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Digital Transformation and Its Impact on Public Policy-Making in Arab States

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Abstract

This study examines digital governance and clarifies the gap in public policymaking between Arab countries and countries leading in digital transformation. Adopting a comparative analytical approach, the study proposes solutions and opportunities to enable Arab countries to implement digital governance across all sectors, within a solid legal framework. This can be achieved by developing a comprehensive national strategy, enhancing regional cooperation in cybersecurity, and exchanging expertise and technologies. These measures contribute to digitizing public policies and overcoming the challenges that hinder sustainable development across multiple dimensions.

Keywords: Digital Transformation, Public Policies, Digital Governance, Arab Countries, Regional Cooperation

Introduction

In the wake of the digital revolution that has swept the world, digital transformation has become a strategic imperative rather than a merely complementary option. Various countries have therefore hastened to adopt its tools and employ them across different fields. This orientation has not been driven solely by the desire to keep pace with civilizational and technological development, but also by the aim of addressing development challenges, improving the quality and efficiency of government services, and supporting them with the principles of transparency and flexibility. Accordingly, this research paper seeks to analyze the impact of digital transformation on the mechanisms of formulating, implementing, and evaluating public policies in Arab countries, with a focus on how this transformation reshapes the entire public policy-making cycle.

To achieve this purpose, the study adopts the descriptive-analytical approach to describe and analyze the dimensions and mechanisms of digital transformation in Arab countries, through reviewing applied models from leading countries such as the United Arab Emirates and the Kingdom of Saudi Arabia. The study will also shed light on other countries, such as Algeria, in their digital journey, while highlighting the obstacles and challenges that hinder the implementation of digital transformation in Arab countries. It will attempt to compare these experiences with those of more advanced countries in order to propose solutions and recommendations that have a positive and effective impact. Based on the above, the study raises the following problem statement: **How does digital transformation contribute to enabling Arab countries to develop more effective and inclusive public policies?**

From this stem the following sub-questions:

- What is the concept of digital transformation?
- What are the mechanisms of digital transformation for rationalizing public policies in Arab countries?
- Which countries are leading in the field of digital transformation?
- What are the key challenges facing this digital transformation?
- What solutions are proposed to address them in order to achieve sustainable development?

Significance of the study

The importance of this study lies in understanding digital transformation—especially in Arab countries—and how its technologies can be leveraged to improve the formulation and making of public policies, thereby ensuring the development of the various sectors of the state.

To answer this problem, the study addresses a set of main axes:

- Axis 1: The theoretical and conceptual framework of the study.
- Axis 2: Mechanisms of digital transformation in rationalizing public policies in Arab countries.

- Axis 3: Selected experiences of Arab countries in applying digital transformation in their public policies.
- Axis 4: The most important proposed solutions to the challenges facing digital transformation and ways to enhance its benefits.

Axis One: The Theoretical and Conceptual Framework of the Study

Key concepts related to public policy, digital transformation, and digital governance will be presented, with the aim of analyzing the relationship between them and clarifying their dimensions.

1. Public Policy

1.1 Concepts of Public Policy

There are many definitions of public policy, among the most prominent are the following:

James Anderson defines it as: "a purposive course of action followed by an individual or group in dealing with a problem or in addressing an issue, concern, or matter." (Al-Kubaisi, 1999, p. 15).

Thomas Dye offers a different perspective, viewing public policy as: "whatever governments choose to do or not to do." It also clarifies the nature of the government's ideas for regulating conflict between society and organizational members, as well as a process that governs behavior, organizational bureaucracies, the distribution of benefits, tax collection, and so forth. (Dye, 1992, p. 3).

As an operational definition that brings together the common denominators of public policy, Fahmi Khalifa Al-Fahdawi defines it as: "an effective system (independent, changing, adaptive, and subordinate) that interacts with its environment and related variables through its dynamic responses (in thought and action), in a way that reflects the activity of official government institutions and their authorities within the surrounding social environment across its various fields. This occurs through objectives, programs, and regularized behaviors aimed at resolving issues, confronting existing and future problems, anticipating their repercussions, and identifying and preparing the necessary human, technical, and moral resources as important formal foundations for implementation and practical application. It also involves follow-up, oversight, development, and evaluation, in a manner that embodies the tangible realization of the shared public interest sought within society." (Al-Fahdawi, 2001, p. 38).

