Preface

This preface to the second book of the series entitled *Advances in E-Services and Mobile Applications* provides an overview of the book and contextualizes the major theme of the book. As the title of the book, *Innovative Mobile Platform Development for Electronic Services Design and Delivery*, indicates, the major overarching theme of the book is mobility.

Being a summation of the chapters published in the second volume of the *International Journal of E-services and Mobile Applications (IJESMA)*, this book is divided into four sections that follow the structure and content of the four different issues of the journal. What mainly characterize this volume are its strong focus on mobility as many of the book chapters deal with some aspects of mobility enabled by e-technology as well as its focus on e-government as most of the book chapters deal with some aspects of governmental services. The importance of this theme can be seen in the light that mobility is one of the most influential revolutions that are taking place in our lives. More than half of the world’s population is using mobile phones and related data services. Mobility-enabling technology is not only the most popular and influential technology in human history but it is also the one that is growing and spreading faster in both developed and developing countries as some of the chapters of this volume show. Consequently, governments and private organizations in all parts of the world are facing the challenge of how to use these technologies to better serve and communicate with their customers and users. They are also adopting and using mobile technologies in their own operations (Kushch, 2010).

In addition to the overall theme of mobility, this book also includes a collection of articles dealing with two types of e-services: e-government and e-banking services. This choice is justified by the fact that both banking and governmental e-services are becoming pervasive in our society. For example, banking is a very important sector of our economy that in the last decade has been increasingly affected by all types of e-technology. However, lately, the banking industry is finding out that some of the most important e-innovations that have been a source of competitive advantage in the past are taken for granted by both the consumers and by the banking industry. For example, in many industrialized worlds, Web Banking is now necessary, a minimum for any bank to attract new customers. Therefore, in the near future banks might need to explore, adopt, and embrace different types of technologies in order to keep staying at the cutting edge of competition. Most of these technologies will be characterized by a mobile component: mobile banking, mobile payment, and online trading. As Ayadi (2010) points out in his editorial to the special issue on e-banking, both practioners and researches in the field of e-banking are facing very important issues such as: How to insure complementarities between web banking services and mobile services? How to measure the sensitivity of customers to distant banking or financial services? Is it possible to link technology choices (Services Oriented Architecture, Grid technologies, etc.) to web services in order to keep or improve the competitive advantage? How can an established bank manage technological change in order to acquire a true competitive advantage in web services?

Similarly, to the banking industry, governmental offices and agencies all over the world are exploring and adopting information technology for provision of services to the citizens. Also in this sector, as
As pointed out by Charalabidis et al. (2010), interoperability and integration have gained considerable attention in the last period and the number of research studies and academics conducting research in the field has increased particularly in the last years. However, while basic e-government services have been in place for over ten years, the attention has now shifted towards more comprehensive kinds of services. These comprehensive services require more advanced and intelligent mechanisms and often require that public organisations collaborate with each other. As a consequence, since the late 1990s, most countries have released their e-government strategies and defined various approaches resulting in significant progress on e-government at all levels of public administration. In Europe, for example, with the introduction of the European Service directive, cross-border collaboration and services have gained considerable attention. However, such efforts demand high-levels of integration and interoperability. In the context of e-government, Charalabidis et al. (2010) define interoperability as a property referring to the ability of diverse systems and organizations to work together. This is important as organizations face the challenge to integrate applications that were inherently designed to operate standalone. Interoperation takes place when information systems operate in a coordinated and meaningful fashion. According to Charalabidis et al. (2010) this understanding draws on the “Interoperability” definition by the IEEE as the ability of two or more systems or components to exchange information and to use the information that has been exchanged. Enterprise Application Integration (EAI) can be defined as an approach to architecture design linking systems (Charalabidis, et al., 2010) So, on one hand we have an increased demand for better and integrated e-government services, on the other hand current e-government efforts are often complicated by a lack of interoperability and integration of systems. However creating interoperability and integration is a complex task. Most governments have the basic infrastructure and components and have developed interoperability frameworks to further support their development. Nevertheless, even though many technology standards are available, many other problems hamper the development of these services. For example, knowledge might be available but not easily made accessible. The investments and benefits of these efforts are often unclear and thus need to be detailed and highlighted clearly as blurred benefits might not result in the investment necessary to progress with interoperability and integration. These types of projects are often large-scale and are characterized by the involvement of many stakeholders, each providing their own perspective. Therefore, technical, economical as well as organizational and strategic problems need to be tackled to improve interoperability and integration of e-government services resulting in overall better services and increased citizens’ satisfaction.

