

Public Policy Making in the Digital Age

Toufik Massoun¹ , Abdelghani Aidat ²

¹ Laboratory for Development Policies and Energy Transition in Algeria,
Abdelhamid Ibn Badis University – Mostaganem, dr.toufik.massoun@gmail.com

²Tahri Mohamed University- Béchar,dr.abdelghani.aidat@gmail.com

Received: 07/07/2025

Accepted: 10/09/2025

Published:15/10/2025

Abstract:

Public policy represents one of the most dynamic governmental activities, characterized by rapid evolution and continuous adaptation to environmental changes—a reality that policymaking processes increasingly confront in the digital age. This study seeks to elucidate the key digital transformations impacting public policy formulation, examining a range of policymaking experiences shaped by the digital era. It further analyzes how public policy adapts and evolves in response to the digital environment.

Information and communication technology has had varying impacts on national public policy-making, achieving remarkable successes in some countries and more limited success in others. The digital transformation has led to the emergence of virtual communities, which have come to play a significant role in shaping public policy. This influence has grown alongside the development of technologies and the increasing use of various types and versions of these technologies.

Keywords: Public policy-making; Digital transformation; Information and communication technology; South Korea; Denmark; Algeria.

Corresponding author: Toufik Massoun, dr.toufik.massoun@gmail.com

1. INTRODUCTION

The beginning of the 21st century witnessed an astonishing technological advancement that has continued to grow over time, driven by the development of information and communication technologies and successive versions of the web. Technology has permeated all fields and sectors, including public policy-making, which has undergone structural and functional changes with the emergence of new tools, means, and actors involved in the policy-making process in the digital age.

Public policy, as defined by Thomas Dye, is "whatever governments choose to do or not to do" According to Dye, public policy is a government choice to act—or a deliberate decision not to act—for specific reasons ¹. Others view it as a government activity or action that leads to particular effects, beginning with the existence of a public issue and aiming to achieve the public interest. Public policy-making has gone through a series of important stages and techniques, both structurally and functionally, and in terms of its outcomes. The environment often influences the public policy-making process, which makes public policy variable from time to time and place to place.

Public policy-making actors are considered one of the important pillars in making informed public policy. The higher the quality of the actors, the more effective and quality the public policy outcomes are, which is what made Harold Lasswell believe that public policy is "who gets what? And when? How?" In other words, public policy is the preferences of influencers/elites who benefit from available values and benefits ².

With the escalation of the use of technology by citizens and what technology has achieved in overcoming the constraints of time and place and even reducing costs, it was necessary for governments, and in response to the increasing demand and need for various public services and the development of the state's role in all areas of life, the need emerged for technology to enter the government field in general and provide various digital government services. And the transition to a complete and integrated transformation of the state and its activities to the digital version.

Research problem:

Building on the aforementioned context, this study seeks to interrogate the following core problem:

How have information and communication technologies (ICTs) driven structural and functional transformations in public policy-making processes?

Sub-questions:

To unpack this problem, the study addresses three subsidiary questions:

Which key technologies have most significantly influenced public policymaking in the digital age?

What tools have virtual communities contributed to enhance policymaking processes?

To what extent have governmental digitalization initiatives succeeded in producing high-quality public policies?

Hypotheses:

Guided by the research problem and sub-questions, the study tests the following hypotheses:

Technological Sophistication Hypothesis: The adoption of advanced ICTs in policymaking correlates positively with policy effectiveness and program success.

Resource Allocation Hypothesis: Increased budgetary and financial investments in digital policymaking programs are associated with higher policy quality and goal attainment.

Human-Centric Neglect Hypothesis: Policies that undervalue human factors (e.g., citizen engagement, institutional capacity) in digital governance are more likely to fail in achieving their objectives and public expectations.

2. Information and Communication Technology and Public Policy-Making

The development of information and communication technology (ICT) at the beginning of the 21st century has brought about significant impacts and changes in public policies—both at the level of governmental institutional structures and in governmental activities and functions. These changes have led to new phenomena in the management of public affairs,

particularly in relation to public policy-making in the modern digital age.

The emergence of new digital contexts in the field of public policy has introduced modern and contemporary practices that have contributed to improving the quality of governmental functions and enhancing various political phenomena that influence the course of public policy-making processes. Among these developments are the provision of public services and the technological transformation of governmental activities toward e-government and smart government in the era of artificial intelligence.

