

Preface

At the origins of this book, we, the editors set out to examine e-government from the perspective of the developing regions of the world and to explore issues of e-government policy and practice in these regions, combining scholarly research alongside practitioner case studies, with the aim to provide a critical current perspective on e-government progress in the developing regions and an evaluation of challenges for the future. In the time that followed, there have certainly been applications of technology in many areas of politics and governance, including the Arab Spring; there are continually new examples of e-Government, e-Governance, and the implementation of new technological resources, with guiding principles provided by governments around the world, and with the United Nations (UN) providing or applying an oversight. Therefore, as a reference point, it is worth reflecting upon the United Nations E-Government Survey 2012, in which imperatives are made for the way forward, including the following:

As the way forward the first imperative is to recognize the role of national governments in tapping into the transformative nature of e-government for sustainable development as it relates to whole-of-government approaches and multichannel service delivery. In this regard countries must at a minimum establish a persistent online presence with at least basic services in order to build trust in government. (United Nations, 2012)

It is perhaps with these imperatives in mind that we should view the chapters in this book. The chapters cover many facets of e-Government, and offer valuable insights from many countries including case studies from Morocco, Bangladesh, Kurdistan (Iraq), Sri Lanka, Turkey, Romania, Ecuador, Zimbabwe, South Korea, China, and Mongolia. These case studies provide richness and an opportunity to critically reflect upon the UN imperative. Similarly, there are chapters on health, gender, and the digital divide.

Before considering the chapters and structure of the book, it is worth viewing some recent research, which might not appear immediately related to e-Government or e-Governance. Between July and November 2012, Plan International, through the researchers Dr. John Lannon and Professor Edward Halpin, undertook a study of the “feasibility of a technologically enabled system to help respond to the phenomenon of cross-border child trafficking in South Asia, and makes recommendations on how to proceed with a pilot project in the selected areas of Bangladesh, Nepal and India” (Lannon & Halpin, 2013). The idea of an alert is not new. There are a number in operation; therefore, in terms of a technological solution, this seems perhaps a simple task: e-Government implementation with the support of governments. The issue is considerably more complex though, even with the good offices of governments and support of many good people, there were many administrative and political issues that required addressing, ranging from the processes for recording who is a missing child at local level by police to the political issues

surrounding borders, migration, and repatriation. The development therefore is bureaucratic, legal, and political; it crosses political borders and administrative division, involves multiple actors, and requires a “whole-of-government approach.” This is a complex e-Government and e-Governance issue, with real impact on communities, families, and vulnerable children. It certainly appears to fall within the imperative of the UN and requires cross border or regional intervention. In this case, the governments are working to together in working parties to address these issues and South Asia Initiative to End Violence Against Children (SAIEVAC), which is a South Asian Area for Regional Cooperation Apex body. This example serves to briefly illustrate how levels of complexity impact the introduction of a technological e-Government project, and the difficulty in achieving the imperative of the UN, even when, as is the case here, governments and NGOs are working hard to provide a solution, and it shows some coordinated success as there are now bilateral discussions in progress to use an existing system (DNAIndia, 2013).

With the issues of reality and practical application in mind, the editors have attempted to present the chapters in just two sections; the first deals with the technological and political issues associated with e-Government, administration, policy, politics, and management, whilst the second provides insights into specific rich case studies relating to countries and to issues. The division is probably false as allocating chapters is always difficult, as many could fit into other categories. It is also worth considering the argument presented by Professor Bannister (2012), when reflecting upon publication:

Research that investigates and describes practice in a rigorous and informative manner will always be of value in its own right and, being blunt, is often more useful to both academics and practitioners than abstruse and hard to operationalise theoretical concepts.

