earlier, we identified two contractual relationships at issue, Contract 1 being the contract for the provision of the digital assistant to a consumer. For this, the pre-contractual information duties would apply in the same way as they would to any other contract for the supply of digital content/services (under the CRD (2011/83/EU)).

In the case of Contract 2, information would be given by a trader to a consumer (via a digital assistant) before the conclusion of the contract. The digital assistant would likely be designed to take this information into account in reaching its decision. Assuming that a 'right to object' is designed into the digital assistant (see above), relevant pre-contractual information could be made available to the consumer at the same time.[52] Furthermore, confirmation of such information after conclusion of a contract would be supplied to a consumer in the usual way.

Principle 4: Non-Discrimination Principle and 'No Barrier' Principle Regarding the use of Digital Assistants

Generally, consumers should have the option of using digital assistants for contracting with traders unless there are good reasons for a trader to preclude this. For instance, a trader is concerned about high volumes of digital assistant interactions hitting the trader's website at once, overwhelming the system. There might also be some instances when the use of digital assistants might be regarded as inappropriate and prohibited or limited by legislation, eg, with regard to bots for purchasing tickets.[53] It It should be considered whether traders should be precluded from using technical or contractual measures aimed at rendering the use of digital assistants by consumers burdensome, ineffective, or impossible. Similarly, traders prohibiting the use of digital assistants by consumers in their terms and conditions should be open to challenge. Generally, traders should neither impede the use by consumers of digital assistants for contracting nor treat consumers utilising digital assistants differently compared to consumers who do not. This could be expressed as a new right for consumers to use a digital assistant. The examples given above illustrate that there may be instances where there are legal restrictions on the use of AI systems to protect specific interests, rendering such uses illegal, inappropriate or unreasonable. The right to opt for the use of a digital assistant should be implemented in a way that does not create an unreasonable burden for small and medium-sized enterprises (SMEs), in particular by avoiding additional burdens from having to accommodate the technical specifications and the design of their IT infrastructure to any digital assistant used by consumers. All these nuances and the extent of these exceptions will be analysed in the second phase of this Project (*Guiding Principles and Model Rules*).

[52] It is important to bear in mind that EU consumer law requires that information is given, but not that a consumer actually reads and digests that information and acts on a fully-informed basis.
[53] See eg, Annex point 23a of the UCPD (2005/29/EU).

For the purposes of this report, we propose that, to be able to effectively exercise the right to use digital assistants, consumers should not be prevented from using digital assistants through technical measures (eg, 'ADM blockers'). In a broader sense, websites, apps and other digital user interfaces should be designed in a way that is 'ADM barrier-free' or 'ADM-friendly', ie, the user interfaces should be designed so that they can be used by digital assistants.[54] For example, it should be possible for a digital assistant to 'use' a withdrawal button where this is provided on a website (and the digital assistant has this functionality). Another important element of ADM friendly design is that the information to be provided by traders (eg, under Articles 5 and 6 CRD) must be made available in machine-readable form (cf Article 14(1) of the Digital Services Act (DSA))[55] as well as in a form intelligible to a consumer.[56]

Principle 5: Disclosure of Use of Digital Assistants

The use of digital assistants for negotiating or concluding a contract should be disclosed by the user of the digital assistant, at least in circumstances where consumers could be confused about whether they are interacting with a human or a machine. However, such a duty to disclose should not only apply to traders vis-à-vis consumers – the use of a digital assistant by a consumer should also be disclosed to a trader. A possible model for a duty to disclose the use of digital assistants could be the California Bot Disclosure Act of 2019, which requires any person who uses a bot for online communications or interactions with another person to clearly and conspicuously disclose that it is a bot.[57] In the case of digital assistants deployed by consumers, this duty of disclosure could be a design duty for providers of digital assistants, ie, the digital assistant should be programmed to 'reveal itself'. A consumer who has deployed a digital assistant will not necessarily know which traders the digital assistant is dealing with and, thus, imposing a direct duty on consumers would be practically infeasible. Furthermore, introducing such a duty would raise the difficult question of what legal consequences should attach to a failure to disclose this information. If presented as a design duty, then it might be a violation of the provider's duty to include disclosure functionality within the digital assistant, and liability might be channelled towards the provider. However, if such a duty were to be imposed on consumers, the legal consequences of failing to disclose this would have to be considered fully. ELI's preference would be for a design-based solution.

---

[54] Current practices such as the use of CAPTCHAs to deter bots may have to be adapted to the use of digital assistants. One might envisage a technological solution by which a digital assistant could signal to a CAPTCHA that it is assisting a human user and not a bot.

[55] Art 14(1) DSA requires information about restrictions imposed by providers of an intermediary service to be provided 'in clear, plain, intelligible, user-friendly and unambiguous language, and shall be publicly available in an easily accessible and machine-readable format'. See also Article 3 of *ELI's Model Rules on Online Platforms* (2019) for the same requirement. See also Rossana Ducato and Alain Strowel, 'Limitations to Text and Data Mining and Consumer Empowerment: Making a Case for a Right to 'Machine Legibility'' (2019) 50 *International Review of Intellectual Property and Competition Law* 649.

[56] Cf Arno R Lodder and Marten B Voulon, 'Intelligent Agents and the Information Requirements of the Directives on Distance Selling and E-commerce' (2002) 16 *International Review of Law, Computers & Technology* 277.

[57] California Business and Professions Code § 17941. The term 'bot' is defined as 'an automated online account where all or substantially all of the actions or posts of that account are not the result of a person' (California Business and Professions Code § 17940); see also Barry Stricke, 'People v. Robots: A Roadmap for Enforcing California's New Online Bot Disclosure Act' (2020) 22 *Vanderbilt Journal of Entertainment and Technology Law* 839.

Principle 6: Protection of Digital Assistant from Manipulation

A further general issue arises from the use by consumers of a digital assistant. Let it be assumed that the consumer's digital assistant has been deployed by the consumer to undertake the steps for concluding a contract. Current EU consumer law seeks to protect the consumers from manipulation by traders. In addition to protection against misleading and aggressive practices (primarily through the UCPD), more recent regulations in the DSA (Article 25), the Digital Markets Act and revisions of the CRD to absorb the Digital Marketing of Financial Services Directive, focus on 'dark patterns' which deliberately exploit consumers' behavioural weaknesses.

Indeed, consumer protection might demand further elaboration for algorithmic contracts. Where consumption decisions are no longer made directly by human consumers but by digital assistants (deployed by human consumers and taking their personal data into account), these systems must be protected against targeted manipulation, for example through so-called 'adversarial attacks' that may cause misclassification by a digital assistant. Another manipulation risk arises from so-called 'prompt injections', which could manipulate the way in which an AI system processes the data it uses to decide what to do. Design rules for AI systems generally or digital assistants specifically could stipulate that technological measures should be incorporated to minimise such risks.

Principle 7: Ability to Determine Digital Assistant Parameters and Disclosure of Pre-Set Parameters

Each digital assistant will offer a range of features to consumers, but to deploy a digital assistant to act on their behalf, a consumer must be able to set the parameters which will determine how the digital assistant acts for that consumer (eg, the maximum financial value of contracts concluded through the digital assistant; frequency of contracts; which traders to use, etc). If the digital assistant is an application provided to the consumer by a third party, one might expect that the application will enable the consumer to set various parameters in any case, but this could be clarified either through design requirements established in law or at least design guidance.

The ability to set parameters for, and an understanding of the relative weight of, the criteria used by a digital assistant in its decision-making processes are manifestations of the consumer's right of control. As argued already, control mechanisms, such as setting parameters, are essential for the application of Principle 1, the attribution principle. Should the consumer be unable to set and/or be unaware of the criteria and parameters the digital assistant uses, the reasonableness of the attribution to the consumer of the legal effects of the actions and decisions adopted by the digital assistant is undermined and could result in the provider of the digital assistant being held liable to the consumer for any losses suffered in consequence.

However, where the digital assistant is provided/operated by the trader (eg, as an integrated feature of a smart product, or as a feature on an online platform), it might need to be specified that a consumer must be able to determine the parameters for the use of the digital assistant when dealing with that trader. This would also be a design requirement/duty. Such a provision could be developed by analogy with the requirements in Articles 27 and 38 DSA and could require that online platform providers or the manufacturers of smart products with integrated digital assistants should provide a function for the consumer to select and choose relevant parameters for the digital assistant's operations. Furthermore, to the extent that some parameters are pre-set by the trader and not changeable by the consumer (eg, the

supplier of refill coffee pods), this should be disclosed clearly.

Related to this is the need for the trader to disclose whether and how the decision-making process prioritises some criteria over others. The following scenario illustrates this point:

> *A digital assistant provided on an online real estate platform can look for apartments to rent on the platform based on the consumer's preferences and conclude a rental agreement. As the platform and therefore the digital assistant will be used by multiple consumers concurrently, the algorithm underpinning the digital assistant could be designed either to optimise to fulfil each apartment-seeker's maximum requirements, or it could be designed to optimise for a balance of all concurrent users of the platform's digital assistant. Suppose that most apartment-seekers on the platform want an apartment on the second floor, or higher, and very few apartment-seekers say they have no preference. In the first situation each user will get an apartment based on maximising all their requirements (including the fact that the apartment could be on any floor). In the second situation, apartment-seekers who had expressed no preference for a particular apartment floor only get first floor apartments.*

A possible draft for such a provision would be:

> *'Where a trader uses a digital assistant for the conclusion of contracts with consumers, the parameters based on which the digital assistant acts when dealing with a consumer should be disclosed to that consumer, including any parameters pre-set by the trader and the main parameters for making decisions. A consumer should have the option to select the types of parameters to be used and set values for these parameters.'*

Alternatively, such a provision could be phrased as a clear design duty in a set of design requirements for digital assistants.

