



RESEARCH ARTICLE

Section: *Legal Studies***E-governance in constitutional systems: Opportunities and challenges — a comparative study**Amal Yousef Alrfoua¹, Mohammed Ali Zaal Al-Shabatat², Khaled Khalaf Abed Rabbo Aldrou³, Rami Ali Daradkeh³, Noor Khaled Alomari³, Ghaleb Moh'd Yasin A. Alshamayleh⁴, Ziad Mohammad Al Wahshat⁴, Noor Issa Alhendi⁵ & Mohammed Mufadi Al-Maagbeh⁶¹Al-Ahliyya Amman University (AAU), Jordan²Applied Science Private University, Jordan³Middle East University (MEU), Jordan⁴Ajloun National University (ANU), Ajloun, Jordan⁵United Arab Emirates University (UAEU), Al Ain, United Arab Emirates⁶University of Jordan (UJ), Amman, Jordan*Correspondence: a.alfoua@ammanu.edu.jo**ABSTRACT**

E-governance has become a central instrument in the modernization of public administration, enhancing transparency, accountability, and efficiency in contemporary states. However, its implementation raises significant constitutional concerns, particularly with respect to the principle of legality, the protection of fundamental rights and freedoms, and the scope of judicial review over digital administrative decisions. This study aims to analyze e-governance from a comparative constitutional perspective by examining the constitutional framework governing it in Jordan and comparing it with selected European models, notably Germany and France, in light of relevant European legal instruments, including data protection regimes and the Charter of Fundamental Rights of the European Union.

The study adopts an analytical and comparative methodology to explore both the opportunities offered by e-governance—such as enhanced transparency, administrative efficiency, and democratic participation—and the constitutional challenges it presents, including privacy protection, automated decision-making, and the digital divide among citizens. The findings indicate that the successful implementation of e-governance in Jordan requires the development of a comprehensive constitutional framework encompassing digital rights, as well as the establishment of specialized judicial oversight mechanisms. Such development should draw on European experiences while adapting them to the national context to ensure the protection of fundamental rights and to achieve digital transformation within the framework of the rule of law.

KEYWORDS: e-governance, constitutional law, digital rights, electronic government, constitutional systems

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Introduction

Rapid technological advancement has generated profound transformations in the structure of the state and the functions it performs. Public administration is no longer confined to traditional methods of service delivery and decision-making; rather, it has shifted toward digital models that rely on information and communication technologies. In this context, the concept of e-governance has emerged as a comprehensive framework that goes beyond the mere digitization of services to encompass the reconfiguration of the relationship between the state and the citizen on the basis of transparency, efficiency, and accountability, thereby improving governmental performance and facilitating access to public services. (Abdelrahman et al., 2026)

However, this digital transformation raises complex constitutional issues, particularly in systems whose constitutions have not kept pace with these developments through explicit provisions regulating digital rights or setting limits on electronic administrative decisions. This constitutional gap may lead to restrictions on fundamental rights or weaken judicial oversight over digital decisions, which necessitates a thorough examination of the risks and opportunities associated with e-governance. (Alrfoua et al., 2026)

Against this backdrop, this study aims to analyze e-governance from a comparative constitutional perspective by examining the constitutional framework governing it in Jordan and comparing it with selected advanced European models, particularly Germany and France, while also considering European experiences in data protection and digital rights. The study seeks to highlight the opportunities offered by e-governance, the constitutional challenges it entails, and to propose reforms to the constitutional framework that would ensure the realization of digital transformation within the rule of law and the protection of fundamental rights. (Awaishah et al., 2025a)

Research Problem

Rapid technological development has led to a fundamental transformation in the nature of public administration and the functions of the state, with governance increasingly relying on digital technologies, algorithms, and automated decision-making. At the same time, traditional constitutions—including the Jordanian Constitution—have not kept pace with these developments, as they lack explicit provisions regulating digital rights or defining the legal safeguards applicable to electronic administrative decisions. (Rukba et al., 2025)

Accordingly, there is a pressing need for an in-depth examination of the parameters of e-governance within the Jordanian constitutional framework, drawing on comparative European experiences, in order to propose constitutional and legislative reforms that enhance the protection of fundamental rights and ensure the successful implementation of digital transformation within the framework of the rule of law. (Alhrerat et al., 2025)

Research Questions

This study is guided by a set of principal research questions:

1. What is the current constitutional framework governing e-governance in Jordan, and what are its main strengths and shortcomings?
2. How do European constitutional systems—particularly in Germany and France—ensure the protection of digital rights within the context of e-governance?
3. What opportunities does e-governance offer for enhancing transparency, administrative efficiency, and democratic participation in Jordan?
4. What constitutional and rights-based challenges does e-governance pose, including issues related to privacy protection, automated decision-making, and the digital divide?
5. What constitutional and legislative reforms can be proposed to ensure the effective implementation of e-governance within the framework of the rule of law and the protection of fundamental rights?

Study Objectives

This study seeks to achieve several key objectives related to e-governance and the constitutional framework:

1. To examine the current state of e-governance in Jordan from a constitutional perspective, identifying strengths and weaknesses in the protection of digital rights and the legality of electronic administrative decisions.

2. To conduct a comparative analysis of advanced European experiences—particularly those of Germany and France—in regulating digital rights and data protection, with a view to deriving lessons applicable to the Jordanian context.
3. To assess the extent to which e-governance can enhance transparency, administrative efficiency, and democratic participation, and to analyze how Jordan can effectively leverage these opportunities within a robust constitutional framework.
4. To analyze the challenges associated with privacy protection, automated decision-making, the digital divide, and the limits of judicial oversight, and their impact on the fundamental rights of citizens.
5. To propose practical recommendations for strengthening the constitutional and legislative framework in Jordan in a manner that ensures the effective implementation of e-governance, safeguards digital rights, and maintains an appropriate balance between digital efficiency and the protection of fundamental rights.

