

# AUTOMATED DECISION-MAKING: IS THE EU CONSUMER LAW FIT FOR THE EMERGING TECHNOLOGY?

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## Abstract

*The concept of „automated decision making“ (ADM) is currently a key vector reshaping industries in the era of technology-based decision making, and the use of artificial intelligence (AI) in this process is a hot topic worldwide with the adoption of generative AI tools like ChatGPT. ADM enables companies to use technology for tasks that were not long ago the domain of human judgment. AI is essential in financial services, such as credit worthiness assessment, automated investment advice (often called robo-advice) or insurance. The regulation of activities related to ADM is contained in various acts and regulations, including the Sale of Goods Directive 2019/771, the Digital Contracts Directives 2019/770 and the EU General Regulation on Data Protection. However, these directives do not contain special rules for new technologies such as Artificial Intelligence (AI). Although recently, the EU has moved forward with regulations on product liability laws affecting digital products and services, with the EU Data Act, the EU Cyber Resilience Act and the highly publicized EU AI Act - regulations with a transition period of two years for compliance, the speed with which in practice the ADM tools are developed and trained make the legislative efforts slow and incomprehensible. In light of this issue, this article explores the relationship between AI, ADM and discusses whether existing EU consumer law is equipped to deal with situations where AI systems are either used for internal purposes by companies or offered to consumers as the main subject of the contract. The paper will reveal a number of gaps in current EU consumer law and briefly discuss future legislation. This article also reviews the efficiency of key EU consumer law directives for the conclusion of contracts with consumers through the use of AI, with recommendations for clarifications and additions to improve the use of ADM.*

**Keywords:** ADM, AI, financial services, EU consumer law, consumer contracts.

## 1. Introduction

It has already become common practice for merchants to use automated decision-making processes in a variety of ways for advertisers when marketing their products to consumers online. Likewise, merchant websites rely on automated decision-making processes to receive and process orders placed by consumers and to enter into contracts. Superior access to information, along with progress made in programming and advanced computing power using fast technologies to process such information produce advantages in decision making, having the potential to improve the quality and efficiency of decisions. In the case of ADM processes, these systems analyse large data sets and can provide insights that humans may not be able to see. However, the integration of technological solutions in decision-making procedures are not without risks of potential dysfunctions, the limiting of individual rights and the reduction of liability. Using AI for decision-making also raises challenges, including access to accurate and unbiased data, ethical concerns related to consent and data confidentiality, the need for complaint solving and resolution of appeals control by the human factor, the need for qualified professionals to develop and maintain AI systems.

The concerns of legislators but also of consumers are related to how we can ensure that, following the prior consent given for the use of personal data, consumers will still be able to control their use and that the data collected for a certain purpose is not used for something completely different? How can discriminatory and arbitrary treatment be prevented and how do we ensure that there is no bias built into ADM algorithms? How do we ensure that AI only uses data that is lawfully obtained, appropriate, relevant and limited to what is necessary for the intended purpose? And, in the case of ADM processes in financial industry, can the core consumer credit rights and duties be automated?

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EU recently adopted a comprehensive regulation governing corporations and the business environment regarding AI. The world's first legislation of its kind, the EU Law on AI, aims to impose legal and ethical standards on companies that develop and use AI.

The EU's AI act is the first ever law on AI, a regulatory framework that aims to make sure AI systems are safe, and that they respect the law and the EU's fundamental rights and values.

## 2. Definitions and related concepts

According to Council of the European Union, „artificial intelligence (AI) is the use of digital technology to create systems capable of performing tasks commonly thought to require human intelligence”<sup>1</sup>. OECD, in the Recommendation of the Council on Artificial Intelligence, the term of should be understood as follows:

**AI system:** An AI system is 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<sup>2</sup>.

**Automated contracts and smart contracts.** OECD showed that the term „smart contract” was first introduced by Nick Szabo in 1994 who defines it as „a set of promises, specified in digital form, including protocols within which the parties perform on these promises”.

