OVERVIEW

Information Technology is playing a vital role in the introduction of electronic government that involves electronic governance and electronic administration on the part of the governments and electronic participation on the part of the citizens. In this context, Information Technology (IT) and various communications technologies, collectively known as ICT (Information and Communication Technologies) are changing the way government departments and related agencies perform their functions. Furthermore, appropriate use of the Information and Communication Technologies helps to reduce the operational costs and increase the efficiency and transparency of the operations. On the other side, such technologies empower the general public to actively participate in policy formulation and advance the national agenda. It also helps to ensure transparent use of public funds and expose inefficiencies. However, IT itself does not result in effective electronic services (e-services) for the masses and it does not affect citizens’ behavior towards electronic participation (e-participation) in the effective running of the government. It is the appropriate deployment of IT and related technologies that help governments to provide efficient public services, and it is the willingness of the citizens to use such technologies and consume services effectively to gain the benefits that electronic government promises. This, then, requires the ready availability and mass proliferation of the required technologies as well as the necessary training that the masses may need to overcome the fear of technology.

IT, together with Communication Technologies and related emerging technologies, which include Web 2.0, social media, and mobile technologies, pervades all sections of society, including the commercial sector, education, health, industry, as well as the general public. IT in the public sphere, in terms of electronic government (e-government), includes the use of IT for public administration, governance, and planning, as well as all aspects of policy making and political activity.

In the case of electronic government or mobile government (m-government), the federal and local governments and related agencies, including the commercial sector, provide a variety of electronic services interactions including: Government-Citizens-Government (G2C2G), Government-Government (G2G), Government-Business-Government (G2B2G), and Business-Customer-Business (B2C2B) interactions. In terms of electronic administration (e-administration), planning, and politics, IT is used for effective governance, forward planning, strategic decision-making, and effective politics for the benefit of the governed. In terms of e-government or m-government, on the part of the general public, IT can help with electronic participation (e-participation), electronic voting (e-voting), mobile voting (m-voting), to name but a few, for more efficient and effective consumption of the e-services.
This book, *IT in the Public Sphere: Applications in Administration, Government, Politics, and Planning*, is a collection of 12 chapters authored by 38 academics and practitioners in the field. These contributions aim to present practice reports, discussions, frameworks, latest research, as well as case studies from around the world focusing on the use of IT in the public sphere: IT and related emerging technologies in e-government in general and ICT in administration, politics, and planning, in particular.

**BOOK OBJECTIVE**

This book aims to serve as a reference text and presents system applications of IT in the public sphere, in particular the use of IT and related technologies in government in terms of administration, planning, and politics. The objectives include the following:

- To discuss and report various aspects of electronic government including e-governance, e-participation, e-voting, and m-government.
- To discuss the use of IT and related technologies for the efficient administration and planning of government affairs.
- To present case studies with respect to adoption of e-government and e-participation of the masses.
- To present the latest research and development in the use and deployment of IT and related emerging technologies.
- To present suggestions for future developments and new research directions.

**TARGET AUDIENCE**

This volume, *IT in the Public Sphere: Applications in Administration, Government, Politics, and Planning*, is a reference text aimed at several groups of readers, including the following:

- Managers, directors, and decision makers in government departments, public administration, and politics
- Information system specialists and practitioners of ICT in the public sphere, especially in e-government
- Project managers and information system architects developing e-services and connected government projects
- University students, lecturers, and researchers in the field of e-government, e-governance, public administration, planning, and politics.
BOOK ORGANISATION

There are twelve chapters in this book. These are organized in four sections, as follows:

- **Section 1. IT in Administration**: There are three contributions in this section. The first chapter has a focus on information systems management; the second chapter presents a framework for crisis management and the last contribution discusses the role of Customer Relationship Management (CRM) in public administration.

- **Section 2. IT in Government**: This section also has three chapters. The first of these discusses government-citizen relationship with respect to electronic government; the other two chapters present case studies to discuss quality management and performance management in relation to e-government provision in Jordan.

- **Section 3. IT in Politics**: This part of the book is comprised of three chapters. The first two chapters look into the use of social media for the participation of citizens and the effect of wireless communication on the political system in Zambia. The next chapter presents a discussion on e-participation of the general public.

- **Section 4. IT in Planning**: This part of the book also consists of three contributions. The first two chapters focus on urban planning, discussing the participation of citizens and the effect of emerging ICT and Web-related technologies. The final chapter is a case study looking into the mobile voting system in Egypt.

CHAPTER DESCRIPTIONS

Chapter 1 is titled “Operative Role Management in Information Systems.” This contribution presents an in-depth ethnographic study on the operative role of management as opposed to the technical role of management. The chapter discusses practical work processes of emergency management considering three core domains: common domain, administrative management, and the operative domain. Examples taken from real life case studies are also presented to describe, illustrate, and discuss the interdependencies between the various role management approaches and activities.

