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## Digital Government and Digital Governance: Grand Concept

Vepkhvia Grigalashvili

PhD in Public Administration

Assistant Professor, International Black Sea University, Tbilisi, Georgia

Associate Professor, Caucasus International University, Tbilisi, Georgia

Associate Professor, Alterbridge University, Tbilisi, Georgia

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### Abstract

Development of digital democracy domain substantially depends on how correctly are understood conceptual dimensions and how clearly are determined functions of digital government and digital governance, as digital government represents a fundamental shift in the way governments around the world are embracing their mission and digital governance is no longer just a technological enabler. Digital government and digital governance (as terms and concepts), known as multidimensional, multifaceted and multidisciplinary phenomenon, are often treated as synonymous and used interchangeably in the academic literature or formal documents. Therefore, it is becoming increasingly difficult to clear existing conceptual ambiguity between them. There are no universally accepted definitions of both abstractions. Such conceptual uncertainty has a negative impact on the development of digital democracy. The research objective of this article is to provide a deeper understanding of digital government and digital governance concepts through empirical studies and scatter the existing ambiguity in differences between these two concepts as this variety is not just questions of academic nuance. Based on a comparative analysis of digital government and digital governance conceptual meanings, this article offers an approach according to which digital government and digital governance represents two various but closely related and co-existing concepts. Furthermore, in the concluding section of the article, there is suggested recommendation regarding development a new grand concept in which both multidimensional conceptual visions will be combined.

**Keywords:** Digital Democracy; Digital Governance; Digital Government; Electronic Government; Electronic Governance.

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### 1. Introduction

Digital Government and Digital Governance might be treated as an umbrella concept, and engaged rhetoric might respond to different government priorities. It is considered as a key component of modern governance (The five pillars of digital governance good governance institute. 2023).

Among many expectations for producing high-value policy impact, digital government is increasingly recognized as a key enabler for Sustainable Development (Digital Government. 2013).

The UN consistently promotes digital government as a driver for sustainable governance, as manifested in the selection of themes for three recent editions of the Global E-Government Survey: “the 2022 Survey highlights the increasing contributions of digital transformation and digital government in accelerating the realization of the 2030 Agenda for Sustainable Development and in making sure that no one is left behind and offline in the digital age. The Survey demonstrates that digital technologies, among other things, have allowed governments to play a key role in addressing the challenges surrounding the global health crisis and in ensuring effective delivery of essential public services during a period of growing isolation, uncertainty and vulnerability” (E-Government Survey 2022.2022), “E-Government in Support of Sustainable Development” (E-Government Survey 2016.2016), “Gearing E-Government to Support Transformation towards sustainable and resilient societies” (E-Government Survey 2018. 2018), and “Digital Government in the Decade of Action for Sustainable Development” (E-Government Survey 2020. 2020).

Digital government does not have one settled definition; extracting the “perfect” one emerges as a scientific activity on its own, and circulating definitions vary in terms of scope—from information supply to e-democracy; subject—from citizens to all public stakeholders; and technology family—from personal computers to the Internet (Digital Government. 2013).

Digital Government is also called by various synonyms or near synonyms, such as “electronic government,” “electronic governance,” “transformational government,” and others. In UN E-Government Surveys 2022 and 2020: “e-government” and “digital government” are used interchangeably, as there is still no formal distinction made between the terms among academics, policymakers and practitioners. However, the terms digital government and e-government are sometimes used interchangeably but do carry slightly different connotations. Digital government refers to the comprehensive digital strategies and structures set up by the government to care for the needs and concerns of its citizens. E-government focuses on the actual information and communication technology utilized to make the governments’ goals a reality. E-government involves the digitization of procedures, documents, and services to improve governance by the use of modern technology. Digital government uses the tools provided to improve the management and organization of a governments’ services to appeal to the current needs of its citizens. This form of government can support the functionality of the agencies themselves when the public authorities and the administrative personnel work together efficiently (Digital Government Services, 2023).

Taking into consideration the distinction between “government” (government at any level can be a stakeholder in this process) and “governance” (governance is a multi-stakeholder process):

- a. Digital government has reached a critical point. It is no longer a stand-alone or auxiliary tool, nor does it represent a panacea for government deficiencies or inefficiencies; it should be seen as an integral and thoroughly integrated aspect of the physical

functioning of public institutions and services delivery (E-Government Survey 2022. 2022).

Digital government represents a fundamental shift in the way governments around the world are embracing their mission. From setting measurable administrative goals to improving public service delivery, from making data-driven decisions to enacting evidence-based policies, from ensuring greater accountability and transparency within government to building greater public trust, governments are leveraging the power of information technologies in transformative ways (Digital Government for Development. 2023).

Under the Digital Government Policy Framework (DGP), a mature digital government: is digital by design when govern and leverage digital technologies to rethink and re-engineer public processes, simplify procedures, and create new channels of communication and engagement with stakeholders; is data-driven when values data as a strategic asset and establishes the governance, access, sharing and re-use mechanisms for improved decision-making and service delivery; acts as platform when deploys platforms, standards and services to help teams focus on user needs in public service design and delivery; is open by default when makes government data and policy-making processes available to the public, within the limits of existing legislation and in balance with national and public interest; is user-driven when accords a central role to people's needs and convenience in the shaping of processes, services and policies; and by adopting inclusive mechanisms that enable this to happen; is proactive when anticipates people's needs and respond to them rapidly, avoiding the need for cumbersome data and service delivery processes (OECD DGI: 2019. 2019).

Findings show the promising yet modest progress towards robust digital governments, and encourage governments to step up efforts to use digital technologies and data strategically for user-driven public services.

- b. Digital governance is no longer just a technological enabler. In high-performing organisations it plays a central role in defining organisational culture and strategy and maximising the impact an organisation has on those it serves.

Digital governance requires the board to consider how technology impacts every activity in an organisation. Technology can be employed to prevent people from making mistakes and enable decisions to be better informed, made faster and easier and improve accountability by recording every interaction. Ultimately, good digital governance justifies the investment in the hardware, software time and training required to implement digital technologies, because it makes it easier to do the right thing and almost impossible to do the wrong thing, while fulfilling the mission of the system or organization (The five pillars of digital governance Good governance institute. 2023).

Digital governance is a framework for establishing accountability, roles, and decision-making authority for an organization's digital presence—which means its websites, mobile sites, social channels, and any other Internet and Web-enabled products and services. A digital governance framework is a system that delegates authority for digital decision-making about particular digital products and services from the organizational core to other aspects of the organization, That means a digital governance framework does not specify a production process. It does not

articulate a content strategy, information architecture, or whether or not you work in an agile or waterfall development environment. What a digital governance framework does is specify who has the authority to make those decisions. This explicit separation of production processes from decision-making authority for standards is what gives the framework its power (Welchman.2014).

Having a well-designed digital governance framework minimizes the number of tactical debates regarding the nature and management of an organization's digital presence by making clear who on your digital team has decision-making authority for these areas: Digital strategy (A digital strategy articulates an organization's approach to leveraging the capabilities of the Internet and the World Wide Web. A digital strategy has two facets: guiding principles and performance objectives. Guiding principles provide stakeholders with a streamlined, qualitative expression of your organization's high-level digital business intent and values. Performance objectives quantitatively define what digital success means for an organization); Digital policy (Digital policies are guidance statements put into place to manage risk and ensure that an organization's core interests are served as it operates online. The substance of digital policy should influence the behavior of employees when they are developing material for online channels); Digital standards (Digital Standards articulate the exact nature of an organization's digital portfolio. They exist to ensure optimal digital quality and effectiveness. Standards are both broad and deep. They address a broad range of topics with depth, such as overall user experience and content strategy concerns, as well as tactical specifications related to issues like a website's component-based content model or replicable code snippets).

