International Journal of Electronic Government Research
Volume 21 • Issue 1 • January-December 2025

The AI-Driven State:
How Government-as-a-Service Is Transforming Public Service

Craig P. Orgeron
https://orcid.org/0000-0001-5079-111X
Millsaps College, USA

William Rials
https://orcid.org/0009-0009-4756-2338
Tulane University, USA

Sofiia Druchyna
https://orcid.org/0009-0008-5500-454X
Princeton University, USA

ABSTRACT

Good governance is increasingly synonymous with the ability to deliver connected, digital services. The COVID-19 pandemic tested public sector agencies with intensified expectations and increased service demands, exposing shortcomings in online service delivery. This article examines how the pandemic accelerated digital transformation and presents an opportunity to develop robust government-as-a-service (GaaS) platforms, cloud-based infrastructures that enable governments to deliver public services more efficiently. It outlines the historical evolution of e-government, summarizes insights from structured interviews with 10 government technology leaders, and proposes a framework for emerging GaaS models. The study calls for researchers and practitioners to design and implement self-regulating digital experience platforms characterized by five essential attributes. By leveraging public-private partnerships, governments can build resilient, full-service GaaS solutions that enhance citizen engagement, agility, and innovation worldwide.

KEYWORDS

E-Government, Digital Government, Digital Transformation, Modernization, Digital Experience Platform, Government-as-a-Service

INTRODUCTION

COVID-19 has driven a fundamental shift in assumptions about good governance. While the exigency to advance digital services compounded during the pandemic, the long-term implications of next-generation e-government services and solutions remain insufficiently explored in academic literature (Brammer et al., 2020; Brem et al., 2020). A LogicMonitor (2020) survey found that 87% of global information technology decision-makers agree that the pandemic will cause organizations to accelerate their migration to the cloud, anticipating a decline in on-premises workloads by 2025, thereby increasing governments' ability to innovate quickly in the face of adversity.

As governments respond to COVID-19 with renewed innovation and transformation, they face challenges related to information technology complexities, security risk, and operational efficiencies.

DOI: 10.4018/IJEGR.381327

Some governments have deprioritized or delayed nonessential technology implementations due to budget shortfalls. Yet, there is a singular opportunity to modernize services, leverage emerging technologies to boost citizen satisfaction in online solutions, enhance levels of institutional engagement and trust, and achieve exemplary government performance (National ICT Australia, 2014).

However, there remains a significant gap in understanding the extent to which such modernization efforts mitigate uncertainty regarding service resilience, data privacy concerns, and the sustainability of government digital transformation initiatives beyond the immediate pandemic response. While existing literature has explored the incremental evolution of e-government (Carter & Bélanger, 2005; Lee et al., 2011), a clear framework for designing government-as-a-service (GaaS)—cloud-based infrastructures that enable governments to deliver public services more efficiently—as a self-regulating, adaptive system that can endure future crises is underdeveloped. This research investigates how public-private partnerships, artificial intelligence-driven automation, and cloud-based solutions can contribute to building a sustainable GaaS model.

To quantify this uncertainty, this study examines the preparedness of digital government frameworks to meet long-term expectations. Specifically, it investigates:

1. The extent to which emerging digital government initiatives have mitigated technological and operational risks
2. The role of artificial intelligence, automation, and cloud computing in sustaining digital government services beyond emergency conditions
3. Gaps in existing GaaS models that require further empirical validation to ensure their resilience and scalability

Many governments worldwide offer online services intended to replace legacy approaches to service delivery. All 193 United Nations member states have developed portals for disseminating government data and information, and more than 84% now offer at least one online transactional service (United Nations, 2020). For more than 20 years, service delivery in the public sector has relied on Internet-based interactions. However, innovation has progressed incrementally and often lags behind the evolution of the private sector.

Building on the post-COVID acceleration of digital services in government (Quaintance, 2021), recent developments have shown sustained growth and adaptation to increased online engagement. Governments now prioritize strategic digital transformation (Government Technology, 2021; Organisation for Economic Co-operation and Development, 2024; Orgeron, 2022).

Additionally, 82% of government officials recognize the need for public sector organizations to invest in technology to improve constituent service delivery. Nevertheless, only 61% of government officials acknowledge the expedited nature of digital transformation within public sector organizations resulting from the COVID-19 pandemic, an unprecedented event that exposed government agencies to intensified expectations and increased service demands (Quaintance, 2021). The subsequent fissures in online service delivery have transformed public expectations, with the concept of "good government" becoming synonymous with a connected digital government.

This article discusses the immediate impact of the COVID-19 pandemic on citizen assumptions of good governance, especially on digital government services. In many instances, the demand for digital services overwhelmed the resiliency of existing government digital infrastructures. With the ambiguous enduring impact of next-generation e-government services and solutions (Brammer et al., 2020; Brem et al., 2020), this study calls greater collaboration between public sector practitioners and private sector partners in the development of GaaS solutions. These platforms should conflate citizen data from multiple sources to create a harmonious constituent experience.

This research introduces GaaS as a novel paradigm that extends beyond conventional e-government models, emphasizing its scalability, adaptability, and ability to provide a unified, secure, and personalized citizen experience. Unlike traditional digital government approaches, GaaS