2.1. Digital Public Services:

Information and communication technology has introduced new opportunities to improve public service delivery and provide high-quality services to citizens. These include improving the quality of public services through the automation of administrative procedures and the digital transformation of public service delivery. This has been supported by the creation of digital platforms and websites that serve as alternatives to citizens physically going to public service centers, regardless of the type of service needed. A key feature of this shift is the support for open data on various digital platforms, particularly interactive ones ³.

Digital public services aim to promote inclusion and social justice by addressing digital illiteracy and connecting infrastructure to all citizens across the national territory. This includes enhancing the population's ability to use technology and developing digital services tailored to different segments of society, while taking into account physical, psychological, and age-related differences among public service users, among other factors ⁴.

2.2. Digital Governance:

The concept of e-governance transcends the mere adoption of technology in governmental operations; it is fundamentally rooted in delivering citizen-centric services that meet societal needs while fulfilling public expectations in terms of both quality and accessibility. True e-governance requires more than technological infrastructure—it demands a competent human resource base capable of driving, sustaining, and optimizing digital processes to ensure uninterrupted and effective service delivery.

E-governance strategically leverages communication technologies and

data-driven decision-making across government sectors to foster socio-economic development. This is operationalized through key interactional frameworks Government-to-Government (G2G) Enhancing inter-agency coordination, Government-to-Business (G2B) Streamlining regulatory and commercial exchanges, Government-to-Citizen (G2C) Improving public service accessibility and responsiveness, Government-to-Employees (G2E) Optimizing internal administrative efficiency, By integrating these dimensions, e-governance transforms traditional governance into a dynamic, inclusive, and results-oriented system ⁵.

We also find another type of relationship between the government and foreign units (G2F), which is the relationship between the government and its counterparts in other countries and regional and international institutions through communication, movements of money, data, information, electronic meetings, and security or military, and even political and economic, cooperation through bilateral or collective agreements ⁶.

Several key elements involved can determine the success of implementing digital governance. One source identifies the key components of digital governance including the coverage and quality of digital government services, the state of development of digital infrastructure, and the efficiency of human resources in operating e-government services. Other components that support digital governance are strong policies, effective institutions, technical frameworks and infrastructure, as well as cybersecurity and privacy aspects ⁷.

The government uses various digital technologies in various sectors, such as e-health, the use of technology in providing health services such as diagnosis and providing remote medical consultations, electronic voting using networks, biometric passports, and electronic discussion by facilitating citizens' participation in parliamentary discussions using information and communication technology, electronic decision-making or digital government communication, and announcing Decisions and sending them over the network and other multiple and different digital activities that reduce the effort, time and cost for citizens and government institutions ⁸.

2.3. The Artificial Intelligence:

The use of artificial intelligence in government operations allows

achieving multiple advantages in providing public services by improving their quality, reducing service time, and meeting citizens' preferences and needs. Artificial intelligence can achieve more interactive and customized models (providing a service to a citizen according to his need and preferences) and generate public value, such as supporting the government's ability to Improving population service and quality of life, based on the information collected and analyzed and on understanding the needs and expectations of beneficiaries Providing customized solutions for them. For example, some tax authorities use data analysis to classify taxpayers and provide appropriate offers for each category. They have also used big data to innovate new services to meet unsatisfied needs ⁹.

The Internet of Things works to support government activities in many areas, including managing energy production, distribution, and consumption centers through devices connected to energy-producing and consuming facilities in order to achieve a balance between energy generation and use and thus make optimal use of energy and water...Based on sensors that monitor water supplies and levels, Sewage networks Government agencies can predict water use and collection optimally

In addition, applications that support the Internet of Things can predict maintenance times to avoid disturbances, develop plans to confront dangers and the possibility of accidents, and correct any defect before it occurs by preparing scenarios for solutions to problems and emergencies that may occur by receiving huge data, analyzing it, and storing it as information that can be referred to when needed, which It results in fast, safe, quality and effective public services ¹⁰.

3. Virtual Communities and Public Policy-Making

The growing use of modern technologies by virtual communities has contributed to the emergence of new political phenomena, leading to significant changes and transformations in public policy-making in the digital age. This development has also opened up new political opportunities for governments, their institutions, citizens, as well as national and international non-governmental organizations.