What are automated contracts? Contract automation enables businesses to build and execute repeatable contract workflows that require minimal manual work. Automating this work means contracts reach signature faster, enabling teams to get to revenue faster and focus on higher-value tasks instead. Contract automation is a process in which software empowers internal teams within businesses and organizations to standardize the stages and tasks associated with the contract lifecycle, allowing for consistency and reliability in contracting processes (Szabo, 1994<sup>3</sup>). (...) (Szabo, 1997<sup>4</sup>) further specified that a smart contract is a „computerised transaction protocol that executes the terms of a contract. The general objectives are to satisfy common contractual conditions (such as payment terms, liens, confidentiality, and even enforcement), minimise exceptions both malicious and accidental, and minimise the need for trusted intermediaries.

Miguel Amaral in OECD „Case 3. Blockchain and smart contracts: regulatory challenges and regulatory approaches”, concludes: „in other words smart contracts deployed on a blockchain are a set of predefined terms agreed by contracting parties and executed by the Digital Ledger Technology itself when a predefined contingency occurs. As such, they are not a contract in the strict legal sense but rather self-executing and self-enforcing code-based rules”.

The use of artificial intelligence in automatic decision-making subsequently contributes to the automation of some or all phases of a typical contracting process.

In the present research, we consider a „**digital assistant**” to be an integral AI system, which can be used by a consumer to perform one or more steps, which were usually undertaken together with a human operator representing the merchant for the conclusion or execution of a contract. In the virtual world, such digital assistants are present as independent applications, but also as built-in functions of smart goods and services.

## 3. The fitness of EU consumer law directives in ADM

The next challenge for consumer law arises from the gradual implementation of the automation of contracting through digital technologies that use the automation of decision-making processes. This in turn leads to the question of how well the current EU consumer legislation is prepared for the potential use of ADM.

Regarding the contracts concluded by automatic means, the e-Commerce Directive (2000/31/EC) is currently the reference base of the European Union's legal framework for electronic commerce, but with the passage of time since its adoption, many aspects are being overtaken by the accelerated implementation of digitization in most economic sectors, so that updates are needed to ensure that its provisions can work in the new circumstances, and its framework to cover contracting made exclusively through the use of artificial

<sup>1</sup> <https://www.consilium.europa.eu/en/policies/artificial-intelligence/>.

<sup>2</sup> <https://legalinstruments.oecd.org/en/instruments/oecd-legal-0449>.

<sup>3</sup> N. Szabo, *Smart Contracts: Building Blocks for Digital Markets*, EXTROPY: The Journal of Transhumanist Thought, 1994.

<sup>4</sup> N. Szabo, *Formalizing and Securing Relationships on Public Networks*, First Monday, vol. 2/9, 1997, <https://doi.org/10.5210/fm.v2i9.548>.

intelligence systems, those based on algorithms and ADM. Strictly speaking, the Electronic Commerce Directive is not a consumer law directive, but it applies to many consumer contracts. Currently, art. 9 „Treatment of contracts” does not refer to contracts concluded by automated means, but simply to contracts concluded by electronic means. It is necessary to adapt the provisions of art. 9 to cover contracts concluded through the use of digital assistants and ADM. Regarding the scope of this directive, by amending Article 9 it could be extended by including to „electronic contract” to encompass contracts concluded through the use of algorithms, digital assistants and ADM systems.

As far as we are concerned, we identify on the one hand the contractual relationship that is concluded through the digital assistant. Separately, there is the contract between the digital assistant provider and a consumer, for the provision of a digital assistant to the consumer.

The European regulation on unfair commercial practices, the Unfair Contract Terms Directive (UCTD 93/13/EEC), is based on the concept that, in order to make an informed decision, consumers must be provided with essential information.

