UNIVERSITY OF PÉCS



Summary of the Dissertation

The Impact of E-Government on Administrative Law Principles in Germany: The Case of North Rhine-Westphalia

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1. Summary

My dissertation examines the relationship between the foundational principles of German administrative law and the demands of contemporary digital governance. It explores how key constitutional principles—legality, proportionality, equality, transparency, and accountability—can retain their normative force in an environment shaped by digitalisation and automated decision-making. The central research question asks how administrative law can preserve these principles while adapting to the structural and technological pressures of digital transformation.

The study employs a combined methodological approach, including doctrinal legal analysis, comparative examination and the evaluation of legislative documents, audits, and implementation reports. This framework is applied to the concrete case of North Rhine-Westphalia (NRW), which serves as a practical illustration of the opportunities and limitations of digitalisation within a federal system.

Chapter 2 analyses the structural and institutional context of digitalisation in Germany's federal framework. It shows that the division of competences between the federal government, the Länder, and the municipalities produces both innovation and fragmentation. While federal statutes such as the E-Government Act (EGovG) and the Online Access Act (OZG) provide overarching mandates, practical implementation falls largely to the Länder and municipalities. This has resulted in significant disparities in capacity, leading to major gaps between legal requirements and actual delivery—illustrated by the failure to meet the OZG's digital service targets.

Chapter 3 investigates how digitalisation reshapes core principles of administrative law. It concludes that these principles remain resilient but require reinterpretation in the digital context. Legality faces challenges when discretionary judgment is translated into code; proportionality must account for the cumulative effects of automated data processing; equality is affected by digital exclusion; and transparency and accountability are strained by the opacity of algorithmic systems. The chapter argues that safeguarding these principles demands a proactive approach in which they are built directly into digital systems.

Chapter 4 provides a case study of the EGovG NRW. It highlights the law's strengths, including its provisions on electronic communication, digital file management, open data, and experimental regulatory clauses. At the same time, it demonstrates that persistent issues—such as limited municipal resources, outdated IT infrastructures, and weak inter-administrative

coordination—undermine effective implementation. The chapter concludes that while the legal framework in NRW is coherent, its effectiveness is constrained by structural and administrative weaknesses.

Chapter 5 offers a set of normative and institutional recommendations. Normative reforms call for clearer legal standards on algorithmic transparency, accountability mechanisms, and human-in-the-loop safeguards for automated administrative decisions. Institutional reforms focus on strengthening the powers of chief digital officers, investing in municipal capacities, and adopting an anticipatory approach to regulation that addresses risks before they materialise.

Overall, the dissertation argues that digitalisation does not diminish administrative law but compels its evolution. Constitutional principles can guide technological change, provided they are integrated into the design of governance systems. The NRW case study illustrates both the potential and the structural limitations of digital transformation within the federal system. The thesis concludes that law must not only regulate digitalisation but actively shape it through a principles-by-design governance architecture.

2. Overview of the research structure:

This dissertation offers a specialised examination of the evolving role of e-government within the German legal and administrative framework, with particular attention to the interaction between digital transformation and administrative principles. The structure of the thesis follows a progressive logic: it begins with conceptual and methodological foundations, proceeds to the federal context, narrows to the regional case study of North Rhine-Westphalia, and culminates in normative analysis and recommendations.

Chapter One introduces the research problem and situates it within the broader discourse on digitalisation and public administration. It outlines the central research question, defines the objectives of the study, and explains the methodological approach adopted.

Chapter Two, “E-Government in the German Federal Administrative System,” provides the national context. It examines Germany’s comparatively cautious and legally grounded approach to digitalisation, shaped by federalism and the constitutional principle of the Rechtsstaat. The chapter traces the development of key legislative instruments, including the Federal E-Government Act (EGovG, 2013) and the Online Access Act (OZG, 2017), and analyses how federal structures influence their implementation. This contextual overview

establishes the institutional and legal backdrop for the more detailed doctrinal analysis that follows.