THE IMPORTANCE OF MOBILITY

As said above, one theme that is recurrent in many of the contributions of this volume is mobility. Mobile telecommunication with its technologies and applications are making a revolutionary impact on the ways we live and on the ways organizations, both business and governmental units, perform their activities, and interact with the customer/user. Mobile Government Consortium International (mGCI; www.mgovernment.org) headed by Ibrahim Kushchu has conducted a study to understand the trends of mobility and its positive as well as negative effects. I would like here to summarize the key contributions of this study based on Kushchu (2010), by keeping in mind that the study mainly looked at a specific type of technology: mobile phones.
Positive Influence of Mobility

Kushchu (2010) reports that positive contributions of mobility were found in the study at least at four different levels: contributions to personal and primary relations; contributions to the society in general; contributions to public and private sector organisation, and contributions to the economies (especially developing economies). At each level, the influence of mobility may be different. For example, six major contributions were identified for the context of personal and primary relations. These included connection for communication and accessibility; convenience leading often to increased efficiency, especially in our daily lives; charisma reflecting influence on identity and empowerment of individuals; companionship implying a component that helps us to have fun; care including safety provision and care for others; and finally a mobility culture of its own.

For the contributions of mobility at the society level, the study found that mobile phones help to create an informative, connected, culturally innovative, participative, and converging society.

The study looked at the contribution to economies in terms of creation of a mobile welfare. Four major areas that might influence the economic output and mobile welfare were found in the study: infrastructure development, better business practices, improvements in the public sector (mobile government) and contributions to collective welfare of the individuals via social responsibility.

The report also contains a caution that unintended consequences of adoption of mobile technologies may come in two types: constructive and destructive.

Negative Influences of Mobility

The study conducted by Mobile Government Consortium International (mGCI; www.mgovernment.org) found that mobility enabled by mobile communication has several negative effects as well. The study investigated reactions against mobile phones in terms of a) functionalities of mobile phones, b) places where mobile phones are being used, c) the way other people use mobile phones, and d) the way a person himself or herself uses the mobile phone. The results show that members of the society do not have a strict love and hate relationship with mobile phones. Rather, there is a range of negative feelings and the negative feelings may change from one circumstance to another and from one person to another. In addition, the study found that members of the society have negative feelings toward the use of mobile devices in various situations. The top three circumstances of mobile use that have been found by the study to be the most critical include the following: when mobile use may lead to a danger; when mobile phones are intrusive or imposing on others; when mobile phones start to change our lives in the way we do not wish to; and when we become very dependent on them.

The study also shows that in general it is the older generations that are more sensitive to bad manners when mobile phones are used. The report concludes that there is not a significant clear-cut negative influence from mobile phones or their use but rather a range of feelings from “little” to “strong” and these may change depending on the situations. Finally, the report finds that men seem to have a more negative attitudes towards the uses of mobile phones than women and that senior generations are more sensitive to bad manners in relation to mobile phone usage then younger generations.

THE CONTENTS OF THE BOOK

The book is structured into four sections. The first section includes three chapters focusing on the users. The chapters specifically look at the factors that make users to adopt and use mobile services. Two
mobile services are particularly analyzed in these chapters: Goal-Directed Mobile Ticketing Service and SMS voting. The second section goes into depth with a particular sector: e-banking/e-finance. Two of the chapters in this section also focus on the users. Specifically one tries to understand the factors that will influence the use of SMS banking, while another looks at the relationship between customer royalty and Customer Relationship Management Systems. Finally, the two last sections are devoted to e-government issues. The third section specifically looks at different aspects of mobile government. The themes studied in these chapters are very different. For example, the first chapter presents a mobile solution to handle complaint and problem management developed in the context of a Swedish municipality, while the second chapter investigates preferred services in the context of mobile education. The third chapter of this section looks at the way local authorities are using mobile devices, while the last chapter looks at mobile payments. The fourth and last section of the book focuses on two specific aspects of e-government: interoperability and integration.

A few chapters present results that are specific to a geographical region. For example, the first chapter in Section 1 presents the results of a comparative study of two cities located in China and the United Kingdom. Another study investigates a specific type of mobile services: Goal-Directed Mobile Ticketing Service in the specific context of Taiwan. Finally, the third chapter of section 3 provides some insights into the ways local authorities are deploying mobile devices in Turkey.