1.2 Elements of the Public Policy-Making Cycle

The structure of public policy is formed by a set of interconnected and interactive elements known as the public policy-making cycle, as follows (Al-Fahdawi, 2001, pp. 41–42):

- **Problem Identification and Agenda Setting:**
  Political demands refer to everything presented to government officials by citizens,

prompting the government to act on the issue at hand. For example, a demand might be raised by certain professional unions urging the government to intervene to prevent workers from being laid off. Such demands attract the government's attention and initiate the study of the policy-making process required to address them.

- **Policy Formulation:**
  This includes *policy decisions*, namely the orders and directives issued by legally authorized government officials that express the content of public policy. It encompasses legislative frameworks that take the form of laws, the issuance of orders, the establishment of regulatory rules guiding administrative work, or providing procedural interpretations for the judiciary regarding the application of laws.

- **Policy Announcement (Policy Contents Advertisement):**
  This refers to official speeches and announcements, or general governmental explanations and statements directed to citizens. Such announcements may take various forms in terms of their level of officiality. In all cases, the purpose is to demonstrate the government's effort and pursuit of social benefit, and to prevent misunderstandings or disputes over the content of public policy among all official and non-official parties.

- **Policy Implementation:**
  Known as *policy outputs*, this consists of the set of actions, binding decisions, policies, and publicity produced by the political system. It represents the system's reactions—or its actual or expected response—to inputs coming from its environment. In other words, it reflects the concrete outcomes resulting from public policy, in light of policy decisions and statements that citizens observe in government actions.

- **Policy Evaluation:**
  This represents the *policy impact*—the various returns or results that society receives from implementing public policy, whether intended or unintended. Every implemented policy generates outcomes that must be assessed to determine the extent to which it has achieved its objectives.

2. Definition of Digital Transformation and Its Dimensions

Digitalization constitutes a key driver in reshaping the relationship between the state and society by altering policy outputs and redefining policymaking through broader access to the internet—rapidly and across all regions without exception—as well as through e-health and e-learning services. This, in turn, raises citizens' expectations of their governments. (Policy Papers No. 03: *Digital Government Index*, 2019, p. 23).

It can be classified into three main dimensions:

- **The economic dimension:**
  This dimension includes multiple domains (scientific, industrial, commercial, etc.) aimed at interaction and innovation in transactions, as well as an organizational data structure based on centralization and decentralization.
- **The technical dimension:**
  This concerns centralized and decentralized infrastructure, the degree of its openness, its flexibility, and its capacity to accommodate new technologies.
- **Technology governance:**
  This dimension identifies various aspects of control and interconnection, emphasizing the need for clear and dynamic interaction between governance/control mechanisms and the productive capacity of digital systems. (Juliane, Al Dakruni, & Mergel, 2025, p. 2).

3. Digital Government and Digital Governance

The COVID-19 crisis demonstrated the importance of digital transformation, especially as governments cooperated with one another. Digital government has become a necessity: it contributes to transforming government services, improving responsiveness and trust in the public sector, and achieving sustainable long-term digital transformation by providing a reliable and resilient digital environment and infrastructure, along with strong administrative frameworks that rely on emerging technologies such as artificial intelligence. (OECD Public Governance, 2023, p. 6). It also enables public policies by providing regulatory environments that meet digital transformation requirements for data collection and the delivery of information to all users.

As for **digital governance**, it is defined as: "the use of information and communication technologies to enhance public value through government-led initiatives within the public sector, as well as through external collaboration among key public stakeholders." (Mehmah, 2024, p. 56).

Axis Two: Mechanisms of Digital Transformation in Rationalizing Public Policies in Arab Countries

At the **World Summit on the Information Society (WSIS) 2030**, the **Geneva Plan of Action** was adopted, comprising **11 action lines** to support the use of information and communication technologies (ICTs) to achieve sustainable development and build an inclusive information society (United Nations, 2024, p. 6). Arab countries' orientation toward digitalization increased after the COVID-19 pandemic; however, the use of digitalization by decision-makers in shaping public policies—whether in design, implementation, or even evaluation—remains insufficient compared to developed countries that occupy top ranks in digital transformation and artificial intelligence. This shortage in the accuracy of available information has contributed to the persistence of challenges across various sectors. Yet, with the rapid development of AI, keeping pace

with these technologies has become a necessity and an imperative for Arab countries to align with global trends and achieve sustainable development.