TECHNOLOGICAL AND POLITICAL IN DEVELOPING E-GOVERNMENT: ADMINISTRATION, POLICY, POLITICS, AND MANAGEMENT

In the first chapter by Muñoz and Bolívar, “Comparing E-Government Research in Developed vs. Emerging Economies: A Bibliometric Study,” we are provided with an informative and thoughtful critical review of research in e-Government. The chapter suggests that many countries have implemented changes in public sector management models based on the strategic and intensive use of new information and communication technologies. However, most research has focused on developed countries, with the area of emerging economies being neglected. This chapter offers a framework to help public administrators and researchers evaluate the field of e-Government research in emerging economies, identifying research gaps and possibilities for improvement in the context of e-government research in developing countries. The findings reveal the existence of various research gaps and highlight areas that should be addressed in future research, especially in developing countries. Indeed, the research approach to e-government remains immature, focusing on particular cases or dimensions, while little has been done to produce theories or models to clarify and explain the political processes of e-government. There are important challenges provided to researchers and practitioners in the conclusions, including the following, which addresses the UN imperative and the issues raised in the foregoing introduction.

The authors of this chapter believe that a useful area for future study could be that of the policy-making processes in e-government projects in a complex political environment, and that the results of such future studies could strengthen the connection between e-government and the traditional concerns of public administration (Yildiz, 2007).

If Muñoz and Bolívar provide a challenge in the opening chapter, then Im, Park, and Prombescu ask a very pertinent question in their chapter “E-Governmentization: A Panacea for the Democratization of Developing Countries?” The authors indicate that the objective of this chapter is to critically evaluate the e-governmentization of administrative processes, which many developing nations have come to enthusiastically espouse. From a theoretical perspective, such a trend is ostensibly positive, as e-government serves to promote transparency and efficient information exchange, which in turn serves to stimulate more equal distributions of power, inside as well as outside the bureaucracy, and perhaps most importantly (efficiently) solicit greater citizen participation. However, such benefits associated with the proliferation of e-government are often contingent upon a host of prerequisite conditions that, often times, developing nations do not meet. Therefore, such enthusiastic attempts by developing nations to e-governmentize administrative processes may be misplaced. As such, the primary thesis of this research is that the e-governmentization of administrative processes are likely to stimulate positive effects only after a certain level of democracy has been achieved. To explore this thesis, this chapter focuses on exploring the evolution and ensuing effects of the proliferation of e-government in South Korea.

In the conclusion, they assert that a consistent theme throughout the case of e-government discussed by this research is that, while e-governmentization offers the potential for enhancing citizen participation in government, this enhanced participation is allowed by existing organizational elites selectively to advance existing agendas, as was the case in China and South Korea, or opposed for the reason that the use of e-government services is perceived by government leaders as a threat to their legitimacy, as was suggested by the Indian case. However, while the use of e-government was assessed in only three nations, what is suggested is that it may be difficult to find instances where e-government was adopted strictly for the sake of enhancing democracy. Rather, what their analysis of three very different cases suggests is that success and failure of e-government projects is often a result of responses made by leaders at various levels of government attempting to consolidate their authority vis-à-vis other actors in society.

Next Alican, in the chapter “Political and Cultural Issues in Digital Public Administration” examines how the political and cultural aspects of digital public undertakings in developing countries are often neglected as more emphasis is placed on the technological components. The mutual impact between political or cultural issues and emerging trends such as cloud computing and social networks exacerbate the problem. This chapter analyzes political and cultural issues which have a significant impact on digital public administration and e-government initiatives in developing countries, also taking into consideration the emerging tendencies and technologies. It combines theory and practice, including studies that demonstrate different political or cultural issues involved in the digital undertakings in these countries, examples from different contexts and nations, and a case study from Turkey. The chapter starts with examples of different political issues, analyzing and summarizing some of the most relevant of these issues, including existing literature related to each subject. It continues with cultural issues. The subsequent section contains a discussion of how political and cultural issues relate to the tendencies of the Information and Communication Technologies (ICTs) sector, and why this context is important for digital initiatives in developing countries, as an initial guide to existing and future challenges. The chapter ends with the case of Turkey, which demonstrates political and cultural issues faced on both national and regional levels, in the context of digital public administration and emerging trends in ICTs.

In conclusion, the chapter suggests that the research data from Turkey illustrates clearly the importance and relevance of the political and cultural issues in digital public administration and e-government initiatives in developing countries, which are often considered and treated as a solely technological question. Here again we encounter the complexity of development of e-Government.