3.1. Digital Citizen:

Karen Musburger et al. express that the digital citizen is one who

frequently uses technology, uses information technology in the political space to perform their civic duty, works to achieve economic gains and incorporates his preferences into public policy-making processes ¹¹.

Citizenship within the government virtual sphere depends on the use of government websites, platforms, and programs, called "electronic public services," which fall within the government-citizen relationship (G2C). This type of citizenship results in its being subject to the laws of the state. These transactions are characterized by formality and security determined by laws and regulations, and the individual bears his responsibility for any a mistake or problem issued by the individual in his dealings and use of these services ¹².

The citizen often interacts with the state not because he prefers or wants to, but because he needs it and has no other choice, and also because the citizen has the right to benefit from various public services through the right to public easement ¹³. Governments create electronic portals and platforms that provide services to the digital citizen and are an alternative to traditional public administrations. Through which citizens benefit from their right to public easement Governments often create two types of platforms or websites. The first provides a specific service or services in a field or affiliated with a single ministry or institution. For example, the website of the Ministry of the Interior in Algeria <https://www.interieur.gov.dz/> provides a group of digital services such as registering a passport application, a biometric ID card, obtaining civil status documents, and others.

The second type is integrated electronic portals for public services that provide most government electronic services to the citizen in one location, characterized by security where the individual can conduct secure transactions over the Internet for any available service. For example, the British government portal www.direct.gov.uk is one of the successful examples in the field of web portals that It focuses its activity on the "citizen." and the Canadian e-Citizenship website <https://www.canada.ca/> Arab governments have also replicated these experiences by establishing an electronic portal in the Kingdom of Saudi Arabia <https://my.gov.sa/> and an electronic citizen portal in Algeria <https://bawabatic.dz> and other digital platforms and portals ¹⁴.

3.2. Government Presence in Virtual Spaces:

Robert Erikson et al. stated that “the quality of democratic government is often measured by how well policymakers respond to public preferences.” Information and communication technology (ICT) tools have opened new communication channels—both top-down and, more importantly, bottom-up—which allow government officials to access more accurate, direct-source data in simpler ways and shorter times. This enables them to better understand societal preferences and act accordingly, often resulting in more rational and high-quality decision-making¹⁵.

Shannon C McGregor believes that social media provides a more time-sensitive channel for obtaining and measuring public sentiment towards certain policies and events, as the opinions published when the policy is issued and an event occurs on the platforms are recorded and cannot be changed. Salleh Mohamed suggested that social media can not only demonstrate a better understanding of public perception in a scientific way, but can also be useful in predicting future political trends and shaping society's worldview. These advantages motivate researchers to use social media as a data source instead of traditional opinion polls¹⁶.

Government websites and platforms operate 24/7, which saves citizens from wasting time visiting government offices or trying to contact employees. They can also access the information they need whenever they want. In e-government many routine processes take place between the government and the citizen - such as applying for permits, requesting forms, paying taxes, and even voting online. Thanks to the Internet government has become more responsive more efficient and less bureaucratic¹⁷.

Most of the government's increasing presence in cyberspace has become an attempt to respond to citizens as customers and clients. As the Internet provides new ways for government to communicate with citizens, David Johnson founder of the Cyberspace Law Institute and the Aspen Institute's Internet Policy Project and former president of the Electronic Frontier Foundation, has argued that “the Internet era has led to a new form of public policy making because it has changed many norms from Which the old system was based on”¹⁸.

The Internet and Web technology in all its versions, especially the

interactive social Web 2.0 and beyond, have provided opportunities for the development of the relationship between citizens and government officials, mutual interaction to achieve the public interest, and the inclusion of citizens' preferences within various public policy-making processes through the presence of officials and institutions through the various social media methods that are widely used in the country. This interaction can also bring citizens closer to their government institutions and officials, increase transparency, and reduce levels of corruption in the government, which achieves higher levels of good governance requirements in public policy making.

Government institutions create websites and publish e-mails for officials to communicate with them, which leads to an increase in the response of government institutions to political initiatives presented by citizens. Email and web technology allow citizens to campaign for change in new ways. The Internet brings together and expresses interests, facilitates organization, pressures legislators and government officials, and makes them aware of what citizens want.

3.3. Electronic Political Participation:

Citizens' and stakeholders' political participation increases when there are real opportunities to include their preferences in public policymaking processes and when officials listen to their voices. In turn, democratic political systems work to facilitate and broaden access and effective participation for all actors, through mechanisms designed to enhance citizen engagement, as well as by creating bottom-up channels and experiences capable of interacting with institutional practices and influencing policymaking and participatory political decision-making¹⁹.