1. International Standards and Indicators for Digital Government

To achieve effective digital transformation, many international organizations have sought to establish practical indicators that should be implemented on the ground, enabling decision-makers and users to apply digital government effectively. The most important of these are outlined below:

1.1 United Nations Digital Government Indicators

The United Nations seeks to establish indicators to assess the extent to which countries have achieved digital government across different domains, with the aim of accelerating progress toward the **Sustainable Development Goals (SDGs) 2030**. According to the UN 2024 report on e-government development, the global digital government development indicator has increased, with **60% of countries** moving toward the use of digital services, and **84% of countries** adopting national policies for digital identity and paperless transactions (United Nations, 2024). Among the key indicators emphasized in the UN e-government survey are:

- **E-Government Development Index (EGDI)**
- **Online Service Index**
- **Local Online Service Index**
- **E-Participation Index**
- **Open Government Data Index**
- **National Digital Performance Index**

1.2 OECD Digital Government Index (OECD, 2019, pp. 14-46)

The Organisation for Economic Co-operation and Development (**OECD**) sets precise standards and indicators to measure the effectiveness of digital government in countries, based on the use of digital technologies in the public sector, with the goal of achieving sustainable development. The index is based on six main dimensions:

1. **Transition from e-government to digital government:**
   The goal is to build governments that rely on more flexible and responsive strategies by digitizing various processes and services, achieving openness, participation, governance, coordination, and the capabilities needed to support implementation—thus enabling policy makers to focus on service delivery and meeting demands in a flexible and proactive manner.
2. **Adopting a "digital-by-design" approach:**
   This means embedding digitalization "by design" within national legislation, with the necessity of conducting assessments (transparency, accountability, participation, and proactiveness) to capture citizens' views on legislation. This ensures that digital

government initiatives comply with the relevant standards.

3. **Building a data-driven public sector:**
   In this dimension, the public sector adopts unified data policies in order to reuse data in planning, implementing, and monitoring public policies.

4. **Government as a platform:**
   By creating clear and shared resources and tools to access guidelines, data, and various applications—opening the door to innovation in design and service delivery both within and beyond government.

5. **User-driven focus:**
   By allowing space for users to express their needs, which are then placed at the heart of services, thereby enhancing collaborative administration, trust, and responsiveness. Participation in policy formulation creates opportunities for improvement.

6. **Proactiveness:**
   Through governments' ability to offer options, solutions, and alternatives to citizens without waiting for formal requests—by collecting information and applying it to reassess and improve services.

To illustrate some differences among Arab countries in the use of certain indicators, the **UN E-Government Survey 2024** highlights leading countries in applying these indicators, as well as countries' affordability levels. For example, the affordability rate improved in **Algeria, Tunisia, and Morocco** from **59.14% to 43.59%**. In **Saudi Arabia**, the affordability rate also improved from **3.8% to 2.8%**. Meanwhile, the **United Arab Emirates** and **Bahrain** remained stable at **1.1%** and **2.8%**, respectively. Internet user rates also increased in **Tunisia, Algeria, and Morocco** by **+15%**, while growth in the **UAE, Saudi Arabia, and Bahrain** rose by **+5%**.

Table: Selected Digital Transformation Indicators in Arab Countries (2022–2024)

Internet users (%) 2022–2024	Affordability (as % of GNI per capita) 2022–2024	Arab countries in th²e top tier for digital transformation use (2022–2024)
Tunisia, Algeria, Morocco: from 59.14% to 68.3%	1) Algeria, Tunisia, Morocco: improvement in the ratio. 2) Saudi Arabia: improvement. 3) UAE: stable at 1.2%. 4) Bahrain: stable at 2.8%	1) Kingdom of Saudi Arabia 2) United Arab Emirates 3) Bahrain 4) Qatar 5) Sultanate of Oman

Source: Prepared by the researcher based on data from the United Nations report: *E-Government Survey 2024*. (United Nations, 2024)

2. Digital Transformation in Public Policymaking

Digital technologies contribute to rationalizing public policymaking across its various stages, leading to clearer and more effective policies. Many Arab—and even African—countries have achieved progress in this regard:

2.1 Providing the Data Needed for Decision-Making (Problem Identification and Agenda Setting) through:

- Many countries are working to provide large databases for policymakers to use in developing their policies, enabling sound and well-informed decisions based on accurate information and precise indicators. Examples include:
- Using the **Disaster Connectivity Map (DCM)** to support better emergency response efforts.
- Cooperation in developing curricula and activities between the **International Centre of Digital Innovation (I-CoDI)**, regional offices, and member states to facilitate an innovative approach, and the establishment of two regional hubs for the center in **Addis Ababa** and **Dubai**.
- Launching the **"Digital Transformation Wheel"** as a framework for developing targeted, data-driven interventions based on accurate information to support the economy and society.

