MODERNISING PUBLIC ADMINISTRATION: REIMAGINING PUBLIC ADMINISTRATION FOR THE DIGITAL AGE
Mael Baummar
PhD Student, University of Pécs, PTE Doctoral School of Law
Corresponding address: ammarmaen@icloud.com

DOI: 10.47272/KIKPhD.2024.1.1

ABSTRACT
This article examines the imperative of digital transformation for modernising public administration in response to contemporary challenges and technological advancements. The discussion centres on the evolving conceptualisation of public administration and cites legislative initiatives highlighting the importance of citizen involvement as a crucial element of governance. This article uses academic perspectives to examine digital transformation as a strategic approach, focusing on process optimization, data-driven decision-making, and transparency.

The article underlines the development of citizens' expectations in the digital age, which requires a fundamental rethink in the provision of services by public administration.

Besides, the article addresses the challenges and opportunities in modernisation, focusing on legacy systems and infrastructure limitations.

KEYWORDS
Modernisation, e-government, citizen-centric.

I. Introduction
Public administration stands at a pivotal juncture, necessitating systemic change. The confluence of rapid technological advancements and evolving societal needs demands a fundamental shift in the operational paradigms of governments. The modernisation of public administration extends beyond the mere introduction of novel technologies; it mandates a comprehensive redesign of administrative structures, harnessing digital transformation to ensure the delivery of efficient, responsive, transparent, and accountable services to citizens.

Many legislations require governments, as a matter of principle, to involve citizens in decision-making on issues of high social importance, e.g. Section 26 of the Municipal Code of North Rhine-Westphalia.1 Hence, it is reasonable to assume that when identifying subjects of high social importance, legislators could be driven to limit them to reduce administrative burdens. However, by utilising digital means,

---

1 Landtag Nordhein Westfalen: Draft law of the parliamentary group of the AFD. https://www.landtag.nrw.de/home/dokumente/dokumentensuche/gesetzgebungsporal/aktuelle- gesetzgebungsverfahren/fluchtlingsunterkunft--burgerbet.html (2024.04.30.)
it is possible to reduce the pressure on the administration and provide public services via digital platforms, including electronic voting, thereby expanding the issues on which citizens can be involved in decision-making. This represents a marked departure from the pre-digital era when wide citizen participation in government decisions was a logistical challenge. For example, a bill currently being discussed in the North Rhine-Westphalian parliament states that citizens should be more involved than before in the decision-making process regarding the construction of new refugee accommodation. Electronic technologies are therefore increasingly likely to be used to assist the government in fulfilling its tasks. Cseh-Zelina et al. (2019) agree with this view, stating that e-voting can be a tool for direct democracy, enabling the participation of a large number of members of society in the decision-making process.\(^2\) This can help to ensure public acceptance of the decision reached, as well as transparency regarding the reasons for the decision, its purpose, and the initial discussions that led to its adoption.

Additionally, digital technologies can help governments not only to fulfil their traditional obligations but also to modernise these services. Kim N et al., (2010) consider digital transformation as a strategic approach that uses digital technologies to drive the modernisation of public administration, including process optimisation, data-driven decision-making and citizen engagement.

Dunleavy et al. agree with this understanding,\(^3\) believing that digital transformation involves creating a seamless digital ecosystem that seamlessly connects citizens, businesses, and government agencies, enabling efficient service delivery, informed policy formulation, and participatory governance.

II. The factors that drive public administration modernisation

The drivers of public administration’s modernisation are multifaceted, stemming from the changing landscape of technology, society, and citizen expectations. Technological advancements, particularly in artificial intelligence and data analytics, hold immense potential to revolutionise public service delivery. As technology permeates every aspect of our lives, citizens increasingly expect their interactions with the government to be as seamless, personalised, and efficient as their digital experiences with the private sector.\(^4\)

In today’s dynamic and interconnected world, public administration faces a critical juncture. The complexity of societal challenges, the rising expectations of citizens, and the rapid pace of technological advancements demand a paradigm shift.