Principle 8: Digital Assistants and Conflicts of Interests

Digital assistants provided as an integrated feature in a smart product, or on an online platform, will invariably serve both the consumer's and the trader's interests. In the case of smart products, it would be the interests of the trader who supplied the product and/or any other traders connected with the smart elements; in the case of a digital assistant provided on an online platform, it would be the interests of all the traders selling through the platform and the platform operator's interests (either as a supplier or as operator). This creates an obvious risk that this conflict of interests could be to the detriment of the consumer, particularly when compared to digital assistants which act only in the interests of the consumer who deployed the assistant. One solution would be to rely on clear disclosure of the potential conflict of interests, ie, by making a consumer fully aware that the digital assistant will only consider concluding contracts with the traders on the platform, or the traders selected by the smart product manufacturer, and that other traders not considered by the digital assistant would also be available. An alternative solution would be a (design) requirement that a digital assistant could only assist one party (ie, either the consumer or the trader); whilst this would avoid a potential conflict, it would also possibly affect the platform-based, and indeed smart product-based, provision of digital assistants.

IV. Specific Comments on Key EU Consumer Law Directives

In this part of the report, we turn to key EU consumer law directives. For each of these directives, we explain where there may be a need to amend or supplement the directive to ensure that it is ready for the deployment of digital assistants by consumers for some of the steps towards concluding and performing a contract. We also explore how current provisions would be applied to situations where digital assistants are deployed.

(a) Unfair Contract Terms Directive (93/13/EEC)

The UCTD applies to all contracts concluded between a consumer and a seller or supplier (referred to as a trader in the present context). The UCTD can be applied to assess the fairness of the terms in both the algorithmic contract (Contract 2) and the contract for the provision of the digital assistant (Contract 1). The focus here is primarily on algorithmic contracts, ie, Contract 2. In accordance with Principle 2 (corresponding application of consumer law to algorithmic contracts), the UCTD applies to algorithmic contracts between a consumer and a trader in the same way as it would apply to non-algorithmic contracts.

From the Principles we have set out in the first part of this report, Principles 1, 2, 3 and 4 are particularly relevant to the application of UCTD to algorithmic contracts.

Firstly, pursuant to Principle 1 (attribution of digital assistant's actions to consumer), the access to, the opportunity to review, and the acceptance of, terms and conditions by or through a digital assistant deployed by a consumer are attributed to that consumer. Furthermore, references to consumer in the UCTD include a consumer who uses a digital assistant. Consequently, in accordance with Principle 2 (corresponding application of consumer law to algorithmic contracts), the UCTD's provisions apply to algorithmic contracts (Contract 2) in the same way as the Directive applies to non-algorithmic contracts.

Secondly, Principle 3 (continued application of pre-contractual information duties) entails that terms and conditions must be made available by a trader in the same way as they would in the case of non-algorithmic contracts. The trader's obligations in this regard are not affected (consistent with Principle 2), irrespective of how the digital assistant subsequently processes the information about the terms and conditions.

Finally, Principle 4 (non-discrimination/no barrier) might require careful exploration of how provisions in the UCTD, designed on the assumption of human involvement, would apply to algorithmic contracts. The requirement that terms must be provided in 'plain and intelligible language' might not be sufficient to enable a digital assistant to process them, and this could constitute a barrier to the use of a digital assistant by a consumer. Consistently with Principle 4, terms would also have to be provided in a machine-readable format. This could be inserted expressly into the UCTD, to provide a basic enabling provision. Furthermore, Principle 4 may also require additional action, eg, with regard to terms presumed to be unfair, listed in the Annex to the UCTD. Principle 4 requires that traders should not block digital assistants from reading terms and conditions, nor from using these to decide whether or not to proceed with a contract. Furthermore, the right of consumers to use digital assistants can be reflected in the UCTD by adding to the list of terms presumed to be unfair (grey list) those terms which aim to, or have the effect of, prohibiting, restricting, or treating differently the use of a digital assistant.

We have already suggested that one of the implications of the deployment of digital assistants by both consumers and traders is that digital assistants would need to process important information, including the terms of the contract, before deciding whether to conclude a contract. Therefore, it should be required that terms must be provided in a machine-readable format. The fact that a consumer has deployed a digital assistant which has reviewed the standard terms used by a trader and accepted them should not preclude the application of the UCTD to assess the fairness of those terms. Consistent with Principle 2, the deployment of a digital assistant by a consumer does not change the fairness assessment of non-negotiated terms through the UCTD's control mechanisms of incorporation, interpretation and assessing fairness.

Furthermore, according to **Article 3(1) and (2)**, the UCTD does not apply to terms which have been 'individually negotiated'. Assuming that some digital assistants may have the capability of conducting negotiations regarding the terms proffered by a trader, then any terms 'negotiated' by such a digital assistant in the context of a particular contract could fall within the exclusion in this Article, irrespective of whether the digital assistant is used only by one consumer or used by several parties jointly. The extent to which a digital assistant is technologically capable of fully negotiating contract terms will require case-by-case examination; consequently, the application of this exclusion will also be context-dependent. Not every negotiation by a digital assistant might be such as to fall within the scope of this exclusion, therefore. This could result in reduced legal certainty for traders and consumers alike. We suggest that one solution would be to allow terms negotiated by a digital assistant to be challenged for their fairness, rather than simply extending the exclusion from assessment to this situation. This would not lead to an inevitable finding that a term negotiated by a digital assistant would be unfair, because the fairness test in Article 3, supplemented by Article 4 UCTD, is sufficiently flexible to consider the fact that a term was negotiated by a digital assistant as a relevant factor in the assessment of fairness. The alternative would be to rely on the possibility of seeking redress from the provider of a digital assistant (under Contract 1) in situations where the negotiation of a term by a digital assistant has resulted in a worsening of the consumer's position compared to the term originally proffered by the trader (and the default position under the otherwise applicable law[58]) and resulted in losses suffered by the consumer.

With regard to the criteria for the application of the fairness test in **Article 4**, we have already noted that the test includes the circumstances surrounding the conclusion of the contract. Therefore, the fact that a digital assistant was used could be considered, where appropriate, as a relevant circumstance in assessing the unfairness of a term. However, in many cases, the fact that a digital assistant was used would not be a relevant circumstance as most contracts between a trader and a consumer will be based on the standard terms drafted by the trader, and the fact that a digital assistant was used would not have any relevance to the application of the fairness test.

Article 5 requires that terms are drafted in plain and intelligible language. In accordance with Principles 2 and 4, this provision should be enhanced in two ways: first, it should be clarified that terms 'in writing' should include terms provided in a machine-readable format. Secondly, as stated earlier, terms should additionally be required to be provided in a machine-readable format. This does not obviate the need for terms to be available to the human consumer in plain and intelligible language and provided in writing. A possible way of drafting such a provision would be this addition to Article 5:

> *In addition, terms must be provided in a machine-readable format to enable processing by digital assistants.*

Furthermore, to reinforce Principle 4, a further addition might be worded as follows:

> *A trader should not unjustifiably limit accessibility or the machine-readability of terms so as to prevent the use of a digital assistant by a consumer.*

Further Issues for Consideration

We have identified a number of further issues which could be taken into consideration in updating the UCTD to ensure that it is ADM ready.

(i) *Incorporation of standard terms:* For instances where a contract is concluded through a digital assistant, the requirement that standard terms must be available to a consumer prior to the conclusion of a contract might be supplemented with the qualification that terms that were not provided in a machine-readable format would not be deemed incorporated/ accepted by the consumer who deployed the digital assistant, unless the consumer had the opportunity to review those terms before the contract is concluded and takes legal effect. Such a provision would require appropriate functionality to be built into a digital assistant and would therefore

[58] Case C-415/11 *Mohamed Aziz v Caixa d´Estalvis de Catalunya, Tarragona i Manresa* (Catalunyacaixa) ECLI:EU: C:2013:164, para 68.

have to be recommended to designers of digital assistants.[59]

(ii) *Responsible (or proactive) digital assistants:* One might consider whether digital assistants should be equipped with the technological functionality to flag and refuse terms which have already been declared as unfair (by judicial or administrative order) and where such decisions are recorded in an easily accessible, machine-readable manner such as a database. This could be considered by those designing digital assistants.

Another idea for a design element would be the ability of a digital assistant to detect post-contractual modifications of terms in a contract already concluded through the digital assistant, eg, where the contract allows for the unilateral modification of contract terms by a trader.

Both features are design suggestions rather than legal requirements, and their technological feasibility and reliability would be for designers of digital assistants to assess. The positive effect of such functionality on the detection of unfair contract terms could be encouraged, eg, by a suitable reference in a new recital to a modified UCTD.