2.2 Designing and Testing Digital Policies before Implementation to Ensure Policy Success (Policy Formulation and Testing)

Policies should be piloted in real-world settings before scaling up results. Key examples include:

- The **Smart Villages Project in Niger**, which concluded successfully and has served as an initial model adopted in several countries.
- The successful implementation of the public-private partnership model **"Be He@lthy, Be Mobile"** in four small island developing states in the **Caribbean** region.

2.3 Establishing Regulatory and Policy Frameworks to Support Digital Transformation (Decision-Making and Policy Implementation)

These laws and regulations serve as a framework to develop the use of digital transformation and ensure the protection of individuals' data and privacy. Examples include:

- Providing step-by-step practical support for countries beginning their digital transformation through the **"5G Technology Accelerator"** platform.
- Discussing financial and economic incentives to accelerate digital transformation,

in a meeting held by the **International Telecommunication Union (ITU)** with economic experts on **10 May 2022**.

- The unanimous adoption by member states at the **World Telecommunication Development Conference (WTDC)**, held from **6 to 16 June 2022** in **Kigali, Rwanda**, of connecting schools to the internet to bridge the digital divide and achieve digital development in line with the SDGs.

2.4 Enhancing Digital Inclusion and Ensuring Equitable Access to Services (Implementation Stage)

Digital transformation facilitates implementation. Examples include:

- The **Giga** initiative, operating in more than **19 countries**, which identified **1.1 million schools** for connectivity across **50 countries** and connected **59,000 schools**, accelerating school connectivity efforts.
- Strengthening women's leadership in digital transformation through the **"Women's Network"** initiative, as well as the **"African Girls Can Code"** initiative.

2.5 Strengthening International Cooperation and Partnerships to Finance Policies (Implementation and Evaluation)

This aims to exchange expertise, evaluate policies, and increase funding among countries. Examples include:

- Mobilizing cooperation and partnerships among civil society organizations, the private sector, and governments, resulting in more than **500 pledges** worth **USD 29 billion** in investment commitments for access and digital transformation, through launching an online pledge platform for the **Partner2Connect** initiative and issuing a self-reporting model to accelerate digital transformation in Africa.
- Signing with **44 countries** on the **Harmonized Calculation Method for Africa (HCM4A)**, and completing technical assistance related to the **National Table of Frequency Allocations (NTFA)** provided to **South Sudan**.

Axis Three: Selected Experiences of Arab Countries in Applying Digital Transformation in Their Public Policies

1. Kingdom of Saudi Arabia

The Kingdom of Saudi Arabia has adopted digital transformation across many sectors and has developed goals and plans to implement it in practice. The first plan covered **2006–2010**, the second **2012–2016**, and the third from **2019 to 2022**. A decision was issued by the Council of Ministers (**No. 418**, dated **25/07/1442 AH**) approving the establishment of a **Digital Government Authority**, aimed at improving digital performance within government entities. This is intended to accelerate the collection of clear, accurate data and information, thereby increasing transparency and public

participation and ultimately achieving citizen satisfaction. All of this supports the Kingdom's progress toward the **Sustainable Development Plan 2030** (Al-Awadhi, Sarah Mohammed, n.d.).

Saudi Arabia, the UAE, and Bahrain have led the Arab region in digital government development. Saudi Arabia's ranking in the **UN E-Government Development Index** rose from **52nd in 2019** to **6th in 2024**, due to government policies and joint initiatives and research that invested **USD 25 billion in 2025** in digital infrastructure, cloud computing, and artificial intelligence. Open data capacity increased by an estimated **42% in 2023**, reaching **290.5 megawatts**, and the Kingdom's infrastructure became ready to absorb rising demand for cloud services and smart applications. Internet penetration also rose to **99%**, contributing to the creation of more than **381,000 jobs** to develop human capital—reflecting the depth of digital transformation in the Kingdom (Arab Federation for the Digital Economy, 2025).