The role of the digital citizen in public policymaking evolves as they acquire digital skills and culture, enabling them to link political participation to governance mechanisms such as legislative oversight and administrative responsiveness. Studies have shown that the effectiveness of connecting oversight to structural administrative reforms depends on several factors, including political context, administrative culture, and historical-institutional conditions, which may take time to change but are crucial to establishing democratic governance practices at all levels²⁰.

Citizens and stakeholders are keen to include their perspectives and preferences in public policy, particularly through bottom-up oversight mechanisms, where monitoring government operations becomes an integral part of digital citizenship and active political participation. This oversight also contributes to enhancing transparency and achieving the public interest²¹.

The emergence of social media over the past two decades has brought about a qualitative shift in the nature of interaction between citizens and governments. These platforms have provided direct and dynamic communication channels that enabled the development of more participatory governments and opened the door to a more inclusive civil society. Globally, digital political participation has become a key tool in public policy formulation. Contemporary governments now require advanced real-time digital tools to promote participation, implement policies effectively, and obtain timely feedback that helps improve public performance and support digital empowerment strategies. In this context, governments strive to adopt advanced models of electronic participation that enhance the integration of citizens into social, political, and economic life through technological tools that overcome traditional barriers and help achieve more inclusive and effective policies in the digital age²².

4. Models of Public Policy Making in the Digital World

Government activities have witnessed significant transformation and development in the digital era, particularly with the rise of technology use in both governmental and non-governmental spheres. Many experiences have achieved varying degrees of success in public policy making in the digital age. This study will highlight the most successful models, and those on their way to success, which have provided positive results.

4.1. South Korea's government digital transformation model:

The South Korean experience is one of the pioneering experiences in integrating innovative technologies with government activities. Thanks to the development of the information and communications technology sector and digital infrastructure with access to the highest Internet speeds in the world and the momentum witnessed by the technology sector and those interested in technology, South Korea has become a center for many well-

known digital companies, including Samsung, Naver SK, LG and others ²³.

Although South Korea is at the forefront of countries that have developed their policies in the field of digital transformation by allocating large government financial resources to invest in innovative technologies, especially next generation networks, advanced semiconductors, artificial intelligence systems, quantum computing, big data and cybersecurity, which has been It has a positive impact not only on the development of public services, but also on the development of the digital space in general (governmental and non-governmental) Even with a high level of local competition, leading foreign companies have not been prevented from competing in the technology market in South Korea and supporting their experience with other experiences and the use of advanced technologies and innovative business models ²⁴.

South Korea's digital government strategy for the period 2021/2025 was announced with a focus on creating, developing and providing smart public services, strengthening data-driven public administration, building an integrated digital infrastructure to implement smart public services while creating platforms that use virtual assistants, and exchanging fully digital data with MyData software, providing various digital documents, and adopting the use of convenient and secure verification and authentication technologies such as blockchain and the Internet of Things (IoT) ²⁵.

To develop digital governance activities in South Korea, separate government centers have been established to analyze information collection and data analysis, which contribute to informed policy making and use this data for disaster prevention and response Data programming interfaces and public applications have also been opened in cooperation with the private sector and as part of the strategy. To achieve these strategic objectives, the use of cloud computing remains desirable, which will have a positive impact on the economic situation, economic efficiency, and increase the level of citizens' confidence in public policies and government decision-makers in South Korea ²⁶.

South Korea's digital transformation experience has focused on producing new opportunities by automating a range of key sectors, creating a sophisticated local tax system with rapid exchange of social security data,

an expanded public procurement and transactions system, and increasing the effectiveness of electronic public administration through an integrated national financial information system and support system. Human resources, digital education, and an information network system for local governments as for the digital infrastructure of e-government, South Korea has established an electronic document management system, an electronic signature and electronic seal system, and a fully computerized and integrated information and communications network in all government sectors. Artificial intelligence is also being used effectively to process information produced and provided by citizens, process their requests, and provide electronic consultations in a manner High quality and fast ²⁷.