---


in how governments operate. Digital transformation emerges as a transformative force, empowering public administration to reimagine its approach to governance and embrace a more efficient, responsive, and citizen-centric model.\(^5\)

A study conducted by Xanthopoulou & Plimakis, (2021) revealed that three components were statistically significant for digital governance adoption:\(^5\)

1. **Quality of Service:** Perceived ease of use, promotion of digital governance, and perceived usefulness emerged as critical factors influencing digital governance adoption.

2. **Quality of Information:** Trust and security, along with the relevance and accuracy of information, were found to be essential for successful digital governance implementation.

3. **Perceived Utility in the Organization:** The availability of necessary equipment, a clear policy and strategy for digital transformation, a supportive organisational culture, and effective leadership play a crucial role in facilitating the adoption of digital governance.

These findings according to Xanthopoulou & Plimakis, (2021) underscore the importance of both technological and organisational factors in driving successful digital transformation in the public sector.

In addition, the study of Xanthopoulou & Plimakis, (2021) confirms that the barriers and conditions for successful digital transformation extend beyond technological considerations. Organisational, institutional, and legal factors often hinder the introduction and adoption of new technologies in the public sector. This highlights the need for a comprehensive approach that addresses these multifaceted challenges to effectively implement digital governance and achieve public value creation.

### III. The Impact of E-Government on the Economy and Society

Johansen (2023) contends that the pervasive reach of information and communication is fundamental to the functioning of any society. The availability of these elements significantly influences a society’s economy and governance. The widespread adoption of the internet has revolutionised the way information is disseminated, with profound implications for both the economy and government.

---


When implemented strategically, the harmonisation of governmental and economic issues through e-government can bring about positive societal benefits.7

In the era of digital transformation, where technology permeates every aspect of modern life, citizens' expectations of government services have undergone a profound shift. No longer content with outdated models of service delivery characterised by long queues, bureaucratic procedures, and limited access, citizens demand efficient, responsive, and personalised services that seamlessly integrate into their digital lifestyles. This expectation transformation poses a significant challenge for public administration, necessitating a fundamental reimagining of service delivery to meet the evolving needs of the digital age.

Regardless of a country's level of development, the challenges associated with transforming businesses into e-businesses and governments into e-governments exhibit remarkable similarities across different nations. E-government is widely recognised as an engine of economic growth, providing employment opportunities for young graduates in innovative enterprises that offer e-content and e-services to both the public and private sectors.8

IV. The Imperative of Digital Transformation for Public Administration Modernisation

The ongoing march of digital advancements has drastically shaped the human interaction landscape and changed the way we do business, access information and engage with the world around us. The use of technological innovations, which were considered a novelty, has become an integral part of modern society and is seamlessly part of our daily lives. The digital revolution has also expanded its scope into the field of governance, bringing forth the term digital governance - the strategic use of digital technologies to improve the efficiency, transparency and accountability of government processes.

E-governments can ensure transparency in administrative transactions through technical tools and strict rules and regulations. Certainly, it is important to consider transparency in administration when performing digital transformation. Nevertheless, the digital transformation of governments has raised concerns among some researchers regarding transparency and the sustainability of limiting client interactions with public administration to digital platforms. Hohmann argues that clear and effective communication between clients and administration is crucial for ensuring transparency and long-term sustainability.9 Additionally, Hohmann notes

---

8 Ibid.
that while remote dealings have long been accepted for administrative matters through representation, a client's presence cannot be replaced by a written procedure when making a statement before the administration. Furthermore, electronic methods only partially address this problem. According to Hohman, guaranteeing transparency in administrative procedures and measures should be a fundamental objective for the advancement of technical information tools and digital infrastructure, as well as a responsibility of public authorities.

Nevertheless, the development of e-government is no longer an optional issue or a temporary measure to deal with temporary circumstances, but rather, as we have mentioned in this article, an inevitable challenge, an ongoing and permanent process that requires a significant degree of flexibility and adaptability to circumstances and transparency requirements.