The most prominent areas have included **digital health**, **e-learning**, **smart cities**, and **digital commerce**. The most notable transformation programs adopted by Saudi Arabia that influence public policies include:

- Upgrading healthcare through advanced digital programs and AI applications.
- Ensuring continuity of vital resources through technological solutions.
- Strengthening social development and developing the non-profit sector.
- Enabling segments of society to enter the labor market and increasing its attractiveness through digital training programs.
- Developing the tourism sector and national heritage through digital platforms.

To achieve leadership in digital transformation, the Kingdom launched many projects to improve performance efficiency, such as:

- The satellite-based encroachment monitoring project **"Ain Al-Saqr"**, aimed at detecting violations and ensuring continuous and periodic monitoring through satellites and drones.
- The **Command and Control Center** project, which aims to establish a joint operations center and integrated crisis and disaster management using live transmission technologies from the event site to decision-makers.
- The **Digital Telephones** project, which seeks a comprehensive upgrade of telephony systems, converting them into digital phones and reducing billing costs (Al-Awadhi, Sarah Mohammed, n.d.).
- The **Etimad** program, considered the first financial platform in the region for electronically connecting transactions, dealing with **450 government entities**.
- The **Hajj Hackathon**, regarded as the largest challenge in the Middle East, aimed at attracting leading minds in programming and innovative technical solutions to

improve the Hajj season (Diban Al-Harbi & Ali Al-Rabghi, 2025).

2. United Arab Emirates

In the UAE, digital transformation has been adopted in a balanced manner. A **virtual assistant** was integrated into the identity and citizenship portal to enable citizens to issue ID cards and renew residence permits through an interactive dialogue supported by voice recognition, with instant digital payment and back-end security screening systems.

The UAE also established a digital platform that facilitates access to key digital services across sectors such as education, health, justice, investment and construction, pensions, employment, community affairs, and others—**24/7**. The platform relies on registration via **digital identity** or downloading smart applications to access services through mobile phones, meeting users' needs anywhere in the UAE and at any time (UAE Electronic Platform, n.d.). In addition, the UAE developed its national AI model, becoming among the first Arab countries to rely on artificial intelligence.

3. Arab Republic of Egypt

Egypt has strongly embraced digital transformation and innovation to achieve its **Sustainable Development Vision 2030**, through digitizing both government and private services to help combat corruption and bureaucracy. For example, in the transport sector, the **"Uber Bus"** application has been used as an alternative to public transport by enabling users to book bus trips anytime and anywhere at fixed prices, to address various challenges facing this sector.

4. Algeria

Algeria has pursued digital transformation for several years across multiple fields, such as smart agriculture, e-health, financial services, the justice sector, e-learning, tourism, and others. To accelerate digital transformation across public policies, it approved the **National Digitalization Strategy 2025/2030**. This strategy reflects a deep understanding of challenges and opportunities in both national and international contexts, aiming to make Algeria a continental leader in digital transformation while adhering to ethical standards such as equality and transparency, etc.

This has been supported by establishing the **"High Commission for Digitalization"** as a supreme body to implement the strategy (High Commission for Digitalization, 2024, p. 9). This body serves as the primary reference for realizing digital transformation in Algeria, reinforcing Algeria's role as a regional driver of digital transformation to achieve the **Sustainable Development Goals 2030**. This was affirmed in **Midrand, South Africa**, during a high-level workshop on "Digital Transformation and Innovation Ecosystems to Accelerate Integrated Development in Africa," which highlighted that Algeria's digital transformation falls within the framework of its digital strategy aimed at making Algeria a key engine for economic diversification, job creation, and strengthening its domestic and international standing.

The National Strategy for Digital Transformation focuses on five pillars (High Commission for Digitalization, 2024, pp. 14–20):

1. Core ICT infrastructure.
2. Focusing on developing employees and human resources.
3. Digital governance.
4. Digital economy.
5. Digital society.

The strategy rests on two foundations: the **legal and regulatory framework** and **information security** (High Commission for Digitalization, 2024, p. 21):

- Preparing a comprehensive law regulating digitalization in Algeria and ensuring faster transformation.
- Adapting and harmonizing existing legal texts with the provisions of the new law.