UCTD applies to all contracts concluded between a consumer and a seller or supplier of goods or services, but the current rules are formulated in a general and abstract way, without regard to how the retailer interacts with consumer, the way in which the data is processed, by the use of algorithms or Big Data, and the references to the consumer in the UCTD should also include a consumer who uses a digital assistant.

The terms of the current form of UCTD could be applied to evaluate the correctness of the contractual conditions, including when the conclusion is made with the use of algorithms, for a contract concluded through ADM, as well as from the contract for the provision of the digital assistant, similar to how it would be applied for non-algorithmic contracts.

Depending on how the algorithms work, the price ranking can be opaque, which makes it very difficult for consumers to compare offers, but deploying of a digital assistant by a consumer does not change the conditions for assessing the fairness of non-negotiated clauses through the control mechanisms provided in the UCTD.

The Consumer Sales Directive (2019/771/EU - CSD) also contains provisions applicable to digital assistants integrated into physical goods, regardless of whether the digital element forms part of the initial contract or a subsequent contract. For example, if in a sales contract for an electrical appliance or an electric car, it is agreed that an application will be downloaded after the purchase of the good, this application will also fall within the scope of the CSD.

Regarding the treatment of non-conformity of a digital assistant incorporated into physical goods, one of the main reasons why the CSD is relevant for the use of digital assistants is that the provisions of Directive 2019/771/EU can be relied upon when the performance of the digital assistant does not meet the reasonable expectations of the consumer<sup>5</sup>, *i.e.*, when the digital assistant does not comply with those in the contract and any problem with the performance of the digital content is considered a possible non-conformity of the goods themselves. Where a digital assistant is pre-installed in physical goods, the relevant compliance provisions are those referred to in art. 6 and 7 CSD. CSD provides a set of remedies for cases of non-compliance. However, the remedies for a lack of compliance under the CSD are not sufficient for many problems specific to digital assistants, such as degradation of the AI element. The remedies available under art. 13 CSD are for example not adapted to the situation where a digital assistant makes a decision that causes physical damage or financial loss to the consumer. For this, actions in damages would be the appropriate remedy, but these are left to the Member States in the CSD. Therefore, in these cases the consumer should be granted the right to compensation in an easily accessible way, and in order to guarantee this right, the Directive should provide that Member States may be required to provide that compensation claims are allowed in relation to digital assistants where a digital assistant has acted beyond anticipated limits.

Another key issue is how will consumers be protected when faced with discriminatory AI-based ADM results? Consumers, based on their profile obtained through data processing, through machine learning, are divided into market segments with an increasing degree of precision. Such a classification can prove problematic in several situations. For example, there is a problem if the profiling process reaches the wrong result and the wrong profile is applied. This could be due to inherent errors in the statistical analysis calculation technique or biased databases that can cause the system to reach false positives or false negatives. Discrimination can occur

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<sup>5</sup> [https://www.europeanlawinstitute.eu/fileadmin/user\\_upload/p\\_eli/Publications/ELI\\_Interim\\_Report\\_on\\_EU\\_Consumer\\_Law\\_and\\_Automated\\_Decision-Making.pdf](https://www.europeanlawinstitute.eu/fileadmin/user_upload/p_eli/Publications/ELI_Interim_Report_on_EU_Consumer_Law_and_Automated_Decision-Making.pdf), p. 46.

when the data entered on the consumer is not relevant enough to reach a correct conclusion. The consequences of such automated decisions can be serious: the user may be deprived of a service or denied access to information.

Algorithms may also be designed to intentionally produce biased, unfair or discriminatory results or to exclude certain groups of people, such as when consumer profile analysis indicates that a person has a high degree of probability to belong to a certain group in society and, therefore, they are not offered to contract a service or the offers from that person are automatically rejected, with severe economic and social effects for that individual<sup>6</sup>. Therefore, guidelines should be developed on AI and ADM, focusing on the repercussions of AI on fundamental human rights, anti-discrimination, transparency, data protection and consumer protection.

