Electronic Government, or E-Government, is about harnessing the information revolution to improve the efficiency of government processes and the lives of citizens. It aims at a citizen centred approach to governance through effective use of the Internet and Information and Communication Technologies (ICTs). E-Government promotes transparency and effectiveness of a government’s processes as well as citizens’ participation (e-participation) in the affairs of the government.

E-government projects are huge undertakings that require long term commitment as well as correct planning and availability of financial resources. World governments are in the process of achieving full e-government, however, they are at different stages of e-government adoption. Advanced nations are well on the way to achieving inclusive and integrated horizontal and vertical e-government, including two-way government-to-citizen (G2C) and government-to-government (G2G) interactions as well as provision of e-commerce by the industry. However, developing nations are lagging behind due to political, cultural, financial and other resources issues. Developing countries often start with a web portal providing one-way G2C information via a set of governmental websites and then develop individual nation-wide projects, one at a time and independent of each other. This is highly inefficient and often results in duplication, waste of resources and the ‘reinvention of the wheel’. In the short term, a government portal is fine but otherwise a long term strategy needs to be in place that first determines the e-readiness of the nation (government and the citizens) and conducts a gap analysis. It then fills the gap to ensure that the required infrastructure, financial support, citizens’ computing requirements, public affordability of the ICT, etc are all in place. While, at the same time, the plan ensures that the overall framework and appropriate methodologies are also determined, within which the various e-government projects will be conducted and e-services delivered.

BOOK OBJECTIVE

The current publication, Developing E-Government Projects: Frameworks and Methodologies, aims to serve as a reference text and presents frameworks, methodologies, policies, techniques and technologies as well as case studies. The objective is to understand the courses of actions and best practices that provide successful strategies towards appropriate policy, design, implementation and adoption of e-government projects as well as transparent e-governance. To this end, the present text provides reports and discussions on the following:

- Current research and new ideas
- Frameworks, policies, and strategies
TARGET AUDIENCE

*Developing E-Government Projects: Frameworks and Methodologies* is a reference text that is aimed at several groups of readers, including the following:

- University students, lecturers and researchers in the field of e-government
- Software engineer, information system specialists and practitioners of ICT
- Decision makers in the e-government-related departments in governments
- Project managers developing e-services and managing e-government projects.

BOOK ORGANISATION

*Developing E-Government Projects: Frameworks and Methodologies* is organised in four sections with a total of 17 chapters, authored by 25 experts from around the world, as follows:

- **Section 1**: E-Government Development: Methodologies and Approaches (Chapters 1 through 4)
- **Section 2**: E-Government Adoption: Frameworks and Policy (Chapters 5 through 8)
- **Section 3**: E-Government Implementation: Governance and E-Inclusion (Chapters 9 through 13)
- **Section 4**: E-Government Projects: Review and Assessment (Chapters 14 through 17).

CHAPTER DESCRIPTIONS

Detailed abstracts of the book chapters appear in the Detailed Table of Contents. Here, very brief summaries of chapters’ content are presented.

Chapter 1, entitled *E-Government Systems Development Methodologies, Tools and Platforms*, is authored by Jean, Magda, and Adegeboyega. It provides an overview of the methods, tools and platforms for software development processes for e-government systems and discusses the methodological approaches. Stages of growth models, agile software engineering and Semantic Web techniques are also presented in some detail and illustrated with real world case studies. Emphasis is on the analysis, design and implementation of e-government systems and e-services deploying Semantic Web ontology languages, database management systems and semantic query languages. Systems integration techniques are also reviewed and discussed.

Chapter 2 is entitled *E-Government for Social and Economic Development: Asymmetric Information, Institutionalization and Diffusion Challenges*. Developed by Bongani Ngwenya, it posits that by
leveraging economic development, e-government initiatives can help to streamline government services to more social-based values of citizens’ participation. The chapter draws on organizational decision-making research and presents findings of an exploratory research. It is suggested that the information asymmetry between citizens and government, asymmetry in institutionalization, and diffusion within developed and developing countries are widely attributed to socio-economic and political variations in developed and developing countries.