Regarding partnerships, a cooperation agreement was signed between the **Centre for Research in Applied Economics for Development (CREAD)** and the **University of Continuing Education** to develop training programs linked to economic development.

In **2025**, Algeria became the **capital of the African economy**, hosting several agreements aimed at making Africa a more integrated and effective continent within the international environment. Approximately **44% of investment contracts** were activated, particularly in the fields of **digital transformation** and **artificial intelligence**.

Axis Four: Key Proposed Solutions to the Challenges Facing Digital Transformation and Enhancing Its Benefits

Despite the initiatives and progress achieved by some Arab countries—especially Saudi Arabia, Qatar, and the United Arab Emirates—most countries still face a range of challenges. These can be outlined as follows:

1. Challenges

Among the most significant challenges facing digital transformation in public policymaking are:

- **Weak funding and investment in digital transformation:**
  Insufficient funding hinders the digital transformation process, especially given how rapidly this field is advancing in developed countries.
- **Resistance to change:**
  Innovation and information technology, coupled with citizens' direct participation in articulating demands to government and decision-makers without intermediaries, may be perceived as disruptive by some administrative staff and managers, as they

compel organizations to move beyond traditional comfort zones and bureaucratic routines. Moreover, insufficient competencies in certain sectors and the lack of training to support rapid digital transformation often contribute to resistance to change (Mohammed, p. 1227). In developed countries, efforts focus not only on educating employees and senior administrators, but also on spreading digital knowledge to the wider public. For example, Australia launched the **"Be Connected"** initiative to improve digital literacy among older adults.

- **The digital divide:**
  One of the key challenges is the gap between urban areas and remote/rural areas. This affects public policymaking, especially in terms of ensuring that the concerns and problems of those regions reach decision-makers.
- **Weak digital infrastructure:**
  This challenge is widely regarded as a key impediment to digital transformation. According to the United Nations (2024), most Arab countries continue to score below the global average on the Digital Infrastructure Index. By contrast, several advanced economies have implemented integrated national solutions to strengthen security and improve digital efficiency; for instance, Singapore established a unified "Government on the Cloud" platform to support secure, streamlined public-sector digital services.
- **Governance and regulatory framework challenges:**
  Many Arab countries struggle because their laws have not kept pace with digital transformation. They have not sufficiently updated legislation or developed comprehensive national strategies to support digital transformation and AI, protect citizens' personal data, and regulate cybersecurity-related data. By comparison, South Korea implemented a **"Zero Trust"** strategy as part of its national cybersecurity strategy.

Regarding African countries, digital transformation is present in only **10** African Union countries out of **55**, reflecting the fragility of the legislative and regulatory environment. According to a statement by Algeria's Minister of Foreign Affairs, the National Community Abroad, and African Affairs, **Ahmed Attaf**, during the **80th session of the UN General Assembly / Security Council**, AI is no longer merely a technical tool but has become a decisive geostrategic factor reshaping the balance of power internationally. It is a double-edged sword with ethical, legal, and security challenges: it can either build capabilities and support sustainable development, or destabilize and undermine peace and threaten collective security. While many countries have risen to the challenge through intensive efforts to digitize and embed digital transformation in their policies, Africa adopts partnerships yet firmly refuses to be used as a testing ground for developing these technologies—especially in the military domain. (B, 2025).

2. Key Proposed Solutions

- **Enhancing cooperation among countries in digital transformation:**
  This cooperation enables countries to fill gaps, exchange expertise and knowledge, and collaborate in financing. In **2022**, the sixth version of the Internet Protocol (**IPv6**) and the **Internet of Things (IoT)** in the Arab region was highlighted by the Regional Experts Center. The goal was to implement a capacity-building strategy in IPv6 and IoT and support four countries in developing national IPv6 strategies.
- **A national emergency telecommunications plan for Palestine.**
- **Training 1,000 children in Jordan in digital financial literacy**, in cooperation with Saudi Arabia, as part of the "Mali" project.
- **Jordan's cooperation with the World Health Organization** to develop its national strategy in digital health.
- **Collaboration among stakeholders in Egypt, Algeria, and Saudi Arabia** with regional activities of the **GovStack** initiative.
- **Cooperation between Tunisia and the German Agency for International Cooperation (GIZ)** in a project focusing on digital skills and digital infrastructure.
- In **Morocco**, the launch of a **Child Online Protection** project to disseminate guidelines for protecting children online, alongside capacity-building activities for all ICT users.
- The **UAE's support to several countries in developing cybersecurity strategies** through a regional workshop (International Telecommunication Union (ITU), 2022).

