P02 / Artificial Intelligence, Data-driven Technologies, and Comparative Public Policy

Topic : COMPARATIVE PUBLIC POLICY

Chair : Yixin Dai (Tsinghua University)

Second Chair : Iris Geva-May (The Wagner School, NYU and SPPA, Carleton Univ. Canada)

GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

The rapid development of emerging data-driven technologies, such as artificial intelligence (AI), has had a profound impact on social behaviors, necessitating urgent government regulation, which, in turn, brought significant changes to the field of policy analysis, both in terms of theory and methodology.

Practically, the velocity of AI developments, the complexity of what to regulate, and the question of who regulates and how, all pose significant challenges for AI oversight. Theoretically, to design policies and ensure that AI is applied in an ethical, secure, transparent, and human-centric manner across all sectors are often unclear. Both policy design, implementation and policy analysis can be facilitated by AI, but this requires careful consideration of the aforementioned challenges.

Given that AI-related policies have been designed and adopted across various policy fields in numerous countries and regions, it would be beneficial to explore these policy challenges from comparative perspectives.

The panel is sponsored by the **ICPA Society and the Journal of Comparative Policy Analysis (JCPA)**, Routledge.

CALL FOR PAPERS

This special issue aims to bring together research that explores two main themes:

Theme 1: Comparative Study of AI-related Policies

This theme invites research that examines the policies proposed by different countries regarding the development and administration of AI. Comparative studies in this area can facilitate international/regional exchange of experiences and contribute to the development of a theoretical framework for understanding AI-related policy design, dissemination, implementation, and evaluation.

Research questions under this theme could include:

1) Holistic review of literature on AI-related policies across countries/regions with theoretical framework generated to facilitate our understanding on what factors contribute to policy differences.

2) Use comparative process tracing to analyze how the design of policies to address the rise of AI is similar to and different from policies previously designed for other emerging technologies (e.g., Internet technologies or Information and Communication Policies).

3) To what extend the development of AI may have generated new challenges and concerns, such as equity, ethics, and privacy, into policy design of traditional policy areas such as environmental policy and social policy.

4) In terms of instrumentalisation, AI policy responsibilities tend to be distributed across multiple policy areas and level of governance, the composition of the AI policy portfolio, therefore, reflect both the growing complexity and interweaving of innovative policy arrangements. This may exacerbate further discussions on policy collaboration, co-ordination and coherence in AI related policy design.

5) Implementing and disseminating AI policies can be a complex process due to features such as cultural, social, economic, and political contexts of different regions or countries. What are the emerging challenges in implementation and dissemination of AI policy? How to ensure effective implementation of AI policies and deal with unexpected and unintended consequences?

Theme 2: AI as Analytical Tools in Comparative Policy Analysis

With the development of Large Language Model (LLM), Deep Learning Model, as well as ChatGPT, AI related technologies can facilitate social scientists in many ways. They can process large volumes of data and offer new analytical perspectives into societal trends and human behavior; they can be adopted to test

ideas for interventions to improve policy-making; and they are used to study individuals and groups to develop theories of human behavior. This theme encourages discussions on the extent to which emerging AI technologies, such as deep learning and ChatGPT, can be adopted as nuanced analytical tools in comparative policy analysis.

Research questions under this theme could include:

1) How can AI technologies be used to enhance the quality and efficiency of comparative policy analysis?

2) What are the potential benefits and challenges of using AI technologies in comparative policy analysis?

3) How can AI technologies be integrated into existing analytical frameworks in comparative policy analysis?

4) What are the ethical considerations when using AI technologies in comparative policy analysis?

5) How can the reliability and validity of AI-assisted analysis be ensured?

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Session 1

Friday, July 4th 16:00 to 18:00 (A3)

(Virtual) Comparative Analysis of Generative AI Policies: Lessons for Singapore's AI Governance Framework

Qian Huang (Singapore University of Technology and Design)

Thijs Willems (Lee Kuan Yew Centre for Innovative Cities, Singapore University of Technology and Design)

King Wang Poon (Singapore University of Technology and Design)

As Generative Artificial Intelligence (Gen-AI) becomes increasingly embedded in economies and societies, governments worldwide are grappling with balancing innovation, ethical considerations, and regulatory oversight. This study conducts a comparative analysis of Gen-AI policies in mainland China, Hong Kong SAR of China, Singapore, the Netherlands, and Norway, identifying key similarities, divergences, and lessons that can inform Singapore's approach to AI governance.

By evaluating national strategies, regulatory frameworks, and policy implementation, this research aims to provide actionable insights for Singapore's AI governance framework, ensuring both competitiveness and responsible AI adoption. This study answers the two main research questions: how do different national policies regulate and promote Generative AI, and what lessons can Singapore draw to enhance its AI governance framework?