Methodology

This study adopts a composite methodological approach that integrates the following:

- **Analytical Method:** to examine and interpret the constitutional concepts associated with e-governance.
- **Comparative Method:** to compare the Jordanian constitutional framework with its counterparts in selected European jurisdictions—particularly Germany and France—as well as the broader legal framework of the European Union.
- **Inductive Method:** to derive constitutional principles from relevant judicial decisions concerning digital administration and digital rights.

E-Governance within the Jordanian Constitutional Framework

The term *governance* encompasses a range of meanings and has been translated in various ways, including *governance*, *good governance*, *sound administration*, and the management of public affairs or state and societal affairs. Despite the diversity of terminology, governance may broadly be understood as a system through which the activities of institutions are regulated by a set of laws, rules, and decisions aimed at achieving quality and excellence in performance by adopting appropriate and effective methods to realize institutional goals, while also structuring the relationships among the principal factors that influence such performance (Al-Shabatat, 2018, p. 149).

Rapid digital transformations have contributed to reshaping the relationship between the state and the citizen within what is now referred to as e-governance. This concept has evolved beyond being a mere technical tool for improving administrative efficiency to becoming an integrated institutional framework that promotes transparency and accountability and contributes to the protection of individuals' digital rights. In this context, the importance of maintaining a balance between the demands of digital transformation and the protection of fundamental rights and freedoms—particularly the right to privacy and the protection of personal data—becomes increasingly evident, especially in light of the expanding use of digital governmental platforms. (Alayaydeh et al., 2025)

Contemporary legal scholarship emphasizes that the success of e-governance is closely linked to the existence of a robust legislative and regulatory framework that ensures information security, protects data, and prevents the misuse of digital authority, in a manner consistent with the constitutional principles of the rule of law. Moreover, the shift toward digital administration necessitates a reconsideration of concepts such as digital sovereignty and governmental responsibility for data governance, thereby enhancing public trust in digital public services and reinforcing the principles of good governance in the digital environment (Al-Shabatat, 2025; Al-Zoubi, 2019; West, 2005, pp. 1–20).

First: The Absence of Explicit Constitutional Provisions and Its Impact on E-Governance

Rapid digital transformations are reshaping the relationship between the state and the citizen within the framework of what is known as e-governance. This concept has evolved beyond being merely a technical tool for improving administrative efficiency into a comprehensive institutional framework that promotes transparency and accountability and contributes to the protection of individuals' digital rights (West, 2005, pp. 1–20). This

transformation reflects a growing concern with maintaining a delicate balance between the demands of digital transformation and the protection of fundamental rights and freedoms, particularly the right to privacy and the protection of personal data, especially in light of the increasing reliance on digital governmental platforms (Al-Shabatat, 2025).

Contemporary legal scholarship emphasizes that the success of e-governance depends on the existence of a legislative and regulatory framework capable of ensuring information security, protecting data, and preventing the misuse of digital authority, in a manner consistent with the constitutional principles of the rule of law and administrative accountability (Al-Zoubi, 2019). In a similar vein, recent studies indicate that traditional constitutions—including the Jordanian Constitution—were drafted in a historical context that did not anticipate the current digital revolution. This explains the absence of explicit provisions regulating electronic administration or digital rights within constitutional texts, thereby necessitating reliance on general constitutional principles to frame this domain within what is increasingly referred to as “digital constitutionalism” (Digital Constitutionalism, n.d.).

Moreover, the transition toward digital administration requires a reassessment of concepts such as digital sovereignty and governmental responsibility for data governance. Such reassessment enhances public trust in digital public services and reinforces the principles of good governance in the digital environment. Academic literature highlights that the adoption of e-government extends beyond the technical digitization of administrative processes to include the development of a legal and regulatory environment that enables transparency, accountability, public participation, and the protection of digital rights (Bannister & Connolly, 2014; Janowski, 2015).

It is therefore evident that the development of e-governance in Jordan requires an integrated approach combining national legislation, general constitutional principles, and international standards relating to digital human rights, in order to ensure the protection of digital rights and strengthen trust between citizens and the state in the digital sphere (OECD, 2020; United Nations, 2022).

Some scholars further argue that the absence of explicit constitutional regulation in the digital domain creates a gap in the protection of fundamental rights. In such a context, digital decisions may become subject to administrative interpretation and evolving legislative frameworks without precise judicial oversight, potentially undermining the principles of justice and the rule of law in the digital environment. Accordingly, there is a pressing need to develop explicit constitutional provisions that enshrine digital rights in a stable and enduring manner, alongside strengthening judicial oversight mechanisms over electronic decisions. This includes reviewing the use of governmental data and algorithms to ensure an appropriate balance between digital efficiency and the protection of individual rights. Legal scholarship supports this direction by emphasizing the importance of legal adaptation to emerging technological challenges and exploring ways to align digital governance technologies with core legal values such as privacy protection, freedom of expression, and legal accountability (Brownsword, 2019, pp. 45–67).