Conclusion

This study has shown that digital transformation in Arab countries has made significant progress in developing public policies and addressing their shortcomings, particularly by providing reliable and accurate data. This has helped bring government closer to citizens, who have increasingly been able to participate and advocate for their demands through participatory digital platforms that enable direct communication with decision-makers and key officials. This approach enhances the speed of transmitting demands, improves data accuracy, and limits falsification and misinformation, thereby strengthening transparency and participatory governance.

Nevertheless, most Arab countries still face a range of challenges, including weak legislation regulating the use of digital transformation and its technologies, as well as insufficient funding, which has negatively affected digital infrastructure. The digital divide has also widened between urban areas—where internet access is more widespread—and rural or remote regions. In addition, there are challenges related to policymakers themselves, many of whom remain hesitant to rely on digital transformation in decision-

making due to limited capacity to use and benefit from these technologies.

To achieve sound policymaking, support and accelerate digital transformation across all stages of public policy, and overcome these challenges, decision-makers must demonstrate genuine political will to develop their countries and keep pace with digital progress through comprehensive national strategies based on the following:

- Establishing strict legislative frameworks to regulate the use of digital transformation and protect the personal data of both citizens and government institutions.
- Developing human resources digitally, including skills related to artificial intelligence applications, to foster a culture of innovation and flexibility within public institutions.
- Strengthening digital funding by supporting self-donation platforms among Arab countries and attracting governmental and non-governmental grants and aid directed toward digital transformation.
- Deepening international digital cooperation—whether in legislation, financing, information exchange, or cybersecurity—to ensure the quality and effectiveness of policies and to achieve digital development across all sectors toward sustainable development.

Adopting and benefiting from these proposals will help Arab countries overcome various challenges and build a better digital future.

Disclosure statement

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References

- Dye, T. R. (1992). *Understanding public policy* (7th Ed.). Prentice Hall.
- Juliane, S., Al Dakruni, S., & Mergel, I. (2025). Data collaboration in digital government research: A literature review and research agenda. *Government Information Quarterly*. https://doi.org/10.1016/j.giq.2025.102063
- International Telecommunication Union. (2022). *Year in review 2022: Arab states—Our work in the field*. https://www.itu.int/itu-d/sites/year-in-review-2022/ar/our-work-in-the-field/arab-states
- Organisation for Economic Co-operation and Development. (2019). *Digital government index* (OECD Policy Papers No. 03). OECD Publishing. https://doi.org/10.1787/4de9f5bb-en

- Organisation for Economic Co-operation and Development. (2023). *Índice de gobierno digital OCDE-BID* (OECD Public Governance Papers). https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/01/2023-oecd-digital-government-index_b11e8e8e/1a89ed5e-en.pdf
- United Nations, Department of Economic and Social Affairs. (2024). *E-government survey 2024: Accelerating digital transformation for sustainable development*. https://www.un.org/development/desa/publications/publication/2024-un-e-government-survey

Arabic References

- الكبيسي، ع. (1999). *صنع السياسات العامة*. عمان: دار المسيرة.
- الفهداوي، ف. خ. (2001). *السياسة العامة منظور كلي في البنية والتحليل*. عمان: دار المسيرة.
- المفضي، س. م. (2020، نونبر 11). العطاء الرقمي: المرحلة القادمة للتحول الرقمي [وثيقة PDF]. تم الاسترجاع من الرابط التالي: https://webinar.attaa.sa/files/webinars/244/files/41c0ea9_1605107749.pdf
- الحربي، د. ت؛ والرايغي، ع. ر. (2025). دور الحكومة الرقمية ودعمها للجهات الحكومية في تبني التقنيات الناشئة لتفعيل التحول الرقمي: دراسة حالة هيئة الحكومة الرقمية السعودية. *مجلة دراسات المعلومات والتكنولوجيا*، *2025*(1). https://doi.org/10.5339/jist.2025.7
- عبد الشافي، م. (2023). الرقمنة كآلية لإعادة هندسة المرافق العامة للحد من الفساد الإداري. *مجلة الدراسات القانونية والاقتصادية*، *9*(1)، 1239-1333. https://doi.org/10.21608/jdl.2023.146729.1084
- نعمة، ا. م. (2024). الحوكمة الرقمية للإدارة العمومية في الجزائر. *مجلة إدارة*، *34*(61)، 51-88. https://asjp.cerist.dz/en/article/260901
- ب، بلقاسم. (2025، سبتمبر 24). عطاف أمام مجلس الأمن: الذكاء الاصطناعي أصبح سلاحاً ذا حدّين يهدّد السلم والأمن الدوليين. تم الاسترجاع من موقع الغد الجزائري: https://bit.ly/4qRSvLs
- الاتحاد العربي للاقتصاد الرقمي. (2025، أبريل 25). الاقتصاد الرقمي في المملكة العربية السعودية: عصر جديد من النموالتكنولوجي والابتكار والتأثير العالمي. تم الاسترجاع من موقع مجلس الوحدة الاقتصادية العربية: https://arab-digital-economy.org
- المحافظة السامية للرقمنة. (2024). الاستراتيجية الوطنية للتحول الرقمي في الجزائر: من أجل الجزائر رقمية 2030. تم الاسترجاع من موقع المحافظة السامية للرقمنة: https://webservices.dz/faq-ssl/269-2030#:~:text

