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LUMSA International Research Center for Artificial Intelligence Management

LICAIM Research Project Summary Sheet

1. Title of the Research Project

Consumer contracts and artificial intelligence: the algorithmic vulnerability of the weak contractor.

2. Synopsis

In the context of digital markets, the consumer is no longer merely a structurally weak party but is exposed to forms of relational and cognitive vulnerability amplified by the use of algorithmic techniques. AI personalizes offers, modifies prices, predicts behaviors, and influences consumer choices well beyond the limits of lawful persuasion.

How can a consumer whose contractual choices have been influenced or manipulated by an AI system be recognized and protected? Are the current instruments (Articles 33 ss. of the Consumer Code; unfair commercial practices; pre-contractual information obligations) sufficient, or is it necessary to rethink the very concept of 'informed consent'? Moreover, the issue can be viewed not only from the consumer's perspective but also—closely connected—from the market perspective, where competition can be distorted by those who possess data/information (which represent 'value') and computational power.

3. Objectives

Main Objective

The main goal of the research is to answer the following questions:

- Can algorithmic vulnerability be considered an autonomous category distinct from economic, cultural, or subjective vulnerability?
- To what extent can the algorithm's behavior constitute an unfair commercial practice, and how do jurisprudential benchmarks (e.g., the "average consumer") apply?
- What is the role of dynamic information asymmetries, produced by AI self-learning?

Specific Objectives

[Objective 1] Proposal of a new evaluative standard for the protection of the weaker contracting party in digital contexts (e.g., "fragile consumer in an algorithmic environment").

[Objective 2] Framing the predictive influence of AI within the limits of contractual autonomy, with reference to the principle of objective good faith.

[Objective 3] Analysis of the civil law remedies available in cases of predictive manipulation: annulment due to defect of consent (vitiating consent)? Termination due to non-fulfillment of the information obligation?

[Objective 4] Elaboration of presumptive criteria for digital vulnerability in contract law.

[Objective 5] Proposal of legal indicators to evaluate algorithmic manipulation.

[Objective 6] Drafting of guidelines for businesses and consumers, also with a soft-law objective.

4. Theory and Methods

Theoretical Framework

The topic of the research is "Consumer Contracts and Artificial Intelligence: The Algorithmic Vulnerability of the Weaker Contracting Party."

The research is based on the analysis of national and international sources:

- EU Directive 2019/770 and DSA Regulation (Digital Services Act), regarding algorithmic transparency obligations;
- The Consumer Code (Legislative Decree 206/2005), particularly concerning the regulation of deceptive practices;
- The draft European Regulation on AI (AI Act) and its impact on high-risk systems in e-commerce.

The investigation will also cover relevant literature and case law on the matter.

A recent study highlighted the existence of a range of contracts (especially in the services sector) that can affect a party's rationality, inducing forms of dependence¹ in the weaker contracting party, thereby impacting and increasing their "vulnerability." Furthermore, various stakeholders have expressed concerns regarding specific interfaces and functionalities designed to maximize users' time, money, and level of engagement² (for example, infinite scrolling, auto-play, rewards for continued interaction, etc.)³ that increase the vulnerability of the weaker contracting party.

However, it is also necessary to consider the relatively recent debate regarding the possibility of granular algorithmic regulation to support not only, for instance, a judge's decision, but also and above all, the legislative process and the effective application of legal rules. This refers, in particular,

¹ M. CIANCIMINO, *Aleatorietà e azzardo. Profili funzionali e applicativi della disciplina dei giochi autorizzati* (Napoli: Edizioni Scientifiche Italiane 2023), p. 166 ff. This study examined penny auctions, loot-boxes and e-sports in the light of their 'gambling features', suggesting the possibility to invoke gambling rules to manage some issues of contract gamification – especially the 'addictive' elements and the relevance of chance.

² See *New EU rules needed to address digital addiction* 12 December 2023, www.europarl.europa.eu/news/en/press-room/20231208IPR15767/new-eu-rules-needed-to-address-digital-addiction; European Parliament resolution of 12 December 2023 on addictive design of online services and consumer protection in the EU single market (2023/2043(INI)), 12 December 2023, www.europarl.europa.eu/doceo/document/TA-9-2023-0459_EN.html.