The General Data Protection Regulation (GDPR) applies whenever personal data is used within systems based on artificial intelligence. In this context, questions arise related to the meaning, practical application and limits of some of the fundamental principles of the GDPR, such as the fairness and transparency of personal data processing, data minimization, purpose limitation and liability.

In Case C-634/21, the CJEU examined the practices of the German company SCHUFA Holding AG, in the context in which a consumer was refused credit based on a score determined by the evaluator. The SCHUFA credit bureau provides lenders with credit information about individuals using a probability-based scoring system.

In recital 71 of the decision, the CJEU noted that adequate measures must always be taken to protect the rights and freedoms of individuals. These measures include the right to human intervention, the right to express one's point of view and the right to challenge the decision. The right to appeal the decision is mentioned in art. 22 GDPR, in a broad interpretation of art. 22 GDPR, where the decisions are necessary for the conclusion of a contract or taken with the consent of the data subject.

The CJEU said, where art. 22 is applicable, it prohibits decisions from being taken on an automated basis unless an exception applies. The exceptions allow automated individual decision-making solely where:

- the decision is necessary to enter into or perform a contract between the data subject and a controller;
- it is authorised by EU or member state law, meeting certain requirements;
- the data subject gave explicit consent.

In the CJEU ruling, there are considerations related to consumer rights, and it is in line with the CJEU's approach of interpreting the GDPR as broadly as possible, in favor of the people whose personal data are processed. This solution refers to contractual relations in general, and not necessarily to the specifics of the loan contract process. Therefore, the CJEU ruling will have implications beyond processes such as creditworthiness assessment, affecting sectors such as recruitment, healthcare and insurance, which frequently rely on AI decision-making.

There are, for example, such approaches, such as in the Mortgage Credit Directive 2014/17/EU, which in art. 18 contains an information requirement, obliging the creditor to notify the consumer without delay of the rejection and if the decision is based on automatic data processing<sup>7</sup>.

New forms of potentially unfair advertising and other deceptive practices must also be addressed. Consumers will often not be aware when it comes to commercial offers that the price of a product is personalised, *i.e.*, determined according to their user profile.

The European Commission's new rules presented in its Digital Finance Package at the 24 September 2020 introduce much-needed improvements for the online retail financial services market which will strengthen consumer protection. However, additional new rules are needed in some key areas. On 11<sup>th</sup> May 2022, the EU Commission published a directive proposal amending Directive 2011/83/EU on consumer rights (the „Consumer Rights Directive“-CRD) and repealing Directive 2002/65/EC concerning the distance marketing of consumer financial services. The European Commission's legislative proposals are a very welcome step in the right direction to better protect consumers in the increasingly digital financial services market. While digitalization brings

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<sup>6</sup> CJEU (Case C634/2) ruled that a German credit agency engaged solely in 'automated individual decision-making' under art. 22 by using automated processing to create credit scores linked to individuals, in circumstances where third-party lenders „drew strongly“ on these scores to make lending decisions. The case arose from a complaint made by a person who was refused a bank loan on the basis of a low credit score that the agency, SCHUFA, supplied to the bank concerned.

<sup>7</sup> Directive 2014/17/EU, Chapter 6, Creditworthiness assessment, in art. 18, Obligation to assess the creditworthiness of the consumer: (c) where the credit application is rejected, the creditor informs the consumer without delay of the rejection and, where applicable, that the decision is based on automated processing of data. Where the rejection is based on the result of the database consultation, the creditor shall inform the consumer of the result of such consultation and of the particulars of the database consulted.

opportunities for suppliers and consumers alike, it also brings a number of risks, making a proper regulation of the market necessary not only by updating it but strengthening consumers' rights, by filling existing regulatory gaps in the online financial services market. Financial services are very different from other consumer goods and services covered by the CRD and therefore creating a specific chapter and rules for financial services is crucial. At the European level, there are numerous regulations across this area. The regulatory failure results first and foremost from the lack of adequate consumer protection standards and enforcement failings at Member State level. While the Commission's proposal brings key improvements, some much-needed measures are missing and their absence represents real challenges for effective consumer protection.