(iii) *Acceptance or rejection of standard terms:* A further question to be considered is whether a digital assistant could accept or reject the trader's standard terms without the explicit consent of the consumer who would be bound by the contract. One might envisage that a digital assistant would flag whether such terms would be accepted or refused at the time of notifying the consumer that a contract is about to be concluded.[60]

Finally, the **Annex** could be enhanced to support the use of digital assistants by consumers in accordance with Principle 4, by adding the following terms to the list of terms presumed to be unfair:

> *A term requiring the use of digital assistants by a consumer to conclude a contract;*
>
> *A term permitting the use of only a restricted set of available digital assistants as determined by the trader;*
>
> *A term prohibiting the use of digital assistants by a consumer or providing for the application of different terms depending on whether a consumer uses or does not use a digital assistant.*

Summary

Overall, therefore, we suggest that the basic structure of the UCTD can continue to apply, but that some clarifications to the text of the Directive, as well as some additional design guidance for designers of digital assistants, would be needed to facilitate the seamless extension of the UCTD to situations where consumers deploy digital assistants.

(b) E-Commerce Directive (2000/31/EC)

Although the E-Commerce Directive (2000/31/EC) (ECD) is not a consumer law directive as such, we have included it nevertheless as it has direct relevance to many consumer contracts. The report's focus is on aspects of the Directive other than Articles 12 to 15 ECD (replaced by Articles 4, 5, 6 and 8 of the DSA).

We mostly concentrate on how the ECD relates to the conclusion of algorithmic contracts (Contract 2). However, we first need to explore the general application of the ECD to ADM as a service, which relates to Contract 1 above, ie, the contract for the provision of a digital assistant. Following the rationale underpinning Principle 2, according to which the application of consumer law to contracts concluded through digital assistant is not affected, we also suggest that the use of ADM in the provision of information society services does not affect the application of the ECD where relevant. Furthermore, we discuss whether the provision of an ADM as a service to the consumer would qualify as an intermediary service. Were this the case, there would be interesting consequences to consider in terms of liability and, indeed, the application of the liability exemption.

[59] This would be different from the design requirements we have proposed in connection with the attribution principle (Principle 1) and the need to retain final control by the consumer.

[60] This is on the assumption that a 'right to object' as set out above would e built into digital assistants.

As far as the contract between a consumer and trader concluded through a digital assistant is concerned, Principles 3, 4 and 5 are relevant to ensure the ADM-readiness of the ECD. To facilitate the use of digital assistants, and to prevent obstacles, any information required to be given under the ECD should be provided in machine-readable format. Principle 5 (disclosure of digital assistant) would likely require the addition of a new item of information in Article 5 ECD to cover the obligation to disclose the use of a digital assistant. The transparency goal pursued by Principle 5 further affects the ECD's provisions on commercial communications (Articles 6 and 7 ECD). Here, Principle 5 would suggest an amendment to ensure the alignment of the ECD with the forthcoming AI Act; such an amendment would be the obligation to *inform whether the commercial com munication has been created by generative AI*. That said, given the general concerns about the implications of the use of generative AI, the EU legislator may prefer to include such a provision in other laws deemed to be a more appropriate candidate for this than the ECD.

Principles 4 and 5 also guide some of the drafting proposals for adjusting Articles 10 and 11 ECD set out below. These proposals are aimed at ensuring that both articles accommodate the use of digital assistants and are ADM-friendly.

In terms of the ECD's **scope**, the use of digital assistants in the provision of information society services would not exclude the application of the ECD. Thus, if the provision of certain information society services is automated, the ECD will equally apply.

ADM service (ie Contract 1) as an information society service: Where the digital assistant is provided to a consumer by a provider (under Contract 1) for a consumer to negotiate or conclude contracts with third parties (traders), such a service would likely be an information society service.

Intermediary service: In the ECD, there is a sub-category of information society services referred to as 'intermediary service providers' in the title to Section 4 (which covers mere conduit, caching or hosting services).[61] Whether the service provided by the provider of the digital assistant under the digital assistant contract (Contract 1) would be regarded as an intermediary service under the ECD (and now the DSA) is not immediately apparent and would require analysis of the functionality of a particular digital assistant. This is important because if the provision of a digital assistant constitutes an intermediary service, the liability exemptions (Articles 12–14 ECD; Articles 4–6 DSA) would apply. However, a digital assistant would usually be a service other than hosting, caching, or mere conduit. The functional context in which digital assistant providers and intermediary providers operate significantly differ. Based on CJEU case law, the fact that a digital assistant includes elements of an intermediary service would not engage the liability exemptions if the actual service (contract conclusion, and performance) was broader.[62] Unless the consumer was in total control of the criteria, the design, and the operation of the digital assistant provided by the digital assistant provider (making the consumer akin to a digital assistant developer/producer), it is the digital assistant provider who controls the design, the implementation, and, at least partially, the operation of the digital assistant. This control in the design, the deployment and partially in the operation is not incompatible with the control of the consumer using the digital assistant in a way and to the extent that the attribution principle still applies. It should be considered whether a clear provision to determine the status of a digital assistant provider as an intermediary service provider would resolve the question as to whether the digital assistant provider is liable for a decision or action taken by the digital assistant deployed by a consumer for concluding contracts, and the question of the extent to which the digital assistant provider might have the duty to control the outputs of the digital assistant used by the consumer. In ELI's view, this is a policy decision for the EU legislator, although we stress that clarifying the potential liability of the provider of a digital assistant to a consumer is an integral aspect of ensuring the smooth extension of the EU's consumer *acquis* to

[61] See section 4 of the ECD, to be replaced by Chapter II of the DSA

[62] See case C-434/15 *Asociación Profesional Élite Taxi v Uber Systems Spain* SL ECLI:EU:C:2017:981; contrast case C-390/18 *Criminal proceedings against X (Airbnb Ireland)* ECLI:EU:C:2019:1112. See also case C-324/09 *L'Oréal SA v eBay International AG* ECLI:EU:C:2011:474 and case C-18/18 *Eva Glawischnig-Piesczek v Facebook Ireland Limited* ECLI:EU:C:2019:821.

the use of digital assistants, and therefore its ADM-readiness.

We have already commented on some aspects of **Article 5** (General information). This provision can apply to Contracts 1 and 2. For Contract 1, no special adaptation is required. The criteria and parameters the digital assistant is based upon should not be considered 'general information' to be provided by the service provider (digital assistant provider) as such information rather refers to the characteristics of the service itself. Therefore, it should be included in the terms and conditions of the digital assistant contract as a description of the service in the same way as for any other service (and would also be required under the pre-contractual information requirements under the CRD – see below).

With regard to **general information** (Article 5(1)), any information required to be provided should be rendered not only 'easily, directly and permanently accessible to the recipients' but also in 'machine-readable form' (consistent with Principle 4). This additional requirement would ensure that those consumers using digital assistants are not, in practice, in a worse position than consumers not using digital assistants. The provision should be formulated in a 'digital assistant-friendly' manner.

Furthermore, the **duty to disclose the use of a digital assistant** (Principle 5) could be included in the general information required by **Article 5 ECD** by adding 'the use of digital assistants in the provision of any or all activities, specifying the services or activities' in the items of information listed there.

The combined application of Principles 4 and 5 reveals several instances where it will be necessary to explore alternative policy options. **Article 5(1)(c) ECD** is one such example. The objective of this provision is to create the conditions for rapid, direct, and effective communication with the service provider. Chatbots, digital assistants and other automated means can, in fact, facilitate such effective communication. In ELI's view, the use of ADM for communication would invite two alternative approaches: first, a service provider could be required to inform users whether such communications are to be handled by automated systems; or, secondly, the obligation to inform could be extended with the obligation to offer a human-attended communication channel (following the legislative precedent established in Article 12(1) DSA). We use this example to highlight that ADM-readiness can mean multiple things: basic disclosure would be in accordance with the purpose of Article 5 but requiring a human-attended alternative would supplement the use of ADM mechanisms so as to provide an additional safeguard.

We also noted that, with regard to **commercial communications** (Articles 6 and 7), ensuring proper alignment with the provisions expected to be included in the forthcoming AI Act on this issue would include inserting an obligation to *disclose whether a commercial communication has been created by generative AI*. Although it is open to debate whether the ECD would be the most appropriate place for such a duty, coherence between provisions and instruments should be ensured and gaps avoided. This would also be consistent with Principle 5.

Contracts Concluded by Automated Means (Articles 9–11)

The ECD constitutes the backbone of the EU's legal framework for electronic contracting, but due to the passage of time since its implementation, in ELI's view, some updates are needed to ensure that its provisions can seamlessly be extended to algorithmic contracting. Currently, Article 9 does not refer to contracts concluded by automated means, but simply to contracts concluded by electronic means. The current wording acknowledges two fundamental principles: first, that contracts can be validly negotiated and concluded by electronic communications: declarations (data messages) in digital form and transmitted by electronic means; and secondly, that contracts can be validly concluded in a digital medium. We are of the opinion that Article 9 ECD is instrumental to ensuring that the principle of non-discrimination (Principle 4) is not only applied to the use of digital assistants but to each of the actions performed, declarations adopted, and contracts concluded through such digital assistants. Acknowledging the validity and enforceability of contracts concluded through the use of ADM is key and a fundamental premise for the application of all the Principles proposed in this report. In the same way as contracts concluded by electronic means, the use of digital assistants should not be the sole ground for denying the validity and enforceability of algorithmic contracts. In terms of drafting, Article 9 could either be extended by defining 'electronic contract' to include contracts concluded through the use of ADM systems generally (or digital assistants specifically), or by adjustments to the text of Article 9(1) by (i) adding the phrase 'or by means of ADM' at the end of the first sentence; and (ii) by inserting 'or algorithmic' between 'electronic' and 'contracts' in the second sentence. This would provide the necessary clarity to ensure that contracts are not open to

invalidation merely because they were negotiated and/or concluded by digital assistants.