Ruhode provides the next chapter on “Integrated Architecture Framework for E-Government: A Socio-Technical Assessment of E-Government Policy Documents.” He posits that emerging trends in Information and Communication Technologies (ICTs) in governments around the globe suggest that developing countries should embrace e-government as an enabler of efficient and effective service delivery. The Government of Zimbabwe, which is a case study in this chapter, is acutely aware of the critical role that ICTs play in socio-economic development. This chapter discusses Zimbabwe’s e-government policies and programmes and maps them against the e-government architecture framework by Ebrahim and Irani (2005). The e-government architecture framework defines the standards, infrastructure components, applications, technologies, business models, and guidelines for electronic commerce among and between organisations that facilitate the interaction of the government and promote group productivity. The study is theoretically based upon the socio-technical theory, whose view suggests the existence of a technical sub-system and a social sub-system in an organisation. This theory has been adopted in this study to explain the complex relation between the government as an institution and e-government as an artifact. Drawing from the e-government architecture framework and the social-technical theory, an integrated e-government assessment framework is developed to explain the nature of relationships among government, citizens, and technology. At the conclusion of the chapter, an e-government architecture framework that underpins a successful e-government implementation is offered and could provide a valuable tool to examine the challenges explored in other chapters.

Islam and Ehsan provide us with a theoretical and conceptual chapter titled, “E-Governance as a Paradigm Shift in Public Administration: Theories, Applications, and Management,” in which they suggest that an effort to claim for a paradigm shift in an academic discipline is daunting. Without a firm-rooted trend, distinguishing characteristics and evidence-based transformation, the claim for a paradigm shift would be futile. How far e-governance has provided and managed a space for a shift in paradigm is still debatable in the academic circle. However, the trends and applications are so widespread, inevitable, and visible that a modest claim for a paradigm shift is timely and due. The fundamental reasons and clues for such a “claim” are justified by the transformation that occurred not only in the processes and practices of public administration, policy, and management, but also in the structure that shapes it. From a systems approach, the changes are evident in inputs, throughputs, and outputs, thus bringing out a holistic transformation in public administration functionaries. No doubt that a system of public administration is all-pervasive and has been ubiquitous since times immemorial. Today, what we understand as the public administration existed even before the birth of modern states. The nature, functions, and mode of public service delivery, however, have gone through radical changes from those earlier times. This chapter offers an extension of public administration paradigms proposed and postulated by Henry (1995) and Gotembiewski (1977). It also deals with the basic theoretical backgrounds of e-governance, its types of ICT-driven service delivery, and transformation phases.

From their research, Islam and Ehsan indicate that, as is evident, e-governance facilitates development and offers many benefits to the citizens. It has the potential that made governments around the world initiate innovative changes in the delivery of public services. The issues of poverty reduction, economic underdevelopment, illiteracy, and pervasive corruption can be minimized, if not completely eliminated, through the skilful application of e-governance initiatives. Despite its enormous potential, it is also true that the benefits of e-governance are not duly reaped by the governments, both in developed and developing countries. The main stumbling blocks in the way are the political leadership and bureaucratic inertia. Another major concern for global equitable access of e-governance is the “digital

divide,” often called an “information black hole.” As indicated, e-governance can very positively direct a paradigm shift, from traditional bureaucratic administration to a more responsive, accountable, and effective public administration that many governments around the world are aspiring to obtain. This is perhaps a more utopian and positive perspective than some of the previous or later chapters, but it is valuable in creating a theoretical perspective.

Roman next offers an interesting and valuable perspective that provides some further analysis of the maturity of e-Government development in the chapter “Realizing E-Government: Delineating Implementation Challenges and Defining Success.” The assertion by Roman is that there is a growing recognition among scholars, practitioners, and elected officials that e-government success is not a deterministic outcome of entrepreneurial design or exacting implementation. In fact, constructing cost-efficient and policy effective e-government platforms has proved to be much more challenging than originally expected. In many instances, failed e-government experiments have led to significant financial losses and to increased dissatisfaction levels among citizenry. These latter experiences have nuanced the need for a much more thorough understanding and appreciation for the difficulties faced within the conceptualization and application of e-government platforms and in successfully achieving the expected administrative and democratic outcomes. This chapter, by tracing the evolution of e-government both as a concept and as an administrative trend within the transformation of governance, delineates the main challenges in achieving the core goals and the democratic scope of e-governance. It is argued that in e-governance, success is a function of three fundamental vectors – security, functionality, and transformation. In concluding, Roman suggests that functionality is most often emphasised as the primary factor within the design of e-Government projects, that security is often only considered later in the implementation process, and that transformation is rarely considered but is more often than not unwarrantedly expected to be a deterministic outcome of technology adoption.

