Preface

As entities, governments are formed to serve and promote the will of the people. In following the utilitarian principles that were set almost two centuries ago, the modern government sees itself as a coordinating mechanism that plans, decides, and acts for the welfare of its citizens. It is controlled by the rules of democracy, which confer authority upon it and give it power, whilst at the same time scrutinizing it for the way it defines its mission and operationalizes its strategy. Efficient, effective, and accountable are the words that describe to a large extent any successful organization, and any government as such should aspire to those.

Governments reinvent themselves. They have no other choice as they are pushed by forces that are beyond the control of any single politician or groups of policy makers operating within the geographic boundaries that define single countries. This is one world we all live in and if the notion of one proves difficult to be perceived by the intellect alone then one has to look at his next door neighbour. Neither the possible difference in the colour of the skin and religious beliefs nor differences in food taste, dress code, or mannerisms will negate the fact that this is your fellow citizen. And it doesn’t really matter whether the name of the country where this fellowship exists is United States, India, or Singapore.

And as I look at my different next-door neighbour as my fellow citizen, I look at the country that I share geographical boundaries with and compare the things that for some reason I’ve been cut off from, the things that I could also experience and enjoy but I cannot. These may be many and of varied forms, some I can demand and some I cannot, but in a democracy I can certainly contest my rights to the fundamentals and I will judge my government according to its ability or inability to deliver those.

What those fundamentals can be? For example, I don’t want to be cut off from the accumulated wisdom of my country and from the world of learning. Could a national digital library be the answer? At this very moment, the Dutch are set to digitize every book and newspaper published in printed form from 1470 to the present day. The French announced the same, committing themselves by reserving 750 million Euros to the process. Developed countries aim for inclusion and not exclusion. They offer superior services to their citizens striving at the same time to be efficient and effective. They are the ones that the citizens of this one world will choose to live in and make them prosper in turn. For that, countries have to build competencies and remain competitive in this global pallete, serving the needs of their citizens as a corporation protects its most precious assets or take care of the needs of its customer base who keeps it alive.

Fight for inclusivity, offer superior service and reduce administrative burden to the bare minimum at the same time. This is the call, and the means to achieve the results are without doubt numerous. This book’s focal point is the technology as one of the means - or tool - and the aspects around its mobilization for this purpose. There is enough collective wisdom available and lessons learned from countries around the world that pioneered electronic government solutions and transformed the ways services reach their citizenship. At the bottom is change, and change is never easy to achieve. Everybody learns in the process; both the supplier of the service and the consumer of it, provided there is the will from both sides.
Anybody who had the experience to be a stakeholder in such an initiative and lived to tell the tale so to speak can certify of the polymorphous nature and extent of the challenge. There are many things to consider here but if you focus on just one, namely the scale of such projects, the above becomes clear. Many have succeeded and many have failed. Singapore is hailed as one of the countries that has a digital government. Success is also evident in Scandinavia where countries there can also offer countless best practices and how-to’s to the uninitiated. But failure is also evident and –because of scale again– when it happens, it becomes front page news that plagues governments for the rest of their service. Consider the negative publicity (and the extent of it) that surrounded the failed attempts of the British government to modernize the country’s National Health System (NHS).

To this collective wisdom of the one world, then, this books aims to contribute. It is a multinational book in the sense that the authors of the chapters truly bring in a global perspective to the interested reader; for example, European, American, African, and Australian views are all fused forming a prism of multi-dimensionality of our attempts to reform the public sector using information technology (IT) across the globe. It is divided into three main sections, namely (a) E-Government & Public Sector Transformation Issues and Strategies, (b) Applied E-Government, and (c) Infrastructure for E-Government.

Professor Sandford Borins from the University of Toronto opens the first section by putting Canada and the United States side by side in the race for the coveted title of a ‘Digital State’ and tries to pick the winner. It is an interesting perspective on what it takes to be a digital leader from two developed economies judged accordingly to how well they fare in aspects such as channel choice, information technology procurement and organizational integration. The chapter by James M. Njihia of the University of Nairobi provides the contrast as the setting changes to post-colonial developing countries with the author exploring policy and socio-economic contexts for IT based public sector reform. Like Borins he seeks to understand by examining the difference between the ‘contrived context’, i.e. the context that is implied by a given approach, such as the dominant developmental models of progress within which public sector reform initiatives are usually framed, and the ‘actual context’, what actually exists in the proposed implementation domain, with or without the proposed IT based reform initiative. In the same vein but from a different and wider angle, Angelopoulos, Kitsios, and Moustakis argue that current approaches and methodologies in use are too specific and as a result we are restrained when we try to compare cases and draw valuable conclusions as to how to measure the performance and improve e-government initiatives. They go on to summarise the state of research to-date on the design of a model for e-government integration management and identify the most common dimensions which can be applied for measuring e-government management in the context of its use.