Chapter Three, "The Impact of E-Government on Administrative Law Principles," moves from description to critical evaluation. It analyses how digitalisation reshapes fundamental principles such as legality, proportionality, accountability, and transparency, particularly in the context of automated decision-making and digital service delivery.

Chapter Four, "Legal Frameworks for E-Government in North Rhine-Westphalia," presents the case study at the regional level. It examines the provisions of the E-Government Act of North Rhine-Westphalia (EGovG NRW, 2020). The analysis considers how core administrative law principles—legality, proportionality, equality, transparency, legitimate expectations, accountability, and data protection—are reflected in the statutory text. Particular attention is given to the balance between efficiency and safeguards, exploring whether these principles operate merely as abstract guidelines or whether they have substantively shaped the law's design.

Chapter Five, "Recommendations and Conclusions," synthesises the findings of the study. The chapter concludes with a reflection on the broader significance of the findings.

Through this structure, the dissertation aims to provide a comprehensive and nuanced understanding of the impact of e-government on German public administration and administrative law. By combining theoretical analysis with a focused case study, it contributes to ongoing scholarly debates on the future of administrative governance and the role of law in shaping digital transformation.

3. Research problem

While e-government legislation is designed to modernise public administration and reduce bureaucratic obstacles, its integration of digital technologies raises significant legal issues that require in-depth study. Although the primary objective of these legal frameworks is to improve the efficiency, quality, and accessibility of administrative services, a core concern is the potential impact of e-government on the fundamental principles of administrative law, such as legality, proportionality, and due process. As traditional administrative procedures increasingly give way to digital alternatives, fundamental questions arise about the preservation of these basic legal principles in a new digital context.

A critical issue is the effectiveness of existing legal safeguards, which were developed primarily for traditional, paper-based administrative procedures. These protections may not be fully compatible with the evolving nature of digital governance, particularly regarding the automated processing of personal data, the risk of digital exclusion, and a lack of transparency in algorithmic decision-making. Therefore, this research seeks to identify these legal gaps and explore solutions to ensure the legally acceptable implementation of e-government. It will critically assess how Germany's e-government law interacts with the fundamental principles of German administrative law to address these concerns.

By doing so, the study aims to ensure that e-government initiatives not only promote administrative efficiency but also uphold fundamental legal standards, protect citizens' rights, and facilitate effective public administration in the digital age. This assessment aims to contribute to the ongoing development of legal frameworks that are best suited to the challenges posed by digital transformation in the public sector.

4. Research Questions

This dissertation investigates the legal implications of e-government within the German administrative law framework, using the E-Government Act of North Rhine-Westphalia (EGovG NRW, 2020) as a case study to illustrate broader doctrinal and practical challenges. The study is guided by one overarching research question and several sub-questions.

4.1 Main Research Question

To what extent does the introduction of digital technologies affect the fundamental principles of German administrative law, and what legal gaps must be addressed to ensure that e-government initiatives both protect citizens' rights and enhance administrative efficiency?

4.2 Sub-questions

4.2.1. Doctrinal compliance: To what extent do German e-government frameworks—particularly the EGovG NRW as a case study, alongside the Verwaltungsverfahrensgesetz (Administrative Procedure Act)—comply with fundamental principles of administrative law such as legality, proportionality, and procedural guarantees (Verfahrensgrundsätze)?

4.2.2. Citizens' rights: How are citizens' rights, including access to justice, transparency, and participation, affected by the shift to digital administrative procedures, and what insights does the NRW case provide for the German context more broadly?

4.2.3. Data protection and privacy: In what ways do the EGovG NRW and related legal frameworks address data protection and privacy concerns, particularly in light of the General Data Protection Regulation (GDPR) and corresponding German legislation?