Second: Constitutional Principles Governing E-Governance in Jordan

Despite the absence of explicit constitutional provisions, e-governance in Jordan can be grounded in a set of well-established constitutional principles, foremost among them:

1. The Principle of the Rule of Law

The principle of the rule of law constitutes the cornerstone of the Jordanian constitutional system. It entails that all authorities—whether traditional or digital—are subject to the law and to judicial oversight. In the context of e-governance, this principle extends to all modern digital instruments, including governmental electronic platforms and intelligent systems based on artificial intelligence. Regardless of their technological sophistication, digital administrative systems cannot evade legal constraints or circumvent constitutional principles under the pretext of technological advancement or efficiency in service delivery. (Awaisheh, 2025)

Constitutional scholarship indicates that applying the rule of law to e-governance requires the establishment of effective mechanisms for reviewing digital decisions, whether related to the issuance of electronic licenses, the imposition of fines, or the management of citizens’ data. The absence of precise judicial oversight over decisions based on electronic systems may give rise to significant challenges in the protection

of fundamental rights. In this regard, judicial review plays a crucial role as a fundamental safeguard, ensuring that any citizen has the right to challenge an electronic decision that infringes upon their rights or lacks a clear legal basis. This, in turn, necessitates the development of judicial mechanisms capable of addressing the specific challenges posed by digital administration and automated systems (Tomlinson, Sheridan, & Harkens, 2020). From a practical perspective, the principle of the rule of law presents considerable challenges in the context of algorithmic or predictive systems, which may issue automated decisions based on data without direct human intervention. Preserving the rule of law in the digital environment therefore requires the design of systems that enable decision traceability, transparency in understanding the functioning of algorithms, and accountability of administrative authorities. Without such safeguards, technological advancement risks becoming a tool for undermining rights or circumventing the state's legal obligations. This concern is increasingly emphasized in contemporary public law literature addressing the constitutional risks associated with technical choices in the design of algorithmic decision-making systems (Suksi, 2023; Yeung & Harkens, 2023).

In sum, in the context of digital transformation, the rule of law remains the foundational principle framing e-governance, ensuring a balance between digital efficiency and the protection of citizens' fundamental rights, and reflecting the Jordanian state's commitment to the principles of justice, equality, and legal accountability in the technological era.

2. The Principle of Legality

The principle of legality constitutes a fundamental pillar of any modern constitutional system. It requires that every administrative decision or governmental action be based on a clear and specific legal foundation, whether such decisions are issued through traditional means or via modern digital instruments. This principle ensures that administrative authorities do not exceed the limits of their legally conferred powers and safeguards the fundamental rights of citizens against arbitrary exercises of authority (Abdulghani, Mohsin, & Hussein, 2025, pp. 2957–2958).

In the digital context, the shift toward e-governance does not relieve public administration from compliance with applicable laws; rather, it necessitates interpreting legal provisions in a manner consistent with the contemporary digital environment. It also requires that all digital procedures operate within a clearly defined legal framework and remain subject to judicial oversight to ensure the protection of rights and the preservation of procedural fairness (Abdulghani, Mohsin, & Hussein, 2025, pp. 2961–2964). The application of legality in the digital sphere thus demands the modernization of legal frameworks to address electronic decision-making and to ensure that digital governance systems do not exceed the authority granted by law. At the same time, the judiciary must remain capable of reviewing such decisions when challenged by affected individuals. (Awaisheh et al., 2025b)

With the increasing reliance on algorithmic systems and artificial intelligence in administrative decision-making, the principle of legality has become more critical than ever. The transition to e-governance does not exempt the administration from adherence to clear and determinate legal rules; on the contrary, it requires adapting legal interpretation to the realities of digital decision-making to prevent the overreach of delegated powers and to ensure transparent and fair procedural standards. Contemporary scholarship emphasizes that the absence of clear legal provisions or the weakness of judicial oversight over automated decisions may undermine the guarantees of justice and the rule of law, particularly where such systems lack transparency and legal accountability (Hoffmann & Wong, 2024; Public Law Project, 2023).

Accordingly, there is an urgent need to develop legal and regulatory frameworks that require digital service providers to clarify decision-making criteria and to ensure the availability of effective avenues for judicial review. Such measures are essential to safeguarding individual rights and strengthening trust in e-governance. (Al-Kasassbeh et al., 2024)

The author further notes that recent Jordanian legislation—such as the Electronic Transactions Law and data protection laws—despite their importance, does not provide comprehensive constitutional protection for digital rights, as these laws and the procedures derived from them remain subject to amendment. This contrasts with the relative stability of constitutional provisions. Therefore, the integration of digital rights and the core principles of e-governance into explicit constitutional texts is necessary to ensure durable protection of rights and sustained adherence to legal principles within an evolving digital environment. (Awaisheh et al., 2025c)

3. Protection of Fundamental Rights

The protection of privacy and information rights constitutes one of the most essential principles that should frame e-governance. Article (7) of the Jordanian Constitution guarantees the individual's right to privacy and the protection of personal life; however, this right has not yet been explicitly interpreted to encompass digital data and electronic information, which have become an integral part of citizens' daily lives. (Alhasan & Awaisheh, 2024)

Within the digital environment, significant challenges arise in relation to the collection of citizens' personal data through governmental platforms, the use of artificial intelligence in administrative decision-making, and the sharing of data with third parties. From this perspective, it becomes necessary for constitutional protection to incorporate clear mechanisms for holding public authorities accountable in cases of misuse of data or digital decisions. Such mechanisms are essential to safeguarding individual rights and strengthening trust in digital administration. Studies indicate that the absence of transparency and legal accountability in personal data processing systems may weaken rights protection and undermine the principles of the constitutional state (De Hert & Gutwirth, 2008, p. 278).