Digital governance can be achieved through integrated the following five pillars: Digital governance framework; Stakeholder engagement by design; Data security and Protection; Ethical decision-making; Integration and partnering working (The five pillars of digital governance Good governance institute. 2023).

## **2. E-government vs E-governance: Literature Review**

Under such conditions, it is important to consider e-government and e-governance as independent and at the same time interconnected phenomena in the context of umbrella concept of digital government / governance.

The rapidly growing phenomenon, labelled as "e-government" and / or "e-governance", has been considered as an important managerial public reform over the past decade. Their development is often seen as a result of the emergence of an ideology in the public sector called New Public Management (Osborne.2006).

Numerous factors have impacted and contributed to the growth and institutionalisation of e-government and e-governance. Generally. It is attributable to the need to respond to the particular pressures or challenges (including increasing budgetary pressures, rising expectations, growing inequality and declining public trust, e-commerce and etc.) facing governments in developed and developing countries (Hannah.2010). The growth of e-government and e-governance in developing countries have mainly been driven by external forces, notably the international financial institutions (such as the World Bank and the IMF) (infoDev.2002; OECD.2003; Heeks.2002) and internal issues, primarily the demands for

public safety and security within national borders have necessitated re-thinking on the role of digital facilities in the delivery of services to the public.

Many countries (including Georgia) are now developing, implementing, and improving their strategies to transform government services using information and communication technologies (ICTs). This transformation of services is referred to as e-Government, e-Governance, digital government, online government, or transformational government (Gupta et al..2007).

E-government and e-governance are an area causing debates for the researchers to define them as they does not have a common meaning for all researchers and stakeholders (Seifert and Relyea.2004; Yildiz.2007).

A unified conceptual or grand vision, regarding e-government and e-governance, has not been achieved yet and the conceptual boundaries of both phenomenon are unclear. Moreover, it is uncertain whether e-government includes both internal and external aspects of public service, such as governance. Nonetheless, there are some commonly agreed notions including: government efficiency, effectiveness, empowering citizens, organization through access to information, strengthening levels of democracy, citizen participation, and transparency (Oyomno.2004).

E-government and e-governance are a multidimensional, multidisciplinary and still immature field (Jaeger, 2003), therefore it is becoming increasingly difficult to set a common definition (Roy.2003) or clear existing conceptual ambiguity between them. As they are a multidisciplinary field, therefore this involves a number of disciplines; such as, Information Systems (IS), Computer Science, Public Administration, and Political Science (Heeks and Bailur.2007).

E-government and E-governance (as terms and as concepts) are often treated as synonymous and used interchangeably in the academic literature and formal documents. They provide definitions for e-government that encompass almost the same elements as those argued to be in the realm of e-governance. However, some researchers argue that there is a difference in the perspectives between the two (Saxena. 2005; Rossel and Finger.2007; Collins.2009; Misuraca and Viscusi.2013); Larsson and Grönlund. 2014).

According to Giritli Nygren, (2009a), the concept e-government is moving at the boundaries between the public sector, new technology and changed administrative forms (Giritli Nygren.2009b). Heeks (2006) defines e-government as “all use of information technology in the public sector”. DeBenedictis et al. (2002) defines e-government as the use of primarily Internet-based information technology to enhance the accountability and performance of government activities.

Some scholars contend that e-government constitutes only a subset (though a major one) of e-governance - e-governance is a broader concept and includes the use of ICT by government and civil society to promote greater participation of citizens in the governance of political institutions, e.g., use of the Internet by politicians and political parties to elicit views from their

constituencies in an efficient manner, or the publicizing of views by civil society organizations which are in conflict with the ruling powers (Howard. 2001; Bannister and Walsh. 2002).

Based on the activity, as stated by Perri (2004), e-government has been divided into four distinct areas, namely: e-democracy, e-service provision, e-management, and e-governance.

As Kim (2003) point outs, the models of e-government have progressed through four steps: bureaucracy, information management, citizen participation, and governance. Social diversity and maturity are significant factors to improve e-government. E-government is therefore not a product technology, but rather one of society, culture, and politics. Here are the four models of e-government: (i) The bureaucracy model has the main policy goal of being focused on efficient administrative functions in government structure and individual sector; (ii) The information management model is a linkage between government and citizens in terms of electronic public service; (iii) The citizen participation model has positive and strong citizens' participation in policy decision through two-way interactions; (iv) The governance model explains that various civil groups and citizens actively participate in all policy decision processes and express their opinions through the Internet.

Cook et al. (2002) and Snellen (2006) think that e-government encompasses all aspects of public service delivery and governance. Accordingly, e-governance is a much broader concept, as it encompasses the use of information communication technologies (ICT) in a state's institutional arrangements, decision- making processes, and the implementation of all kinds of changes in relationships between the government and the public; e-government, on the other hand, seems to be essentially a subset of e-governance. Pina eí/i/ (2006) suggests that e-governance includes e-government (UNESCO 2011).

By Sheridan and Riley (2006), Grönlund and Horan (2005), Rossel and Finger (2007), As-Saber and Hossein (2008), and Jayashree and Martandan (2010) and Larsson and Grönlund (2014), e-governance is a broader, more encompassing concept that that deals with the whole spectrum of the relationship and networks within government regarding the usage and application of ICTs whereas e-government is limited to the development of online services. It involves not only public institutions but private ones as well. E-government is then more limited than e-governance and focuses on resource coordination and distribution in the public sector alone. Following Gjelstrup and Sørensen (2007).

Other scholars, such as Anttiroik (2007) describes e-government and e-governance as two completely different concepts. E-governance is a broader term comprising a range of relationships and networks in the government, related to the use and application of ICT. E-government is a more restricted area associated with the development of direct (online) services to citizens, paying greater attention to such government services as e-taxes, e-education or e-health. E-governance is a concept that defines the impact of technology on governance practices, the relationship between the government and the public, NGOs and private sector entities. E-governance covers the entire range of government steps develop and administrate, and to ensure successful implementation of e-government services offered to the public. The original idea of e-government has been attributed to the public's need for access to the government decisions and documents via electronic means, later appeared the need of public

electronic services, and finally – a search of opportunities to participate in the decision making process, to consult with the government institutions.

Grönlund and Horan (2005) also pointed out the difference between Electronic Government referring to what is happening within government, and Electronic Governance (EGOV) referring to the whole system involved in managing the society. Similarly, “e-Governance comprises the use of information and communication technologies (ICTs) to support public services, government administration, democratic processes, and relationships among citizens, civil society, the private sector, and the state” (Dawes.2008).

Estevez and Janowski (2013) put forward their own definition of Electronic Governance (EGOV): Electronic Governance is the application of technology by government to transform itself and its interactions with customers, in order to create impact on the society with the former referring to the process of sharing and reorganizing of power across all stakeholders and the citizenry while the latter is more focused on public service delivery. It is possible to perceive the concept of e-government and e-governance very differently depending on their focus (Yildiz.2007).