³ The idea is expressed by M. CIANCIMINO, *Private Law and Consumer Protection Paradigms facing (Digital) 'Addictions'*, in *European Review of Private Law* 5-2024, p. 803 ss.

to the so-called Personalized Law, or algorithmic⁴ normative personalization, a model of regulation where every person is subject to different legal norms⁵, which could negatively affect the principle of equality.

These theoretical foundations and premises allow for the development of a new research perspective, focused on a critical analysis of how the regulation of artificial intelligence is redefining legal power and the relationship between the stronger and weaker contracting parties.

Methodology

Research Design:

This study adopts a qualitative and exploratory research approach, aimed at understanding the relationship between the use of artificial intelligence and algorithms in contractual matters and the protection of the weaker-party/consumer.

The analysis will be complemented by a review of the specialized literature, case law regarding consumer protection, as well as the analysis of case studies. The research design allows for the identification of potential normative conflicts and/or gaps, providing practical guidance for the legislator, the interpreter, and, more generally, practitioners, and, where possible, providing answers to the questions posed above in the "objectives" section.

Data Collection: The main data collection method for this research is **documentary analysis**.

Pertinent **academic literature**, national and international **legal texts**, relevant **case law**, and **case studies** addressing the themes of consumer contracts and artificial intelligence, with particular reference to the vulnerability of the weaker contracting party, will be examined.

Furthermore, a systematic evaluation of the main **governance documents** will be conducted, including regulatory frameworks and public policy documents concerning artificial intelligence issued by the European Union.

These documents have been selected based on their relevance, completeness, and timeliness.

⁴ C. BUSCH e A. DE FRANCESCHI (a cura di), *Algorithmic Regulation and Personalized Law. A Handbook*, München/Oxford/Baden-Baden, Beck/Hart/Nomos, 2021; O. BEN-SHAHAR e A. PORAT, *Personalized Law. Different Rules for Different People*, Oxford, Oxford University Press, 2021; C. BUSCH, *Implementing Personalized Law: Personalized Disclosures in Consumer Law and Data Privacy Law*, in *Univ. Chicago L. R.*, 2019, 314 ss.; C. BUSCH e A. DE FRANCESCHI, *Granular legal norms: towards data-driven personalization of private law?*, in V. MAK, E. TJONG TJIN TAI e A. BERLEE (a cura di), *Research Handbook on Data Science and Law*, Cheltenham, Edward Elgar, 2024, 317 ss.; O. BEN-SHAHAR e A. PORAT, *Personalizing Negligence Law*, in *New York Univ. L. Rev.*, 2016, 627 ss.; A. PORAT e L.J. STRAHILEVITZ, *Personalizing Default Rules and Disclosure with Big Data*, in *Michigan L. Rev.*, 2014, 1417 ss.; C. BUSCH, *The Future of Pre-contractual Information Duties: From Behavioural Insights to Big Data*, in C. TWIGG-FLESNER (a cura di), *Research Handbook on EU Consumer and Contract Law*, Cheltenham, Edward Elgar, 2016, 221 ss.; A.J. CASEY e A. NIBLETT, *The Death of Rules and Standards*, in *Indiana L. J.*, 2017, 1401; P. HACKER, *Personalizing EU Private Law: From Disclosures to Nudges and Mandates*, in *Eur. Rev. Private L.*, 2017, 651 ss.; C. SUNSTEIN, *Deciding by Default*, in *Univ. Pennsylvania L. Rev.*, 2013, 44 ss. Sia consentito il rinvio anche a M. CIANCIMINO, *Personalizzazione normativa algoritmica nell'ordinamento italo-europeo. Criticità teoretiche e prospettive future*, in C. PERLINGIERI e I. MARTONE (a cura di), *Nuove tecnologie e cultura del diritto civile*, Napoli, 2023, 25 ss. For further information see M. CIANCIMINO, *Private Law and Consumer Protection Paradigms facing (Digital) 'Addictions'*, in *European Review of Private Law* 5-2024, p. 803 ss.

⁵ O. BEN-SHAHAR e A. PORAT, *How to Evaluate Personalized Law*, in *Univ. Chicago L. Rev. online*, 2022, 1.