This approach is reinforced within the Jordanian legal framework through the Personal Data Protection Law No. 24 of 2023, which imposes clear obligations on both public and private entities regarding the collection and processing of data, and provides mechanisms for challenge and accountability in cases of misuse. This contributes to enhancing individual trust and achieving a balance between digital innovation and the protection of rights. (Awaisheh & Al-Dabbas, 2024)

The author argues that the absence of specialized constitutional oversight mechanisms concerning digital data weakens the protection of individuals and exposes them to potential misuse of data by both governmental bodies and private actors. Accordingly, there is a pressing need to adopt comprehensive and explicit constitutional provisions regulating digital rights, including the protection of privacy, the right of access to information, and the availability of judicial review and remedies. Such measures would contribute to strengthening the stability of e-governance and ensuring the effective protection of citizens' fundamental rights. (Al-Zubi et al., 2024)

Third: The Right to Privacy as a Constitutional Foundation for E-Governance

The right to privacy, as guaranteed by Article (7) of the Jordanian Constitution, constitutes a fundamental constitutional pillar for the protection of individuals, particularly in the context of the transition toward e-governance, where the collection and use of digital data have significantly expanded. The provision states that "any infringement upon public rights and freedoms or the sanctity of the private life of Jordanians shall be considered a crime punishable by law," thereby establishing a constitutional safeguard against unlawful intrusions into individual privacy (Constitution of Jordan, art. 7). Constitutional scholarship suggests that this right requires a dynamic and expansive interpretation to encompass digital privacy and the protection of personal data, as these have become a natural extension of the right to private life in the digital age and in light of contemporary data protection requirements under national legislation. (Awaisheh et al., 2024a)

With the increasing reliance of governments on digital systems to collect and analyze data in order to improve administrative performance and deliver public services, a fundamental question arises as to how such data can be utilized in pursuit of the public interest without infringing individual rights. Contemporary literature indicates that the expansion of electronic administration in data collection and processing imposes an enhanced constitutional obligation on the state to protect individuals against arbitrariness or misuse, particularly in the absence of specialized judicial oversight mechanisms governing digital decisions and algorithmic systems (Kuner et al., 2020, p. 45; Zuboff, 2019, p. 72).

Scholars further emphasize that the protection of privacy in the digital environment cannot rely solely on ordinary legislation or temporary policies, as these are often subject to rapid amendment and do not provide stable guarantees for individuals. Accordingly, the preferred approach lies in incorporating digital rights within constitutional texts, accompanied by clear mechanisms for judicial oversight of data use and algorithmic processes. Such an approach ensures a balance between benefiting from e-governance and safeguarding individuals' rights to data protection and privacy, while preventing the misuse of digital technologies as instruments of surveillance or infringement upon fundamental rights. (Awaisheh et al., 2024b)

Moreover, the protection of digital privacy plays a crucial role in fostering trust between citizens and

the state, which is a key condition for the success of any e-governance system. The absence of constitutional safeguards or effective oversight mechanisms may generate a sense of insecurity among citizens, thereby reducing their willingness to rely on digital governmental services and negatively affecting the efficiency of e-governance. (Awaishah, 2023)

In summary, the right to privacy represents a cornerstone constitutional principle for safeguarding digital rights in Jordan and serves as a central criterion for assessing the effectiveness of e-governance, as it links the state's constitutional obligations with the practical demands of contemporary digital governance. (Al Khaldi et al., 2025)

Fourth: Limits of the Legislative Regulation of E-Governance in Jordan

Despite the significant role played by modern digital legislation in regulating e-governance, contemporary legal scholarship largely agrees that legislative regulation alone is insufficient to ensure sound and sustainable e-governance unless it is supported by a clear and stable constitutional framework. Ordinary laws—such as electronic transactions laws and data protection legislation—remain subject to relatively easy amendment, which undermines the stability of legal protection for digital rights and may create legal gaps susceptible to administrative restriction or potential infringement of fundamental rights. Recent studies suggest that the evolution toward what is termed *digital constitutionalism* requires the incorporation of digital principles and rules within the constitutional structure to safeguard fundamental rights in the digital age and to address the inherent fragility of ordinary legislation (Viswanath, 2025, pp. 15–20).

Scholars further note that reliance solely on ordinary legislation exposes e-governance to multiple risks, including the absence of enduring guarantees for rights, weak judicial oversight over digital decisions, and the lack of a clear constitutional standard to be invoked in cases of dispute or judicial review. Comparative studies demonstrate that ordinary legislative frameworks do not provide the same level of stability and continuous legal protection for digital rights as constitutional frameworks, which establish enduring principles for the protection of rights and freedoms in the digital context (Gutwirth & De Hert, 2008, pp. 271–302).

From a comparative perspective, research indicates that states which have integrated digital rights into their constitutional texts—particularly in certain European experiences—have achieved a more effective balance between the efficiency of digital public administration and the protection of citizens' fundamental rights. In these systems, e-governance does not rely solely on ordinary legislation but is reinforced by constitutional and judicial mechanisms that ensure adherence to legal principles, equality, and transparency (Brownsword, 2019, p. 67; Kuner et al., 2020, pp. 45–46).

As for digital legislation in Jordan, despite its importance, it cannot provide sustainable protection for digital rights unless it is embedded within an explicit constitutional framework. The author proposes that such a framework should include:

1. Clear constitutional provisions on digital rights, including the right to privacy, data protection, and access to judicial review.
2. Specialized judicial oversight mechanisms to review digital decisions and the algorithms employed.
3. The orientation of ordinary legislation to function as a complement to constitutional provisions rather than a substitute for them, thereby ensuring the stability of legal protection for digital rights and preventing the exploitation of legislative gaps.

Accordingly, the author argues that the success of e-governance in Jordan does not depend solely on the existence of modern legislation, but rather on the state's ability to integrate such legislation within a comprehensive constitutional framework that balances technological advancement with the protection of citizens' fundamental rights. (Alkhalwaldeh et al., 2025)

Fifth: Comparative Doctrinal Approaches and Their Impact on the Jordanian Context

Comparative legal scholarship indicates that the success of e-governance can only be achieved within a clear constitutional framework that guarantees individuals' digital rights and subjects administrative decisions—including automated decisions—to effective judicial oversight. A prominent example is found in European

experiences, particularly in the landmark judgment of the German Federal Constitutional Court issued on 15 December 1983, which affirmed that the protection of individuals against the collection and processing of personal data, in a manner consistent with human dignity and the free development of personality, constitutes an integral part of fundamental constitutional rights. This principle is known as the *right to informational self-determination* and has become a key standard for data protection in the digital age (German Federal Constitutional Court, 1983, p. 1).

