LUMSA International Research Center for Artificial Intelligence Management

LICAIM Research Project Summary Sheet

1. Title of the Research Project

Territoriality, Sovereignty, and Artificial Intelligence

2. Synopsis

This project investigates the applicability of supranational legal frameworks in the governance of Artificial Intelligence (AI), focusing particularly on issues of territoriality and sovereignty. The interest stems from the recognition that the European Union's AI Act[1] imposes binding standards not only on European companies but also on non-EU entities, directly or indirectly, through the so-called "Brussels Effect". This extraterritorial application of AI regulations raises significant challenges, particularly for companies operating globally.

For instance, in the field of taxation, national authorities increasingly rely on AI to access or process data, or to impose legal obligations on entities with no physical presence within national borders. This suggests the emergence of a new, post-territorial concept of sovereignty, where states exercise regulatory power beyond traditional geographic limits. As a result, companies utilizing AI technologies may find themselves subject to overlapping and potentially conflicting legal regimes.

The research aims to investigate the principle of extraterritoriality in light of World Trade Organization (WTO) law, assess the compliance burden faced by non-EU enterprises, and analyze potential legal conflicts stemming from divergent AI governance models.

Ultimately, the research seeks to reflect on the prospects for global legal harmonization versus regulatory fragmentation, and to develop a set of practical guidelines and standards that companies can follow to manage the complex relation between national, European, and international AI regulations.

[1]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), PE/24/2024/REV/1, OJ L, 2024/1689, 12.7.2024.

3. Objectives

Main Objective

The main objective of the project is to analyze the extraterritorial implications of the AI Regulation, with a focus on the concepts of sovereignty and territoriality, and to propose practical legal and compliance frameworks for companies operating in a fragmented global regulatory environment.

Specific Objectives

[Objective 1]To examine how the EU AI Act affects non-EU entities through extraterritorial application, including the impact of the "Brussels effect";
[Objective 2] To investigate the use of AI by national authorities (e.g. in taxation) to access data or impose obligations beyond their territorial jurisdiction;
[Objective 3] To assess the emergence of a post-territorial concept of sovereignty in the digital and AI governance space;
[Objective 4] To evaluate the compatibility of extraterritorial AI regulations with World Trade Organization (WTO) rules;
[Objective 5] To explore the prospects for regulatory harmonization *vs.* global fragmentation in AI governance;
[Objective 6] To develop practical guidelines or baseline standards for international companies seeking to comply with diverse AI-related legal frameworks.

4. Theory and Methods

Theoretical Framework

This research is grounded on an interdisciplinary framework combining international and European Union law, tax law and technology governance. At its core there is the concept of sovereignty, as traditionally resulted in Westphalian terms[2], founded on the principle of state's supreme authority within its territorial borders. However, in the digitalcontext, this notion is increasingly questioned by the rise of regulatory extraterritoriality[3], leading to emerging theories of "deterritorialized sovereignty"[4].

[2] On this issue, see KRASNER, S. D. (1999). *Sovereignty: Organized Hypocrisy*. Princeton University Press. In his influential book, Krasner outlines four distinct dimensions of sovereignty. Among them, Westphalian sovereignty refers to the notion that states possess exclusive authority over their internal affairs and are protected from external interference.
[3] See also SCOTT, J. (2014). *Extraterritoriality and Territorial Extension in EU Law*. American Journal of Comparative Law, Vol. 62, pp. 87-125, and SCOTT, J. (2014). *The new EU "extraterritoriality".* Common Market Law Review, Vol. 51, No. 5, October 2014, pp. 1343-1380. Scottconceptualizes regulatory extraterritoriality as the application of legal measures by a state in situations where the triggering element is not based on a territorial nexus with that state. This approach stands in contrast to the notion of territorial extension, wherein a territorial link does exist, but the regulatory measure necessarily requires the consideration of conduct or conditions occurring outside its borders.
[4]See SASSEN, S. (2006). *Territory, Authority, Rights: From Medieval to Global Assemblages*. Princeton University Press. The notion of deterritorialized sovereigntycaptures the idea that sovereignty is no longer strictly tied to the nation-state or its geographic boundaries. Instead, it reflects a transformation in which authority and decision-making power are restructured through transnational institutions, global economic systems, and digital infrastructures**.** While

A second foundational concept is territoriality,which has historically served as the basis for jurisdiction and legal applicability. AI, as a transnational technology, challenges this legal model by enabling regulatory influence beyond national borders. This phenomenon is well expressed in the concept of the "Brussels Effect"[5], which, in this context, explains how EU regulations shape the legal framework of third countries, as well as global corporate behaviour, through market power rather than legal coercion. It's relevant to consider that in tax law the concept of territoriality is now not linked with the physical presence in the country, but is connect to an economical manifestation on the referred market (the so called "permanent establishment")[6].