We note a key parallel at the international level, in the form of Article 12 of the UN Convention on the Use of Electronic Communications in International Contracts, which already contains such an extended provision.[63] Furthermore, we note that UNCITRAL is working on the preparation of international principles for the use of AI and automation in international trade. The project is entrusted to Working Group IV (WGIV). It is an ongoing project that has started with exploring and assessing the adaptability/applicability of existing UN texts on international trade to algorithmic contracting. As a mere illustration, a draft principle discussed at the WGIV session of April 2023 in New York provides guidance as to a possible draft:

> *The formation or performance of a contract is not denied validity or enforceability on the sole ground that an automated system was used.*
>
> *A communication or contract is not denied validity or enforceability on the sole ground that it is in the form of an electronic communication generated, sent, received or stored by an automated system.*[64]

Although we suggested simple adjustments to Article 9(1) above, one could, as an alternative, consider redrafting Article 9(1) ECD in the following way:

> *Member States shall ensure that their legal system allows contracts to be concluded by automated means. Member States shall in particular ensure that the legal requirements applicable to the contractual process neither create obstacles for the use of algorithmic contracts nor result in such contracts being deprived of legal effectiveness and validity solely on account of having been concluded by automated means.*

Importantly, despite its seemingly sweeping wording, this revised provision would not interfere with the application of contract law rules according to which, a contract is defective and therefore invalid for other reasons. It would merely seek to pre-empt a claim that a contract concluded by automated means, or ADM, is invalid or ineffective for the sole reason that it was concluded in this way.

Furthermore, the list of exclusions under Article 9(2), intended for electronic contracts, would have to be revisited and reconsidered carefully in relation to the use of digital assistants for the purpose of contract formation.

Article 10 ECD sets out various items of **information to be provided** in the context of electronic contracting. Again, some updating is needed to ensure that algorithmic contracts are fully properly covered by this provision. We recommend the following additions to the obligations of the trader to inform a consumer in line with Article 10. An addition to Article 10(1) could be: 'whether the contract is concluded by a digital assistant'. Furthermore, Article 10(3) should be extended with the requirement that 'Contract terms and general conditions must be available in a machine-readable format'.

Slight adjustments would also be needed in respect of **placing of the order** (Article 11): The wording of paragraphs (1) and (2) should be slightly adapted to accommodate the use of a digital assistant by the consumer. The following wording is proposed: in the last sentence of paragraph 1, add '… the order and the acknowledgement of receipt are deemed to be received when … they are accessible and processable by the recipients, or by a digital assistant deployed by the recipient.' Furthermore, in the last sentence of paragraph 2, insert '… allowing them or a digital assistant deployed by them to identify and correct input errors …'.

[63] 'A contract formed by the interaction of an automated message system and a natural person, or by the interaction of automated message systems, shall not be denied validity or enforceability on the sole ground that no natural person reviewed or intervened in each of the individual actions carried out by the automated message systems or the resulting contract.'
[64] A/CN.9/1125, United Nations Commission on International Trade Law, 65th session, Vienna, 3–21 July 2023.

Summary

ELI's overall assessment of the ECD is that making it ADM-ready would not require radical changes to the Directive. However, the fact that it was designed in a context of electronic contracting which was more limited in terms of technological possibilities than today necessitates some alterations to the various provisions we have identified above.

(c) Unfair Commercial Practices Directive (2005/29/EC)

The UCPD is largely focused on informed decision-making, prohibiting practices that are likely to materially distort the average consumer's decision-making. More precisely, the UCPD is concerned with commercial practices that are unfair because they impair the consumer's ability to make an informed decision (Article 2(e) UCPD). Pursuant to Principle 2 above, the fact that a consumer uses a digital assistant should not affect the application of the UCPD's provisions as far as the contract resulting from the use of a digital assistant is concerned.

The novelty of digital assistants is that they are potentially susceptible to manipulation through practices which would be regarded as unfair commercial practices when targeted at human consumers directly. In accordance with Principle 6 (protection from manipulation), legislative steps may need to be taken to tackle the deliberate manipulation of digital assistants.

As far as Contract 1 is concerned, the digital assistant will generally be run by a commercial party qualifying as a trader under Article 2(b) UCPD. This means that the relationship between the digital assistant provider and the consumer is covered by the UCPD. In particular, this includes claims regarding the digital assistant's capability and functionality, which must not be misleading. For example, if the digital assistant provider advertises the digital assistant as independent, whilst it is actually biased and funnels consumers to the traders that pay the highest commission for contracts concluded through the digital assistant, this would likely constitute a misleading action under Article 6(1). Furthermore, Article 11a(1) requires that national laws must provide for a right to compensation for damage suffered by the consumer because of an unfair commercial practice and, where relevant, a price reduction or the termination of the contract. These latter two will only be effective in relation to the digital assistant provider if the consumer pays for the digital assistant. However, the right to compensation for damage seems sufficient in relation to the digital assistant provider, and, crucially, could extend to forms of consequential losses if national law permits their recovery.

In accordance with Principle 2, the trader's obligation not to engage in misleading or aggressive commercial practices should continue to apply where a consumer uses a digital assistant. In the same way, the general prohibition and the blacklist are, in principle, also still relevant in instances when a consumer uses a digital assistant. The usual pattern for applying the provisions of the UCPD is for a court or administrative body to compare the trader's actions against the prohibited practices listed in Annex I. This list was developed without regard to the use of digital assistants, so some care would need to be taken once the use of digital assistants comes into consideration. For those practices involving digital assistants that could be 'functionally equivalent' to a listed practice, a technology-neutral approach should lead to the conclusion that the listed practice includes the use of a digital assistant. However, where a particular practice involving digital assistants differs significantly from any of the listed practices, an application by analogy may not be feasible. Thus, if the practice does not feature in the blacklist, the assessment of the practice is conducted on a case-by-case basis, under the specific requirements for identifying misleading (Articles 6 and 7) and aggressive practices (Articles 8 and 9). As a last resort, if the practice does not fit into these categories, the practice must be assessed against the general definition of unfair commercial practice set out in Article 5. The general clause implies that the practice breaches the trader's professional diligence and appreciably impairs the consumer's ability to make an informed decision, thereby causing the consumer to make a transactional decision that they would not have taken otherwise.

Rethinking 'Informed Decision'

The UCPD provides that a commercial practice is unfair if it materially distorts the ability of the average consumer to make an informed decision (Article 2(e) in combination with Article 5(2)(1) UCPD). One could argue that in the case of fully automated decision-making, it is not the consumer but the digital assistant that should be able to make an informed decision. However, as the duty not to mislead an average consumer under the UCPD is on a trader, and digital assistants might conceivably be designed based on the existing legal framework, the standard by which it is determined whether information is misleading should remain the same (cf Principles 2 and 3). The informed decision of an individual consumer lies in their (conscious) choice to act via the digital assistant,

which makes decisions based on the consumer's chosen parameters and values, refined through self-learning based on a (pre-set) range of factors.

Although our conception of the digital assistant assumes that the decision to conclude a contract is made through the digital assistant, there could still be many instances when the consumer will decide on the transaction on the advice from the digital assistant about the best available products or services. If, in that situation, the consumer receives incorrect information via the digital assistant, eg, on the price of a product, this may distort the consumer's ability to make an informed decision. In that situation, the UCPD would apply as usual, with liability for the provision of incorrect information to the consumer falling on the provider of the digital assistant, and, in the case of smart products with integrated digital assistants, the contractual seller. Both would be 'traders' within the meaning of Article 2(b) UCPD.

Manipulative Practices

Principle 6 requires that digital assistants should be protected from manipulation. It might be the case that some digital assistants are designed in such a way as to not be susceptible to manipulative actions which would otherwise constitute a misleading or aggressive commercial practice when targeted at consumers directly. Whether this is the case will depend on the design and capabilities of the digital assistant.

Were a manipulation-proof digital assistant of this kind to become available, it might be asked whether the obligations of a trader not to engage in misleading or aggressive commercial practices would still be relevant, ie, whether Principle 2 would still hold. If the digital assistant was designed in a manner that would enable it to verify information and seek information itself, then one might be tempted to argue that the trader's obligations fall away. However, this would be too simplistic a view. Digital assistants are unlikely to be manipulation-proof in practice, although they would probably be susceptible to manipulation different from that of (human) consumers. Algorithms can be misled, or manipulated (eg, through prompt engineering), and it is even plausible that a digital assistant could encounter new forms of manipulative practices. It would therefore not be correct to suggest that the trader's obligations under the UCPD not to engage in misleading or aggressive commercial practices would no longer be relevant; on the contrary, these obligations could be deployed to ensure that traders do not attempt to manipulate digital assistants rather than consumers. Therefore, we propose that the professional standards that a trader has to comply with under the UCPD are not lowered in case a consumer is assisted by a digital assistant (bearing in mind that the digital assistant is treated as an extension of the consumer). Instead, the UCPD could usefully be extended to encompass manipulation of digital assistants as part of its regulation of commercial practices.