Existing conceptual uncertainty in substantive contents of e-government and e-governance is illustrated in following contradictory academic views: (i) E-government has been classified in terms of activities and delivering models into four categories: Government to Business, (G2B), Government to Citizen (G2C), Government to Employee (G2E), and Government to Government (G2G) (Carter and Belanger, 2004). This classification of e-government is similar to Business to Business (B2B), Business to Consumer (B2C), and Consumer to Consumer (C2C) classification of e-commerce. Further, e-government phenomenon shares some common characteristics of private sector’s e-commerce system, such as service delivery, applications, and their organizational impacts (Scholl, 2006); (ii) Based on interactions, divides e-government into three categories, namely: government and business (GnB), government and citizen (GnC), and government and government (GnG), which are further divided into government to business (G2B) and business to government (B2G), government to citizen (G2C) and citizen to government (C2G), and government to government (G2G) nationally and internationally respectively (Ghayur.2006); (iii) E-Governance is the application of Information and Communication Technology (ICT) for delivering Government Services, exchange of information, communication transactions, integration various standalone systems and services between Government and Citizens (G2C), Government and Business (G2B) as well as back office processes and interactions within the entire Government frame work (Saugata and Rashel, 2007); (iv) Some digital interaction tools (G2G, G2C, G2B, G2SC, C2C) is discussed as of e-government or e-governance or e-administration: Government -to-Government (G2G) – belongs to definition of e-administration (example: establishing and using a common data warehouse; Government-to-Citizen (G2C) – belongs to definition of e-government (example: government organization Web Sites, E-mail communication between citizens and government officials); Government-to-Business (G2B) – belongs to definition of e-government, e-commerce, e--collaboration) (example: Posting government bids on the Web, e-procurement, e-partnerships); Government-to-Civil Society Organisations (G2SC) – belongs to definition of e-governance (example: electronic communications and coordination efforts

after disaster); Citizen-to-Citizen (C2C) - belongs to definition of e-governance (example: electronic discussion groups on civic issues) Yildiz (2007).

It is clear that considerable confusion exists in explaining e-government and e-governance domains. Follow this, we attempt to resolve such ambiguity and come up with non-overlapping understanding of both phenomenon by reviewing and analyzing existing conceptual framework that provides details and establishes relationships of key variables or similarities.

### **3. E-government vs E-governance: Compound Terms**

Putting an “E” as a prefix to both concepts of government and governance refers to governing with the help of electronic tools. The “E” part of both e-government and e-governance stands for the electronic platform or infrastructure that enables and supports the networking of public policy development and deployment (Sheridan and Riley.2006).

Government is an institutional superstructure that society uses to translate politics into policies and legislation. Governments are specialised institutions that contribute to governance. Governments are bureaucratically organized and constitutionally legitimated. They serve as both the highest forum for policy making within their jurisdictions, and as the final court of appeal within their jurisdictions for dissenters to those policies. Most of the work of governments consists of actually implementing policies through service delivering programs. Individuals and groups assess governmental performance in terms of their own perception. Governments often face the need to rationalize discrepancies amongst people's desires to achieve their own ends (Godse and Garg.2011).

There is no single definition of the term “governance” that most researchers would agree on (Jordan et al.2005; Löfgren.2007).The term contains a lot of meanings. Bekkers et al. (2007) argue that governance is understood as that public administration is not one entity. It is made up of several actors, that other actors apart from the public try to influence societal development and that the public administration acts in policy networks where power, resources and strategy are important components (Bekkers et al.2007). von Bergmann Winberg and Wihlborg (2011) define governance as “steering in cooperation, and the network governance that is characteristic of modern societies”.

Governance is the outcome of the interaction of government, the public service, and citizens throughout the political process, policy development, program design, and service delivery. The institution of government involves a narrower range of considerations than the wider functions of governance. Governance is distinct from government as it concerns longer-term processes rather than immediate decisions. Governance is a set of continuous processes that usually evolve slowly with use unlike government. The governance focuses on processes instead of decisions. Governance takes the larger view of social objectives, so it involves the coordination of efforts rather than the implementation of specific programs. This is the systemic perspective as opposed to a focus on the individual practice, or player, or process. The "bottom line" for governance is outcomes rather than the outputs of government (Godse and Garg.2011).

### **4. E-government - Conceptual Dimension**



The concept is currently still without a universally agreed standard definition. E-government definitions vary according to different types of perspectives, such as technological, political, business, citizen, process, and government function (Tambouris.2001; Seifert and Petersen.2002; Jain.2002; Weerakkody and Dhillon.2008; Irani et al.,2006; Halchin.2004).

The concepts of e-government differ among international agencies, governments, scholars, and so forth (Tab. 1). As a result, we have diversity of e-government definitions in various perspectives: (i) Information technology (technical) perspective is indicated in definitions given by UNPAN (2011) and Scholl (2003) - "Electronic government is the use of Information Technology to support government operations, engage citizens, and provide government services"; (ii) Government Process is underlined in definitions offered by World Bank (2010) and Kasubien et al.(2007) - "E-government "is a sophisticated process based on using information and communication technologies with different kind of services as result designated for satisfying stakeholders needs"; (iii) Government Benefits focused definition is proposed by Ke and Wei (2004); (iv) Citizens" focus represents main characteristics of the definition suggested by Burn and Robins (2003) - "E-government as seamless service delivery to citizens or governments" efforts to provide citizens with the information and services they need by using a range of technological solutions"; (v) Political point is future of the definition by Dada (2006) - "To use technology to achieve levels of improvement in various areas of government, transforming the nature of politics and relations between the government and citizens."

**Table 1: Conceptual Meaning of E-government**

<b>Definitions / Conceptual Meanings of E-government</b>
<p>"E-government has been employed to mean everything from 'online government services' to 'exchange of information and services electronically with citizens, businesses, and other arms of government. E-government can thus be defined as the use of ICTs to more effectively and efficiently deliver government services to citizens and businesses. It is the application of ICT in government operations, achieving public ends by digital means. The underlying principle of e-government, supported by an effective e-governance institutional framework, is to improve the internal workings of the public sector by reducing financial costs and transaction times so as to better integrate work flows and processes and enable effective resource utilization across the various public sector agencies aiming for sustainable solutions. Through innovation and e-government, governments around the world can be more efficient, provide better services, respond to the demands of citizens for transparency and accountability, be more inclusive and thus restore the trust of citizens in their governments."</p> <p>United Nations</p>
<p>"E-government is defined as utilizing the Internet and the world-wide-web for delivering government information and services to citizens."</p> <p>United Nations (AOEMA report)</p>
<p>"E-Government" refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These</p>

technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.”

World Bank

“e-Government refers to efforts by public authorities to use information and communication technologies (ICTs) to improve public services and increase democratic participation. E-Government aims to improve government efficiency through the reduced cost of electronic information management and communications, the reorganization of government agencies and the reduction of administrative silos of information.”

EU Parliament

“The term “e-government” focuses on the use of new information and communication technologies (ICTs) by governments as applied to the full range of government functions. In particular, the networking potential offered by the Internet and related technologies has the potential to transform the structures and operation of government.”

OECD

“E-government is the use of information and communication technologies (ICTs) to promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information, and make government more accountable to citizens. E-government might involve delivering services via the Internet, telephone, community centers (self-service or facilitated by others), wireless devices or other communications systems.”

Working Group on E-government in the Developing World

...“electronic Government’ means the use by the Government of web-based Internet applications and other information technologies, combined with processes that implement these technologies, to - “(A) enhance the access to and delivery of Government information and services to the public, other agencies, and other Government entities; or “(B) bring about improvements in Government operations that may include effectiveness, efficiency, service quality, or transformation; information and services to the public, other agencies, and other Government entities.”

United States of America

“This term can be defined as the use of ICTs to more effectively and efficiently deliver government services to citizens and businesses. It is the application of ICT in government operations, achieving public ends by digital means. The use of or application of information technologies (such as Internet and intranet systems) to government activities and processes in order to facilitate the flow of information from government to its citizens, from citizens to government and within government. Refers to the use of new information and communication technologies (ICTs) by governments as applied to the full range of government functions.”

IGI Global

...“the continuous optimization of service delivery, constituency participation, and governance by transforming internal and external relationships through technology, the

Internet and new media.”

(Gartner Group.2000)

“Electronic government (hereafter e-Government) refers to a situation in which administrative, legislative and judicial agencies (including both central and local governments) digitize their internal and external operations and utilize networked systems efficiently to realize better quality in the provision of public services.”