By embracing digital transformation, public administration can unlock a new era of efficient governance, characterised by streamlined processes, informed decision-making, and citizen-centric service delivery. This transformation is not merely an option but an imperative for governments to effectively address the challenges of the 21st century and foster a more connected, inclusive, and sustainable society.

The public sector is facing increasing pressure not only to implement new administrative reforms but also to align its priorities with the evolving needs of its citizens. Digitalisation, particularly in the context of the COVID-19 pandemic, has emerged as a critical and continuous transformation force, reshaping modern society across various aspects of daily life. While terms such as digitisation, digital governance, and digital transformation are often used interchangeably in the


Xanthopoulou, Plimakis, 2021, op. cit. pp. 60
literature, many studies focus primarily on technological factors, with limited attention paid to organisational aspects in the public sector.

Nations are currently grappling with challenges such as sustainable urban growth, maximising economic opportunities, social inclusion, and environmental sustainability. Studies on sustainability have consistently demonstrated that cooperation and competition are essential for businesses and communities to achieve sustainable development.¹²

V. Evolving Citizen Expectations and Demands for Seamless Services

Citizens' expectations of government services have undergone a profound shift in the era of digital transformation. The demand for efficient, responsive and personalised services requires a major restructuring of public administration services as a means of meeting the rapidly changing requirements of the digital era.

Kitsios et al. emphasise the importance of broadening the scope of organisational transformation by considering citizens as active stakeholders and acknowledging the various factors driving organisational change. Technology, while a catalyst for transformation, does not independently transform organisations; rather, it is the organisation's integration of technology into its service delivery processes that drives transformation.¹³

Digital platforms, enabled by technologies such as data analytics, the Internet of Things, artificial intelligence, cloud-native applications, social media networks, and mobile connectivity, play a pivotal role in enhancing value generation for citizens within the digital transformation framework. These platforms facilitate data sharing and exchange among various organizational actors, leading to the development of multifunctional digital services.¹⁴ This can be reached through the creation of customised online platforms that connect community members, in addition to traditional mass gatherings. These digital spaces facilitate interaction between individuals and government agencies.¹⁵

In the context of public sector digital transformation, the implementation of "citizens' expectations" can be broadly referred to as public value. Public value encompasses societal value, such as increased transparency; economic value through time and cost savings resulting from enhanced administrative efficiency; and citizen value, fostered by improved interactions with citizens.¹⁶

Twizeyimana & Andersson define achieving public value in e-government as the ability of e-government systems to deliver improved services to citizens.¹⁷

---

¹⁴ Ibid.
¹⁶ Kitsios – Kamariotou – Mavromatis, 2023 op. cit.
enhance government efficiency, and promote social values such as inclusion, democracy, transparency, and participation.\textsuperscript{18}

Osborne,\textsuperscript{19} pointed out that ten principles of entrepreneurial government, including catalytic, competitive, mission-driven, results-oriented, customer-driven, enterprising, decentralised, community-owned, anticipatory, and market-driven approaches, offer a pragmatic framework for addressing contemporary governance challenges. These principles emphasise empowering employees, decentralising decision-making, engaging communities, prioritising prevention, and leveraging market mechanisms to solve problems effectively.

Matteucci,\textsuperscript{20} states that E-government initiatives often seek to revamp administrative processes during the integration phase, where organisational structures and decision-making mechanisms, involving various authorities and even citizens and corporations, are consolidated into a single access point. This reengineering should aim to realign the organisation and practice of public administration (PA) around user needs by reforming procedural rules to focus on service delivery rather than power exertion. However, this shift in the focus of administrative procedures is not neutral and is not solely driven by technological advancements. The concept, according to Matteucci,\textsuperscript{21} of user-centricity can be used to support both the corporatisation of PA, which was a driving force behind the early adoption of e-government, and opposing ideas such as administrative democracy and ameliorative participation. Digitisation can facilitate either of these objectives, but while it remains crucial to choose one, current evidence suggests that ICTs are more parasitic on existing PA models than transformative forces.\textsuperscript{22}