Alvarez and Crespo provide a chapter that considers the “Design of a Triple Helix Strategy for Developing Nations Based on E-Government and Entrepreneurship: An Application to Ecuador.” The chapter provides a case study of Ecuador, taking us from the arrival of Rafael Correa in Ecuador and the delivery of a structural transformation of the Ecuadorian economy and society, with the implementation of e-Government and the introduction of the digital economy in the country. The objective of this chapter is to design a strategy based on entrepreneurship, e-Government, and higher education for creating a digital society in Ecuador (the triple helix strategy). To achieve this, the authors analyse the Ecuadorian’s National Plan for Good Living 2013-2017 linked to higher education reforms, and the influence of the European-based e-Government policies in Ecuador. They finish with some perspectives and the foreseeable impact of a digital society in this developing nation. In this conclusion, there is allusion to the UN whole-government approach and also the conception of an emerging international e-Government relationship.

In the following chapter, we are challenged by Asquer, who takes us into the realm of “gamification” in a chapter titled “Not Just Videogames: Gamification and its Potential Application to Public Services.” In this chapter, the aim is to discuss how the emerging process of gamification can impact the production of public services. Gamification is a relatively recent phenomenon that relates, in broad terms, to the introduction to game elements in non-game contexts. After reviewing the concept, design principles and techniques, and effects of gamification, the chapter discusses the extent to which gamification may affect the production and delivery of public services. The conclusions discuss the possible role of

gamification in reshaping the identity and role of citizens and their relationship with public authorities. This alternative perspective brings a new opportunity and is already attracting interest within the world of practice and academia, providing a new perspective through which to view the development and delivery of e-Government.

Molina and Soler, in the next chapter, offer us the opportunity to explore “The Use of Social Network Sites to Market E-Government to Citizens.” In this chapter, the authors explore the different literature that analyses the application of Social Network Sites (SNSs) in e-government to help government managers to improve citizens’ communication and participation. The use of Web 2.0 tools is perceived as a new way of communication not only in the political arena but also on the government level to improve civic engagement, to coproduce public services, and to increase service personalization. Citizens still like traditional communication tools, and it is important not to overload them through SNSs. The authors show possible new trends for future analysis on the application of SNSs. In their conclusion, a very strong point made is that beyond the benefits that a higher interaction with citizens can have, governments should also consider that these tools are used to define a new kind of society, a Network Society (Castells, 2009), in which new forms of self-organizational processes appear. In this context, governments “fear to lose the control of information and communication in which power has always been rooted” (Castells, 2005), so a new wave of democratization of communication should always be considered when defining Web 2.0 strategies. In this single point, the authors take us past the issues of technology into e-Governance and also into e-Politics, where perhaps some future challenges await.

EVIDENCE: CASE STUDIES AND ISSUES OF E-GOVERNMENT IN PRACTICE AND REALITY

In their chapter “Articulating Wider Smartphone Emerging Security Issues in the Case of M-Government in Turkey,” Kervenoael and Yfantis, take us straight to an implementation issue from the previous section and provide us with insight from their example. They claim that for several years mobile devices and platform security threats, including wireless networking technology, have been top security issues. A departure has occurred from automatic anti-virus software based on traditional PC defense: risk management (authentication and encryption), compliance, and disaster recovery following polymorphic viruses and malware as the primary activities within many organizations and government services alike. While private services will surely continue to take the lead, others such as government and NGOs are also becoming prominent m-players, reflecting on the meaning of Smartphone-based security threats.