(Bashar, Rezaul and Grout.2011)

“e-Government implies the implementation of information and communication technology like internet, to improve government activities and process, with the aim of increasing efficiency, transparency, and citizen involvement. On the other hand. e-Government may be defined as the integration of information and communication technology, in public administration, i.e. to various government processes, operations, and structures with the purpose of enhancing transparency, efficiency, accountability and citizen participation. It facilitates: Greater level of efficiency and effectiveness in government activities and process. Enhances quality of public services; Simplifies administrative processes; Improves access to information; Increases communication between various government agencies; Strengthen support to public policy; Enables seamless government.”

(Key references.2017)

“E-government can be defined as the use of Internet-based information technology to enhance the accountability and performance of government activities. These activities include government’s activities execution, especially services delivery; access to government information and processes; and citizens’ and organizations’ participation in government”.

(DeBenedictis et al.2002)

“The electronic provision of information and services by governments, 24 hours a day, 7 days a week.”

Norris and Moon (2005)

“The use of information technology within government to achieve more efficient operations, better quality of service, and easy public access to government information and services.”

(Kraemer and King. 2003)

“The entire range of government roles and activities, shaped by and making use of information and communications technologies.”

(Brown. 2005)

“The uses of information technology to support operations, engage citizens, and provide government services.”

(Cook, Lavigne, Pagano, Dawes and Pardo.2002)

...”is defined e-government as a way for governments to use the most innovative information and communication technologies, particularly web-based Internet applications, to provide citizens and businesses with more convenient access to government information and services, to improve the quality of the services and to provide greater opportunities to participate in democratic institutions and processes.”

(Fang.2002)

...”e-government involves the use of ICTs to support government operations and provide government services.”

Fraga (2002)

...”e-government goes even further and aims to fundamentally transform the production processes in which public services are generated and delivered, thereby transforming the entire range of relationships of public bodies with citizens, businesses and other governments.”

(Leitner.2003)

“E-government services as the use of ICT to enable and improve the efficiency of government services provided to citizens, employees, businesses, and agencies.”

(Carter and Belanger.2005)

As Homburg (2008) outlines, e-government is hence multifaceted and has been implemented in a variety of forms and shapes, further complicating the process of trying to determine a single, universal meaning.

E-government, characterised as a multifaceted concept, has different meanings to different constituents (Gauld and Goldfinch.2006): for politicians e-government plays role an engine for reform and to meet the aspirations of new public management; for the general public, e-government is viewed as a source of greater information and influence on government; for the bureaucrats, e-government is viewed as a managerial tool to improve their service delivery.

E-government is perceived differently in connection with its theoretical background. According to Garson (1999), e-government is conceptualised within four theoretical frameworks. The first framework involves the potential of IT in decentralization and democratization. The second normative/ dystopian framework underlines the limitations and contradictions of technology. Third, the sociotechnical systems approach emphasizes the continuous and two-way interaction of the technology and the organizational–institutional environment. The fourth framework places e-government within theories of global integration.

E-government has been discussed in different aspects: in the context of technology (Zhiyuan. 2002); from a service delivery perspective (Norris and Moon.2005); from a citizen-centric perspective (Roy.2007); from a functional perspective (Selfert and Petersen. 2002); from a social fabric perspective (Brown.2005); and from a radical change perspective (Kraemer and King.2008).

E-government concept is generally based on three main viewpoints: (i) Technical determinism is focused on technology. It is limited by the criteria of technical determinism and by the development of information technology to minimize the concept of e-government; (ii) Social determinism is focused on restructuring the public service by improving the management procedure to support efficiently the introduction of information technology; (iii) The means for economic development is traditionally defined by improved recognition of strategic means. That is, e-government is the concept to recover national competitiveness and economic activation based on developing the pioneering information industry by supporting directly and indirectly the information communication industry with supply distribution and network infrastructures (NCA.1996, 1997).

The initial objective of e-government was to increase governmental efficiency. In modern society, the ideal purpose of e-government has become realising democracy and assuring human life. Due to the advancement of information technology and the increased participation by citizens, the new concept of e-government has focused on efficiency as well as democracy. This trend has placed an emphasis on democracy and participation leading to the development of e-democracy (Fuchs and Kase.2000; Norris. 2001).

From the above motioned definitions it is clear that e-government has to be considered as an institutional approach to jurisdictional political operations and a narrower discipline dealing with the development of online services - the role of e-government is to enhance access to information, offer effective delivery of services, offer reduction in paper work, and offer transparency in service delivery to the citizens using advance ICT.

### 5. E-governance - Conceptual Dimension

Just as there are many conceptual views of governance, there are many conceptual approaches of e-governance (Godse and Garg.2011) (Tab.2). Although they do not always run inline, generally e-governance refers to the ICT-based networks of services and administration in NPM settings including both public and private actors.

Depending on the particular conditions and governance requirements or activities, Halachmi (2007) suggests five important models of e-governance: (i) The Broadcasting Model of dissemination of useful governance information to have informed citizenry; (ii) The Critical Flow Model of routing information of critical value to the targeted audience; (iii) The Comparative Analysis Model of assimilation of best practices in the field of governance for developing countries to empower their people; (iv) The E-Advocacy/ Mobilisation and Lobbying Model of adding the opinions of virtual communities so that the global civil society can have an impact on global decision-making processes; (v) The Interactive-Service Model of individuals' direct participation in governance processes to bring in greater objectivity and transparency in decision-making processes.

**Table 2: Conceptual Meaning of E-governance**

<b>Definitions / Conceptual Meanings of E-governance</b>
<p>“E-governance is about the use of information technology to raise the quality of the services governments deliver to citizens and businesses. It is hoped that it will also reinforce the connection between public officials and communities thereby leading to a stronger, more accountable and inclusive democracy.”</p> <p>Council of Europe</p>
<p>“E-governance is the public sector’s use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective. E-governance involves new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organizing and delivering information and services. E-governance is generally considered as a wider concept than e-government, since it can</p>

bring about a change in the way citizens relate to governments and to each other. E-governance can bring forth new concepts of citizenship, both in terms of citizen needs and responsibilities. Its objective is to engage, enable and empower the citizen.”

UNESCO

“Electronic governance (e-governance) applications are related to both the usage of technology and citizen participation in politics. “Electronic” indicates the technological capacities of our age and “governance” is a new perspective in government paradigm. Innovations in both technology and perspective create new understandings for governing such as “governing with people.”

(ÖKTEM, DEMİRHAN,2004)

...“meaning ‘electronic governance’ is using information and communication technologies (ICTs) at various levels of the government and the public sector and beyond, for the purpose of enhancing Governance.”

(Bedi, Singh and Srivastava.2001, Holmes.2001, Okot-Uma.2000)

“Governance implies the processes and institutions, both formal and informal, that guide and restrain the collective activities of a group. Government is the subset that acts with authority and creates formal obligations. Governance need not necessarily be conducted exclusively by governments. Private firms, associations of firms, nongovernmental organizations (NGOs), and associations of NGOs all engage in it, often in association with governmental bodies, to create governance; sometimes without governmental authority.”

(Keohane and Nye.2000)

“E-democracy builds on e-governance and focuses on the actions and innovations enabled by ICTs combined with higher levels of democratic motivation and intent.”

(Clift.2003)

“E-governance is defined as the, “application of electronic means in (1) the interaction between government and citizens and government and businesses, as well as (2) in internal government operations to simplify and improve democratic, government and business aspects of Governance.”

(Backus.2001)

“Electronic Governance is the application of Information and Communication Technologies (ICTs) for delivering government services through integration of various stand-alone systems between Government-to-Citizens (G2C), Government-to-Business (G2B), and Government-to-Government (G2G) services. It is often linked with back office processes and interactions within the entire government framework. Through e-Governance, the government services are made available to the citizens in a convenient, efficient, and transparent manner.”

IGI Global

“A technology mediated service that facilitates a transformation in the relationship between government and citizen.”

(Oakley.2002)

“The commitment to utilize appropriate technology for a variety of ends including greater democracy and fair and efficient services.”