The study employs a comparative policy analysis approach, systematically reviewing key national documents, legal frameworks, and governance strategies related to Gen-AI in the five selected countries. The analysis is structured around five key dimensions: first, key national policy documents by examining major laws, regulations, and strategic AI initiatives; second, strategic positioning by identifying each country's overarching approach to Gen-AI governance; third, regulatory measures by analyzing how different governments enforce transparency, accountability, and compliance in Gen-AI applications; fourth, implementation and case studies by reviewing real-world examples of AI adoption and regulatory impact. Lastly, challenges and policy gaps are highlighted by highlighting regulatory blind spots, ethical dilemmas, and implementation difficulties. Secondary data sources, including government reports, AI strategy papers, and expert analyses, are utilized to assess each country's regulatory effectiveness.

The findings reveal distinct national approaches to Gen-AI governance: China has adopted a strict and proactive regulatory approach, with the 2023 Interim Measures for the Management of Generative AI Services setting a precedent for AI governance. It emphasizes state oversight, content moderation, and legal accountability. Hong Kong SAR of China, despite being a major financial and tech hub, has not yet introduced a Gen-AI-specific regulatory framework, relying instead on existing data privacy and cybersecurity laws. Singapore promotes AI development through ethical AI governance and industry-led best practices, but currently lacks dedicated Gen-AI legislation. The Netherlands and Norway, as part of the EU ecosystem, prioritize AI ethics and data privacy, aligning with GDPR principles but facing challenges related to high regulatory compliance costs.

Based on these insights, the study suggests that Singapore should: Develop a dedicated Gen-AI regulatory framework, expanding on its existing AI Governance Framework to cover AI-generated content, transparency, and accountability. Adopt a tiered regulatory approach, inspired by China's content moderation and Europe's transparency mandates, to ensure both innovation and security. Support local Gen-AI development through funding incentives and public-private partnerships, enhancing national AI capabilities. Align with international regulatory standards, particularly ASEAN and the EU, to facilitate cross-border AI collaboration.

As Gen-AI reshapes global industries, a well-balanced governance model is crucial to foster innovation while safeguarding ethical integrity. By integrating insights from diverse policy models, Singapore can establish a robust Gen-AI regulatory framework, reinforcing its position as a leading AI hub in Southeast Asia.

(Virtual) Policy Mixes for AI in Argentina and Brazil

Maximiliano Vila (Universidad Nacional de General San Martín)

The rapid advancement of artificial intelligence (AI) has put the topic on the policy agenda of many governments worldwide. While prior research has shed light on the policy initiatives in leading jurisdictions, still limited attention has been given to efforts by Global South states to advance in this field. This focus is crucial due to AI's disruptive effect in development strategies. Indeed, AI markets exhibit oligopolistic tendencies, with few firms from select countries dominating key intellectual property, which may constrain catch-up strategies of other states. Moreover, AI is accelerating processes of automation in numerous industries, which may exert pressure on already precarious working conditions in the Global South, increase inequalities and accelerate ongoing processes of deindustrialization.

In this context, the aim of this paper is to contribute to the general question of what types of policy mixes are Global South states mobilizing to support the development of national capabilities in AI.

This article contributes to this question by first proposing an analytical framework for identifying and comparing the policy mixes that Global South states may deploy to develop AI capabilities. This framework will be elaborated by combining insights from public policy and innovation studies regarding policy mixes. For example, this framework will include dimensions such as digital infrastructure, regulation, knowledge absorption and creation. Moreover, the framework will include concepts from international political economy to examine the strategies of Global South states for diplomatic and economic engagement with leading foreign AI actors.

Second, the article will compare the cases of the two largest economies in South America: Argentina and Brazil. These states have sought to establish themselves as regional AI leaders. Previous studies have shown that distinct political dynamics have shaped different policy design spaces in each country. However, little is known about how these states have attempted to build national AI capabilities, a gap that can be addressed through a comparative public policy study.

The tentative argument is that in Argentina and Brazil we can identify a tension between an AI policy mix mainly prioritizing a dependent collaboration with foreign AI partners, versus another one that seeks to balance such foreign partnerships with the aim of developing greater autonomy in AI. Employing the analytical framework, the paper will analyze the policy mix in each state and its variation over time, which was shaped by the preferences of the ruling coalition in power. The paper will also discuss the limitations of such unstable design of AI policies and the broader implications for other Global South states. Therefore, the proposed article contribute to the panel's theme 1: 'Comparative Study of AI-related Policies'.