4.2.4. Legal gaps and reforms: What legal gaps emerge in the application of digital technologies under the EGovG NRW, and what potential reforms could ensure that German e-government law effectively supports digital transformation while maintaining essential constitutional and administrative safeguards?

5. Research Hypotheses and Testing Methodology

This study formulates four hypotheses derived from established legal theory and regulatory frameworks. These hypotheses represent logical predictions about the interaction between e-government and administrative law and will be evaluated through a legal-analytical methodology. The approach combines doctrinal analysis of statutory provisions (including the EGovG NRW, the Verwaltungsverfahrensgesetz, and the GDPR), comparative legal analysis with other European jurisdictions, and a review of relevant academic discourse and policy documents.

5.1 Hypothesis 1: Compliance with Administrative Law Principles

Hypothesis: German e-government law, illustrated by the case of North Rhine-Westphalia, broadly reflects the fundamental principles of administrative law—legality, proportionality, and procedural guarantees (Verfahrensgrundsätze)—yet its digital implementation may generate procedural challenges that necessitate legal clarification or amendment. Testing Approach: A doctrinal analysis of statutory provisions and academic commentary will be conducted to identify potential tensions between digital procedures and traditional safeguards. Expected Result: The analysis may reveal inconsistencies between digital practices (e.g., automated notifications, electronic files) and established legal protections, highlighting areas where procedural adaptation is required.

5.2 Hypothesis 2: Efficiency and Transparency in Tension

Hypothesis: E-government legislation enhances administrative efficiency and accessibility but simultaneously raises concerns regarding transparency and public accountability. Testing Approach: The provisions of the EGovG NRW will be examined for their adequacy in ensuring transparency and accountability, supplemented by a comparative

review of other European e-government frameworks. Expected Result: The findings are likely to show that while digitalisation improves efficiency, it may reduce opportunities for citizen participation and oversight, suggesting the need for additional transparency mechanisms.

5.3 Hypothesis 3: Legal Gaps in Alignment with Broader Frameworks

Hypothesis: The EGovG NRW does not fully align with overarching legal frameworks such as the GDPR and the Verwaltungsverfahrensgesetz, resulting in gaps concerning data protection and procedural safeguards. Testing Approach: A normative legal analysis will assess the consistency of the EGovG NRW with these frameworks, supported by academic commentary on digital rights and administrative procedure. Expected Result: The study may identify areas of partial compliance or inconsistency, particularly in data protection and procedural harmonisation, indicating the need for legislative refinement.

5.4 Hypothesis 4: Structural and Administrative Preconditions

Hypothesis: The effective implementation of e-government law requires not only legal provisions but also institutional and structural reforms, including investment in digital infrastructure, legal training for administrative staff, and measures to mitigate the digital divide. Testing Approach: Government reports, policy documents, and legislative materials will be analysed to identify administrative and structural challenges. Expected Result: The research is expected to reveal institutional weaknesses that necessitate targeted reforms to ensure that e-government initiatives achieve both efficiency and legal robustness.

6. Research Methodology

This dissertation adopts a legal-doctrinal approach, complemented by comparative analysis, to examine the E-Government Act of North Rhine-Westphalia (EGovG NRW) as a case study and to assess its implications for administrative procedures. This combined methodology is chosen for its capacity to provide a rigorous and systematic evaluation of statutory provisions, their implementation, and their alignment with fundamental principles of administrative law[1]. By integrating doctrinal analysis with comparative perspectives, the research ensures both depth and breadth in its examination of the legal framework governing e-government.

[1] Kothari, Chakravanti Rajagopalachari. *Research methodology: Methods and techniques*. New Age International, 2004.

6.1. Legal Doctrinal Approach: The doctrinal method forms the core of this study. It entails the identification, interpretation, and critical evaluation of legal rules and principles[2].

6.1.1. Analysis of Legal Texts: The study interprets and evaluates statutory provisions (Grundgesetz, VwVfG, EGovG, OZG, EGovG NRW, GDPR, eIDAS) in light of core administrative principles such as legality, proportionality, transparency, and effective legal protection.