Enhanced data services through smart phones raise expectations that governments will finally deliver secured services in line with consumer ICT lifestyles. To date, it is not certain which form of technological standards will take the lead. Yet, with the introduction of interactive applications and fully transactional services via 3G smart phones, many currently untapped segments of the population (without computers) have the potential to gain access at low cost to government services, but they also expose themselves to unknown threats. This chapter covers research in Turkey as a reflection of the current market – e-government started officially in 2008. This situation in an emerging country presents the current situation and resistances encountered while engaging with mobile and e-government interfaces. The authors contend that research is needed to understand more precisely security threats and most of all potential solutions for sustainable future intention to use m-government services. Finally, beyond m-government

initiatives' success or failure, the mechanisms related to public administration mobile technical capacity building and security issues are discussed. In concluding, the authors take us to ethical questions related to security and privacy that are significant, known, but sometimes perhaps overlooked.

In the chapter by Siddiquee and Gofran, "A Road Far Too Long? E-Government and Service Delivery in Bangladesh," we begin to explore development in some of the countries that are considered to be developing; we are fortunate to have more than one perspective on e-Government in Bangladesh, which will provide good opportunity for comparison and conjunction. In this chapter, we are provided with a review of the state of e-government development and associated changes to service delivery in Bangladesh. Using the "stage model" as a frame of reference, the authors show the progresses Bangladesh has made in terms of informational, interactive, transactional, and integrated services. They argue that although Bangladesh's overall progress is still modest for it allows only limited advanced levels of services, there are encouraging trends underway. In its conclusion, the chapter highlights some of the impediments and challenges that hamper e-government initiatives undermining their potentials and benefits in the country. Appositely, the authors declare that, since Bangladesh's problems are complex and multi-dimensional, there is no quick fix to such enormous challenges. What is needed is a sustained commitment on the part of the country's leadership and continuous drives to move the agenda forward with a robust implementation strategy in place. Given the arduous and stretched nature of the task, e-government must be seen as a journey rather than a destination.

Mahtab and Mahtab next offer us a perspective of e-Government that considers gender, development, and the socio-economic and cultural issues encountered by women in Bangladesh, in their chapter "Understanding ICT: The Potential and Challenges for the Empowerment of Rural Women in Bangladesh." This thorough examination of the various aspects of these issues provides valuable insights into the digital divide in real terms, as well as the gender divide. The concluding comment, taken from a quote, is a powerful indicator of the significance of empowerment for women and needs to be incorporated into the development of e-Government if Millennium Development Goals and the UN imperatives are to be achieved:

It is important to point out that empowerment is typically conceptualized as a process, and therefore change is at its very essence. Once a resource, capacity, or form of agency becomes commonplace, it no longer distinguishes more empowered women from the less empowered women. Therefore, it is relevant that the measurement of empowerment must change and adapt to keep up with the elusive phenomenon. (Schuler, Islam, & Rottach, 2010)

A third chapter on Bangladesh by Rokon-UI-Hasan and Monem provides a further lens or perspective on "E-Governance Preparedness of Public Bureaucracy in Bangladesh." They suggest that in Bangladesh, there is an undeniable wave of awareness about e-governance at present. Therefore, it is high time that government prepare itself in terms of implementing e-governance in order to cope with the requirements of the fast changing global environment. As bureaucracy is one of the most vital pillars of government, it is imperative that it is well prepared to face the upcoming challenges of technological boost. This chapter assesses the preparedness level of bureaucracy from the perspective of e-governance implementation. Analysis of primary data reveals that the frequency of computer and Internet usage for official activities is also very low. Most of the officials do not have any formal ICT training, and those

who have such training have covered only very elementary aspects. The overall readiness in terms of technical skills is found to be unsatisfactory. Existing laws, rules, and regulations are found to be very insufficient for smooth implementation of e-governance in Bangladesh.

The three chapters, taken individually, provide a very interesting insight and reflection upon e-Government development in Bangladesh, but if analysed collectively, they provide a magnificent insight into the complexity of the demands placed upon a developing country as it attempts to meet the needs of external arbiters, such as the UN, its own political and administrative needs, whilst also trying to engage and include its populous in real ways in the significant changes it is encountering, not only in terms of governance but also socio-economic, cultural, and most importantly, in addressing both digital and other divides that exist.