The project also draws from international law, particularly WTO principles of non-discrimination and national treatment, examining potential tensions between AI regulations and trade obligations[7]. The increasing compliance burden on global firms is analysed through the lens of transnational regulatory governance[8]and legal pluralism in digital spaces.

Researchdeveloped by Academics further supports the relevance of this analysis by highlighting the global and fragmented nature of AI governance. Some Authors[9]stress the need for transnational regulatory frameworks, as national laws struggle to address cross-border AI risks, while other Scholars[10] illustrate the divergence between EU, US, and Chinese regulatory models, revealing the challenges of legal fragmentation. Other Authors[11]provided an analysis on cyberspace and "territorial extension" of domestic regulatory law via market-based measures and examined how data sovereignty is reshaping the exercise of state power[12].

These theoretical foundations enable to develop a new research perspective, focused on a critical analysis of how AI regulationis reshaping legal power in a post-territorial, digitally interconnected world, with a specific focus on the EU's role globally.

Methodology

Research Design: This study adopts a qualitative exploratory research design aimed at understanding the evolving concepts of sovereignty and territoriality, as a resulted from the impact

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states remain key actors, their sovereign authority is progressively shaped by cross-border dynamics and non-state actors. This results in a more fragmented and overlapping configuration of governance.

[5] See BRADFORD, A. (2020). *The Brussels Effect: How the European Union Rules the World*. Oxford University Press.

[6] See DE MARCO, S.(2021). *Riflessioni in tema di stabile organizzazione digitale,* Innovazione e Diritto, 4/2021.

[7] See also the WTO Report *Trading with intelligence How AI shapes and is shaped by international trade* (https://www.wto.org/english/res_e/booksp_e/trading_with_intelligence_e.pdf), and MATSUSHITA, M., SCHOENBAUM, T. J., MAVROIDIS, P. C., & HAHN, M. (2015). *The World Trade Organization: Law, Practice, and Policy*. Oxford University Press.

[8] See also BRAITHWAITE, J., & DRAHOS, P. (2000). *Global Business Regulation*. Cambridge University Press. This work explores the shift of business regulation from national frameworks to global institutions. Drawing on interviews with over 500 international business and political leaders, the authors highlight the influence of organizations like the WTO, arguing that fair and effective global regulation relies on the active participation of individuals willing to challenge the dominance of concentrated economic powers within global decision-making processes.

[9] See also CATH, C. (2018). Governing artificial intelligence: ethical, legal and technical opportunities and challenges. *Philosophical Transactions of the Royal Society A* (https://royalsocietypublishing.org/doi/pdf/10.1098/rsta.2018.0080), and MÜLLER, V. C. (2020). *Ethics of Artificial Intelligence and Robotics*. Stanford Encyclopedia of Philosophy. (https://plato.stanford.edu/entries/ethics-ai/).

[10]See also DIXON, R.B.L. (2023). *A principled governance for emerging AI regimes: lessons from China, the European Union, and the United States*. Springer - AI Ethics 3, pp. 793-810. In this work, the most comprehensive governance documents from China, the European Union, and the United States were systematically selected and subjected to a comparative analysis to explore how these three jurisdictions approach AI principles.

[11]SeeRYNGAERT, C. (2015). *Jurisdiction in International Law*. Oxford University Press.

[12]See also DE GREGORIO, G. (2022). *Digital Constitutionalism in Europe: Reframing Rights and Powers in the Algorithmic Society*. Cambridge University Press.

of regulation in the field of artificial intelligence, with a focus on the European Union's roleoutside its borders. Studies on the different models to approach AI will carry out through a comparative legal analysis of the main regulatory models for AI worldwide. This analysis will be complemented by a review of interdisciplinary literature on international law, EU law and tax law on these issues, and also OECD recommended actions about the BEPS project against international tax avoidance, to contextualize findings and assess their compatibility with WTO law and global regulatory frameworks. The design supports the identification of normative conflicts and informs the development of practical guidelines for companies operating across multiple legal regimes.