(Riley (2001) cited by Saxena.2003)

“Propose a framework for differentiating between e-government and e-governance. In their model, e-governance is concerned with internally focused use of ICT or manage organizational resources and administer policies and procedures; e-government is outward and citizen directed.”

(Palvia and Sharma.2007)

...“deals with the whole spectrum of the relationship and networks within government regarding the usage and application of ICTs.”

(Sheridan and Riley.2010)

“The use of ICT to improve the quality of services and governance.”

(Chen and Hsish.2009)

. . . “a technology-mediated relationship between citizens and their governments from the perspective of potential electronic deliberation over civic communication, over policy evolution and in democratic expressions of citizen.”

(Marche and McNiven.2003)

“ICTs provide interactive communication channels, which are important in the transformation of the current governing process to a governing process that is open to the collaboration and deliberation of different actors in the processes of service provision and information delivery.”

(Dawes.2008), (Potnis.2009)

“E-governance refers to the use of ICTs to reach the aims related to governance. Governance can be explained in terms of its main components. These components are participation, transparency and accountability, information and service delivery, and communication and interaction in governing processes.”

(Pina et al.2007), (Sandoval-Almazan and Gil-Garcia.2012)

“E-governance is related to the use of information and communication technologies in policymaking, legitimating, auditing, accounting of government application, providing transparency and accountability of governments, and service delivery.”

(Lean, Zailani, Ramayah, and Fernando.2009), (Yildiz.2007)

“A form of e-business in governance comprising of process and structures involved in deliverance of electronic service to the public, viz. citizens.”

(Prabha.2004)

“The impact [from e-government interactions] on government, public service and citizens throughout the political process, policy development, program design and service delivery.”

(Kettl.2002)

“A technology mediated service that facilitates a transformation in the relationship between government and citizen.”

(Oakley.2002)

...” defines e-government as the use of ICT to improve the process of government. In a narrow sense it is sometimes defined as citizen’s services, re-engineering with technology, or procurement over Internet.”

(Gordon.2002), (Signore et al.2005)

...”e-government denotes the use of information technologies and the Internet for better delivery government services to citizens. It denotes also a more efficient management and

<p>improvement of interactions between government and citizens.” (Spremić et al.2009)</p>
<p>...” interactions between economic, political and social actors. Indeed e-government allows businesses to transact with each other more efficiently (B2B) and brings customers closer to businesses (B2C). Also, e-government enable links between government and citizens (G2C), government and businesses enterprises (G2B) and interagency relationships (G2G).” (Marthandan and Tang.2010)</p>
<p>“E-governance is a concept larger than the concept of e-government since it can bring about a change in the way how citizens relate to government and to each other.” (Signore et al. 2005)</p>
<p>...”e-Governance means governing or administering a country/state or organization, with the help of information and communication technology. Electronic governance, shortly known as e-governance refers to the utilization of information and communication technology (ICT) for providing government services, disseminating information, communication activities, and incorporation of miscellaneous stand alone system and services between different models, processes and interaction within the overall structure. E-governance is a tool, that makes available various government services to citizens in a convenient way, such as: Better provision of government services; Improved interaction with different groups; Citizen empowerment through access to information; Efficient government management.” (Key differences.2017)</p>
<p>...”e-governance is focused on the democratic processes.” (Margolis and Moreno-Riano.2010)</p>
<p>...”e-governance is the use of information and communication technologies in public administration in order to improve the information and public service, encouraging the citizens’ participation in the decision-making processes and making the government more accountable, transparent and effective.” (Budd and Harris.2009)</p>

Discussed below in the Table 3 describing a few models of E-Governance along with different stages of e-governance are identified on a certain set of criteria and their key specifications and characteristics.

**Table 3. E-Governance – Stages, Models and Characteristics**

(E-Governance – Stages, Models and Characteristics. 2023)



<b>Models</b>	
Hiller and Belanger's five-stages and Moon's five-stage model	<ul style="list-style-type: none"> <li>• <b>Simple information dissemination</b> (one-way communication)- is considered as the most basic form, as it is used for merely disseminating information;</li> <li>• <b>Two-way communication</b> (request and response)- is characterised with e-mail system and information and data-transfer technologies in the form of the website;</li> <li>• <b>Service and financial transactions</b>- is online services and financial transactions leading to web-based self-services;</li> <li>• <b>Integration</b> (both vertical and horizontal)- in this stage the government would attempt inter and intra-governmental integration;</li> <li>• <b>Political participation</b>- this stage means online voting, online public forums and opinion surveys for more direct and wider interaction with the government.</li> </ul>
The model suggested by the United Nations and American Society for Public Administration (UNASPA)	<ul style="list-style-type: none"> <li>• <b>Emerging presence</b> – A single or a few independent government web sites provide formal but limited and static information;</li> <li>• <b>Enhanced presence</b> – Government web sites provide dynamic, specialized and regularly updated information;</li> <li>• <b>Interactive presence</b> – Government web sites act as a portal to connect users and service providers and the interaction takes place at a more sophisticated level;</li> <li>• <b>Transactional presence</b> – Users have the capability to conduct complete and secure transactions, such as renewing visas, obtaining passports and updating birth and death records through a single government web site;</li> <li>• <b>Seamless or fully integrated presence</b> – Governments utilize a single and universal web site to provide a one-stop portal in which users can immediately and conveniently access all kinds of available services.</li> </ul>
World Bank's Three-Stage Model	<ul style="list-style-type: none"> <li>• <b>Publish</b> – Developing nations can start the process of e-governance by publishing government information online, beginning with rules and regulations, documents and forms;</li> <li>• <b>Interact</b> – E-governance has the potential to involve citizens in the governance process by engaging them in interaction with policymakers throughout the policy cycle and at all levels of government. Strengthening civic engagement contributes to building public trust in government;</li> <li>• <b>Transact</b> – Governments can create websites that allow users to conduct transactions online. Potential cost savings, accountability through information logs and productivity improvements will be important drivers.</li> </ul>