Next, we move to Mongolia, in the chapter provided by Baasanjav titled “Beyond the Digital Divide: Language Factors, Resource Wealth, and Post-Communism in Mongolia.” This chapter explores the interplay between society and Internet technology in the context of the developing former socialist country of Mongolia. This chapter goes beyond questions of access to the Internet and explores three factors of the global digital divide. First, this chapter explores how language factors such as non-Roman domain names and the use of the Cyrillic alphabet exacerbate the digital divide in the impoverished country of Mongolia. ICANN’s initiation of international domain names is an initial development toward achieving linguistic diversity on the Internet. Second, this chapter explores how post-communist settings and foreign investment and aid dependency afflict Internet development. A rapid economic growth in Mongolia has increased access to mobile phones, computers, and the Internet; however, the influx of foreign capital poured into the mining, construction, and telecommunication sectors frequently comes in non-concessional terms raising concerns over the public debt in Mongolia. The chapter exemplifies a very different set of issues of digital divide and political decision making providing us with another layer of complexity, which needs to be addressed in policy, practice, and the implementation of e-Government.

In the next chapter, the authors, Jahankhani, Dastbaz, Shareef, and Pimenidis, provide research findings from work in the Kurdistan Region of Iraq, which is titled “Developing a Citizen-Centric E-Government Model for Developing Countries: Case of Kurdistan Region of Iraq.” This chapter presents an enhanced eGovernment stage model based on citizens’ participation for improvements in the delivery of governmental services by putting citizens’ insights and their requirements in the context of e-government development and the potential use of a multi-channel delivery of services for regional governments in developing countries. The model proposed is based on research done in the Kurdistan region of Iraq. This research identified missing elements in traditional eGovernment models that would prove essential for implementation in developing countries. These models usually propose five stages of development spanning from emergence to integration. The proposal here considers most of the limitations in two stages, namely initial and an enhancement stage with the advantage of decreasing the uncertainty of e-government implementation in the public sector by recognising the consequence of the institutional readiness, adoption processes, the needs of ICT tools, and the factors that influence the implementation process. The research concludes that current models of e-Government do not meet the needs or situation of Kurdistan, and the authors offer a new approach.

In Sri Lanka, the development of e-Government has been a long process, starting as early as 1983, but also having to be undertaken throughout an internal conflict, and now the country is in a post-conflict development state, still dealing with and responding to redevelopment required to recover, though with

strong economic growth. Dissanayake and Dissanayake, in their chapter, “Development of E-Governance in Sri Lanka,” provide a historical overview and the ongoing commitment to deliver e-Government in this context.

In the next chapter, titled “Rural-Urban Digital Divide in Romania,” Stoica and Ilas provide valuable reflection upon e-Government and rural Romania. Their work describes how the last two decades witnessed the sudden raise in importance of Information and Communications Technology (ICT). Some societies have been quick to embrace the benefits of ICT, while others have used the new technologies in a rather limited way. A new term, “digital divide,” was coined to describe the gap between the societies using ICT on a large scale and those with limited access. Much was written with respect to the causes of this gap. Factors such as socioeconomic conditions, geographical position, tradition, social and individual values are considered to play major roles in the creation of the digital divide. The vast majority of the studies have focused on the digital performance of cities with far less attention being paid to what was happening in the villages. Arguably, the villages greatly need and would benefit from e-Government, but the existing data shows that in many societies a significant rural-urban digital divide is already in place. The goal of this research is to assess the urban-rural digital divide in Romania in terms of official Websites performances by evaluating five components: security and personal data protection, usability, content, type of services, and digital democracy. The authors conclude that in Romania, the rural-urban digital divide is extremely large. The digital divide in Romania clearly has more to do with the size of the conurbation and location than any other factor, which might be similar in other e-Government development projects in the developing world.

A second Romanian chapter deals with “ICTs and their Impact on Women’s Roles and Evolution within Developing Societies” (Ionescu). In the chapter, Ionescu suggests that the Internet is definitely the most complex and dynamic technical and cultural phenomenon that humanity ever experienced. Nevertheless, despite its positive impact on the Western world, Web 2.0 has yet to prove its power in the undeveloped regions of the globe, where the Internet Era is still at its dawn. In developing countries, the barriers that women face, such as poverty or social imbalances, establish significant challenges that hinder connectivity and access to modern technologies. In this context, the chapter discusses the evolution of gender speech in relation to new Information and Communication Technologies (ICTs). The authors determine whether the declarations and plans for action that were issued subsequent to the 1995 Fourth World Conference on Women in Beijing enhanced the establishment of gendered policies on ICTs, particularly in the undeveloped regions of the world, and whether, in this way, they empower women, contribute to combating women’s poverty, and promote gender equality. In conclusion, Ionescu fervently expresses her view on the gender imbalances and divides that exist.