Data Analysis: A systematic analysis of the collected data will be conducted, primarily focused on academic literature and European Union and national legislation and case law, with the aim of exploring how the European Union and Italy regulate artificial intelligence, particularly in relation to the figure of the weaker contracting party and vulnerability in general (especially algorithmic vulnerability).

This analysis will integrate both theoretical perspectives and the practical aspects of implementation by European and national institutions.

Sample/Cases: The research focuses primarily on the legal framework as outlined above.

Furthermore, the research integrates case studies drawn from contract law, consumer law, and AI, in order to illustrate concrete examples of regulation and its impact on the so-called weaker contracting party and on businesses, where an unfair commercial practice may be deemed to have occurred. The combination of legal texts and real cases offers a balanced perspective, taking into account both the benchmark legal frameworks and their practical implementation.

5. Current Status

Completed Activities

Activity 1: A preliminary general overview of the main academic works on the weaker contracting party, consumer law, and vulnerability in relation to the use of algorithms and artificial intelligence in contractual matters.

Ongoing Activities

Activity 1: A deeper analysis of studies concerning the issues of the weaker contracting party, consumer law, and vulnerability connected to the use of algorithms and AI in contractual matters is underway.

Timeline Progress

Just launched.

Preliminary Findings (if applicable)

6. Next Steps

Short-term (next 3 months)

1. Literature Review and Development of the Theoretical Framework:

- (a) Analyze the main academic works on the weaker contracting party, AI, algorithmic vulnerability, consumer protection, and "unfair" commercial practices at the EU and national level in contractual matters.

- (b) Define the theoretical basis and key concepts of the research.

2. Mapping of the EU and National Regulatory Framework:

- (a) Conduct a systematic content analysis of:
 - The EU AI Act ((EU) 2024/1689);
 - The national law on artificial intelligence (Law no. 132 of September 23, 2025);
 - The Consumer Code (Legislative Decree 6 September 2005 no. 206);
 - EU Directive 2019/770;
 - The DSA Regulation (Digital Services Act), regarding algorithmic transparency obligations;
 - The Draft European Regulation on AI (AI Act) and its impact on high-risk systems in e-commerce; and all related documents.
- (b) Identify how the EU and the Italian State address the themes of the weaker contracting party, AI, algorithmic vulnerability, consumer protection, and so-called "unfair commercial practices" at the EU and national level in contractual matters.

Medium-term (3-6 months)

1. Comparative Analysis of Sources:

- (a) Compare the AI Act ((EU) 2024/1689), the national law on artificial intelligence (Law no. 132 of September 23, 2025), the Consumer Code (Legislative Decree 6 September 2005 no. 206), EU Directive 2019/770, the DSA Regulation (Digital Services Act) regarding algorithmic transparency obligations, and the Draft European Regulation on AI (AI Act).
- (b) Identify common points, divergences, and potential contradictions/conflicts between norms from a regulatory perspective, proposing possible interpretative solutions.

2. Case Study Analysis:

- (a) Analyze selected case studies regarding consumer contracts, artificial intelligence, and unfair commercial practices.
- (b) Report the main problematic issues that emerge and identify potential regulatory/interpretative solutions.

Long-term (6-12 months)

1. Analysis of Civil Law Remedies Available in Case of Predictive Manipulation:

- (a) Analysis of the Civil Code discipline, the Consumer Code, and other European legal systems.
- (b) Elaboration of presumptive criteria for digital vulnerability in contract law.

2. Elaboration of Concrete Solutions to the Issues Raised in the Investigation:

- (a) Proposal of legal indicators to evaluate algorithmic manipulation.
- (b) Drafting of guidelines for businesses and consumers, also with a soft-law objective.

Expected Outputs

The research will lead to the development of two working papers, intended for submission to peer-reviewed academic journals.

The ideas and results will be further explored through the research team's participation in scientific events on the topic and, compatible with funding availability, through the organization of a seminar dedicated to the central themes of the project.

Resource Needs (if any)

Project Lead(s): Prof. Pietro Virgadamo

Research Team:

Start Date: 01/09/2025

Expected Completion: 01/09/2026

Last Updated: October 2025