While a few chapters focus on specific geographical regions, the contributors to this volume are truly global. They represent countries from several continents and include the following countries: Taiwan, China, United Kingdom, Greece, Malaysia, Finland, New Zealand, Sweden, Japan, Russia, and Turkey. Therefore, we can say that this volume represents a real global contribution.

The Structure of the Book

Section 1

The first section focuses on mobile commerce and mobile services in a global context and provides theoretical understandings as well as empirical evidence from different countries especially in relation to mobile ticketing services and SMS voting. This section includes four chapters.

The first chapter is entitled “Consumers’ Attitudes toward Mobile Commerce: A Model to Capture the Cultural and Environment influences.” The chapter is authored by QiYing Su, CEIBS University, Shanghai and Carl Adams, University of Portsmouth, and reports on a study of consumers’ attitudes toward m-commerce conducted in cities located in two different countries: China and UK. The chapter specifically focuses on the environmental and cultural influences on adoption attitudes of mobile commerce. One main contribution of the chapter is the development of a model of “Consumers’ Attitudes toward M-Commerce in different Cultural Environments” (CAMCE). Another major contribution is the identification and distinction between influences related to the environment and to culture.

The second chapter, entitled “Determinants of Goal-Directed Mobile Ticketing Service Adoption among Internet Users: The Case of Taiwan,” is authored by Shen-Yao Wang and Ting Lie from Yuan Ze University. The chapter aims to understand the driving factors that influence the attitudes and behavioural intention to adopt mobile ticketing services in Taiwan. The chapter applies the Theory of Planned Behaviour in the context of Taiwanese Goal-Directed Mobile Ticketing Services. The results of the study indicate that the intention to adopt the mobile ticketing service is significantly affected by the attitude towards the service, as well as the self-efficacy and controllability of adopting the mobile ticketing service.
The attitude towards using the mobile ticketing service is on the other hand significantly influenced by the perceived usefulness and perceived monetary value of the service. Finally, perceived usefulness is significantly affected by the perceived ease of use of the mobile ticketing service.

The third chapter of the section, entitled “Analysis of Mobile Users’ Perception towards SMS Voting,” is written by Ainin Sulaiman, Ali Hussein Saleh Zolait, and Ngkaisain all located at the University of Malaya. The objective of the study is twofold. First, the study has the objective to identify the characteristics of the adopters of SMS voting services in terms of demographic factors and second the study aims at exploring mobile users’ perception towards SMS voting. A survey was conducted to gain information and opinions from a convenience sample of 300 Malaysian mobile users regarding their perceptions on using SMS to vote. The findings revealed that approximately two-thirds of Malay respondents use SMS voting. In addition, the study reveals that most mobile users in the sample are single and female, and that mobile users generally like to send their votes using SMS. Finally, the study found that 80 percent of the total respondents perceived that ease of use greatly influences the use of mobile SMS for voting purposes.

Section 2

The chapters of section 2 are devoted to issues of relevance to e-banking and e-finance. In fact, in these times of global financial crisis and rapid technological evolution, the banking industry is searching for new strategies in order to reach a new equilibrium. For example, the transformation of banking customer behavior and the continual need for increased operational efficiency are motivating financial institutions to develop new multichannel strategies. Banks are not only searching for innovative ways to serve existing customers, but also to continually innovate business processes both to retain the existing customers and to attract new ones. This is substantially been possible due to Internet adoption in the banking industry that has led to the development from simple banking or ATM systems to comprehensive Electronic Banking or Finance portals. The chapters in this section provide exemplary research in this field and focus on different aspects of the state-of-the art within this field.

The first chapter entitled, “Adoption of a Comprehensive Web-Based Wealth Management Service,” is written by Tomi Dahlberg and Anssi Öörni from Aalto University, Finland. Anssi Öörni and Tomi Dahlberg present the results of a survey conducted within an R&D project in order to design an innovative wealth management service to customers via Internet. The research model used in the study is based on previous Technology Acceptance Models (Technology Reasoned Action, Technology Planned Behavior, etc.). However the authors aimed to understand further customer adoption behavior like characteristics of the consumption situation, service product and IT affect cognitive deliberation attitude. Two Delphi-surveys carried out with 43 experts and 40 consumers helped to identify a 17-item list of consumers’ wealth management motives. A final questionnaire was then sent to 217 customers of a large Finnish Financial Service provider. The findings show that a new Internet wealth management service should be much related to other offered services. In addition, information and trials are influential for the adoption of such electronic services.