The analysis will consist in employing the analytical framework to describe and compare the AI policy mixes in each country. The study will span 2019-2024, period during which each state announced initiatives where AI was central or part of broader policy documents. Additional sources include statements by key public officials, state agency reports, project funding announcements, a literature review, and news articles about these strategies.

Balancing act: Cultural policy responses to generative AI and copyrights in the UK and Japan

Takao Terui (Xi'an Jiaotong-Liverpool University)

The development and use of generative AI have significantly impacted the creative industries and spurred changes in cultural policy, particularly copyright policy. To explore these issues, this paper compares two countries' attempts to balance AI development with copyright protection: the UK and Japan. Like other developed countries, these nations encourage and support domestic AI industries as national policy goals, namely the 'AI superpower' strategy in the UK and AI nation-building in Japan. At the same time, these governments aim to promote the prosperity of national creative industries scaffolded by copyrights and have thus enacted a series of copyright policies and legislation to protect creative workers' rights. Furthermore, creative industry associations and individual creators in these countries actively commit to political campaigns and lobbying to call for tighter Text and Data Mining(TDM) and AI development regulations via diverse approaches. Comparing the UK and Japan demonstrates a variety of policy approaches and

creative workers' initiatives to tackle the copyright controversy over AI development as a globally shared experience. This paper makes original contributions to scholarly debates on AI policy in three ways. Firstly, generative AI is a critical game-changer that spurs questions about creative careers and the creative economy, yet the policymaking and policy discussion related to generative AI and culture remain underexplored. This paper offers a comprehensive narrative about the impacts of generative AI, its relations with copyright laws, and governments' approaches towards balancing innovation and protection in the UK and Japan. Secondly, this paper addresses how creative workers have responded to generative AI as potentially threatening their copyrights and reinforcing their precarity with contrasting approaches. The UK workers employed trade unions, while representatives of content companies and large corporations are the key agents in policymaking in Japan; such contrasts originate from the political and institutional contexts historically structured in the UK and Japan. Finally, this paper presents and compares the UK and Japanese models of cultural policy. Beyond the national case studies, the findings from this paper showcase diverse policy instruments and lobbying approaches to tackle the unprecedented changes, from leadership by labour unions to official statements by large and influential corporations on the industry side, and from table-setting to facilitate stakeholder discussion to the opening of the public contact office to collect complaints and troubles from artists to drive policy discussion on the government side. By comparing the achievements and limitations of these practices, this paper advances our understanding of cultural policymaking and presents feasible toolkits to investigate and realise the interests of copyright holders and AI developers.

AI Policy Advice Systems: Accessibility, Equity, and Multidisciplinary Collaboration

Laura Chaqués Bonafont (Institut Barcelona d'Estudis Internacionals)

David García-García (Institut Barcelona d'Estudis Internacionals)

This paper aims to examine the conditions under which AI policy advice systems (AIPAs) are more likely to adopt a multidisciplinary composition and collaborative framework. Advanced democracies have developed AIPAs to guide the responsible development, deployment, and use of artificial intelligence technologies. These governance structures serve a range of essential functions, including establishing regulatory standards, monitoring technological advancements, addressing ethical concerns, ensuring equitable access to AI's benefits, and mitigating risks associated with AI misuse. However, AIPAs vary in their accessibility, openness, equity, and alignment with guiding principles and goals. Accessibility refers to how technical and practical knowledge is made available through public services, think tanks, NGOs, or private consultants. The openness of channels highlights the inclusivity of advisory systems, ensuring that a wide array of stakeholders can contribute their insights. Equity in access emphasizes creating equal opportunities for all actors to offer their perspectives and have their advice considered in policymaking. Alignment with principles, goals, and instruments underscores how AIPAs are shaped by the broader policy subsystem. Building on frameworks from Policy Advice Systems (PAS) and governance approaches, this paper explores how advice is structured, delivered, and utilized in AI decision-making processes. Using a mixed-methods approach, we compare 73 AIPAs through both quantitative and qualitative analyses. We explore their accessibility, the alignment of policy ideas, and other institutional characteristics. The paper reveals significant differences in AIPAs, with notable variations in the number and type of actors involved, the functions they perform, and the resources they have at their disposal. Accessibility within PAS not only facilitates technically sound advice but also fosters inclusiveness, usability, and alignment with the realities of governance. Furthermore, collaborative frameworks ensure that diverse perspectives shape decision-making, enabling governance systems to balance innovation with accountability and equity. This comparative analysis highlights the importance of designing AI policy advice systems that are both comprehensive and inclusive, ensuring effective and equitable policymaking in the rapidly evolving field of artificial intelligence.