Points on Particular Provisions

Although the assumption is that consumer law continues to apply in situations where digital assistants are deployed (Principle 2), including pre-contractual information duties (Principle 3), it is necessary to review the UCPD's provisions to assess where adjustments might be required, particularly to ensure that digital assistants are also protected from manipulation (Principle 6).

In line with Principle 2, the definitions of 'consumer' (Article 2(a)) and 'trader' (Article 2(b)) are both neutral as far as the use of digital assistants by either party is concerned and would not be affected by the deployment of a digital assistant by either party. Other definitions which are relevant to the use of digital assistants, and which might require clarification, are as follows:

Starting with **Article 2(e)** (materially distorting the economic behaviour of consumers): this definition is central to the UCPD. The use of a digital assistant could affect the application of several of the key components of this definition. Where a digital assistant has been deployed by a consumer, it is not the consumer who makes the decision to conclude a contract, but this is taken by the digital assistant. Although a digital assistant might be equipped with the possibility to allow a consumer to view relevant information as part of the right to object design requirement (cf Principle 1), in many instances, it will be the digital assistant's decision-making that would be impaired. Following the logic of Principle 1, any impairment that would have affected a consumer's ability to decide would be covered by this, but practices specifically targeted at digital assistants might not. Clarification to cover the specific attempt to impair the decision-making ability of digital assistants should be covered.

Similarly, in **Article 2(j)** 'undue influence' should include manipulating the digital assistant. This is likely already covered but could be clarified to avoid doubt. Corresponding clarification might also be needed for **Article 2(k)** (definition of 'transactional decision'), which focuses on any decision taken by a consumer. This should also capture decisions which

are made wholly through a digital assistant.

A different issue might arise in the context of **Article 5(3)** (vulnerable consumers). Here, it is not so much the manipulation of the consumer's digital assistant that would be a primary concern, but rather the fact that a digital assistant (depending on its design and functionalities) could be used by traders to be more precise in targeting individuals based on profiling. It has been argued[65] that consumers are effectively all vulnerable in the digital environment, and there may be a need to recalibrate the criteria for determining what makes a consumer a 'vulnerable consumer'.

Principle 3 mandates that pre-contractual information duties should continue to apply as they do now. This has implications for **Article 6** (misleading actions). Some digital assistants could be designed in such a way as to eliminate the risk of a transactional decision resulting from misleading actions or omissions (eg, if a digital assistant can access and process relevant external data). Nevertheless, the basic obligation on a trader not to engage in a misleading action should be retained (Principle 3). The particular capacities of a digital assistant could become relevant in a situation where a trader has failed to comply with the obligations under Article 6 UCPD, but the particular digital assistant used by a consumer is capable of correcting this through other information it can access. In that case, the trader's misleading action may not have caused any damage to a consumer, or that consumer might not be able to prove a causal link between the trader's conduct and any losses suffered. The implication of this would be that the ability of a consumer to seek individual redress as per Article 11a UCPD would be affected. However, the trader's obligation not to engage in misleading actions would remain and it would still be possible to impose administrative or other sanctions.

In light of Principle 8 (conflict of interests), **Article 7** (misleading omissions) could be amended. Some digital assistants might be operated by a trader (eg, a digital assistant integrated into a smart product or where the digital assistant is provided on an online platform). This creates the obvious risk that the interests of a consumer may conflict with those of the trader, or other traders (eg, where a platform markets its own goods as well as those sold by third parties via the platform). In this context, a duty to disclose this potential conflict of interests should be inserted into Article 7.

Additionally, in **Article 7(4)** (misleading omissions), a duty to disclose essential information on the digital assistant could be included. For example: a digital assistant might only consider a 'top three' of best options for potential contracts, either because it has decided that these options 'fit' that consumer best or because it has been programmed to limit the number of possible third-party counterparties it considers.[66] In that case, it would be good to include a duty to inform the consumer that decisions on concluding a contract are made by choosing from a limited range of prospective third parties, which will not include all available options. Another duty to disclose could arise if the provider of the digital assistant receives a (commission) payment from the trader or has another potential conflict of interests. In this regard, the information already required to be given about main parameters used for rankings or recommender systems would be a reference for an addition to this provision.[67]

Article 7(4a) ('listings') would cover digital assistants when they act merely to assist a consumer in searching for products without also deciding on a supplier and concluding the contract. In this situation, the consumer ultimately chooses a product provided to them in a listing given via the digital assistant and concludes the contract (with the main parameters for arranging the listing also to be stated).

[65] Natali Helberger, Marijn Sax, Joanna Strycharz and Hans-Wolfgang Micklitz, 'Choice Architectures in the Digital Economy: Towards a New Understanding of Digital Vulnerability" (2022) 45 *Journal of Consumer Policy* 175.
[66] Noga Blickstein Shcory and Michal S Gal, 'Voice Shoppers' (2022) 88 *Brooklyn Law Review* 111.
[67] See P2B Fairness Regulation (2019/1150), Article 5; DSA, Article 27.

With regard to **Article 8** (aggressive practices), digital assistants can have the effect of creating a form of digital aggression (albeit not physical) when directed at a consumer. Interestingly, the most recent draft of the AI Act (EP text 14/6/2023) explicitly acknowledges the interplay between unfair commercial practices and artificial intelligence practices with a visible bridge in the definition of prohibited practices under Article 5 draft AI Act on the use of AI systems deploying subliminal techniques. The AI Act is not limited to consumer situations, but this provision would clearly have an important role to play in this regard. Whether corresponding changes to the UCPD would be required would depend on the scope of the final version of the AI Act – a simple cross-reference in the UCPD may suffice.

The factors relevant to harassment, coercion, or undue influence for the purposes of Article 8 include, in **Article 9(c)**, exploitation. Digital assistants on a trader's side could be used to target exploitation by a trader, so this will remain relevant.

Articles 11(1) ('remedies') and **13** ('penalties'): The provision clarifies that Member States may consider, where appropriate, the gravity and nature of the unfair commercial practice, the damage suffered by the consumer and other relevant circumstances. If a consumer is assisted by a digital assistant and this prevents loss, the consumer does not have a right to compensation. This appears justified and the provision seems largely fit for its purpose also in the case of contracts concluded through digital assistants. On the other hand, if it is proven that a trader is actively trying to deceive the consumer and only fails because the consumer uses a digital assistant, it would be important to explicitly allow for administrative penalties under Article 13.

ANNEX

A number of points in the Annex might be relevant where digital assistants are deployed by consumers, and it would need to be considered if their scope requires clarification to expressly cover the use of digital assistants. In particular:

Point 5 (bait advertising): This practice is likely to be as problematic for digital assistants as it is for consumers, in that a purchasing process is started but the trader has not disclosed lack of availability. This is likely not the type of information a digital assistant could discover from available data.

Point 7 (time-limited offers): This could influence a digital assistant to agree to certain terms/prices in the same way as a consumer and, thus, should be relevant to decisions by digital assistants.

Point 9 (goods cannot be legally sold) and **point 10** (consumer rights): If a digital assistant is designed to check data independently, then this prohibition might no longer be of practical relevance in the case of digital assistant supported transactions. However, that would depend on what the digital assistant is programmed to do. If checking external data for lawfulness is not a functionality of a digital assistant, or if the reasons for unlawfulness cannot be obtained, then this prohibition would still be relevant, irrespective of whether or not a digital assistant is used. In any case, traders should not be permitted to act in this way irrespective of whether a consumer uses a digital assistant.

Summary

The UCPD is largely capable to deal with the legal issues created by the use of digital assistants by consumers. The guidance provided by Principles 1, 2 and 3 suggests that the UCPD can continue to operate as it does now, although some clarifications would strengthen its application. It is also clear that Principles 6 and 8 interact with the UPCD; in particular, the risk of manipulation of a digital assistant is going to create a significant new battleground for the UCPD. Its basic structure should be sufficient to tackle all of these issues, with some clarification to remove potential ambiguities. Overall, there are no significant concerns about the UCPD's readiness for ADM.

(d) Consumer Rights Directive (2011/83/EU)

The CRD is a horizontal directive that applies to a broad range of contracts regardless of their specific subject (see Articles 3 CRD). As such, we do not expect there to be a need for significant changes to the CRD to accommodate the use of digital assistants, although the CRD might be a good vehicle for the introduction of some additional provisions consistent with the various Principles set out in part 1. There are also a number of clarificatory enhancements that could be made to the CRD with a view to full ADM readiness. For instance, regarding the contract for the provision of a digital assistant to a consumer (Contract 1), it should be made clear what criteria are used by the digital assistant when selecting the consumer's counter parties in the algorithmic contract (Contract 2). Such an information duty could also include information on whose interests the digital assistant represents, ie, whether it operates solely in the consumer's interests (economic, environmental, or otherwise indicated), or also considers the interest of the market or even society as a whole (eg, with regard

to sustainable consumption). These enhancements should be added to the information requirements in **Articles 5 and 6**.

Other revisions of the CRD could address issues arising in respect of Contract 2, ie, algorithmic contracts. We suggest a range of amendments in this section.