6.1.2. The provisions of the EGovG NRW are interpreted within the framework of fundamental administrative law principles. The analysis examines how the Act balances the imperatives of digital transformation with the requirements of transparency, procedural fairness, data protection, and effective legal protection.

6.2. Comparative Approach: By situating the NRW framework within the broader German and European context, the research identifies best practices and highlights areas for legal refinement.

6.3. Primary sources include legislation, policy documents, and case law; secondary sources include academic literature and comparative studies.

6.4. A thematic analysis is applied to assess (1) compliance with administrative principles, (2) practical challenges of digitalisation, and (3) broader implications for governance.

6.5. Limitations of the Study: The focus on NRW limits generalisability; case law remains scarce due to the Act's recent enactment; and the study does not exhaustively cover all sector-specific regulations.

6.6. Use of Digital Tools: This dissertation has made limited and carefully monitored use of artificial intelligence tools for language refinement and idea structuring. All outputs have been critically reviewed and edited by the author to ensure compliance with scholarly standards.

7. Case Study

The preceding chapters have established the theoretical and institutional foundations for understanding Germany's approach to e-government. Chapter Two outlined the broader legal and administrative context of digitalisation within the federal system, while Chapter

[2] See Council of Australian Law Deans. 2005. "Statement on the Nature of Legal Research." 1. accessed Juni 10, 2025. https://cald.asn.au/wp-content/uploads/2023/11/cald-statement-on-the-nature-of-legal-research-20051.pdf

Three examined the conceptual redefinition of fundamental administrative law principles in the digital age. Building on this groundwork, the present chapter shifts from theoretical reflection to a focused case study, analysing how these principles are concretely applied and operationalised within a specific legislative framework.

North Rhine-Westphalia (NRW) provides a particularly compelling case for such an assessment, given its proactive legislative approach to e-government. The enactment of the E-Government Act of North Rhine-Westphalia (EGovG NRW)[3] in 2020 constitutes a significant legal foundation for administrative digital transformation. The Act was introduced with the stated aims of adapting public administration to the demands of a digital society and enhancing the quality of services for citizens and businesses. It thus exemplifies how a German state seeks to balance administrative efficiency with the preservation of core legal safeguards.

The genesis of the EGovG NRW was marked by a procedural commitment to transparency and public engagement. This is evidenced by the State's decision to conduct an online expert consultation on the draft law, the findings of which were documented in the Final Report on the Online Consultation in April 2016 (NRW 2016). This early stage demonstrated an explicit intent to integrate principles of procedural fairness and public participation into the legislative process itself[4]. Accordingly, the analysis must begin by assessing how this initial normative commitment was translated into the substantive provisions of the Act, particularly in light of the persistent tension between the legal demand for individualised scrutiny and the technological drive towards standardised efficiency.

This chapter examines the legal and regulatory framework for e-government in North Rhine-Westphalia. It reviews the key provisions of the EGovG NRW and identifies the legal and administrative challenges that have arisen during its implementation. The chapter also explores the implications of the requirements, with a particular focus on compliance with the general principles of administrative law.

The legislative commitment underlying the EGovG NRW was preceded by a robust political and administrative dialogue emphasising the necessity of a paradigm shift. The proceedings of the "e-nrw" Congress in 2018 illustrate this dynamic. Political actors stressed that digital transformation must prioritise "concrete benefit for the people" (Pinkwart 2018), while administrative leaders underscored the need for "courageous participation" and enhanced

[3] Land Nordrhein-Westfalen, E-Government-Gesetz Nordrhein-Westfalen (EGovG NRW), §1, enacted July 8, 2016, accessed October 8, 2025, https://recht.nrw.de/lmi/owa/br_text_anzeigen?v_id=73520171220150354215

[4] NRW, Final report on the online consultation on the e-government law NRW (Düsseldorf: The Commissioner of the State Government of North Rhine-Westphalia for Information Technology, 2016): 2.

municipal cooperation (Petrauschke 2018). The critical call to overcome bureaucratic inertia—including the self-reflective assertion that jurists have traditionally been "laggards of progress" (Petrauschke 2018)—underscored the depth of cultural change required for digitalisation. This discourse confirms that the ensuing legislation was driven by a strategic intention to break with administrative inertia, making it essential to assess whether the legal text successfully translated this ambition into enforceable principles of administrative law[5].