Data Collection: The primary method of data collection for this research is document analysis**.**

Relevant academic literature, international legal texts, and case studies addressing sovereignty, extraterritoriality, and AI governance will be studied to provide theoretical grounding. Thisdocument analysis enables a comprehensive understanding of regulatory approaches for cross-border AI governance.

In addition, a systematic examination of key governance documents, including regulatory frameworks and policy papers related to artificial intelligence from the European Union, the United States, and China will be carried out. These documents were selected based on their relevance, comprehensiveness, and recency.

Data Analysis: First, a systematic content analysis will be conducted, focusing primarily on academic literature and the EU regulation, to explore how the European Union governs AI, particularly in relation to sovereignty, territoriality, and extraterritoriality. This analysis will integrate both theoretical perspectives and the practical implementation by EU institutions.

Additionally, thematic content analysis will be used to assess the compatibility of the current regulatory framework with international trade law, specifically WTO rules.

In the area of tax law, the research will combine literature review with a case-based approach to capture concrete applications.

Finally, by examining the main regulatory models for AI worldwide, a comparative approach will be adopted to systematically identify similarities, differences, and potential conflicts among them. The findings will contribute to the formulation of guidelines aimed at harmonizing AI governance across different jurisdictions.

Sample/Cases: The research focuses primarily on the EU legal framework but also includes a selection of the most recent and comprehensive AI governance documents from three global leaders in the field: the European Union, the United States, and China. These documents were selected based on their relevance, influence, and ability to represent distinct regulatory approaches to AI.

Additionally, the study incorporates case studies from tax law and data governance to illustrate practical examples of extraterritorial regulation and its impact on enterprises. The combination of regulatory texts and real-world cases provides a balanced perspective on both the normative frameworks and their practical implementation.

5. Current Status

Completed Activities

Activity 1: A first general overviewof key academic works on sovereignty, territoriality, extraterritoriality, and AI governance at the EU level has been carried out.

Ongoing Activities

Activity 1: A deeper analysis of the studies related the issues of sovereignty, territoriality, extraterritoriality continue to be conducted, with a focus on the EU AI Act and related legal and policy documents.

Timeline Progress

Just launched.

Preliminary Findings (if applicable)

The initial findings of the general analysis conducted show that the European Union, through its AI regulation, aims to position itself as a global regulatory model. Furthermore, the analysis of the AI Act has highlighted that the regulatory framework in question necessarily entails external implications, thus challenging the traditional notions of sovereignty and territoriality.

6. Next Steps

Short-term (next 3months)

1. Literature review and theoretical framework development: (a)Review key academic works on sovereignty, territoriality, extraterritoriality, permanent establishment and AI governance at the EU level; (b) Define the theoretical foundations and key concepts of the research.
2. Mapping the EU AI regulatory framework: (a) Conduct systematic content analysis of the EU AI Act and related documents; (b) Identify how the EU addresses sovereignty, jurisdiction, and extraterritorial reach.

Medium-term (3-6 months)

1. Comparative analysis of regulatory approaches: (a) Compare AI governance frameworks of the EU, US, and China, focusing on principles, territorial scope, and enforcement mechanisms; (b) Identify regulatory similarities, divergences, and potential normative conflicts.
2. Case study analysis (tax law and data governance): (a) Analyse selected case studies involving extraterritorial application of AI-related rules in taxation and data access; (b) Assess practical implications for sovereignty and compliance.

Long-term (6-12 months)

1. Evaluation of regulatory compatibility with WTO law and international legal principles: (a) Examine the extent to which current extraterritorial AI regulations align with WTO obligations and public international law; (b) Identify legal tensions and risks of fragmentation.
2. Development of harmonization proposals and practical guidelines: (a)Formulate scientific considerations for regulatory coordination or minimum standards; (b) Draft practical compliance guidelines for enterprises acting in the current global market.

Expected Outputs

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

The ideas and findings will be further explored through the participation of the research team in scientific events on the topic and, subject to funding availability, through the organization of a seminar focused on the core themes of the project.

Resource Needs (if any)

Project Lead(s): Prof. Marco Cedro
Research Team: Dr. Sofia Arcara, Dr. Adriana Brusca
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Expected Completion: 01/09/2026
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