Chapter 3 is entitled Decision Support Systems: An E-Government Strategy to Enhance Human Resources Output in Public Sector Organisations. Authored by Bongani Ngwenya, it focuses on decision support systems (DSS) as a strategy to enhance human resources output in public sector organisations. The aim is to provide more efficient e-services to citizens and the business sector. Discussing the benefits of service efficiency and improved effectiveness of DSS, the chapter provides the basis for building an evaluation theory or a framework for assessing DSS adoption and exploitation in the context of public sector and services provision. Results of a study are presented to suggest the effectiveness of DSS with reference to e-Government strategies and planning.

Chapter 4 is entitled, Adopting E-Mailing System Technology: Challenges Confronting Government Institutions in Jordan. Authored by Ahed Al-Haraizah, this chapter draws on the ECTA and TAM technologies to examine Jordanian government employees’ attitudes towards adoption and use of e-mailing system. It provides an overview of the current situation and discussing the various influencing issues, the chapter validates the relationships between the relevant factors that drive the acceptance of such innovations. Additional factors such as trust, cultural beliefs and sociology of technology are also taken into account. The survey based approach also identifies ways of assisting employees to make use of technologies more effectively.

Chapter 5 is entitled E-Government Concept: A Holistic and Eclectic Framework. Authors, Delfina and Luis look at the many definitions and concepts relating to e-government and develop a holistic view. The chapter aims to contribute to the clarification of such concepts as well as to the way in which many of the different concepts are related. The framework put forward in the chapter is based on a generic model of a democratic government system. Building on that model, the authors identify and discuss six spaces of IT, where Information Technologies can be usefully deployed. The authors suggest that the use of IT in those spaces contributes to the overall development of a country’s e-government reality and e-governance maturity.

Chapter 6 is written by Julie Freeman. Entitled Evolving Local E-Government: A Cohesive Policy Approach, it discusses Australian e-government initiatives. The chapter suggest that local governments can provide a useful context for online civic participation and engagement; however, the author maintains that local initiatives are often developed on an ad hoc basis and largely limited to the provision of one-way G2C information and service delivery. Discussing participatory e-government practices, the chapter concludes that online civic engagement may be more effectively achieved through a policy approach that combines national guidance and resources with local knowledge, while using policies to support ICTs and using ICTs to support policy processes.

Chapter 7, entitled Enterprise Architectures for E-Government Development, authored by Kashif, Shafay and Mian, looks at the Architectural approaches that provide guidelines for planning and technical development of complex projects. The chapter discusses the e-government projects and their devolution using well known architectural approaches such as: Zachman Framework, Reference Model for Open Distributed Processing (RM-ODP), Reference Model for Collaboration Networks (ARCON), TOGAF, and Federal Enterprise Architecture Framework. It is suggested that governments may usefully employ
decentralized architectures and devolve them to provincial/city levels as per their political, fiscal and administrative needs and capacity.

Chapter 8 by Güneş Çetin Gerger is entitled, *Legal Framework for the E-Taxation in Turkey*. It discusses the existing legal framework for the e-taxation system in the Turkish Republic. The e-Tax project in Turkey was initiated in 1998 with subsequent updates in 2004 and 2007. The e-Tax applications are now legislated by the Tax Procedure Law, suggesting that legal regulations on electronic recording are established on a legal framework. The author examines the e-Tax applications to discuss: e-tax return, e-books, e-signature, e-audit as well as the legal basis for such applications. The chapter aims to examine the legal regulations that formed the basis for the said e-Tax e-services. The authors also discuss the legal framework for the use of ICTs.

Chapter 9 is entitled, *Role of E-Governance in Citizen Centric E-Government*. Developed by Ganesh Chandra Deka, it discusses the importance of three core elements viz e-Democracy, Ethics in Governance and e-Transparency as well as the effective role of ICT for the inclusion of these in the implementation of citizen centric e-governance. Additionally, the chapter introduces m-Governance (Mobile Governance) in relation to e-governance in the Indian context and discusses the G-Cloud project of the India government. Discussing the importance of standardization, the chapter also highlights the challenges of developing e-government projects and e-inclusion and presents solutions and recommendations.

Chapter 10 is developed by Gianluca and Gianluigi. Entitled, *Managing E-Governance: A Framework for Analysis and Planning*, the chapter looks at the management of e-governance and discusses an analytical framework for managing digital innovation initiatives in the public sector within the broader framework of e-Governance. It proposes a higher order conceptualization of the relationship between e-Governance and its underpinning value drivers of performance, openness and inclusion. The analysis focuses on the role of these value drivers in the enactment of digital governance initiatives in Barcelona and Tallinn in Spain. The chapter highlights the policy implications for administrative reforms and offers recommendations for implementing digital governance.