\section*{VI. Obstacles of Modernisation}

Yet while digital transformation offers a promising means of modernising public administration, there are challenges along the way. This section will explore the key obstacles that hinder the full potential of digital transformation:

\subsection*{1. Legacy systems and infrastructure limitations}

Digital transformation demands a comprehensive approach that addresses underlying challenges while capitalizing on the opportunities presented by digital technologies. This entails overcoming legacy systems and infrastructure limitations, bridging the digital divide, and fully realizing the opportunities for enhanced citizen engagement and service delivery. The works of Don Tapscott underscore the

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{18} Kitsios – Kamariotou – Mavromatis, 2023 op. cit.
\item \textsuperscript{20} Matteucci, S.C.: Digitalisation and Reforms of Public Administration in Italy. Italian Journal of Public (8)1, 2016. pp. 127-163
\item \textsuperscript{21} Ibid.
\item \textsuperscript{22} Ibid.
\end{itemize}
\end{footnotesize}
transformative potential of digital technologies and the need for a holistic approach to address challenges and capitalize on opportunities.\textsuperscript{23}

Fábián, A., & Kollár, G. assert that a successful digital transition is crucial to avoid technical issues that may hinder the full utilization of digital systems. Users are accustomed to highly efficient digital services, such as social media platforms, and will not be satisfied with poor quality government services.\textsuperscript{24}

The stability of the digital environment must be taken seriously, as a weak infrastructure presents a significant threat to databases. As Fábián & Kollár emphasise, weak infrastructure and insufficient cybersecurity policies can put information and data at risk. Therefore, it is essential to ensure that the processing, transmission and storage of data is managed with care and security to prevent unauthorised access and protect digital identities. This goal cannot be achieved through technical means alone, rather it also requires the adoption of a solid legal framework.\textsuperscript{25} This framework would define rights and responsibilities, ensure compensation for violations and provide deterrent penalties, which would help to reduce the increasing cases of cybercrime, data breaches and cybersecurity incidents.

\textbf{2. It is not just a supporting technology}

According to a Dutch parliamentary committee:

"Information and Communication Technology (ICT) is not a supporting technology, but coincides with the primary process and touches the administration at its core".\textsuperscript{26}

This statement confirms that the shift to digital administration is not merely a technical alteration, but also a modification in the method of administration. Fábián and Kollár highlight the importance of considering regulatory and legal aspects alongside technical considerations. They note that while the technical aspect is currently more advanced, legislation related to digital transformation and administration is fragmented and does not adequately support these efforts. Furthermore, a significant disparity exists between the private and public sectors, and there is apprehension that current platforms fail to meet clients' expectations.\textsuperscript{27}

\textbf{3. Cultural barriers}

The tools of e-government - especially web-based technologies - represent a new technological environment to citizens and governments alike.


\textsuperscript{25} Ibid.

\textsuperscript{26} See. Margetts, H. – Dunleavy, P. Cultural barriers to e-government. www.nao.gov.uk/publications/nao-reports/01-02 (2024.04.30.)

\textsuperscript{27} Fábián – Kollár, 2023, op. cit. pp. 119-140
Different types of institutions and social groups - with different organisational cultures - are likely to have various cultural responses to the opportunities offered by these new technologies. As Hood,\textsuperscript{28} points out, a cultural theory analysis suggests that a given technological change can lead to significantly different visions of social modernisation.

In contrast, cultural change is regarded by some researchers as a motivation for digital change, as cited Fábián & Kollár. They point out that the contemporary environment diverges from old practices wherein administrative transactions were contingent upon direct meetings between administration and clients, marked with reliance on paper-based transactions. The increase in digital literacy and the increased familiarity of clients with digital tools have heightened expectations and requisites. Consequently, imperative shifts in service delivery methods have become requisite.\textsuperscript{29}

VII. Addressing the Increasing Complexity and Interconnectedness of Societal Issues
Governments in today's world face a multitude of challenges that are increasingly complex, interconnected and transcend traditional boundaries. Such challenges, according to the Global Risks Report,\textsuperscript{30} include climate change, urbanisation and demographic transformations. They defy simple solutions and require a holistic approach that incorporates different perspectives. The modernisation of public administration is crucial as it provides the tools and frameworks needed to effectively tackle these complicated societal problems.