To achieve these objectives, the chapter is structured into four main sections. It begins with a comprehensive overview of the legal and regulatory framework for e-government in NRW. It then proceeds to a critical analysis of the Act's provisions in light of core administrative law principles. This analysis assesses the extent to which these abstract principles have been translated into binding legislative text. The chapter then examines practical challenges and gaps that have emerged during implementation, such as issues related to the digital divide and data protection. Finally, the conclusion summarises the key findings of the case study and links them back to the broader conceptual debates of the dissertation.

8. Conclusion

The preceding chapters traced the doctrinal foundations of German administrative law, examined the federal and regional regulatory frameworks governing e-government, and analysed the normative implications of automated administrative procedures. They also explored the case study of the E-Government Act of North Rhine-Westphalia (EGovG NRW), which illustrates both the internal legal coherence of digitalisation efforts and the persistent frictions that arise when these efforts encounter administrative practice.

The analysis of Germany's federal administrative system demonstrated that digital transformation unfolds within a constitutionally complex environment shaped by federalism, subsidiarity, and a deeply rooted commitment to the Rechtsstaat. Legislative instruments such as the E-Government Act (EGovG) and the Online Access Act (OZG) have provided important momentum for digitalisation. Yet, as the study showed, their implementation has been constrained by administrative fragmentation, overlapping competences, and uneven infrastructural development. These structural limitations suggest that digitalisation cannot be conceptualised merely as a technical modernisation project; rather, it must be understood within the constitutional distribution of powers and the normative principles that govern administrative action.

The examination of automated administrative procedures under § 35a VwVfG

[5] Wilfried Kruse and Benjamin Bauer, eds., Yearbook Germany Digital 2020: E-Government and Modernization at Federal, State and Local Levels (Bonn: Behörden Spiegel, 2020), 8-26

highlighted the doctrinal challenges posed by algorithmic decision-making. While automation offers the potential for greater efficiency, it simultaneously raises concerns regarding fairness, proportionality, and the constitutional requirement that individuals be treated as "subjects of rights" rather than passive objects of state processing. The safeguards embedded in § 35a—particularly the exclusion of discretionary decisions from automation and the guarantee of human intervention—illustrate the resilience of administrative law in the face of technological change. At the same time, they reveal the need to embed legal principles directly into the design and operation of digital systems to ensure that automation remains compatible with constitutional standards.

The case study of the EGovG NRW further demonstrated that regional legislation can establish a coherent legal framework for digital administration, yet its practical effectiveness remains uneven. The Act anchors digitalisation within the principle of legality by mandating instruments such as the E-Akte and secure communication channels. Nevertheless, implementation has varied significantly across municipalities, where disparities in resources, administrative competencies, and political commitment have hindered uniform application. The resulting tension between efficiency and data protection, as well as the gap between legislative ambition and administrative capacity, emerged as central points of friction.

Taken together, these findings indicate that digital transformation in public administration is neither a radical rupture nor a purely technical adjustment. Instead, it constitutes an incremental and often contested process that requires administrative law to recalibrate its normative orientation. The challenge lies in balancing legality, proportionality, and equality with the demands of efficiency, innovation, and standardisation. This chapter, therefore, reflects on the broader implications of the study, arguing that administrative law must evolve from a predominantly reactive framework of oversight into a more anticipatory architecture capable of guiding technological change while preserving constitutional integrity.

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