P60 / Legislatures in the Age of Algorithms: Data Science, AI, and the Policy Capacity of Legislative Bodies

Topic : State and Policy Capacity

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GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

Legislatures are among the most information-intensive institutions in any political system, yet they have long operated at an informational disadvantage relative to executives, which control most administrative data, analytical staff and technical expertise. Data science and artificial intelligence (AI) may be changing this. The IPU's World e-Parliament Report 2024 (Inter-Parliamentary Union [IPU], 2024b), drawing on 115 chambers in 86 countries, found that 29 percent of parliaments already use AI tools, chiefly for document management, transcription, bill tracking and legislative drafting support (Gentilucci, 2026). Brazil's Chamber of Deputies has built Ulysses, a suite of AI modules that routes drafting requests, suggests committee referrals and clusters citizens' comments on bills (OECD.AI Policy Observatory, 2026a, 2026b, 2026c). In December 2024, the IPU (2024a) issued Guidelines for AI in parliaments, urging human oversight, transparency and a risk-based approach. However, the same report documents a persistent digital divide between high- and low-income parliaments.

Scholarship has not kept pace with practice. The literature on legislative informatics and "ParlTech" (e.g., Koryzis et al., 2021; von Lucke et al., 2022) is largely descriptive and practitioner-driven, while the public policy literature on AI concentrates on executive agencies, public service delivery and algorithmic regulation. Legislatures appear mostly as regulators of AI, rarely as its users. As a result, we know little about whether data science and AI alter legislatures' policy capacity, the quality of ex ante and ex post scrutiny, how citizen input is aggregated, or the accountability relationships at the heart of representative democracy.

This panel asks: How are legislative bodies adopting data science and AI, and what consequences does this have for their policy capacity, oversight of the executive, and democratic legitimacy?

The panel will explore four hypotheses/propositions. First, adoption is concentrated in administrative and procedural functions rather than core policy functions such as policy analysis, budget scrutiny, and evaluation, limiting its effect on legislative policy capacity. Second, where analytical uses do emerge, they can narrow the information asymmetry between legislatures and executives, but they may also create new dependencies on vendors, executive-held data, or a small cadre of technical staff. Third, adoption depends less on financial resources alone than on institutional factors, including data governance, staff capability, political sponsorship, and digital maturity, which helps explain variation among legislatures in the Global North and South. Fourth, AI use in drafting, sorting public submissions, and member-facing tools raises distinctive questions of representation, transparency, and accountability that differ from those raised by AI in executive agencies.

By bringing together comparative, theoretical, and empirical work across national, subnational, and supranational legislatures, the panel aims to build a research agenda that treats legislatures as policy actors in the age of AI. It welcomes contributions from established and emerging democracies and particularly encourages work on Asia, Africa, and Latin America, where legislative strengthening and digital transformation are advancing together.

References

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CALL FOR PAPERS

This panel invites papers that examine the adoption, uses, governance, and consequences of data science and artificial intelligence in legislative bodies. We welcome theoretical, conceptual, methodological, and empirical contributions using qualitative, quantitative, or mixed methods at the national, subnational, and supranational levels. The panel aims to bring together scholars, practitioners, and early-career researchers interested in how legislatures are integrating new analytical and AI tools into their internal work, how these tools reshape relationships within and beyond parliament, and what normative and practical questions they raise for democratic governance.

We particularly welcome papers that address one or more of the following themes:

Patterns and drivers of adoption: comparative or single-case studies of how and why legislatures adopt data science and AI, including the role of institutional capacity, digital maturity, data governance, political leadership, and international networks.

Legislative policy capacity: the use of data analytics, predictive models, or generative AI in legislative research services, budget offices, bill analysis, regulatory impact assessment, and ex post legislative evaluation.

Oversight and the executive-legislative balance: whether these tools strengthen parliamentary scrutiny of the executive or create new dependencies on vendors, executive data, or technical staff.

Representation and participation: AI-assisted analysis of public submissions, e-petitions, and consultations, and its implications for how citizen voices are aggregated and heard.

Governance, ethics, and accountability: frameworks, guidelines, audits, and oversight arrangements for AI use within legislatures, including the application of the IPU Guidelines for AI in Parliaments, and how legislatures govern their own AI while regulating AI in society.

Global South perspectives: experiences of legislatures in Asia, Africa, Latin America, and the Middle East, including the digital divide and donor-supported legislative strengthening.

Papers drawing on original data—such as surveys of legislative staff, interviews, document analysis, or computational analysis of legislative texts—are especially encouraged, as are practitioner-academic collaborations. Early-career researchers and doctoral students are warmly invited to submit. Paper proposals should state the research question, the theoretical framing, the data and methods, and the expected or preliminary findings. Proposals should clearly indicate which theme or themes they address and how they contribute to comparative or conceptual understanding of data science and AI in legislatures. We welcome proposals that are empirically grounded, methodologically innovative, and attentive to the institutional, political, and ethical dimensions of legislative technology use.