In addition to the technical development, careful planning and successful implementation of most digital transformation processes, promoting the development of public-private partnerships and paying special attention to cooperation with international companies and governments of other countries, the Korean experience is considered an "exemplary model." After working to strengthen the foundations of digital transformation, the government has actively worked to develop The human side of digital transformation by producing online services for different social groups and vulnerable population groups While updating the current legislative framework in line with digital ethics and rights and exerting maximum efforts to maintain cybersecurity and protect citizens' privacy while they access public services ²⁸.

4.2. Experience of digital transformation in Denmark:

Denmark's journey with digital transformation began in the year 2001. The cooperation efforts of central and local governments in Denmark to lay the foundations for the future digital public sector in the country have yielded results. Denmark has become one of the leading countries in digitizing administrative services, as this cooperation resulted in the development of a digital strategy for the period 2022-2025.

In Denmark, every company and every citizen has a personal electronic account where they can communicate directly with public authorities on current issues in real time. In 2015, Denmark issued a law allowing all citizens to communicate with authorities online only by means

of a unified digital identification to access all public services and a digital signature on Documents, where the Internet access rate reached more than 95% and every citizen had an electronic passport. All government agencies and municipalities have become connected and operate in one network, ensuring timely provision of services to citizens and rapid processing of requests²⁹.

These programs and policies resulted in the availability of fast, quality public services provided to all citizens and companies, which made it easier for them, facilitated government transactions, and increased positive interaction with public sector institutions. Among these policies we find programs that include a new and updated digital postal solution, and the citizens' portal borger.dk. Moreover, the second generation MitID electronic identity solution serves as a personal access key to both the public sector and sectors of the private sector such as banks³⁰.

The Danish Digital Strategy 2022-2025 raised the level of its goals by setting development goals, including how digitization contributes to solving major societal issues such as the climate crisis and labor shortages in the social care sectors. The digital government experience has witnessed evaluation by a group of international institutions, including the Economy Index and the Digital Society (DESI) of the European Commission, In which Denmark ranked first in the 2021 report, DESI surveys measure the level of digitization in European Union member states, according to four standard categories (human capital, connectivity, digital technology integration, and digital public services).The digital experience in Denmark has also witnessed outstanding success. For its digital programs, especially in light of the pandemic Covid-19³¹.

4.3. The experience of government digital transformation in Algeria:

The digital experience in Algeria began in 2009 with the issuance of the “e-Algérie 2013” strategy project, which was primarily aimed at building a quality digital infrastructure and supporting the acquisition of computers for citizens at reasonable prices, combating digital illiteracy and reducing the digital gap in Algeria, despite everything it has achieved. This project did not achieve all its goals.

Algeria has adopted a new approach to digital transformation since the

election of President **Abdelmadjid Tebboune** in 2019, as his 25th commitment required achieving digital transformation to improve communication, generalizing the use of information and communication technologies, especially in public utility departments, and improving the governance of the economic sector, Since then, the government has made significant progress, with the President consistently emphasizing the acceleration of digital transformation efforts in every Council of Ministers meeting.

For two decades, Algeria has launched five satellites of various uses, the first of which was in November 2002 (Alsat-1) and then (Alsat-1B). In 2010, (Alsat-2A) was launched, while (Alsat-2B) was launched in September 2016. The last satellite was launched in December 2017 (Alcomsat-1). These satellites support Algeria's digital transformation program in the country³².

The Algerian government, through its digital policies, has constantly worked to establish and develop cyber infrastructure by establishing local and national government networks in many sectors, especially vital and major ones. It has also developed connectivity to wired Internet networks through the Algeria Telecom Company and developed connectivity quantitatively and qualitatively throughout all regions of the country through Connecting to optical fibers and fourth generation (4G) technology for wireless communications. With the development of mobile phone customers' activities in the field of Internet connectivity, the third generation (3G), the fourth generation, and some fifth generation (5G) experiences.

Algeria has witnessed an unprecedented digital movement since 2020, as the implementation of many government digitization programs was recorded in many basic sectors, for example the Ministry of the Interior and local communities. The National Civil Status Register was created and linked to a group of public administrations, and the beginning of the use of the National Identification Number (NIN), where every citizen owns This number is included in his various documents, such as the biometric ID card and the biometric passport. The Ministry also began allowing citizens to download documents and carry out government operations over the line

instead of moving to its government headquarters.