By contrast, the Jordanian constitutional framework lacks explicit provisions guaranteeing the protection of digital rights or establishing mechanisms for reviewing automated administrative decisions. This creates a clear gap in the regulation of e-governance, rendering it largely dependent on ordinary legislation and temporary policy measures. Studies suggest that such a deficiency may lead to unintended violations of fundamental rights and weaken trust between citizens and the state in the provision of digital services (Brownsword, 2019, p. 75; Kuner et al., 2020, pp. 45–46).

The author argues that Jordan can benefit from European experiences along several key dimensions:

1. Integrating digital rights into constitutional texts to ensure the continuity and stability of legal protection for personal data and information.
2. Establishing specialized judicial oversight mechanisms to review digital decisions and the algorithms employed, thereby ensuring compliance with constitutional principles and the protection of fundamental rights.
3. Adapting national legislation to function as a complement to constitutional provisions, rather than a substitute for them, in order to provide comprehensive and coherent protection for digital rights and to enhance trust in e-governance.

From this perspective, comparative doctrinal analysis does not entail the direct transplantation of European models, but rather the contextual adaptation of their underlying principles to suit the Jordanian legal environment. Effective e-governance requires a careful balance between technological efficiency and the protection of fundamental rights—a balance that can only be achieved through the establishment of an integrated constitutional framework that supports ordinary legislation, ensures judicial oversight, and promotes transparency at all levels of digital administration (Brownsword, 2019, p. 80; Gutwirth & De Hert, 2008, pp. 15–16).

It follows from the foregoing that e-governance within the Jordanian constitutional framework currently relies on the interpretation of general constitutional principles in the absence of explicit provisions regulating digital rights or electronic administration. (Al-Wreikat et al., 2025) This situation constitutes a source of genuine constitutional challenges, necessitating coordinated constitutional and legislative intervention to ensure that e-governance aligns with the requirements of the rule of law and the protection of fundamental rights and freedoms.

Constitutional Opportunities and Challenges of E-Governance in Jordan: A Comparative Perspective with Selected European Systems

European constitutional systems have witnessed significant developments in the constitutionalization of digital governance and the protection of digital rights—developments that have yet to be fully realized in Jordan, where e-governance continues to rely primarily on ordinary legislation and temporary administrative policies. (Alshehadeh et al., 2025). European experiences demonstrate how an integrated constitutional framework can effectively balance digital efficiency with the protection of fundamental rights, including the right to privacy, the right of access to information, and judicial accountability.

First: Constitutional Opportunities for E-Governance

E-governance offers significant constitutional opportunities that enhance the efficiency of public administration and the performance of public authorities, while also supporting the protection of fundamental rights in the digital age. (Alayaydeh et al., 2024) These opportunities may be summarized under three main dimensions: enhancing transparency and accountability, improving administrative efficiency, and expanding democratic participation.

1. Enhancing Transparency and Accountability

Transparency represents a core foundation of the rule of law, as it subjects public authority to societal oversight, limits corruption, and facilitates accountability. In the context of e-governance, digital technologies enable the electronic recording of administrative transactions, the preservation of records, and the precise tracking of procedures in a transparent manner. This enhances citizens' ability to monitor governmental actions and allows the judiciary to intervene in addressing irregularities within public administration (Al Ajarmeh, 2022, p. 60).

At the international level, scholars highlight that e-governance serves as a key instrument for promoting government transparency when digital platforms allow citizens to access governmental information and data more easily and efficiently. Bannister and Connolly (2011) further argue that digital systems strengthen trust between citizens and the state when information is made available in an open and interactive manner, thereby reducing authoritarian practices and information monopolies within public administration.

However, the author argues that technological capabilities alone are insufficient to guarantee genuine constitutional transparency. Rather, explicit constitutional provisions must frame the use of technology in public administration. In the absence of a clear constitutional framework ensuring the right of access to information and the protection of personal data, digital systems may be used in ways that do not respect individual rights or that remain subject to shifting administrative policies, thereby limiting the effectiveness of e-governance in promoting transparency.

The German experience illustrates how digital transparency is supported by explicit constitutional principles, enabling citizens to monitor electronic administrative procedures while ensuring judicial oversight over data use and the protection of digital rights (German Federal Constitutional Court, 1983).

Similarly, in France, an integrated legal and constitutional framework has been established, including the role of the *Commission Nationale de l'Informatique et des Libertés (CNIL)* in overseeing transparency and data protection, alongside efforts to promote digital awareness and facilitate secure and accessible public access to governmental information (CNIL, 2020).

By comparison, Jordan appears in need of integrating digital transparency within its constitutional and legislative framework, so that it is not confined to technical infrastructure alone but is supported by constitutional guarantees of the right of access to information and the protection of digital rights, thereby enhancing public trust in e-governance.

2. Improving the Efficiency of Public Administration

E-governance provides effective mechanisms for enhancing the speed and accessibility of public services through the automation of procedures, the reduction of bureaucratic complexity, and the facilitation of citizens' access to services without the need for physical presence or prolonged waiting times. The impact of such improvements extends beyond efficiency to support the principle of equality in service delivery, as services become available to all citizens without spatial or temporal discrimination, while ensuring optimal utilization of available resources (Abdel Baset, 2021, p. 150).

At the international level, Scholl (2005) notes that e-governance enables the delivery of “one-stop government” services—integrated services accessible through a single platform—which reduces administrative fragmentation, streamlines procedures, and improves the overall quality of governmental performance.