Romanization of Arabic Bibliography

- Al-Kubaisi, A. (1999). *Suna‘ Al-Siyasat Al-‘Amma [Public policy-making]*. Amman: Dar Al-Masira.
- Al-Fahdawi, F. K. (2001). *Al-Siyasa Al-‘Amma: Manzur Kulli fi Al-Binya wa Al-Tahlil [Public policy: A holistic perspective on structure and analysis]*. Amman: Dar Al-Masira.
- Al-Mufdi, S. M. (2020, November 11). Al-‘Ata’ Al-Raqami: Al-Marhala Al-Qadima lil-Tahawwul Al-Raqami [Digital giving: The next stage of digital transformation] [PDF

document]. Retrieved from: https://webinar.attaa.sa/files/webinars/244/files/41c0ea9_1605107749.pdf

- Alharbi, T. D., & Alrabghi, R. A. (2025). The role of digital government and its support for government entities in adopting emerging technologies to activate digital transformation: A case study of the Saudi Digital Government Authority. *Journal of Information Studies & Technology, 2025*(1), Article 7. https://doi.org/10.5339/jist.2025.7
- Abd Al-Shafi, M. (2023). Al-Raqmana ka Aliyya li I'adat Handasat Al-Marafiq Al-'Amma lil-Hadd min Al-Fasad Al-Idari [Digitization as a mechanism for reengineering public utilities to reduce administrative corruption]. *Journal of Legal and Economic Studies*, *9*(1), 1239-1333. https://doi.org/10.21608/jdl.2023.146729.1084
- Neima, A. M. (2024). Al-Hawkama Al-Raqamiyya lil-Idara Al-'Umumiyya fi Al-Jaza'ir [Digital governance of public administration in Algeria]. *Idara Journal, 34*(61), 51-88. https://asjp.cerist.dz/en/article/260901
- Belqacem, B. (2025, September 24). 'Attaf Amam Majlis Al-Amn: Al-Dhaka' Al-Istina'i Asbaha Silahan Dha Haddin Yuhaddid Al-Silm wa Al-Amn Al-Dawliyyayn [Attaf before the Security Council: Artificial intelligence has become a double-edged weapon threatening international peace and security]. El Ghad El Djazairi. Retrieved from: https://bit.ly/4qRSvLs (elghadeldjazairi.dz)
- Arab Digital Economy. (2025, April 27). Al-Iqtisad Al-Raqami fi Al-Mamlaka Al-'Arabiyya Al-Su'udiyya: 'Asr Jadid min Al-Numuww Al-Tiknoloji wa Al-Ibtikar wa Al-Ta'thir Al-'Alami [The digital economy in Saudi Arabia: A new era of technological growth, innovation, and global impact]. Retrieved from: https://arab-digital-economy.org/?p=11902
- High Commission for Digitalization. (2024). Al-Istratijiyya Al-Wataniyya lil-Tahawwul Al-Raqami fi Al-Jaza'ir: Min Ajl Al-Jaza'ir Raqamiyya 2030 [The national strategy for digital transformation in Algeria: Toward a Digital Algeria 2030]. Retrieved from: https://webservices.dz/faq-ssl/269-2030