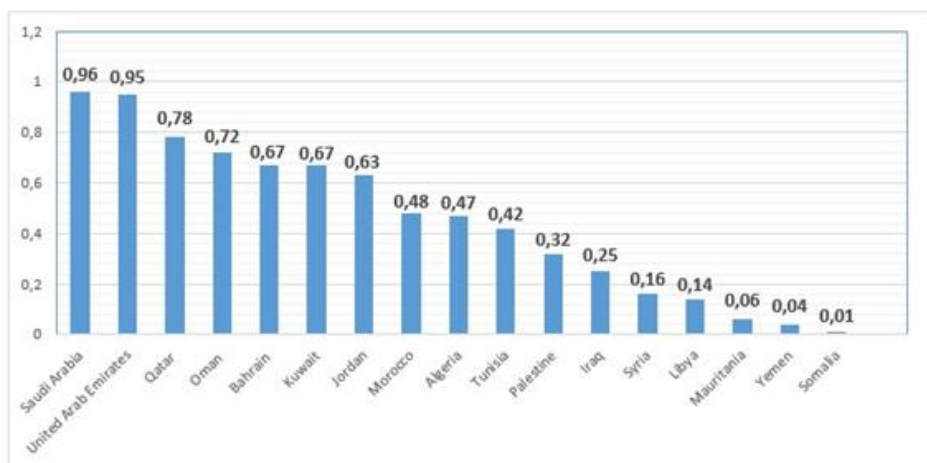
As for the Ministry of Finance, it began digitizing data related to its sector and shifting from providing traditional administrative services to providing electronic and traditional services as a first stage of digital transformation. Among those services were paying taxes remotely, acquiring a car voucher remotely, as well as unifying the banking and postal financial network to withdraw money through automatic distributors for the benefit of Citizens who own the Algeria Post Gold Card And the CIB card for banks, with the development of electronic bill payment and shopping platforms with various financial digital cards.

For the Ministry of Justice they have gradually begun to shift from providing services exclusively through court headquarters and the Ministry's headquarters to providing services via the Internet, including extracting the digital case law and citizenship sheet, verifying the authenticity of those electronic documents, in addition to correcting civil status errors remotely and reviewing the development. The course of cases remotely, and the withdrawal of judicial rulings by lawyers.

As for the Ministry of Higher Education and Scientific Research, which has digitized the data of students, administrative professors, and employees, while creating digital platforms to provide various services and work with the distance education system in parallel with in-person education, it has also established special schools for artificial intelligence and automated media While encouraging its various institutions to work in the field of digital transformation as a priority for scientific research in Algeria, and to form special laboratories in the field, while establishing research teams and magazines, publishing articles, and organizing and participating in national and international forums to enrich scientific and research accumulation in the field, many sectors in Algeria have also undertaken digital transformation, whether By combining efforts with another ministry or government body or alone.

Fig 01: GEMS-2024 e-Government and Mobile Services Maturity Index.

ESCWA, the 2024 Government Electronic and Mobile Services Maturity Index
(GEMS 2024)



Source: Report of the United Nations Economic and Social Commission for Western Asia (ESCWA 2024)³³

The Algerian experience in making public policies in the digital age has made not impressive but very good progress, as shown by the reports of international bodies, the most important of which are the United Nations and its committees, especially the Economic and Social Commission for Western Asia (ESCWA), and in its annual report on the development of electronic and mobile government services (GEMS). For the year 2024, which measures the quality of government services provided through the electronic portal and applications in Arab countries. It is also a tool that enables decision-makers and policy makers to monitor the progress of digital transformation programs in a group of Arab countries, as shown in (Figure 01). Algeria's level through the index is an average level (0.47/1.0), which is a very respectable percentage despite the constraints. However, the insistence of the senior leadership on embodying digital transformation heralds better results in the future. By developing its methods, mechanisms and techniques for its workers and drawing on successful comparative experiences while taking into account the Algerian state's environment in

making digital public policy.

5. CONCLUSION

Public policy making in the digital age has witnessed the development, technical revolution and the intersection of information and communication technology and public policy making through the transformation of public institutions to provide digital public services and the attempt to develop that transformation to reach digital governance, enter the latest versions, and use artificial intelligence in public policy making.

The increasing and developing presence of virtual communities as a digital version of traditional society and its influence on government policy-making, through the development and rise of the status of the digital citizen in the political digital space and the government presence through virtual spaces, which has become inevitable and necessary. All of these political manifestations supported digital political participation activities, the development of the citizen's status, and an increase in his role in making Public policy.