1. Climate Change: A Global Challenge Requiring Collaborative Action
Climate change stands as a defining issue of our time, posing an existential threat to humanity and the planet. Its impacts, ranging from rising sea levels to extreme weather events, demand coordinated and effective action from governments at all levels. Modernising public administration enables governments to harness the power of data analytics, policy simulations, and international partnerships to develop and implement evidence-based climate change mitigation and adaptation strategies. For example, employing the capabilities of e-government can formulate informed strategies to mitigate the impacts of climate change and pave the way for a sustainable future. The collection and analysis of data from various sectors within the public sphere, encompassing agriculture, public health, energy, and transportation, offer valuable insights into the intricate dynamics of climate change.

\textsuperscript{28} Ibid.
2. Urbanization: Addressing the Challenges of Rapid Growth

Ten years ago, the number of people living in cities exceeded the number of people living in rural areas, and this trend is likely to continue, according to the ONU report. The ONU predicts that by 2050, around 6 billion people will live in cities making it very difficult to provide them with a good quality of life.\(^{31}\) In the last ten years, there has been a new trend in urban policies in large and medium-sized cities alike, the so-called smart city.\(^{32}\)

By providing more efficient, transparent, and citizen-centric services, e-government can help to make cities more liveable and sustainable.

3. Ensuring Citizen Well-being: Delivering Quality Services

As mentioned above, the well-being of citizens is at the heart of governance. Governments are primarily responsible for providing quality care and services that meet different needs in areas such as education, public health, transportation infrastructure and welfare. Overhauling public administration enables governments to improve efficiency, effectiveness and equity in service delivery. The integration of digital technologies facilitates the rationalisation of service delivery, the adaptation of interactions and the strengthening of citizen engagement.

VIII. Conclusion

In the face of a rapidly evolving technological landscape, societal needs, and citizen expectations, public administration stands at a critical juncture. The imperative for modernisation extends beyond mere technological adoption; it demands a fundamental reimagining of governance structures and processes, harnessing the transformative power of digital technologies to ensure efficient, responsive, and accountable service delivery.

Digital transformation offers a pathway towards a modernised public administration, characterised by:

- Enhanced Efficiency and Productivity: Streamlined processes, automation of routine tasks, and elimination of redundancies lead to improved resource utilisation and cost savings.
- Transparency and Accountability: Open data initiatives, real-time monitoring of public funds, and citizen involvement in decision-making foster trust and public confidence in government.

---


\(^{32}\) Cocchia, A.: *Smart and digital city: a systematic literature review*. In: Dameri, R. P. – Rosenthal-Sabroux, C. (Eds.), *Smart City. Progress in IS*. Cham, Springer, 2014. [https://doi.org/10.1007/978-3-319-06160-3_2](https://doi.org/10.1007/978-3-319-06160-3_2)
Personalised Citizen Experiences: Tailored services, user-centric design principles, and personalised interactions enhance citizen satisfaction and engagement.

Empowered Citizen Participation: Digital platforms and online forums facilitate citizen participation in policy formulation, decision-making, and service design.

The successful implementation of digital transformation in public administration requires a multifaceted approach that addresses both technological and organisational factors. Legacy systems and infrastructure limitations must be overcome, the digital divide must be bridged, and organisational cultures must embrace innovation and data-driven decision-making.

Addressing the increasing complexity and interconnectedness of societal issues, such as climate change, urbanisation, and demographic shifts, demands a modernised public administration. Digital technologies empower governments to collect, analyse, and utilise data to develop evidence-based policies, interventions, and strategies, enabling effective responses to these complex challenges.

In conclusion, digital transformation is not merely an option for public administration; it is imperative for effectively navigating the challenges and opportunities of the 21st century. By embracing digital transformation and reimagining governance, governments can foster a more efficient, responsive, and citizen-centric public administration, ensuring a sustainable, inclusive, and equitable future for all.