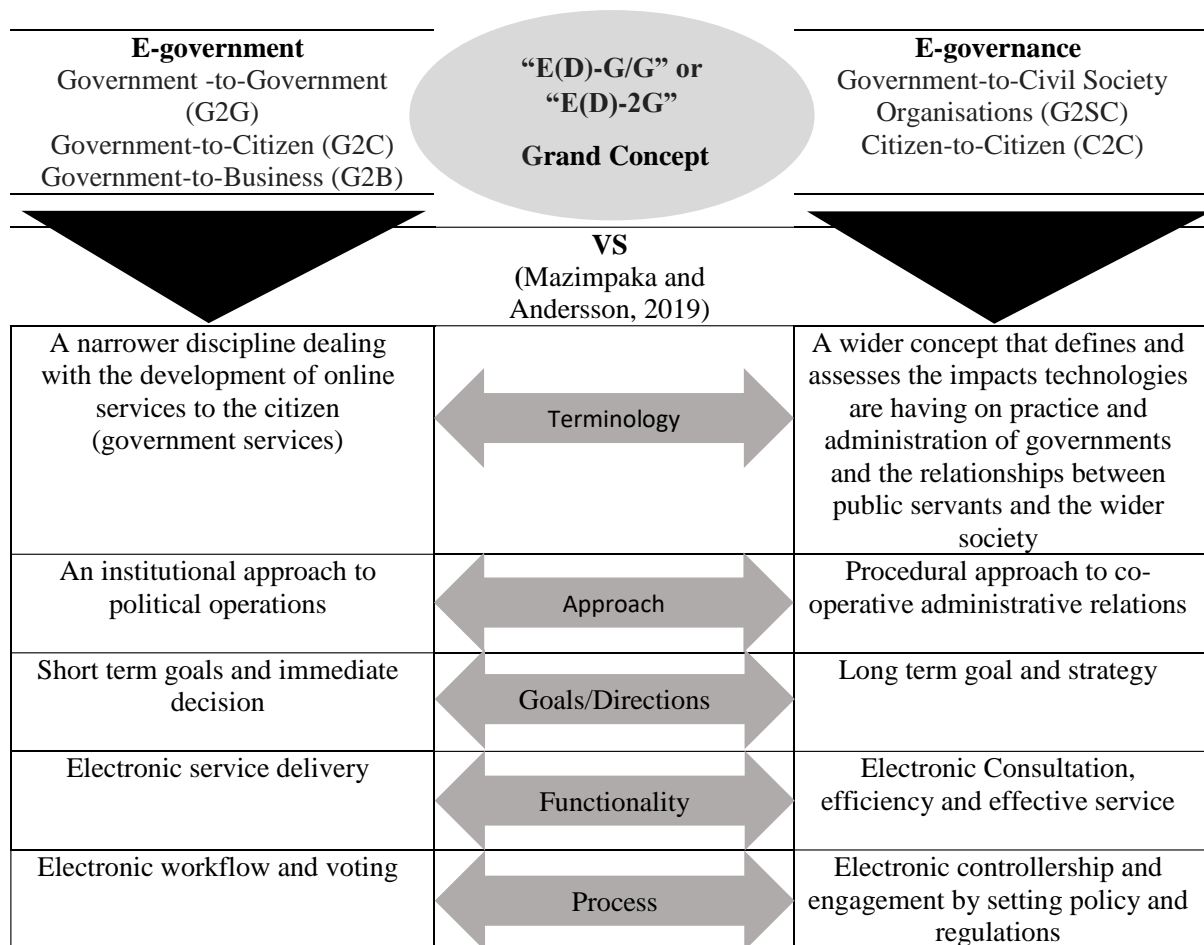
Gartner's four-stage model	<ul style="list-style-type: none"> <li>• <b>Web presence</b> – Agencies provide a web site to post basic information to public;</li> <li>• <b>Interaction</b> – Users are able to contact agencies through web sites (e.g., e-mail) or do self-service (e.g., download document);</li> <li>• <b>Transaction</b> – Users (including customers and businesses) can complete entire transactions (e.g., license application and procurement) online;</li> <li>• <b>Transformation</b> – Governments transform the current operational processes to provide more efficient, integrated, unified and personalized service.</li> </ul>
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The common theme behind these definitions / conceptual views is that e-governance involves the automation or computerization of existing paper-based procedures that will prompt new styles of leadership, new ways of debating and deciding strategies, new ways of transacting. E-governance has to be determined as a procedural approach - co-operative administrative relations - the encompassing of basic and standard procedures within the confines of public administration. It is the latter acts as the lynchpin that will ensure success of the delivery of e-services. E-governance is a wider concept that defines and assesses the impacts technologies are having on the practice and administration of governments and the relationships between public servants and the wider society, such as dealings with the elected bodies or outside groups. E-governance encompasses a series of necessary steps for government agencies to develop and administer to ensure successful implementation of e-government services to the public at large. The differences between these two important constructs are explored further in this essay.

## 6. Conclusion

A comparative analysis of e-government (digital garment) and e-governance (digital government) reveals that discussed concepts represent two distinct phenomenon by their meaning and operational scopes - e-government is a system whereas e-governance is a functionality; e-government is a one-way communication protocol since e-governance is a two-way communication protocol abstractions (Pic. 1). The indicated analysis also shows that both domains are so interrelated / interdependent that it is recommended to develop the umbrella - grand concept of Electronic (Digital) Government/Governance – (“E(D)-G/G” or “E(D)-2G”) (Pic. 1) (as a key component of modern digital democracy and enabler for Sustainable Development) in order to clear existing conceptual ambiguity between them.

**Picture 1. The umbrella - grand concept of Electronic (Digital) Government/Governance – (“E(D)-G/G” or “E(D)-2G”)**



**References:**

- 1) Anttiroiko A.V. (2007). Democratic e-Governance – Basic Concepts, Issues and Future Trends. *Digest of Electronic Government Policy and Regulation* 30, 83–90, IOS Press
- 2) As-Saber, S. N. & Hossain, K. (2008). Call Centres and Their Role in E-governance: A Developing Country Perspective, *The Journal of Community Informatics*, Vol. 4, No 3
- 3) Backus, M. (2001) E-Governance and Developing Countries, Introduction and examples, Research Report, No. 3, April 2001
- 4) Bekkers, V., Dijkstra, G.; Edwards, A. and Fenger, M. (eds.) (2007). *Governance and the Democratic Deficit: Assessing the Democratic Legitimacy of Governance Practices*, Hants: Ashgate Publishing. von Bergmann-Winberg, M-L. and Wihlborg, E. (2011). *Entreprenörer i politikens gränsland och nätverk* in: M-L von Bergmann-Winberg and E. Wihlborg (eds.) *Politikens entreprenörskap – kreativ problemlösning och förändring*, Malmö: Liber, 5-15
- 5) Bannister, F. and Walsh, N. (2002), The virtual public servant: Ireland's public services broker. *InformationPolity: The International Journal of Government & Democracy in the Information Age*, 7 (2/3)

- 6) Bashar M.R., Rezaul K.M., Grout V., (2011), E-Government vs. Ordinary Bureaucratic Government: A Comparative Study
- 7) Bedi, K., Singh, P.J. & Srivastava, S. (2001) government net: new governance opportunities for India. New Delhi: Sage
- 8) Brown, M. M. (2001). The Benefits and Costs of Information Technology Innovations: An Empirical Assessment of a Local Government Agency. *Public Performance & Management Review*, 24
- 9) Budd, L., Harris, L. (Eds.). (2009). *E-governance: managing or governing?* New York, NY: Routledge
- 10) Carter, L. and Belanger, F. (2005), "The Utilization of E-Government Services: Citizen Trust, Innovation and Acceptance Factors", *Information Systems Journal*, vol. 15, no. 1
- 11) Clift, S. (2003) *E-Governance to E-Democracy: Progress in Australia and New Zealand toward Information Age Democracy*  
<http://www.publicus.net/articles/edempubli network.html>
- 12) Cook, M. E., LaVigne, M. F., Pagano, C. M., Dawes, S. S., and Pardo, T. A. (2002). *Making a Case for Local E-Government*. Albany, New York: Center for Technology in Government
- 13) Collins, R. (2009). *E-Governance and the Governance of the Global Internet*. In: Budd, L. and Harris, L. (eds.). *E-Governance: Managing or Governing?* New York: Routledge
- 14) Council of Europe, *E-governance*,  
[https://www.coe.int/t/dgap/democracy/Activities/GGIS/E-governance/Default\\_en.asp](https://www.coe.int/t/dgap/democracy/Activities/GGIS/E-governance/Default_en.asp)
- 15) Dada, D. (2006), "The failure of e-government in developing countries: A literature review", *The electronic journal of information systems in developing countries*, vol. 26, no. 7
- 16) Davies, R. (2015) European Parliament, *e-Government Using technology to improve public services and democratic participation, IN-DEPTH ANALYSIS*
- 17) Dawes, S. S. (2008). The evolution and continuing challenges of e-governance [Special Issue]. *Public Administration Review*, December, 86-102. doi: 10.1111/j.1540-6210.2008.00981.x
- 18) DeBenedictis, A., Howell, W., Figueroa, R., and Boggs, R. A. (2002), "E-government defined: an overview of the next big information technology challenge", *International Association for Computer Information Systems (Issues in Information Systems)*, vol. 3
- 19) *E-Government Act*. (2002), <https://www.justice.gov/opcl/e-government-act-2002>
- 20) *E-Governance – Stages, Models and Characteristics*. (2023), <https://byjus.com/free-ias-prep/stages-of-e-governance>, accessed 13.01.2023
- 21) Estevez, E.; Janowski, (2013) T. *Electronic Governance for Sustainable Development—Conceptual framework and state of research*. *Gov. Inf. Q.* 2013, 30, S94–S109
- 22) Fuchs, D., and Kase, M. (2000). *Electronic democracy*. Paper presented at IPSA World Congress
- 23) Fang, Z. (2002). *E-government in digital era: concept, practice, and development*. *International Journal of The Computer, The Internet and Management*, 10(2)