Starting with **Article 3 (Scope)**, the application of Principle 2 would require clarification that the CRD also applies to contracts concluded with the help of, or through, digital assistants. A possible wording would be:

> *Article 3(1b): 'This Directive shall also apply where digital assistants are used for the conclusion of a contract between a consumer and a trader.'*

In addition, there are a number of new provisions of general application, which should be introduced into EU consumer law. These could be added to the CRD as suggested here, but they could also become part of a separate instrument on contracting through digital assistants, if that were the policy choice taken by the EU legislator.

In line with Principle 4, we recommend the introduction of a provision that embodies the right to use a digital assistant. For this, we propose a new **Article 22a (Right to use digital assistants for contracting)**. The introductory provision of the new chapter on algorithmic contracting should state that consumers have a right to use digital assistants for contracting with traders. Furthermore, the provision should clarify that consumers should not be prevented from using digital assistants through any technical measures (see also the discussion of Principle 4 in the first part of this report).

> *Article 22a (Right to use digital assistants for contracting)*
>
> *(1) 'Consumers have the right to use digital assistants for concluding contracts with traders. Any contractual terms or agreements which directly or indirectly waive or restrict this right shall not be binding on the consumer, except where there are legitimate grounds for such restrictions stated in Union or Member State legislation.'*
>
> *(2) 'Traders shall not design, organise or operate their online interfaces in a way that prevents consumers from using digital assistants for systems for concluding contracts with traders.'*
>
> *(3) 'Paragraphs 1 and 2 do not affect the trader's right to take proportionate steps to prevent manipulative use of a digital assistant.'*

Paragraph 1 would give legislative effect to the essence of Principle 4. Paragraph 2 supplements this by making explicit traders' obligation not to undermine the use of digital assistants by consumers. Finally, paragraph 3 is added in recognition of the fact that there may be some uses of a digital assistant which could be manipulative, for instance bots used to place multiple orders for high-demand items, or items of limited availability, in rapid succession. The word 'proportionate' is intended to act as a brake on the use of this derogation from paragraphs 1 and 2, so that excessive steps to prevent a manipulative use would not be allowed. We recognise that the phrase 'manipulative use' is vague; however, we would anticipate that those manipulative uses which justify action by a trader would be covered in legislation.

Furthermore, Principle 5 mandates the disclosure of the use of a digital assistant. This would be given effect through a new **Article 22b (Duty to inform about the use of digital assistants)**. This new provision would specify that the use of digital assistants for negotiating or concluding a contract should be disclosed by the user of the digital assistant (see Principle 5).

> *Article 22b (Duty to inform about the use of digital assistants)*
>
> *'A party who uses a digital assistant for concluding a contract with another party shall ensure that the other party is informed in a clear and comprehensible manner at the beginning of the interaction with the other party about the fact that a digital assistant will make the decision to enter into the contract.'*

As explained in the discussion of Principle 5, above, this disclosure could be undertaken by appropriate technological means and therefore be programmed into a digital assistant. It would thus be apposite to combine the new Article 22b with design guidance for designers of digital assistants.

We further recommend a provision to give effect to Article 6. The new **Article 22c (Protection of digital assistants)** would aim to protect the integrity of digital assistants against adversarial attacks (see further, Principle 6).

Article 22c (Protection of digital assistants):

'Traders must not use the structure, design, function or manner of operation of their online interface in a way that could distort or impair the ability of a digital assistant to make an autonomous and informed decision or choice.'

These additions to the CRD would ensure the full ADM-readiness not only of the CRD itself, but also contribute to the ADM readiness of the EU consumer *acquis* as a whole.

(e) Proposal for Amending the Consumer Rights Directive Regarding Financial Services Contracts Concluded at a Distance

In May 2022, the European Commission published a proposal to reform the current law on the distance marketing of financial services by repealing the existing Directive (2002/65/EC) and amending the CRD to include additional provisions on the distance selling of financial services.[68] In June 2023, the Parliament and the Council reached a provisional political agreement on the proposal.[69] On 5 October 2023, the European Parliament adopted the proposal; the Council did the same on 23 October 2023.[71] Here, we examine the proposed additions for their ADM readiness.[72]

We start with **Article 11a (Exercise of the right of withdrawal from distance contracts concluded by the means of an online interface)**. According to the new provision, traders must ensure that a consumer can withdraw from a contract on that same online interface by using a 'withdrawal function' (eg, a button or a similar function). In line with the principle of **barrier-free design for digital assistants** (Principle 4), the online interface should be designed in such a way that the exercise of withdrawal is possible by a digital assistant deployed by a consumer. Therefore, the following paragraph should be added:

Article 11a(6): 'The trader shall ensure that the online interface is designed in such a way that the exercise of withdrawal is possible by a digital assistant deployed by a consumer.'

Article 16a (Information requirements for distance contracts for financial services): In line with the principle of barrier-free design for digital assistants (Principle 4), the pre-contractual information should also be provided in a **machine-readable** manner. It should be considered to stipulate this requirement in the general part of the revised CRD. Furthermore, Article 16a has a strong focus on textual information (see the references to 'layering' of information in Article 16a(7)). This 'text paradigm' limits the possibility to use conversational agents (chatbots) for providing consumers with information. It is an open question whether the text paradigm is still appropriate or whether it should be abandoned. Importantly, the 'readability' requirement could be an obstacle to the valuable use of chatbots and voice-based alternatives.

Article 16d (Adequate explanations): The new provision suggests a new 'right to request and obtain human intervention' (Article 16d(3)), which applies at the pre-contractual stage, and in 'justified cases' also after the conclusion of the contract. This provision considerably restricts the possibilities for complete automation of business processes. It could create a barrier to market entry, in particular for start-ups. We have noted in the context of the ECD

[68] Proposal for a Directive of the European Parliament and of the Council amending Directive 2011/83/EU concerning financial services contracts concluded at a distance and repealing Directive 2002/65/EC, COM(2022) 204 final.

[69] Council of the EU, Press release of 6 June 2023 <www.consilium.europa.eu/en/press/press-releases/2023/06/06/council-and-parliament-reach-provisional-political-agreement-on-financial-services-contracts-concluded-at-a-distance/> accessed on 14 November 2023.

[70] European Parliament legislative resolution of 5 October 2023 on the proposal for a directive of the European Parliament and of the Council amending Directive 2011/83/EU concerning financial services contracts concluded at a distance and repealing Directive 2002/65/EC (COM(2022)0204 – C9-0175/2022 – 2022/0147(COD)).

[71] Council of the EU, Press released of 23 October 2023 <www.consilium.europa.eu/en/press/press-releases/2023/10/23/council-adopts-legislation-that-makes-it-safer-to-contract-financial-services-online-or-by-phone/> accessed 1 December 2023.

[72] At the time of writing, the new Directive has not yet been published in the Official Journal of the European Union. Therefore, the following suggestions are based on the text of the European Parliament's legislative resolution of 5 October 2023.

that the automation of effective communication through chatbots would invite consideration of whether a human-operated alternative should be provided. The proposed Article 16d would already go in this direction, but, in ELI's opinion, there is still a need to balance this against the opportunities offered by automation. In line with the **principle of proportionality**, it could be considered whether the right to human intervention should only apply to contracts that exceed a certain transaction value. For this purpose, Article 16d(3) could be amended as follows:

> *Article 16d(3): 'Member States shall ensure that, in the event that the trader uses online tools* ***for contracts exceeding a transaction value of […] EUR****, the consumer shall have a right to request and obtain human intervention … .'*

(f) Directives on Consumer Sales (2019/771/EU) and Digital Content/Digital Services (2019/770/EU)

In this section, we focus on two Directives which are closely related: the SGD and the DCD. Both are relevant to the contract for the provision of a digital assistant (Contract 1) and therefore important for issues arising from the performance of a digital assistant.[73] The SGD contains provisions relevant to digital assistants integrated with physical goods. The DCD covers digital content/services relevant for Contract 1, where the digital assistant is provided as a separate application. Both Directives are also relevant for Contract 2, where this is either a contract for the sale of goods, or a supply contract for digital content/services.

We will explain in this section how many of the Principles identified in the first part of our report interact with the SGD and the DCD. In particular, either Directive would form an important basis for a consumer seeking redress in circumstances where a digital assistant has performed in a manner not reasonably expected and where this would constitute a lack of conformity of the digital assistant itself or of the physical item incorporating the digital assistant.