A group of government experiences in making digital public policy in South Korea, Denmark, and Algeria were discussed as different and varying models in geography, resources, and environment. These experiences witnessed varying success from one model to another, as both South Korea and Denmark experienced important and great success, and because they are developed countries and have long-standing experiences in Digital transformation began at the beginning of the 21st century As for the Algerian experience, it has witnessed an important development, especially after 2020, and the direction of the country's senior political leadership, represented by the President of the Republic and his ministerial team, towards the digitization of all sectors and the necessity of rapid and integrated digital transformation in all fields and sectors.

Public policy-making processes in the digital environment have witnessed a change at the level of structure through technical transformation and the use of various digital manifestations and tools through the transformation of e-government as a digital version of government, and digital citizenship as a version of the citizen, in addition to elections, political participation, education, and other political activities that

have transformed from their traditional version to the digital version., Public policy in our contemporary time has also witnessed a functional change through the shift of many services and sectors from dealing with employees to dealing with machines, computers, and automation, and a change in changing some services to others, redundancy, and other functional changes in government institutions.

The future of public policy making in the digital age carries many challenges, the most important of which are cybersecurity, privacy, excessive reliance on technology, and neglect of the human resource in many cases, which is what must be warned against. Technology was created to support human activities and reduce effort, time, and cost, and it was not created to replace humans.

In a different, independent approach, technology and digitization can increase the quality and effectiveness of public policies and increase levels of development and well-being in societies by reducing or completely eliminating existing constraints, such as fighting corruption, reducing the consumption of financial and material resources (costs), and reducing efforts and time.

In Algeria, the High Governorate of Digitization is working to develop digital transformation policies, which is what made it produce the Algerian strategy for digital transformation in Algeria under the slogan "For a Digital Algeria 2030," which contains a set of goals, the most important of which is developing the basic infrastructure for information and communication technology with connectivity to data centers and cloud services. Forming the human resource and achieving digital governance, digital economic transformation, developing the industry and the national digital market while attracting foreign investment All of this coincides with the establishment of an integrated legislative system for digital transformation and the development of various security, trust and privacy systems.

6. Bibliography List:

1- Thomas R Dye, Understanding Public Policy, 15th ed. (USA: Pearson Education, 2017) P.01.

2- Harold D. Lasswell, *Politics: Who Gets What, When, How* (New York: McGraw-Hill Book, 1951) P.475.

3- Abdul Halil Hi. Ibrahim, Iksan R.A. Arsad, and Rasid Pora, "Provision of Public Practices in The Digital Age Government," *International Journal of Society Reviews (INJOSER)* 02, no. 05 (2024): P.1341, <https://journals.indexcopernicus.com/search/article?articleId=3918940>

4- Ibid, P.1351.

5- Shin Young-Jin and Kim Seang-tae, "E-Government Concepts, Measures, and Best Practices," in *Global E-Government: Theory, Applications and Benchmarking*, ed. Latif Al-Hakim (USA: IDEA Group Publishing, 2007), P.34, <https://doi.org/10.4018/978-1-59904-027-1>

6-Toufik Massoun, *the Rise of Virtual Communities and Their Impact on Public Policy*, Thesis Submitted for the Degree of Doctor LMD of Public Policy, (Mostaganem: University Abdelhamid Ibn Badis, 2025) P.203-204. <http://e-biblio.univ-mosta.dz/handle/123456789/28405>

7- Abdul Halil Hi. Ibrahim, Iksan R.A. Arsad, and Rasid Pora, *Op.Cit*, P.1348–1349, <https://journals.indexcopernicus.com/search/article?articleId=3918940>

8- J. Kelvin Bwalya and Stephen Mutula, *E-Government: Implementation, Adoption and Synthesis in Developing Countries*, *E-Government: Implementation, Adoption and Synthesis in Developing Countries* (Berlin: De Gruyter Saur, 2014) P.21-22, <https://doi.org/10.1515/9783110305272>

9- Adel Inzarene, "Public policy governance in the era of artificial intelligence: opportunities and challenges", *Algerian Review of Human Security*, 01 (09) (2024) P.484, <https://asjp.cerist.dz/en/article/239066>

10- Lei Zheng et al., "Digital Government, Smart Cities and Sustainable Development," in *ACM International Conference Proceeding Series, Theory and Practice of Electronic Governance (ICEGOV '19)*, vol.12. New York, 2019, P.293, <https://doi.org/10.1145/3326365.3326403>

11- Karen Mossberger, Caroline J. Tolbert, and Ramona S. McNeal, *Digital Citizenship: The Internet, Society, and Participation* (Cambridge: The MIT Press, 2009) P.02, <https://doi.org/10.1080/15367960902961754>

12- Toufik Massoun, *Op.Cit*, P.238.