If an integrated model is what Angelopoulos et. al. are concerned with, Roberta Bernardi’s contribution, which follows next, discusses how highly contested contexts can, in a sense, be modified by IT in limiting the drawbacks, mediating between global and local interests, and mitigating resistance to change. Frameworks are needed as reality abstractions and those two studies may be complementary to each other; one providing the lens, the other the real world. The two chapters that follow, the first by Luna-Reyes and Gil-Garcia from Mexico and the second by Manoharan and Fudge from the U.S. remind us that delivering an e-government system which is actually utilized and put to effective use by its stakeholders is by no means an easy task. The former wisely remind us that IT is only one component of what should be a much more complex reform strategy involving changes in organizational characteristics, institutional arrangements, and contextual factors. The latter report the results from a longitudinal study of online privacy and security practices among global municipalities they conducted in 2005 and 2007. What they found carries weight as it shows that IT on its own may not be worth much but when it is utilized to mitigate privacy issues or fears which restrict the widespread use of e-services by citizens.
across the globe, then success may ensue. Their results indicate that cities place increased emphasis on providing privacy and security policies with major improvements in 2007, along with significant changes in the top ranking cities when compared to the 2005 study.

Two contributions from Greece close this section. Manolopoulos, Sofotassios, Spirakis, and Stamatiou continue on the topic of trust but this time in the context of a far more ambitious scale. The freedom to choose and the exercise to vote are two cornerstones of democracy and the authors argue that although the technology may exist to make voting virtual and democracy itself an e-democracy, the lack of trust either between politicians and citizens or lack of trust of citizens towards IT can raise barriers to this opportunity. These issues are examined and discussed at length and the authors project a positive view that it is possible to overcome barriers and to proceed to practical implementations. They share their experience derived from the design and implementation of an e-voting system, which, they claim, could replace the traditional way elections are being conducted. Florou and Gouscos touch on sustainability, which is a national and European strategic objective, and set to examine how education through technology can strengthen social cohesion which is an essential condition for security and sustainable development. They support the view that Communities of Practice can utilize current social media technologies to such an extent so as to achieve the desired levels of cohesion offering in the long run the ability to remodel the public sphere, strengthen public consultation, promote proposals from the citizens and promote the policy of sustainability itself.

The second section of the book begins with a contribution which continues on the theme of education. This time the context is set by the Greek Ministry of Education and Garofalakis, Koskeris, Michail, and Oikonomou from the University of Patras present a Government Resource Management System. One of the key issues for governments worldwide is to run efficiently and efficiency means the reduction of the administrative burden to the lowest level possible. In this particular case, the challenge faced by the Greek Ministry was the management of several educational units and a large number of teachers spread around the globe whose purpose is to provide education opportunities for students with Greek origin. The authors describe the as-is situation and state of affairs concluding that the tools employed were primitive and largely ineffective. To address and transform this situation, they describe how an integrated Web-based solution was designed, developed, and applied together with the ensuing benefits from its implementation.

The new forms of interaction between citizens and governments made possible by the emergence of new technologies and the ways these can be conceptualised and developed is the subject of the two contributions which follow. Loukis, Xenakis, and Soto-Acosta correctly observe the rush of the governments across the globe to reform and improve their communication and interaction with citizens on important public policies issues through electronic channels. In doing so they feel it is highly important to develop and systematically evaluate IT and communication tools which can facilitate and support high quality interaction and consultation. In this respect they evaluate the use of a structured e-forum tool through a pilot on new legislation, which constitutes arguably the most important, complex, and extensively debated component of every public policy. Both advantages and limitations are extensively discussed. In turn, Purian, Ahituv, and Ein-Dor all from Tel-Aviv University draw attention to a single but important fact: as should be expected, there is heterogeneity of users in the public sphere. How do you accommodate it? They go on to propose a new citizen-view model, which takes heterogeneity into account according to three knowledge categories of participation. According to the authors, the knowledge level should not characterize the inputs but should instead refer to the knowledge level of the user in a specific context. In other words, since similar inputs may be perceived differently by different users in different contexts, the categories might be set according to the value that each user produces from the input. And so it follows
that we cannot ignore but need to address and actively observe differences in demands, qualifications and aspirations if we want to be successful in enhancing collaboration of individuals.

Dicle Yurdakul Şahin and Deniz Türsel Eliiyi from Izmir University of Economics take the mobilization of IT to a different level, namely as a national strategic weapon with which a country’s capability can be transformed and enhanced so as to increase its competitive position. In particular, they focus upon Turkey’s public logistics systems and the authors review exemplary implementations of such systems around the world and pinpoint the specific benefits to be gained in terms of efficient operation and improved performance, profitability, customer satisfaction and social welfare. Unfortunately, they conclude, Turkey has not been able to reap the benefits of its geographical strategic position due to the unsuccessful and late attempts in implementing IT and transforming its logistics systems. From the same country, Balci and Medeni provide an overview on a series of attempts to transform the public sector by the development of E-Government services. Projects such as the E-Government Gateway, T-VOHSU (Turkish Project for measuring satisfaction from provision of citizen-oriented e-Government services), CEES (citizen-oriented evaluation of e-Government services), and UbiPOL (Ubiquitous Participation Platform for Policy Making) are discussed and reflected upon whilst the directions from the lessons learned that are provided by the authors offer useful guidelines for new e-government initiatives not only for Turkey but for the rest of the world also.