The author argues that digital efficiency is not an end in itself, but rather a means to achieving constitutional protection for citizens. Accordingly, digital efficiency must be coupled with robust constitutional safeguards, such as the right to challenge digital decisions and access to judicial review. Without such guarantees, technological speed may become a tool that undermines individual rights or conceals administrative errors and abuses.

The German experience demonstrates that digital transformation in public administration operates within a solid legal and constitutional framework, where digital decisions are subject to rigorous judicial scrutiny, and individuals are guaranteed the right to challenge decisions issued by artificial intelligence systems (German Federal Constitutional Court, 1983).

Similarly, in France, mechanisms have been developed to ensure the efficiency of digital administration while safeguarding individual rights. These include the right to contest electronic administrative decisions and the monitoring of compliance with legal and ethical standards through institutions such as the *Commission*

Nationale de l'Informatique et des Libertés (CNIL) and competent courts (CNIL, 2020).

By comparison, Jordan appears to require the integration of digital efficiency with strong constitutional guarantees, including the right to appeal and judicial review, to ensure that the speed of digital procedures does not come at the expense of citizens' rights and to establish a secure and trustworthy environment for e-governance.

3. Expanding Democratic Participation

E-governance, through its digital portals and interactive platforms, provides effective tools for electronic consultation and public participation in decision-making, thereby reinforcing the principles of participation and equality in access to information and governance processes. These platforms enable citizens to express their views, participate in surveys, and submit proposals without the traditional constraints associated with paper-based procedures (Al Khatib, 2019, p. 140).

International studies indicate that e-participation technologies offer citizens a direct channel of communication with decision-makers, helping to reduce the trust gap between society and the state. They also facilitate the inclusion of broader segments of the population, including youth and marginalized groups who may face temporal or spatial barriers to traditional forms of participation (United Nations, 2020, p. 57).

The author argues that the absence of digital literacy and the persistence of technological disparities among citizens may undermine the effectiveness of electronic participation. The mere availability of digital platforms is insufficient; rather, comprehensive educational and training policies are required to enable citizens to use these tools effectively. Otherwise, digitally excluded groups will remain marginalized, leading to a new form of social exclusion within the digital environment.

In this regard, the German experience offers a notable example, as the government implements comprehensive programs to enhance digital literacy among citizens, with particular emphasis on elderly populations and individuals with limited technological proficiency, thereby ensuring inclusive and effective participation in digital services.

Similarly, in France, the state has developed specialized training mechanisms through the *Commission Nationale de l'Informatique et des Libertés (CNIL)* to strengthen citizens' ability to manage their personal data and to engage safely and effectively with digital platforms (CNIL, 2020; German Federal Ministry of the Interior, 2019).

These experiences demonstrate that European approaches emphasize the integration of digital literacy initiatives and training policies within broader e-governance strategies, ensuring inclusivity and preventing the marginalization of any segment of society.

Accordingly, the constitutional opportunities of e-governance are reflected in enhancing transparency, efficiency, and participation. However, these potentials can only be fully realized within a clear constitutional and legal framework that safeguards fundamental rights and ensures effective oversight mechanisms. Contemporary studies link these elements to the level of trust between citizens and the state, underscoring that e-governance is not merely a technical endeavor, but rather a comprehensive constitutional and societal project.

Second: Constitutional Challenges of E-Governance

The diffusion of technology suggests that the full benefits of technological investment are realized only when such technologies are widely adopted across multiple sectors and domains. This, in turn, calls for the establishment of regulatory frameworks that facilitate the use of technology by individuals and encourage digital transformation (Al-Shabatat, 2025, p. 2984).

Despite the opportunities that e-governance offers in enhancing transparency, efficiency, and participation, it also raises significant constitutional and structural challenges related to the protection of fundamental rights, the regulation of automated decision-making, and the reduction of the digital divide. Addressing these challenges requires integrated strategies that combine legal, constitutional, and technological dimensions.

1. Protection of Privacy and Personal Data

In an era where personal data has become the "digital gold," its protection from risks, violations, and misuse has become critically important. With the rapid advancement and widespread adoption of digital technologies,

the volume of data being collected and stored has increased significantly, making the need for a robust legal framework indispensable to ensure information security and the privacy of individuals (Al-Shabatat, 2025, p. 75).

Digital privacy constitutes one of the most prominent constitutional rights in the age of e-governance, particularly as reliance on personal data for administrative decision-making and the provision of public services through digital platforms continues to expand. This expansion increases the risk of violations of fundamental privacy rights, whether through the collection of unnecessary data, the sharing of data with third parties, or its use for undisclosed purposes (Al Amayreh, 2020, p. 90).

International studies indicate that digital privacy has become a fundamental right recognized in advanced legal systems, particularly within the European data protection framework, such as the General Data Protection Regulation (GDPR), which imposes strict limitations on the processing of personal data and strengthens individuals' control over their personal information, ensuring its use in accordance with legal standards and fundamental rights (Gutwirth & De Hert, 2008, pp. 12–15).

Scholarly analysis further emphasizes that the protection of digital rights should be constitutionally guaranteed, rather than relying solely on ordinary legislation. While ordinary laws remain susceptible to amendment or circumvention, constitutional provisions provide more stable and enduring protection for fundamental rights. In the absence of clear constitutional guarantees, individuals remain vulnerable to administrative or commercial exploitation of digital data, which undermines public trust in e-governance and limits effective digital participation.

The German experience stands as a leading model in the protection of digital rights. In its landmark Census Decision of 1983, the German Federal Constitutional Court affirmed that the protection of personal data forms an integral part of human dignity, thereby granting digital rights a strong constitutional foundation that can be invoked in judicial review.