13- Armando Rech Filho, “E-Citizen: Why Waiting for the Governments?,” in *E-Government: Towards Electronic Democracy*, International Conference, Proceedings, ed. Michael Böhlen et al. (New York: Springer Science+Business Media, 2005) P.91,

<https://doi.org/10.4018/978-1-59904-138-4.ch014>

14- Toufik Massoun, *Op.Cit*, P.238-239.

15- Paul Burstein, *American Public Opinion, Advocacy, and Policy in Congress_ What the Public Wants and What It Gets* (New York: Cambridge University Press, 2014) P.45, www.cambridge.org/9781107684256

16- Xuefan Dong and Ying Lian, “A Review of Social Media-Based Public Opinion Analyses: Challenges and Recommendations,” *Technology in Society* 67 (November 2021): 101724,

<https://doi.org/10.1016/j.techsoc.2021.101724>

17- Michael Margolis and David Resnick, *Politics as Usual: The Cyberspace “Revolution,”* Politics as Usual: The Cyberspace “Revolution” (California: SAGE Publications, 2000) P.212,

<https://doi.org/10.4135/9781452233475>

18- Ibid, P.P.211-221.

19- Paolo Spada and Giovanni Allegretti, “When Democratic Innovations Integrate Multiple and Diverse Channels of Social Dialogue,” in *Using New Media for Citizen Engagement and Participation*, ed. Marco Adria (Hershey: IGI Global, 2020), P.36, <https://doi.org/10.4018/978-1-7998-1828-1.ch003>

20- Gedion Onyango, “Legislative Oversight and Policy-Reforms in ‘Unsettled’ Political Contexts of Public Administration,” *International Journal of Public Administration* 43, no. 3 (February 17, 2020): 213–28, <https://doi.org/10.1080/01900692.2019.1627556>

21- Rikki Dean, “Participatory Governance in the Digital Age: From Input to Oversight,” *International Journal of Communication* 17 (2023): 3562–81, <https://ijoc.org/index.php/ijoc/article/view/18833>

22- Simon O. Oginni and Joash N. Moitui, “Social Media and Public Policy Process in Africa: Enhanced Policy Process in Digital Age,” *Consilience*, no.14 (2015): 158–72, <http://www.jstor.org/stable/26188747>

- 23- Anna Shcherbak, “Digitalisation of Administrative Services: Current Status and Prospects for Citizens,” *Management* (Montevideo) 3 (January 1, 2025): 136, <https://doi.org/10.62486/agma2025136>
- 24- OECD, “Strengthening Active Labour Market Policies in Korea” (Paris, 2024), <https://doi.org/https://doi.org/10.1787/44cb97d7-en>
- 25- Anna Shcherbak, Op.Cit, P.06.
- 26- Choong-sik Chung, “The Introduction of E-Government in Korea: Development Journey, Outcomes and Future,” *Revue Gestion et Management Public*, 3, no.4 (2015), <https://doi.org/https://doi.org/10.3917/gmp.034.0107>
- 27- Ibid, P.107-122.
- 28- Anne Lauringson, “Digital Employment Services in Korea,” in *Strengthening Active Labour Market Policies in Korea* (Paris: OECD Publishing, 2024), 70–93, <https://doi.org/https://doi.org/10.1787/b37cc4b2-en>
- 29- Anna Shcherbak, Op.Cit, P.06.
- 30- Agency for Digital Government, “The Danish Digital Journey,” 2025, 11/05/2025, Link: <https://en.digst.dk/policy/the-danish-digital-journey/>
- 31- Agency for Digital Government (Ibid).
- 32- Algerian Space Agency, “Algerian Satellites,” 2025, <https://asal.dz/>
- 33- ESCWA, “The 2024 Government Electronic and Mobile Services Maturity Index (GEMS 2024)” (Beirut, 2024), https://www.unescwa.org/sites/default/files/pubs/pdf/government-electronic-mobile-services-gems-maturity-index-2024-arabic_0.pdf