In conditions of transparency and secure communication between the parties, prior to the completion of the contract concluded at a distance, this represents a safe and advantageous means of obtaining credit by consumers. The introduction of appropriate provisions to ensure that consumers receive the necessary and appropriate explanations regarding financial services and products before purchasing them through online tools, rob advisors, live chat, Q&A, chatbots and other similar tools are requirements that must be met. Also, the proposals should include a right for consumers to request human intervention in cases where online tools such as rob advisors are used by providers. At this stage there are concerns about whether these chatbots will be able to properly manage all aspects of the consumer protection law to the given context, without providing customers inaccurate information.

What is missing at the moment in DMFSD<sup>8</sup> is the regulation of the activity of influencers in the Financial Services marketing, known as FinFluencers. A *financial influencer* or „*FinFluencer*“, is a person who gives information and advice to investors on financial topics, usually on stock market trading, personal investments like mutual funds and insurance, primarily on various social media platforms. The project to review DMFSD has failed to cover the protection of consumers against the risks that social media and FinFluencers pose to consumers<sup>9</sup> and financial stability.

Influencer marketing in financial services is widespread across Europe. According to research by the International Organization of Securities Commissions (IOSCO), 43% of European firms plan to increase use of influencers as a marketing tool<sup>10</sup>. Moreover, due to the digital environment in which they operate, fintech companies are less constrained by geographical barriers. But right now, this practice is not regulated at EU level, leaving consumers unprotected. There are documented cases when EU citizens have lost a lot of money due to aggressive social media advertising by social media influencers of crypto assets<sup>11</sup>.

It should be noted that the Commission's proposal addresses online fairness. Increasingly, financial service providers are using techniques such as „dark patterns“ that take advantage of consumer behavioural biases. Dark patterns are some deceptive methods of using the online interface, such as, for example, the colouring of the decision buttons or the position and order in which the options are placed on the page, which have the role of tricking consumers into making decisions that are in the interest of the online business, but at the expense of the user. These practices must be properly regulated to protect consumers against mis-selling and the new proposal for the directive must cover all these aspects of consumer protection of financial services contracted through distance means.

In the area of financial services, the use of AI creates risks and complex problems, including legal and ethical ones, and these challenges must be adequately addressed. It is time for society and the law-makers to discuss the opportunities and challenges arising from the use of AI in relation to consumers of financial services and to focus on AI governance and risk management methods that the financial industry could use to ensure the use of AI systems in ethical and reliable coordinates for consumers. Also, it is necessary a proper analyse from the perspective of protection of consumer rights of the Regulation on Artificial Intelligence (AI Act) which directly targets the use of AI systems in the financial industry, the pluses and minuses of this act and the aspects that should be improved, so as to grant consumers basic rights when they are subject to automated decisions or interact with an AI system in financial services. In consideration of these imperatives, the risks and liability are to be covered by the regulations on digital services, data protection, consumer protection to guarantee that natural

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<sup>8</sup> The Directive 2002/65/EC of the European Parliament and of the Council of 23 September 2002 concerning the distance marketing of consumer financial services and amending Council Directive 90/619/EEC and Directives 97/7/EC and 98/27/EC („DMFSD“).

<sup>9</sup> M. Calu, *The challenges of protecting consumer in the Distance Marketing Of Financial Services Directive*, [http://cks.univnt.ro/cks\\_2023.html](http://cks.univnt.ro/cks_2023.html), May 19<sup>th</sup> 2023, p. 122.

<sup>10</sup> <https://lnkd.in/e9jVXY7>.

<sup>11</sup> <https://www.reuters.com/investigates/section/binance-a-crypto-black-hole/>.

persons are properly informed and that they have the freedom to choose not to be the object of the creation of profiles or other practices that could affect their behaviour or exploit the vulnerabilities of a certain group of consumers.