- 24) Fraga, E. (2002) "Trends in e-Government: How to Plan, Design, and Measure e-Government". Government Management Information Sciences (GMIS) Conference, June 17, Santa Fe, New Mexico, U.S.A
- 25) Garson, G. D. (1999). Information systems, politics, and government: Leading theoretical perspectives. In G. D. Garson (Ed.), Handbook of public information systems. New York: Marcel Dekker.
- 26) Gartner Group (2000), Key Issues in E-Government Strategy and Management. Research Notes, Key Issues (23 May 2000)
- 27) Digital Government. (2013), <https://encyclopedia.pub/entry/17572>, accessed 13.01.2023
- 28) Digital Government for Development (2023), <https://www.worldbank.org/en/topic/digitaldevelopment/brief/digital-government-for-development>, accessed 13.01.2023
- 29) Digital Government Services, (2023), <https://www.unisys.com/glossary/digital-government-services/>, accessed 13.01.2023
- 30) Giritli Nygren, K. (2009a). "e" i retorik och praktik. Elektronisk förvaltning i översättning ["e" as rhetoric and practice. eGovernment in transition.] Doctoral thesis, Mid Sweden University. Sundsvall, Sweden.
- 31) Giritli Nygren, K. (2009b). e-Governmentality: on Electronic Administration in Local Government. Electronic Journal of e-Government Vol. 7. Issue 1
- 32) Ghayur, A. (2006), the E-Government: A Jigsaw View, Published in I3E 2006 Computer Science, Business
- 33) Gjelstrup, G. and Sørensen, E. (eds.) (2007). Public Administration in Transition. Theory, Practice, Methodology. Copenhagen: DFØF Publishing
- 34) Grigalashvili, V. (2022.1). Conceptual Dimensions of Electronic Government And Electronic Governance In The Domain Of Digital Democracy, *International Journal of Scientific and Management Research* Volume 5 Issue 1 (Jan) 2022., DOI: 10.31435/rsglobal\_ijite/30032022/7753
- 35) Grigalashvili, V. (2022.2). E-government and E-governance: Various or Multifarious Concepts. *International Journal of Scientific and Management Research* Volume 5 Issue 1 (Jan) 2022, DOI - <http://doi.org/10.37502/IJSMR.2022.5111>
- 36) Grönlund, Å. and Horan, T. A. (2005). Introducing e-Gov: History, Definitions, and Issues. *Communications of the Association for Information Systems*, Vol. 15
- 37) Godse, V. and Garg, A., (2011), From E-government to E-governance, [https://www.csisigegov.org/1/2\\_313.pdf](https://www.csisigegov.org/1/2_313.pdf)
- 38) Gordon F.T. (2002). E-government-introduction. *ERCIM News* n.48
- 39) Grönlund, Åke and Horan, Thomas A. (2005) "Introducing e-Gov: History, Definitions, and Issues," *Communications of the Association for Information Systems*: Vol. 15, Article 39
- 40) Gupta, M. P., Bhattacharya, J. and Agarwal, A. (2007), "Evaluating e-government", University Press, 2007
- 41) Halachmi, A., (2007), E-Government Theory and Practice: The Evidence from Tennessee USA, in Marc Holzer, Mengzhong Zhang, and Keyong Dong, (eds.),

- Frontiers of Public Administration, The American Society for Public Administration, New York
- 42) Halchin, L. E. (2004). Electronic government: Government capability and terrorist resource. *Government Information Quarterly*
  - 43) Heeks, R. and Bailur, S. (2007), "Analysing e-government research: Perspectives, philosophies, theories, methods and practice", *Government Information Quarterly*, vol. 24
  - 44) Holmes, D. (2001) *eGov: eBusiness Strategies for Government*. London, U.K.: Nicholas Brealey
  - 45) Howard, M. (2001) *E-Government across the globe: How will "e" change government?* *Government Finance Review*, vol. 17, Issue 4
  - 46) IGI Global, What is E-Government, <https://www.igi-global.com/dictionary/a-model-proposal-for-local-governments-to-increase-citizen-involvement-in-the-age-of-information-society-and-e-government/8704>
  - 47) Irani, Z., Al-Sebie, M., and Elliman, T. (2006), "Transaction Stage of e-Government Systems: Identification of its Location & Importance", *Proceedings of the 39th Hawaii International Conference on System Science, Hawaii*
  - 48) Jaeger, P. T. and Thompson, K. M. (2003), "E-government around the world: Lessons, challenges, and future directions", *Government Information Quarterly*, vol. 20, no. 4
  - 49) Jain, P. (2002), "The Catch-up state: E-government in Japan", *Japanese Studies*, vol. 22
  - 50) Jayashree, S. and Marthandan, G. (2010). Government to E-government to E-society. *Journal of Applied Sciences*, 10: 2205-2210. DOI: 10.3923/jas.2010.2205.2210
  - 51) Jordan, A., Wurzel, R. K.W. and Zito, A. (2005). The Rise of 'New' Policy Instruments in Comparative Perspective: Has Governance Eclipsed Government?, *Political Studies*, 53
  - 52) Kafle, S. (2018), What is the difference between e-Government & e-Governance ?
  - 53) Kasubien, L. and Vanagas, P. (2007), "Assumptions of e-government services quality evaluation", *Engineering Economics*, vol. 5, no. 55
  - 54) Ke, W. and Wei, K. K. (2004), "Successful e-government in Singapore" *Communications of the ACM*, vol. 47
  - 55) Keohane, R. O. and Nye, J. S. (2000), Introduction, In Nye, J. S. and Donahue, J.D. (editors), *Governance in a Globalization World*. Washington, D.C.: Brookings Institution Press
  - 56) Kettl, D. F. (2002), *The Transformation of Governance*, John Hopkins University Press, U.S.A.
  - 57) Key differences (2017), Difference Between e-Government and e-Governance, <https://keydifferences.com/difference-between-e-government-and-e-governance.html>
  - 58) Kim, S. T. (2003). *Global e-government theory*. Seoul, ROK: Bobmoonsa
  - 59) Kraemer, K. L., and King, J. L. (2003). *Information Technology and Administrative Reform: Will the Time After E-Government Be Different?* Paper presented at the Heinrich Reinermann Schrift fest, Post Graduate School of Administration, Speyer, Germany, September 29

