Interoperability, Automation, and the Rule of Law: A Theoretical Inquiry into Accountability in Cross-Border Data-Driven Administration

Csatlos Erzsebet

University of Szeged, Faculty of Law and Political Sciences, Szeged, Hungary

Abstract: The increasing reliance on cross-border data exchange and automated decision-making in public administration challenges the very foundations of legality, accountability, and individual rights protection within the European administrative space. While interoperability among European and international databases (such as SIS, VIS, ECRIS, and INTERPOL) enhances efficiency, coordination, and security, it also introduces uncertainty regarding data accuracy, attribution of responsibility, and the availability of effective legal remedies when such data becomes the basis of administrative acts. The digital interconnection of national authorities, further intensified by the rise of algorithmic and semi-automated decision-making, reveals the structural fragility of the rule of law when administrative determinations depend on information produced outside the jurisdiction of the deciding authority.

The research problem concerns the rule of law implications of using data generated beyond the territorial and legal scope of the authority making the decision, particularly when such information influences or determines automatic or semi-automatic administrative outcomes. The study employs a comparative and normative legal analysis, complemented by empirical observations drawn from selected administrative practices and judicial decisions. It explores how administrative bodies integrate foreign or international data into their decision-making processes, and how the absence of harmonised procedural safeguards, transparency obligations, and mutual recognition mechanisms affects individuals' access to justice and effective remedies.

The methodology includes a detailed examination of EU legal instruments governing data exchange and algorithmic processing, judicial interpretations from both the Court of Justice of the European Union and national courts, and practical examples illustrating the limits of responsibility when erroneous, incomplete, or outdated foreign entries lead to adverse administrative outcomes. Preliminary findings indicate that while data-driven and automated administration promises speed, uniformity, and objectivity, it simultaneously fragments accountability: the data-producing state remains responsible for the accuracy and maintenance of information, whereas the deciding state bears responsibility for its legal application—leaving the individual caught in a procedural void.

This jurisdictional and procedural uncertainty undermines transparency, mutual trust, and effective legal protection—essential pillars of the rule of law. The paper argues that strengthening democracy within the emerging digital administrative state requires a renewed conceptual and normative framework for responsibility-sharing and procedural guarantees. It proposes the establishment of an EU-level legal remedy mechanism for cross-border data use, the introduction of minimum standards for data quality assurance, and the adoption of a principle of dual validation —ensuring that no adverse administrative decision may rely solely on unverified or automatically imported foreign data. Addressing these issues is essential to ensure that automation and interoperability serve not only administrative efficiency but also legal certainty, fairness, and public trust—the core values underpinning democratic governance and the legitimacy of public administration in the European digital age.