Similarly, in France, the legislator has established a dual framework combining ordinary legislation with constitutional oversight, supported by the supervisory role of the *Commission Nationale de l'Informatique et des Libertés (CNIL)*, to ensure the protection of personal data and prevent any arbitrary use by administrative authorities (German Federal Constitutional Court, 1983; CNIL, 2020, p. 12).

By contrast, the situation in Jordan reveals that the absence of explicit constitutional provisions renders digital rights more vulnerable to fluctuation and challenge, thereby weakening public trust in e-governance when compared to more advanced European experiences.

2. Automated Administrative Decision-Making and Algorithms

E-governance increasingly relies on artificial intelligence and algorithmic systems to make automated decisions, such as issuing licenses, processing applications, or managing social services. While these systems offer significant advantages in enhancing speed and efficiency, they raise fundamental challenges in terms of judicial oversight and legal accountability, particularly where it becomes difficult to trace how decisions are made or to identify responsibility for errors (Brownsword, 2019, p. 72).

International studies indicate that reliance on automated decision-making without a robust legal framework may lead to violations of fundamental rights, limit the ability to challenge decisions, and render traditional oversight mechanisms less effective. In practice, the European Union and Germany have emphasized the development of mechanisms to review automated decisions and ensure algorithmic transparency, thereby enabling affected individuals to understand the basis of decisions and to exercise their right to contest them when necessary (European Commission, 2020, p. 14).

The author notes that Jordanian law lacks clear provisions regulating liability for automated decisions and algorithmic systems, creating a gap in the protection of fundamental rights and exposing individuals to risks of administrative error or algorithmic bias. Accordingly, there is a pressing need to establish specialized judicial oversight mechanisms capable of interpreting and reviewing automated decisions, ensuring accountability in line with technological developments and safeguarding fundamental rights.

The German experience provides a leading model in this regard, as the German Federal Constitutional Court has imposed stringent standards for reviewing the use of predictive systems and digital decision-making processes, ensuring that such technologies do not infringe fundamental rights and that individuals retain the

right to judicial challenge in cases of biased or unlawful automated decisions.

Similarly, in France, a specialized body within the *Commission Nationale de l'Informatique et des Libertés (CNIL)* oversees the use of algorithms in digital administration, establishing clear accountability rules. Citizens are afforded the right to object to any electronic decision affecting their rights, and artificial intelligence systems are subject to periodic review to ensure transparency and fairness (German Federal Constitutional Court, 1983; CNIL, 2020, p. 15).

By comparison, Jordan appears to require the development of a comparable legal and constitutional framework that links judicial oversight, algorithmic accountability, and the protection of digital rights, in order to ensure effective and secure e-governance.

3. The Digital Divide and Inequality

The digital divide constitutes one of the most significant challenges facing e-governance, as disparities in access to technology among citizens result in unequal opportunities to benefit from digital services. Individuals living in remote areas, those lacking digital skills, and low-income groups are particularly vulnerable to exclusion from digital participation, thereby undermining the principles of equality and fairness in access to public services (Abdullah, 2021, p. 210).

Global studies indicate that the digital divide is not merely a technical issue, but also a constitutional and social concern that affects fundamental rights such as the right to participation, access to information, and education. Some scholars argue that access to technology should be regarded as a fundamental human right in the digital age, requiring both legal and policy support to ensure the inclusivity of digital services for all (Nishat, Khurshid & Naseeb, 2024, p. 63; Saraceni, 2020, p. 66).

The author emphasizes the necessity of adopting comprehensive national policies aimed at narrowing the digital divide. Such policies should include the development of technological infrastructure, the provision of digital education and training for citizens, and the assurance of equal access to electronic services. The success of e-governance, therefore, does not depend solely on technological advancement, but on its integration with constitutional principles that ensure equity, inclusiveness, and the protection of digital rights.

The German experience demonstrates that comprehensive digital education, advanced infrastructure, and effective judicial oversight of digital systems have contributed to reducing the digital divide and enhancing broad citizen participation. Similarly, in France, national strategies have been implemented to train citizens in the use of digital services, accompanied by oversight from the *Commission Nationale de l'Informatique et des Libertés (CNIL)* to ensure that vulnerable or digitally excluded groups are not marginalized, thereby promoting inclusiveness and fairness in access to digital public services (CNIL, 2020, p. 15; German Federal Constitutional Court, 1983).

By comparison, Jordan appears to require integrated policies that link the development of citizens' digital capabilities, technological infrastructure, and the constitutional and legal framework of e-governance, in order to ensure inclusive participation and achieve genuine digital equity.

Third: Opportunities for Improvement and Reform of the Constitutional Framework of E-Governance

Opportunities for improving e-governance and reforming the constitutional framework in Jordan lie in developing integrated constitutional and technological dimensions, drawing on comparative European experiences to enhance the protection of rights, ensure transparency, and expand meaningful citizen participation.

First, the incorporation of digital rights into the Jordanian Constitution represents a fundamental step toward strengthening the protection of personal data and digital privacy. Written constitutional rights provide greater legal stability and enduring protection compared to ordinary legislation, which remains subject to amendment. They also ensure that all digital and administrative policies comply with core constitutional standards (Al Ajarmeh, 2022, p. 65). European experiences demonstrate that embedding digital rights within constitutional frameworks—as seen in Germany and France—has contributed to safeguarding individuals against potential data-related violations and securing their right to control personal information (De Hert & Gutwirth, 2008, p. 12).

Second, the establishment of specialized judicial oversight mechanisms to review digital decisions and algorithms is essential to ensuring administrative accountability in a technologically advanced environment.

Complex digital applications, particularly those based on artificial intelligence, may generate automated decisions affecting individual rights, which necessitates the presence of judicial bodies capable of understanding algorithmic processes and verifying their compliance with legal and constitutional requirements (Brownsword, 2019, p. 75).