- 60) Larsson, H. and Grönlund, Å. (2014). Future-oriented eGovernance: The sustainability concept in eGov research, and forward, *Government Information Quarterly*, 31
- 61) Lean, O. K., Zailani, S., Ramayah, T., & Fernando, Y. (2009). Factors influencing intention to use e-government services among citizens in Malaysia. *International Journal of Information Management*, 29, 458-475. doi: 0.1016/j.ijinfomgt.2009.03.012
- 62) Leitner, C. (2003), e-Government in Europe: The State of Affairs, European Institute of Public Administration, Maastricht, the Netherlands
- 63) Löfgren, K. (2007). The Governance of E-Government. A Governance Perspective on the Swedish EGovernment Strategy, *Public Policy and Administration*, 22(3)
- 64) Marche, S. and J.D. McNiven. (2003), "E-Government and E-Governance: The Future Isn't What It Used To Be", *Canadian Journal of Administrative Sciences*, 20(1), 2003
- 65) Margolis, M., Moreno-Riano, G. (2010). E-Government, customers and citizens
- 66) Marthandan, G. and Tang, C. M. (2010). —Information technology evaluation: Issues and challenges. *Journal of Systems and Information Technology*, 12(1) Mobile Commerce, Mehdi Khosrow-Pour, Information Resources Management Association, Idea Group Reference, USA
- 67) Mazimpaka J. and Andersson, A. (2019), The public value of E-Government - A literature review, DOI:10.1016/j.giq.2019.01.001
- 68) Misuraca, G. and Viscusi, G. (2013). Managing E-Governance: A Framework for Analysis and Planning. In Z. Mahmood (ed.) *Developing E-Government Projects: Frameworks and Methodologies*, Advances in Electronic Government, Digital Divide, and Regional Development Series, Hershey, PA, USA: IGI-Global
- 69) National Computerization Agency. (1996). National informatization master plan manual, Seoul, ROK: NCA
- 70) NCA. National Computerization Agency. (1997). A study on the public service and public system in informatization society, Seoul, ROK: NCA
- 71) Norris, P. (2001). *Digital divide: Civic engagement, information poverty, and the internet*
- 72) worldwide. Cambridge: Cambridge University Press
- 73) Norris, P. (2003). *Digital divide – Civic engagement, information poverty, and the Internet worldwide*. Cambridge, UK: Cambridge University Press
- 74) Oakley, K. (2002), "What is e-Governance?", Integrated Project 1: e-Governance Workshop, Strasbourg, 10-11 June, 2002
- 75) OECD, OECD Glossary of statistical terms <https://stats.oecd.org/glossary/detail.asp?ID=4752>
- 76) OECD DGI: 2019. (2019), OECD Digital Government Index (DGI): 2019
- 77) OECD DGPF. (2020) OECD Digital Government Policy Framework Six dimensions of a Digital Government, OECD Public Governance Policy Papers, N02, 2020
- 78) Okot-Uma, R.W. (2000) *Electronic Governance: Re-inventing Good Governance*. London, U.K.: Commonwealth Secretaria
- 79) ÖKTEM, M. Kemal., DEMİRHAN K. (2004), *The Usage of E-Governance Applications by Higher Education Students*, EDUCATIONAL SCIENCES: THEORY & PRACTICE, 2004

- 80) Osborne, S. P. (2006). The New Public Governance?, *Public Management Review*, 8, (3)
- 81) Organisation for Economic Co-operation and Development. (2001). *Citizens as partners*. France: Author
- 82) Oyomno, G. (2004), "Towards a framework for assessing the maturity of government capabilities for e-government", *The Southern African Journal of Information and Communication*, vol. 4
- 83) Palvia, S. and S. Sharma, (2007), "E-Government and E-Governance: Definitions/Domain Framework and Status around the World", *Computer Society of India*, 2007. Available at: [www.csi-sigegov.org/1/1\\_369.pdf](http://www.csi-sigegov.org/1/1_369.pdf)
- 84) Perri 6. (2004). *E-Governance: Styles of Political Judgment in the Information Age Polity* (Palgrave Macmillan, Basingstoke, 2004).
- 85) Pina, V., L. Torres and B. Acerté, (2006), "Are ICTs promoting government accountability?: A comparative analysis of e-governance developments in 19 OECS countries". *Critical Perspectives on Accounting*, 18, 2006
- 86) Potnis, D. D. (2009). Measuring e-Governance as an innovation in the public sector. *Government Information Quarterly*, 27, 41-48. doi: 10.1016/j.giq.2009.08.002
- 87) Prabha, Q.S.V. (2003), *Governance: Concepts and case studies*, Prentice-Hall, India, 2003
- 88) Riley, T.B.(2001), "Electronic governance in context". *Electronic Governance and Electronic Democracy: Living and Working in the Connected World*, The Commonwealth Centre for Electronic Governance, Ottawa, 2001
- 89) Rossel, P. and Finger, M. (2007). *Conceptualizing e-governance*. New York: ACM Digital Library
- 90) Roy, J. (2003), "Special Issue on e-Government", *Social Science Computer Review*, vol. 21, no. 1
- 91) Sanford, C., & Rose, J. (2007). Characterizing e-Participation. *International Journal of Information Management*, 27, 406-421. doi: 10.1016/j.ijinfomgt.2007.08.002
- 92) Saxena, K.B.C. (2005). Towards excellence in e-governance, *International Journal of Public Sector Management*, 18(6)
- 93) Sharma, S. K. (2006) *An E-Government Services Framework*, *Encyclopedia of Commerce, E-Government and*
- 94) Saugata, B. and Masud Rana Rashel, M.R. (2007), *Implementing E-Governance Using OECD Model (Modified) and Gartner Model (Modified) Upon Agriculture of Bangladesh*
- 95) Scholl, H. J. (2003), *E-government: a special of ICT enabled business process change*, proceeding of 36th Hawaii international conference on system sciences, IEEE
- 96) Seifert, J. and Petersen, E. (2002), "The Promise of All Things E? Expectations and Challenges of Emergent E-Government", *Perspectives on Global Development and Technology*, vol. 1, no.2
- 97) Seifert, J. W. and Relyea, H. C. (2004), "Considering eGovernment from the U.S. Federal Perspective: An Evolving Concept, A Developing Practice", *Journal of eGovernment*, vol. 1, no.1



- 98) Sheridan, W. and T. Riley "Comparing e-Government Vs. e-Governance", GIS Development. (2006). Available at: [www.gisdevelopment.net/magazine/years/2006/aug/46\\_1.htm](http://www.gisdevelopment.net/magazine/years/2006/aug/46_1.htm)
- 99) Signore O., Chesi F. Palloti M. (2005). E-government: challenges and opportunities. CMG itay-XIX Annual Conference
- 100) Spremić, M., imurina, ., aković, B., and Ivanov, M. (2009), E-Government in Transition Economies. World Academy of Science, Engineering and Technology, Vol. 53. University of Zagreb, Croatia
- 101) Tambouris, E. (2001), "An integrated platform for realising online one-stop government: The egovernment project", Dexa (ed.), in: 12th International Workshop on Database and Expert Systems Applications, 03 - September, Munich, Germany, IEE
- 102) The five pillars of digital governance Good governance institute, (2023), <https://www.good-governance.org.uk/publications/insights/the-five-pillars-of-digital-governance>, accessed 13.01.2023
- 103) UN, E-Government, <https://publicadministration.un.org/egovkb/en-us/about/unegovdd-framework> Working Group on E-government in the Developing World, ([www.pacificcouncil.org](http://www.pacificcouncil.org))
- 104) UN Global E-government Readiness Report. From E-government to E-inclusion, UNPAN/2005/14, United Nations publication, United Nations, 2005
- 105) United Nations. E-Government Survey 2016. (2016), United Nations: New York, NY, USA, 2016
- 106) United Nations. E-Government Survey 2018. (2018), United Nations: New York, NY, USA, 2018
- 107) United Nations. E-Government Survey 2020. (2020), United Nations: New York, NY, USA, 2020
- 108) United Nations. E-Government Survey 2022. (2022), United Nations: New York, NY, USA, 2022
- 109) Weerakkody, V. and Dhillon, G. (2008), "Moving from E-Government to TGovernment", *International Journal of Electronic Government Research*, vol. 4
- 110) Welchman L. (2014), *Managing Chaos: Digital Governance by Design*, <https://rosenfeldmedia.com/wp-content/uploads/2014/11/ManagingChaos-Ch1.pdf>
- 111) Wihlborg, E. (2011). *Entreprenörer på plats i policy och politik*, I von Bergmann-Winberg, M-L & Wihlborg, E. (red.) *Politikens entreprenörskap – kreativ problemlösning och förändring*, Malmö: Liber, 110-129
- 112) World Bank (2015), e-Government, <https://www.worldbank.org/en/topic/digitaldevelopment/brief/e-government>
- 113) Yildiz, M. (2007). E-government research: Reviewing the literature, limitations, and ways forward. *Government Information Quarterly*, 24