#### 4. Conclusions

Digitalisation facilitates and speeds up innovations creating an emerging global industry, and regulators recognize the need for international cooperation to address cross-border issues. However, the regulatory environment is still developing, and regulations vary widely across the world.

AI and ADM present significant opportunities such as improving consumer service, to cut costs, increasing competition and facilitating economic growth, among many others. Consumers expect that using ADM will be safe and this can be ensured through regulation. The recently passed AI Act will enable greater innovation, market competition and bring legal certainty, which will facilitate the adoption of AI by society.

The volume and dynamics of consumer protection laws, plus their tendency to change over time, almost precludes the possibility of codifying smart contracts so that they correspond ex-ante to the regulations in a permanent way. Moreover, the legislation on consumer protection within the EU means the establishment of rules and a multitude of obligations that are provided in a layered manner in several levels of jurisdictions and regulatory authorities. Added to this is the fact that traditional industries, which cannot use smart contracts and which cannot have the same access to data as Big Data, will oppose efforts to exempt smart contracts from the control of compliance with consumer protection provisions with which they currently must face. From the perspective of using smart contracts in consumer financial services, these contracts will need to be modifiable ex-post, and these changes will need to be easily implemented by the service provider's human-interacting customer service representatives. The test of time will show whether smart contracts can accommodate this type of change process and still be more efficient than traditional contracts.

However, the legislative changes necessary to adapt the consumer protection framework to the new reality of the market must be made, and these should be established as soon as possible as a key priority of the next European Commission. To fully exploit the opportunities these technologies present, EU consumer protection's regulation and regulatory systems must remain fit for purpose and updated.

#### References

- Aggarwal, N., Financial Inclusion and Alternate Credit Scoring: Role of Big Data and Machine Learning in Fintech;
- BEUC, Structural asymmetries in digital consumer markets, [https://www.beuc.eu/sites/default/files/publications/beuc-x-2021-018\\_eu\\_consumer\\_protection\\_2.0.pdf](https://www.beuc.eu/sites/default/files/publications/beuc-x-2021-018_eu_consumer_protection_2.0.pdf);
- Borgesius, F., Discrimination, Artificial Intelligence and Algorithmic Decision-Making, 2018, Council of Europe, at <https://rm.coe.int/discrimination-artificial-intelligence-and-algorithmic-decisionmaking/1680925d73>;
- Calu, M., The challenges of protecting consumer in the Distance Marketing Of Financial Services Directive, [http://cks.univnt.ro/cks\\_2023.html](http://cks.univnt.ro/cks_2023.html), May 19<sup>th</sup> 2023;
- 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 Project on Guiding Principles and Model Rules on Algorithmic Contracts), [https://www.europeanlawinstitute.eu/fileadmin/user\\_upload/p\\_eli/Publications/ELI\\_Interim\\_Report\\_on\\_EU\\_Consumer\\_Law\\_and\\_Automated\\_Decision-Making.pdf](https://www.europeanlawinstitute.eu/fileadmin/user_upload/p_eli/Publications/ELI_Interim_Report_on_EU_Consumer_Law_and_Automated_Decision-Making.pdf);
- Jabłonowska, A., Kuziemski, M., Nowak, A.M., Micklitz, H.-W., Pałka, P., Sartor, G., Consumer Law and Artificial Intelligence: Challenges to the EU Consumer Law and Policy Stemming from the Business' Use of Artificial Intelligence - Final report of the ARTSY project, 2018, EUI Department of Law Research Paper no. 2018/11, <https://ssrn.com/abstract=3228051> or <http://dx.doi.org/10.2139/ssrn.3228051>;
- Szabo, N., Formalizing and Securing Relationships on Public Networks, *First Monday*, vol. 2/9, 1997, <https://doi.org/10.5210/fm.v2i9.548>.
- Szabo, N., Smart Contracts: Building Blocks for Digital Markets, *EXTROPY: The Journal of Transhumanist Thought*, 1994;