This section of the book closes with contributions by Elpida Prasopoulou from the Athens University of Economics and Business and Nick Letch from the University of Western Australia. Both underline the importance of the context. Prasopoulou explores theoretically the infusion of a local context with Information & Communication Technologies (ICT) innovation as a clash between the old and the new. She then empirically examines the nature and dynamics of this clash in a case setting, that of TAXIS, which constituted the flagship Information Technology project of the Greek government in the mid 1990s. Although TAXIS’s implementation has been strongly supported by both the political system and Greek society, ICT innovation did not trigger radical changes in taxation. Instead, it was held back by strongly ingrained political practices, which resulted in the implementation of a functional Information System, yet was unable to support radical tax reform. Letch explores both enabling and constraining aspects of the role that ICTs can play in transforming the development and delivery of public policy, placing emphasis on two issues: (a) the reduction in the flexibility of decision making that frequently accompanies ICT-based initiatives, and (b) the critical role of knowledge embedded in networks of stakeholders in policy development and delivery, examining them in the setting of an Australian public sector agency.

The last section of the book has a strong technical focus on the infrastructures needed over which public sector services will be transformed and carried to the citizens. The section opens a contribution by Kubo, Akebe, and Nakagawa from Japan. As the authors note, Japan is a mature country regarding e-transformation, showing steady progress since 2001 when the e-Japan strategy was announced. However, the paradox is that although the use of ICT has spread, there is little system satisfaction among the citizens of Japan. Using a 5-stage maturity model the authors survey local government authorities aiming to explain this dissatisfaction paradox and come up with a number of interesting results unifying and expanding the maturity model with a management model. Bouras, Ganos, and Kapoulas, all from the University of Patras, Greece, inform us that broadband infrastructure is just a commodity, and local governments had better understand this. Under this prism the objective of the local governments is the creation of an open competitive environment, in which access and services are offered by many providers, thereby reducing the cost of services for citizens and businesses, while developing advanced, high-quality services. The authors go on to delineate five scenarios for broadband business models and
illustrate their points by using a case study of a Greek inter-municipal broadband company (IBC) as the medium.

Stamati, Karantjias, and Martakos next present a case of implementing an innovative Local Government Access Framework - LGAF, deployed for the Central Union of Municipalities and Communities of Greece. The LGAF integrates almost two hundred and fifty government services in many different domains of the public administration, implementing peak XML technologies, worldwide standards, and specifications. The authors provide insights to critical success design factors that should be taken into account in order for the provided services to gain end-users’ acceptance and allow the coordination and alignment of business processes and information architectures that span both intra- and inter- public organizational boundaries.

As the previous authors discuss intra- and inter- coordination, Muhammad Kamal from Brunel University, UK, takes this issue a bit further focusing on the importance of integration technologies and noticing that local governments have been slow in adopting cost-effective integration solutions to significantly expand the capabilities of their conventionally inflexible information systems. Kamal investigates what does and what should instead influence the decision making process for EAI adoption in local governments following a qualitative case study approach. Arifoğlu, Afacan, and Er, all from METU Informatics Institute in Turkey examine and analyze the aspects and factors related to Public Internet Access Points (PIAPs) by studying over 21 PIAP implementations in the world. They offer sound practical advice related to implementation issues by addressing such questions as what could be the potential PIAP types and how to create or increase public demand for PIAPs. The section concludes with a contribution by Stylios, Christodoulakis, Besharat, Vonitsanou, Kotrotsos, Kompouri, and Stamou, who explore text and data mining techniques for empowering e-government applications and services for citizen benefit. Stimulated by the need to transform e-government services to e-inclusion applications, they suggest the utilization of data mining techniques for processing the governmental data so as to extract and associate information fragments with real citizen needs and thus enables the encapsulation of the latter in future governmental decisions. This contribution can be seen as a fitting epilogue to the book as a whole; it deals with aspects any public transformation initiative should strive to cover, namely increase added value and enable citizen participation, enhance quality of life and cut off administrative burden to the bare minimum.

We believe that the book provides an interesting and informative ride for the interested reader in electronic government and public transformation. It offers a truly multinational perspective and the contributions through the issues they unearth, the successes, as well as the failures they discuss, prove that whoever is, or will be engaged in this topic, whether a practitioner or an academic, can be sure that (s)he is in for a challenging ride. Most importantly, however, the book reminds us that we should never forget that these projects and initiatives have a serious purpose, i.e. to increase the life quality level of our fellow citizens whilst promoting inclusion and the principles of democracy. To this, we need all the help we can get and we believe that in this book one can find many a valuable lesson to learn.

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