Digital Assistants Installed in Goods

An important question relevant for the classification of Contract 1 (for the provision of a digital assistant) is whether a digital assistant installed in a physical item makes the item a 'good with digital elements'.[74] In principle, where a digital assistant is sold as a component of a physical item (such as the coffee machine that can re-order coffee pods), the physical item could be a 'good with digital elements' and thus a lack of conformity of a digital assistant would be dealt with under the SGD (see SGD Article 3(3) and DCD Article 4(3)). However, the digital assistant would only be a digital element in this sense if it was necessary for the functioning of the goods, ie, where the absence of the digital assistant would prevent the physical item from performing its functions. The difficulty here is that a good such as a coffee machine would be capable of functioning without its embedded digital assistant, ie, one could still make coffee. It is arguable that the digital assistant would still be a vital feature of the coffee maker if this feature is the reason why the consumer bought it. However, the consumer's reasons for buying the particular coffee maker would probably not be enough for the digital assistant feature to be regarded as so essential as to qualify as a 'digital element'. Recital 21 of the DCD elaborates on the concept of 'goods with digital elements', but it is still unclear whether digital assistants that are part of a product fall within this definition. The recital refers, inter alia, to the expectations of the consumer. A further factor is whether the digital element is part of the initial contract – eg, if in a sales contract, it is agreed that an app will be downloaded after the purchase of a smartphone, this app will also be within the scope of the SGD. It the same way, a digital assistant could be regarded as an aspect 'explicitly required by the sales contract' (Recital 21). Thus, there are arguments in favour of concluding that where a digital assistant is integrated into a physical item, the digital assistant is a digital element bringing the

[73] On AI and the SGD/DCD, see eg, Martin Ebers, 'Liability for Artificial Intelligence and EU Consumer Law' (2021) 12 J *Intell Prop Info Tec. & Elec Com L* 204.
[74] Defined as 'any tangible movable items that incorporate or are inter-connected with digital content or a digital service in such a way that the absence of that digital content or digital service would prevent the goods from performing their functions ("goods with digital elements")' (Article 2(5)(b) SGD).

product within the scope of the SGD. A different conclusion – treating the digital assistant as separate from the product, would not be problematic insofar as redress is sought in respect of poor performance of the digital assistant; the DCD would provide the relevant basis for this. However, a problem would arise where the integrated digital assistant has a lack of conformity, and the consumer would prefer to rescind the contract for the sale of the good. In ELI's view, a digital assistant supplied as a part of a physical item would make this a good with digital elements and therefore bring this device within the scope of the SGD.

Indeed, it was argued in the context of Principle 1 that the attribution of a digital assistant's actions would require various control mechanisms, including the right to suspend or switch off the digital assistant. To be consistent with Principle 1 and the related design requirements we have identified, the fact that the good can be used without the digital assistant should not mean that it is no longer a good with digital elements. It should continue to be subject to the SGD. An appropriate addition could be made to Recital 21 to put this beyond doubt. Our overall conclusion on this point is therefore that a simple clarification in both the SGD and DCD to the effect that goods with pre-installed digital assistants should be regarded as 'goods with digital elements' and thus covered by the SGD, would be beneficial. Doing so in the Recitals might suffice; alternatively, adding 'Goods with a pre-installed digital assistant are to be regarded as 'goods with digital elements" to Article 3(3) SGD and Article 3(4) DCD would be a possibility.

Contractual Liability of the Seller of a Good with Digital Elements, Including When the Provider of the Pre-Installed Digital Assistant is a Third Party

If the digital assistant is pre-installed in a good, in accordance with Principle 2 and as discussed above, the consumer should in all cases be able to claim remedies from the seller under the SGD. It should be noted that the seller is the contractual provider of the digital assistant as they sell the goods, but if the seller's business model entails outsourcing the provision of a digital assistant to a third party, the consumer would likely be subject to two separate contractual relationships – one regarding the good and one regarding the provision of the digital assistant. In the case of a malfunction or unexpected performance, a consumer would probably not be able to identify what precisely has gone wrong and therefore the correct counterparty for a claim. The operation of Article 3(3) SGD avoids this situation by imposing liability on the seller of the physical item for any issues arising from non-conformity in the pre-installed digital content. This should avoid situations where a consumer seeking redress is directed by the seller to the provider of the digital assistant, and vice versa.

Although the liability of a the contractual seller of a good with digital elements, also in respect of situations where there is a separate contract regarding the use of the digital assistant, is likely already covered by the SGD, we suggest that confirmation of this could be added to **Article 10(1) SGD** by inserting 'including where the terms and conditions for the consumer's use of the digital elements is covered by a separate contract with a third party.'

Non-Conformity of a Digital Assistant

One of the main reasons why the SGD and DCD will be relevant to the use of digital assistants is that either Directive can be relied on where the performance of the digital assistant falls short of the consumer's reasonable expectations, ie, where the digital assistant is not in conformity with the contract.

The following situations could be the cause of lack of conformity:

1. A digital assistant makes a decision beyond the range of decisions that was (reasonably) anticipated for the digital assistant;

2. The digital assistant does not perform in the manner promised according to the terms of the contract for the provision of the digital assistant;

3. The digital assistant lacks conformity because of faulty hardware in the good.

Where a digital assistant is pre-installed into physical goods, the relevant conformity provisions are Articles 6 and 7 SGD, and any issues with the performance of the digital content are considered as a possible non-conformity of the goods themselves. A digital assistant provided as a separate application, as opposed to being pre-installed in a physical item, would be a type of digital content or digital service, and so the conformity requirements of Articles 7 and 8 DCD will be applicable.

Throughout this report, we have identified matters which, in ELI's view, should be implemented as design requirements/duties targeted at creators/developers/providers or suppliers of digital assistants and closely linked to the principle of the consumer's

right to determine parameters (Principle 7). If adopted as formal design requirements, such design requirements could take the form of 'Union technical standards'. If that were the case, these would then be a relevant consideration for the objective requirement of conformity as expressly stated in Article 8(1)(a) DCD and Article 7(1)(a) SGD. However, even if these are not formal technical standards, the existence of design *requirements*, regardless of the legal form they take, could be a relevant consideration in applying the conformity test. Therefore, failure to comply with such design requirements would be a strong basis to argue that there is a lack of conformity, which would give rise to liability of the seller of goods with digital elements or the provider of a separate digital assistant to a consumer in accordance with either the SGD or DCD.

A further non-conformity issue potentially relevant to any AI-based digital assistant is performance outside expected parameters. Above, we noted that data-driven machine-learning processes entail an inherent risk that decisions which are made based on the data used by a digital assistant are beyond what had been intended or anticipated by the creators/providers (and users) of a digital assistant. In such circumstances, the provider of a digital assistant to a consumer should be liable for the consequences of a lack of conformity in accordance with the requirements in Articles 7 and 8 DCD or Articles 6 and 7 SGD. In particular, Article 8(1)(b) DCD or Article 7(1)(d) SGD would be relevant in that the former requires digital content to '…possess the qualities and performance features, including in relation to functionality…normal for digital content…of the same type and which the consumer may reasonably expect, given the nature of the digital content…'.[75] A consumer could argue that they would reasonably expect a digital assistant to operate within the pre-set parameters and therefore that the performance features of a digital assistant would be to operate within anticipated limits. That said, it might be arguable that the current state-of-the-art in AI is such that some performance beyond anticipated parameters might be 'normal for digital content of the same type', ie, all AI-driven digital content. However, this may be countered by the argument that if such 'beyond-parameters' performance is normal for AI-driven digital content, then additional performance monitoring and emergency brakes should be coded into the digital assistant (and, in any case, one would expect that compliance with the design requirements mentioned in the context of Principles 1 and 7, above, would be relevant in determining the conformity of a digital assistant with the contract).

A more difficult issue could arise if the digital assistant has developed a profile of the consumer, based on the data it has collected about the consumer's preferences as well as the parameters set by the consumer, which is somehow not aligned with the consumer's true profile. For instance, a consumer might have bought various presents for friends which the digital assistant has then processed as indicative of the consumer's own preferences, and then relies on these purchases in making decisions about subsequent automated contracts concluded through the digital assistant. The consumer may not have wanted the resulting purchases. Moreover, a slightly skewed profile could become increasingly skewed over time, particularly if a consumer is unable, or fails, to stop purchases from going ahead.[76] It is certainly plausible to argue that a digital assistant which creates a skewed profile of a consumer might not be in conformity with the contract, but this is far from clear-cut. It would likely depend on a variety of factors, ranging from the consumer's own ability to control the digital assistant through setting and reviewing parameters, the digital assistant's functionality to reveal factors taken into account in refining the consumer's profile (eg, the ability to instruct the digital assistant to disregard certain matters), and the general accuracy to be expected from digital assistants in developing the consumer's profile.

[75] The wording here is taken from Article 8(1)(b) DCD.

[76] One would anticipate that a decision by a consumer to stop a contract from being concluded would be an aspect the digital assistant's algorithm would be programmed to consider as part of its deep-learning refinement of the consumer's profile.

Degradation of Digital Assistant's Performance Over Time and Obsolescence

One of the inherent problems with AI systems is that they can degrade over time. This can occur regardless of whether the AI system is self-learning or not. If it is self-learning, there are no guarantees that the self-learning process results in improved performance (unless this is required and tested regularly during use). If the system is not self-learning, external conditions might change to the extent that what worked well at the time of deployment no longer works in the same way at a later point. Although this issue not only affects digital assistants, it is especially pertinent in this context because digital assistants can conclude contracts for the consumer, potentially to their detriment.

Another issue with digital assistants, as with other forms of digital content, is the problem of obsolescence. Take the following example: a smart coffee machine purchased in 2023 comes equipped with a digital assistant to automatically renew supplies. The digital assistant is subject to constant updates. However, after some years, the supplier of the digital assistant stops supporting products first marketed on or before 2023 with updates. This extends to security updates, making the consumer vulnerable to hacking and other cybersecurity risks. Although the product is still functional other than the digital assistant functionality, the user is forced to discard it and buy a new smart coffee machine whose digital assistant is still supported. In the case of digital assistants integrated into a physical product, the durability aspect of the objective conformity requirement in Article 7(d) SGD would provide a basis for challenging premature obsolescence; a similar argument in respect of free-standing digital assistants could be based on the 'continuity' aspect in Article 8(1)(b) DCD. In both cases, the question would be for how long a consumer might expect to be able to use the digital assistant, and whether inadequate support would constitute non-conformity as a result. More significantly, Article 7(3) SGD and Article 8(2) DCD require that updates, including security updates, which are necessary to keep the digital content in conformity with the contract, should be provided to a consumer in the situations set out in those Articles.