The final two chapters both deal with the implementation of e-Government in health fields, providing us with a view that of a practitioner field. First, Schmeida and McNeal, offer a chapter titled “Medicare and Medicaid Services Online: Government Initiatives Narrowing Online Access Inequalities.” They discuss government initiatives in the United States that have been passed in an effort to increase citizen usage of e-government programs. One such service is the availability of online health insurance information. However, not all demographic groups have been equally able to accessing these online services, primarily the poor and rural American. As more legislation is passed, including the advancement of broadband services to remote areas, infrastructure barriers are being removed, opening access to Medicare and Medicaid websites for these vulnerable groups. The purpose of this chapter is to analyze factors predicting the impact of recent government actions on citizen access to health insurance information online. This topic is explored using multivariate regression analysis and individual level data from the

Internet and American Life Project. The findings suggest that healthcare needs and quality of Internet access may be playing a more important role in health insurance information services than other factors. The concluding thoughts posited indicate that no matter what the technology is there is a key place for literacy and information literacy that needs to be addressed through education, approaches to supplying information online, or a combination of both.

In the final chapter, O'Hanlon considers "The Role of E-Health in Developing Nations." The chapter provides an excellent account of the current issues within the field of e-Health, providing us with a clear definition: e-Health is the use of information and communication technologies for health services. O'Hanlon contends that many developing nations have a government-operated health system and have introduced elements of e-Health to improve service provision. Despite being resource-limited and having a heavy disease burden, certain pioneers have shown that lack of funding is not an obstacle to leveraging technology. In addition, the leapfrog effect has allowed some developing countries to skip the fixed-line infrastructure development of the late 20th century and utilise modern mobile access to quickly and efficiently introduce new interventions. M-Health, or mobile information technology applications, has been shown to be an effective tool for the citizens of these countries. Telemedicine, or the practice of medicine at a distance, has also been used to introduce new services in developing countries by linking with specialists in centres of excellence.

Obstacles do exist: inadequate infrastructure cost of equipment and software, maintenance of data security, and the lack of a trained health informatics workforce. Several innovative solutions have been put forward: satellite broadband access for the most remote areas, international sponsorship initiatives, use of open source software, and exchange programmes for staff education. There is strong support for the development of this e-Health agenda from the World Health Organization and other international bodies. Significant ethical considerations impact the use of e-Health in developing countries. The issue of cost effectiveness of e-Health is also important, as the opportunity cost of providing it means that funding for other areas must be reduced. Unless there is good evidence for the efficacy of e-Health projects, this cannot be justified. There is a clear need for more research in this important area so that informed decisions can be made. In the concluding thoughts, O'Hanlon suggests that in order to help further development, steps must be taken to increase the informatics workforce and for developed nations to exchange knowledge and skills. Achieving this may make e-Health a very fruitful area in the developing world.

CONCLUDING THOUGHTS

At the start of the project, the editors set out to examine e-government from the perspective of the developing regions of the world and to explore issues of e-government policy and practice in these regions, combining scholarly research alongside practitioner case studies to provide a critical current perspective on e-government progress in the developing regions plus an evaluation of challenges for the future. The chapters, broad in coverage but focused in depth, have painted a rich analysis of a wide range of e-Government issues. Our audience, hopefully practitioners, e-Government developers, politicians, policy makers, decision makers, those who implement e-Government, students, and academics, should all be able to find significant new thought, challenges, and knowledge; Albert Einstein is said to have offered the following thought that might be useful to all of us in considering what we read here and what we do with the information we gain:

Any fool can know. The point is to understand.

Albert Einstein (1879 - 1955) Physicist & Nobel Laureate

The editors hope that this book will add to understanding, and to the development and implementation of e-Government and e-Governance in developing and developed countries in the future.

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