Chapter 11 is entitled *Towards Inclusive E-Government: The Development of Municipal Contact Centers in Sweden* and authored by Irene and Kerstin. Discussing the implementation of contact centers in Swedish municipalities, the chapter presents five case studies that focus on inclusive e-government. The authors conduct qualitative interviews with municipal personnel as well as citizens and conclude that implementation of contact centers contribute to increased accessibility of municipal e-services. The study also indicates that development towards increased equal treatment of citizens is highly correlated with the digital divide that exists and that implementation of municipal contact centers provides a useful step towards inclusive e-government.

Chapter 12 is authored by Mary and Sara. Entitled, *Malaysia’s Internet Governance Dilemma*, it assesses the democratic, business and political challenges of Internet governance. The chapter presents the results of a study where media, business and government personnel were interviewed to assess their reactions to the explosion of diversity of critical public opinion that subsequently resulted in much tighter control of Internet usage by the government of Malaysia. The chapter concludes that support for the Internet to remain uncensored remains strong in Malaysia’s professional elites, but this is primarily for economic and pragmatic, rather than democratic reasons. The authors also suggest solutions to the current situation in Malaysia.

Chapter 13 is entitled *Leveraging the Service Paradigm for Producing Next Generation E-Governance Applications* and authored by Pethuru Raj. The chapter focuses on service and cloud technologies as major drivers for new-generation digital governance. Suggestion is that services can
stimulate the process-centric approach for application development and that programming models and mechanisms (agile, aspect, component, composite) are also gelling with the service paradigm in articulating and actuating dynamic, smart and sophisticated systems. The author discusses the service-oriented technology for designing, developing, deploying and delivering applications for many of the tasks associated with digitally inspired e-governance.

Chapter 14, developed by Haroula N. Delopoulos, is entitled Evaluation and Metrics of E-Government: From eEurope2002 to Digital Agenda 2020. It discusses the EU methodologies used for the evaluation of e-government related plans including: Action Plan 2002, Action Plan 2005, the Strategic Framework i2010 and the Digital Agenda 2020. The chapter highlights differences and similarities between these plans, suggesting that Europe should not focus mainly on the supply side (track availability and sophistication) but should also investigate indicators that might directly affect the adoption of eGovernment. The author also evaluates whether or not some of the targets of Digital Agenda 2020 will be accomplished by stated 2015.

Chapter 15 is authored by Sujana Adapa and entitled E-Services Efficiency of Government Organizations in Asia. It discusses the importance and benefits of ICTs for e-government and the business sector. Presenting the theoretical foundations, the chapter suggests the importance of inclusion and participation of various stakeholders. Case studies are provided to illustrate the effective planning and implementation of e-government-based strategies, especially with respect to e-services focusing on nine Asian countries. Factors that promote and hinder the e-services delivery are also discussed. The chapter also provides a comparison of how e-government is adopted in newly industrialized countries versus the developing nations.

Chapter 16 is written by Harekrishna Misra. Entitled, E-Governance Projects for E-Inclusion in India: An Architectural Assessment Framework, the chapter focuses on e-inclusion. In this chapter, e-governance architectural issues are discussed with three cases drawn from Indian scenarios. A conceptual framework is presented that examines the possibilities of architectural convergence for national level e-governance services with e-inclusion as a core attribute and assesses its validity using three case studies belonging to the Mission Mode Project (MMP), The studies refer to Watershed Project Initiatives (WPI), Mahatma Gandhi National Rural Employment Guaranty Scheme (MGNREGS) and National e-Governance Plan (NeGP).

Chapter 17 entitled Rhetoric vs. Realities in Implementation of E-Government Master Plan in Nepal is authored by Kiran and Almas. It discusses different facets of implementation of e-government in Nepal with a specific focus on the “e-government Master Plan”. Core elements of e-government initiatives, namely infrastructure, human resources, institutions, and policy and legal aspects are looked into and considered in relation to Heeks’s e-government success/failure model in terms of information, technology, process, objectives, values, staffing, skills, management systems, structures and resources. The authors also analyze the constraints in e-government implementation with respect to infrastructure, human resources, institutions, and policy and legal aspects.

Zaigham Mahmood
University of Derby, UK & North West University, South Africa