The need for a specific duty or a right of the consumer in such situations will be addressed and discussed in the second part of the project when elaborating the *Guiding Principles and Model Rules*.

Remedies

Both the SGD and the DCD provide a set of remedies for instances of non-conformity. In the case of goods, both contain provisions to bring the goods into conformity with the contract through repair or replacement, or price reduction, or rescission of the contract (Article 13 SGD). For digital content/services, the corresponding remedies are bringing the digital content/service into conformity, price reduction or termination of the contract (Article 14 DCD).

As explained above, many of the issues one might envisage with digital assistants relate to matters which would have a detrimental impact on consumers going beyond the fact that the digital assistant is of lower quality than expected. The purpose of digital assistants is to conclude contracts which are binding on a consumer, and the resulting legal obligations will invariably result in financial costs for the consumer. It seems that the remedies for a lack of conformity under the SGD/DCD are not sufficient for many of the potential problems with digital assistants, which have been identified in this report. The conclusion of contracts beyond anticipated parameters because of machine-learning and/or degradation of the AI element are of particular concern. The remedies available in Articles 13 SGD and 14 DCD do not fit the situation where a digital assistant places an order/makes a decision that leaves the consumer with a financial loss. For this, damages would be the appropriate remedy. Damages are left to the domain of the Member States in the SGD and DCD. The remedies focus on how a non-conformity of digital content can be cured. However, if a digital assistant concludes a 'wrong contract' resulting in a loss for the consumer, the remedies in both Directives would at best avert a repeat of this issue *if* it is possible to 'fix' the digital assistant. It could be argued that the consumer should be given a right to damages in an easily accessible way. To secure this right, Member States could be required to enable claims for damages in respect of digital assistants. Whilst the possible deployment of digital assistants would not be a basis for interfering in national laws on damages more generally, a limited provision on damages where a digital assistant has acted beyond anticipated limits is conceivable. Such provisions are not unknown in EU consumer law; for an existing example, see Article 14(2) of the Package Travel Directive (2015/2302/EU).

Modification

Modification (including updates) of the digital content and digital services to be supplied over a period of time is regulated in Article 19 DCD. Modifications can include product developments which go beyond updates that are necessary for the reliable functioning of the content/service. In the case of digital assistants, these could be eg., new features or a more detailed ability to control the parameters and data the digital assistant uses. A change to the range of parties which a digital assistant would consider in deciding to conclude a contract, including where one supplier has been pre-set, would be another possible modification. For instance, a digital assistant may be set up to place orders with food store A, but this is subsequently changed by the provider of the digital assistant to food store B. However, the consumer does not wish to buy from B because B is associated with values not corresponding to the consumer's values (eg, regarding employment conditions, sustainability, or sourcing of goods). In such an instance, the modification of the digital assistant would allow the consumer to terminate the contract under Article 19(2) DCD.

However, where the digital assistant is pre-installed in a good, the application of the SGD would not trigger a corresponding right. This is a gap in the SGD, which may need to be addressed; currently, the SGD only deals with updates which are needed to ensure that the goods remain in conformity with the contract (Article 7(3) SGD). It might be arguable that the substitution of a different supplier for goods ordered through a digital assistant by the digital assistant's provider could, in some instances, constitute a lack of conformity because the digital assistant no longer performs as reasonably expected by the consumer (cf Article 7(2)(d) SGD).

This would trigger different remedies from those envisaged under Article 19 DCD and would create a degree of inconsistency in how similar situations are treated. Such a difference might be justified because the remedy applicable under Article 19(2) DCD in respect of digital content/services would be termination, but, in the case of pre-installed digital assistants, the right to terminate would only make sense if this extended to the goods themselves. This, however, might be regarded as disproportionate for the trader because it would mean having to take the goods back – even when the goods are not faulty in themselves. One might therefore need a more nuanced approach to updates/modifications which do not have the effect of rendering goods as no longer in conformity, but which still produce an effect which would allow a consumer to terminate the contract if the relevant digital content/service was separate from a physical product.

The question of modifications also raises the more general challenge regarding the potential effect on competition in respect of digital assistants pre-installed in goods. In such a situation, a consumer is tied to the particular digital assistant and cannot replace it with a different digital assistant. In one sense, this is no different from physical components used by a manufacturer when making a physical product – the digital assistant is another component. However, because of the particular nature of digital assistants and their ability to conclude contracts, the implications from a competition law perspective would require monitoring. Considering the competition law and data protection law aspects is beyond the scope of this report;[77] however, these aspects will be taken into account during phase 2.

Summary

Our discussion here reveals that the SGD and DCD are mostly capable to address issues arising from the use of digital assistants by consumers. However, as with the other directives examined in this part of our report, there is scope for some clarifications. Moreover, the central role of the contract for the provision of a digital content (Contract 1) – whether classified as a sales contract pursuant to the SGD or a contract for the supply of digital content/services according to the DCD – will require the EU legislator to revisit its reluctance to tackle the availability of

[77] Cf Christof Kohlen, 'Consumer Protection in the Age of Artificial Intelligence: Breaking Down the Silo Mentality Between Consumer, Competition and Data' (2023) 31 *European Review of Private Law* 427.

damages for losses caused by non-conformity under both Directives. We note that Article 14 of the Package Travel Directive (2015/2302) is one instance where a right to damages to compensate for losses is already provided. A similar step might now be needed for the SGD and DCD. If it is felt that it would encroach too far into national laws to adopt a general right to damages under both Directives, then a narrower provision specifically dealing with damages to compensate for losses caused by non-conformity of a digital assistant should be introduced instead.

V. Concluding Comments and Outlook

We can conclude the ELI report with a few brief observations. The objective has been to set out Principles that should guide the assessment and review of the EU's consumer *acquis* in order to establish whether it is ADM-ready, and, to the extent that it is not, to identify the steps that should be taken to reach the level of ADM-readiness. We stress again that this is a stepping-stone in working towards the wider *Guiding Principles and Model Rules on Algorithmic Contracts,* to be elaborated in the second phase of our project. The conclusions in this report should therefore be seen as provisional, but nevertheless sufficient for considering immediate reforms to the consumer *acquis* to ensure its ADM-readiness.

The report has demonstrated that EU consumer law is already capable of addressing many of the issues regarding the future use of digital assistants by consumers, and that it can be made fully 'ADM-ready' through minor adjustments or additions to existing directives. ELI's most important overall recommendation is the need to combine the (limited) reform of existing laws with the development of design requirements for digital assistants which incorporate both the comments here and which reflect the wider regulatory framework particularly under the DSA and the forthcoming AI Act. On that basis, the analysis concludes that the use of digital assistants would not pose a significant challenge to the coherence of EU consumer law.

The suggestions contain some proposals for amending the various directives in one way or another. We have not specifically suggested the adoption of a separate instrument on contracts concluded through digital assistants, or ADM systems, in the context of consumer contracts. However, this should not be understood as a rejection of that possibility; indeed, the adoption of a new consumer law directive specifically geared towards the use of digital assistants in consumer contracts would also be an option. We do not think that a separate instrument would be essential, but it could be an alternative route towards ensuring the full ADM-readiness of the EU consumer *acquis*.

The combination of the general attribution rule put forward as Principle 1, together with the role for the contract for the supply of the digital assistant (which would be within the scope of the DCD and the SGD, depending on the type of digital assistant), provide a suitable approach for addressing the use of digital assistants, particularly when combined with the amendments to the other Directives suggested in this report and the technical requirement for various control mechanisms that could be used by a consumer.

We acknowledge that the report's focus is narrow – we have considered key measures of the EU consumer *acquis* on their own terms. We have not explored the interaction with national laws at this stage. It is in the nature of EU consumer law that elements of EU-made law interact with national laws, mostly in the field of private law. National private laws will take different approaches to the question of contract formation and contract validity, neither of which is directly regulated in the EU consumer *acquis* (although there are supplementary provisions, of course). Whether the use of deep learning AI in the context of contracting will affect the way in which national laws operate is beyond the scope of this report. In phase 2 of the larger project for which this report constitutes an interim output, some of these wider issues will be examined, and our recommendations in this second phase may ultimately require us to rethink the proposals here. Whether this will, indeed, be so will become clear once we have reported on the *Guiding Principles and Model Rules on Algorithmic Contracts.*

The European Law Institute (ELI) is an independent non-profit organisation established to initiate, conduct and facilitate research, make recommendations and provide practical guidance in the field of European legal development. Building on the wealth of diverse legal traditions, its mission is the quest for better law-making in Europe and the enhancement of European legal integration. By its endeavours, ELI seeks to contribute to the formation of a more vigorous European legal community, integrating the achievements of the various legal cultures, endorsing the value of comparative knowledge, and taking a genuinely pan-European perspective. As such, its work covers all branches of the law: substantive and procedural; private and public.

ELI

EUROPEAN
LAW
INSTITUTE

ISBN: 978-3-9505318-9-3