Chapter 2 is titled “A Modular Collaborative Web-Based Framework for Humanitarian Crisis Management.” This chapter discusses the importance and necessity of exchange of timely and relevant information to various agencies involved in the management of a crisis and proposes a workable framework of a complex collaboration of Web portals. The framework is based on advanced Web technologies focusing on design patterns in software engineering. The validity, efficiency, and flexibility of the framework are demonstrated using a number of real and complex crisis management scenarios.

Chapter 3 is titled “Application of CRM 2.0 in Spanish Public Administration: Identifying Practical Results.” This contribution discusses the multi-dimensional nature of sharing and dissemination of knowledge and experiences in relation to Customer Relation Management and analyses the use of CRM 2.0 and Web 2.0 in public administration as a strategic tools for the management of relationships with citizens. The chapter also presents some practical issues of interest to decision makers and IT professionals that occur in the application of such tools.
Chapter 4 is titled “The Relationship between Trust and Citizens’ Adoption of E-Government.” It discusses the importance of citizens’ trust in the running of the governments, especially with respect to the information provided in governmental Web portals, to build confidence and satisfaction. The chapter suggests that trust is of vital importance to facilitate and encourage positive interaction between governments and the general public. The chapter also reviews the various existing deployment models and explores the relationship between trust and adoption of e-government by the citizens.

Chapter 5 is titled “Toward Quality Measurement Approaches for Improving E-Government Services in Jordan.” This chapter investigates quality measurement approaches focusing mainly on Six Sigma applications and SERVQUAL, with the aim to improve the quality of electronic services provided by the government departments. The study considers a number of relevant dimensions of electronic services quality, including reliability, responsiveness, ease of use, personalization, and Website design. The topic is discussed in relation to e-government services provision in Jordan.

Chapter 6 is titled “Quality Approaches for Performance Measurement in Jordanian E-Government Services” and discusses the quality mechanisms for measuring the characteristics of e-government services. The authors present a case study of Jordan. They conduct a survey to look into the quality, functional characteristics, and responsiveness of the available e-services and present the analysis of their findings. The chapter investigates the application of Six Sigma and Balanced Scorecard approaches to improve the services quality and suggests areas for further improvements.

Chapter 7, “Supporting Policy-Makers with Social Media Analysis Tools to Get Aware of Citizens’ Opinions,” looks at the effectiveness of social media and Web technologies in gauging citizens’ opinions in the public sphere and suggests a way of data analytics by using analysis software to extract the information of interest. The aim of the contribution is to sift through the unstructured and semi-structured data to extract the relevant information for policy makers for the purpose of decision making.

Chapter 8 is titled “The Developmental Effect of a New Political Anomaly on the Oldest ICT: A Critique of the Banning of Short Wave Radios in Zimbabwe.” The chapter discusses the question of democracy-development nexus and investigates how political and civic freedoms affect such developments. Considering the case of Zimbabwe, the chapter discusses the developmental potential of community radio in Zimbabwe and the neighboring countries and presents a framework for the analysis of the effect of politics on the role of analogue radio, as one of the oldest Information and Communication Technologies.

Chapter 9 is titled “Risk Communication Methods and Participatory Approaches.” This chapter provides an overview and analysis of the methods, tools, techniques, and actions of risk communication as used in different phases of risk governance. A practical case study, carried out in Italy, is presented to illustrate the application of some of these methods, comparing data before and after the communication actions. Future challenges in risk communication are also highlighted to suggest the need to improve the link between communication, consultation, and participation.

Chapter 10 is authored by Lukasz Damurski and titled “Public Communication in Urban Planning: Growing Role of Online Applications for Citizen Participation.” Focusing on urban planning in Poland and Germany, the chapter looks at the relevant patterns and standards of public communication and compares a number of online participation tools. The chapter then proceeds to analyze three complimentary aspects of e-participation in planning: transparency, spatiality, and interactivity. The chapter also discusses relevant aspects of e-government including e-administration, e-planning, and electronic democracy.

Chapter 11 is titled “Urban Planning 3.0: Impact of Recent Developments of the Web on Urban Planning” and addresses the challenges that changing technologies pose to urban planning. The chapter
discusses the new trends in urban planning that aim at determining the location of major urban functions such as housing, transportation, manufacturing, etc. The focus is on methods and tools. It is suggested that the implications of Web 2.0 to urban planning is fairly easy to conceive, whereas the potential implications of Web 3.0 are much more difficult to pinpoint due to its systemic nature.

Chapter 12 in tilted “Successful Adoption of M-Voting System in Egypt.” The chapter discusses a remote voting system using mobile devices as an effective way of enhancing citizens’ participation in the political process and identifies the elements that affect citizens’ intentions and the choice of adopting m-voting. The authors outline the underlying principles and present the relevant technical perspectives. The chapter also proposes a conceptual prototype of a mobile voting system in the context of the Egyptian society and considers its effectiveness through a survey investigation.

Zaigham Mahmood
University of Derby, UK & North West University, South Africa
October 2013