Third, enhancing algorithmic transparency constitutes a central element in building trust between citizens and the state. The right to understand the foundations and mechanisms of digital decision-making enables individuals to challenge and review such decisions when necessary, and mitigates the risks of algorithmic bias or error. Contemporary scholarship emphasizes that transparency is not merely a technical requirement, but a fundamental constitutional principle that reinforces the protection of rights and the notion of digital citizenship (De Hert & Gutwirth, 2008, p. 8).

Fourth, constitutional reforms must be complemented by educational and technological policies aimed at empowering citizens to engage effectively with digital platforms. Meaningful electronic participation requires that citizens possess adequate digital skills and have access to reliable technological infrastructure, thereby ensuring equitable access to services and reducing the digital divide among different social groups (Al Khatib, 2019, p. 145).

The author emphasizes that the success of e-governance in Jordan depends on the integration of technological and constitutional dimensions: digital tools provide efficiency and speed in service delivery, while the constitution ensures the protection of fundamental rights, the rule of law, and the principle of legality in all digital administrative processes. Accordingly, reforms must be comprehensive and coherent, encompassing constitutional amendments to strengthen digital rights, enhanced judicial oversight of automated decisions, the implementation of transparency standards, and the development of citizens' digital competencies to ensure justice and equality in the digital age. (Abu Samhadaneh & Al-Rafai'e, 2023)

The German experience stands out as an advanced model in this regard, where digital governance has been integrated into both the legal and constitutional framework, supported by specialized judicial oversight of automated decisions, the application of transparency standards in data use, and the implementation of national programs to train citizens in the use of digital services (German Federal Constitutional Court, 1983).

Similarly, in France, a comprehensive approach has been adopted, including the role of the *Commission Nationale de l'Informatique et des Libertés (CNIL)* in overseeing transparency and protecting digital rights, alongside digital education programs designed to equip citizens with the skills necessary to use electronic governmental services efficiently and equitably (CNIL, 2020, p. 15).

By comparison, Jordan appears to require the adoption of an integrated approach combining technological development with constitutional and legislative reform, supported by comprehensive educational policies, in order to ensure effective digital participation, protect fundamental rights, and promote justice and equality in access to digital services.

Conclusion

This study demonstrates that e-governance represents one of the most prominent manifestations of the transition toward the modern state, offering significant opportunities to enhance transparency, efficiency, and democratic participation. However, the success of this transformation is closely dependent on the existence of a robust constitutional framework that safeguards digital rights and ensures the rule of law. This remains a key challenge in the Jordanian context, due to the absence of explicit constitutional provisions regulating digital administration and related rights, resulting in what may be described as a “digital constitutional gap.”

The comparative analysis with European experiences, particularly in Germany and France, reveals that integrating digital rights into constitutional texts, establishing specialized oversight mechanisms, and enhancing algorithmic transparency constitute effective safeguards for the protection of fundamental rights and contribute to making digital governance more sustainable and equitable. These experiences also underscore the importance of educational and technological policies targeting citizens as a cornerstone for ensuring meaningful digital participation and reducing the digital divide.

Accordingly, while the constitutional opportunities for strengthening e-governance in Jordan are considerable, their full realization requires comprehensive constitutional and legislative reforms, including:

1. Incorporating digital rights into the constitution to ensure the protection of data and digital privacy.

2. Establishing specialized judicial oversight mechanisms to review digital decisions and the algorithms employed.
3. Enhancing transparency in electronic decision-making to enable citizens to understand the principles and mechanisms of digital processes.
4. Developing educational and technological programs to promote digital participation and ensure equitable access to services.

Achieving effective and sustainable e-governance in Jordan requires the integration of technological and constitutional dimensions: digital tools provide speed and efficiency, while the constitutional framework guarantees the protection of fundamental rights, equality, and the principle of legality. Such reforms should be informed by European experiences in an adaptive and context-sensitive manner, taking into account the specificities of the Jordanian legal and institutional environment to ensure both feasibility and effectiveness in practice.

Findings

1. The Jordanian constitutional framework lacks explicit provisions guaranteeing the protection of digital rights, creating a clear gap in e-governance and rendering it heavily dependent on ordinary legislation and temporary administrative policies.
2. Despite the absence of explicit provisions, general constitutional principles—such as the rule of law, legality, and the right to privacy—can serve as a foundational basis for regulating e-governance.
3. E-governance offers significant opportunities to enhance transparency and accountability, improve the efficiency of public administration, and expand democratic participation in decision-making.
4. E-governance faces key challenges, including the protection of personal data and privacy, the risks associated with automated digital decisions and algorithmic systems, and the digital divide among citizens and its impact on equality and fair access to services.
5. Comparative international experiences demonstrate that integrating digital rights into constitutional frameworks, alongside the establishment of effective oversight mechanisms, contributes to achieving a balance between digital efficiency and the protection of fundamental rights.

Recommendations

1. Amend the Jordanian Constitution to incorporate explicit provisions on digital rights and electronic privacy, ensuring sustained protection of personal data and information.
2. Establish specialized judicial oversight mechanisms to review digital decisions and algorithms, ensuring accountability and transparency.
3. Implement clear transparency standards for digital decision-making and algorithmic processes, enabling citizens to understand the basis of electronic decisions.
4. Develop digital infrastructure and enhance technological education and training for citizens to reduce the digital divide and ensure inclusive access to electronic services.
5. Align all e-governance tools with clear constitutional principles such as the rule of law, legality, and justice, ensuring that technology supports rather than undermines fundamental rights.
6. Draw on comparative European experiences and adapt best practices to the Jordanian national context to ensure a balanced approach between digital efficiency and the protection of fundamental rights.

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