The second chapter, entitled “SMS Banking: An Exploratory Investigation of the Factors Influencing Future Use,” is written by Krassie Petrova and Shi Yu, Auckland University of Technology, New Zealand. Krassie Petrova and Shi Yu investigate the factors influencing the future use of Mobile Banking via short text messaging (SMS). The authors extend the Technology Acceptance Model with factors like cost of use, capability of mobile devices and cultural factors that were identified through a focus group specifically focusing on SMS banking. The research model is then tested through a questionnaire survey...
that resulted in 254 responses from New Zealand postgraduate students, very well known to be active mobile technology users. The findings of this study suggest that speed, advertising, compatibility, and self-efficacy are key influencing factors for SMS Banking adoption.

The third chapter, “Does Technology Acceptance Change the Way from CRM to Customer Loyalty? An Empirical Study on the Banking Industry,” is written by Yi-Yuan Liu, Oriental Institute of Technology, Taiwan. The author examines the moderating effect of technology acceptance on the relationship between Customer Relationship Management (CRM) and customer loyalty. The CRM activities are seen by the author as a way to manage interactions with bank customers by phone or Internet. A total number of 538 questionnaires were collected from customers of nine retail banks in Taiwan. A comparison was carried out between customers from different area in the country with different levels of technology acceptance. The results of the study show that the technology acceptance level has a deep impact on the acceptance of tailor made CRM services.

Section 3

The focus of this section is mobile government, which in this section include also mobile education. mGovernment is gradually being adopted in various countries and can be conceptualized as an extension of eGovernment. As mobility and the use of mobile technologies are relatively new developments for the public sector, developing sound strategies and policies may often lack reliable foundations in terms of knowledge and know-how.

The first chapter, “Enhancing Complaint and Problem Management: Design and Evaluation of an m-Service using Pictures and Positioning,” is authored by Gustaf Juell-Skielse, Royal Institute of Technology, Sweden. The chapter deals with one of the most important services offered by almost all local authorities: complaint and problem management. In fact, receiving complaints, identifying problems related to the services offered to the citizens and taking the necessary action to solve them is one of the major areas of mobile government. The author presents a mobile-based solution for this vital activity where citizens can interact with local authorities via visual data and location information. The study shows that this approach led not only to effective communication among relevant stakeholders but also to an effective way of dealing with solutions. As mobile government applications and services move toward the local levels, the chapter provides valuable insights in dealing with one of the essential activities of local authorities that may be easily transferrable and scalable.

The second chapter, “M-Government for Education: Assessing Students’ Preferences for Mobile Campus Services,” written by Diana Ishmatova, Waseda University, Japan and Yuri V. Fedotov, St. Petersburg State University, Russia, presents some preliminary work in identifying preferred services that can be used in mobile education—one of the important domains of mobile government. The work is based on an interesting approach to determine user preferences (students) on possible mEducation services that are to be offered in a typical university campus environment. In this way, the work identifies a number of preferred services and critical issues that may need special attention in designing and conducting further work in the area. The chapter is of significant importance especially because it deals with one of most significant widely applicable domains of mGovernment—mobile education.

The third chapter, “The Role of Choice in the Development of an m-Government Strategy in Turkey,” written by Ronan de Kervenoael (Sabanci University, Turkey, and Aston University, UK), N. Meltem Cakici (Gediz University, Turkey), and Duygu Guner (Bahcesehir University, Turkey) raises an extremely important issue related to the ways local authorities are using and deploying mobile services. The chapter presents the
results of a study conducted in Turkey, which aims to uncover the significant level of involvement, knowledge creation, capacity building and practices in successfully implementing local mGovernment services. The study is important, as its lessons might be useful to prevent some of the causes of failure for mGovernment projects.

The fourth chapter of this section, “Evolution of Electronic and Mobile Business and Services: Government Support for E/M-Payment Systems,” written by Carl Adams (University of Portsmouth, UK), and Simon Mouatt (Southampton Solent University, UK) looks at one of the key enablers of mobile government from a new perspective: mobile payment. The chapter explores the role that governments have in effectively supporting mobile payment systems that are changing the way money is conventionally perceived and used. After providing insights into the relationships between the traditional concept of money and e/m-money, the chapter identifies a number of problematic issues related to mobile payment systems. It also provides ideas on how governments could proactively provide support in order to encourage wider and successful adoption of mobile payments services via their traditional roles: creating legal frameworks, fostering standardisation and endorsement activities.

Section 4

This section is entirely dedicated to e-government and focuses on two specific aspects of e-government: interoperability and integration. The chapters included in this section aim to capture some of the issues and complexities of e-government integration and interoperability in the public sector and include chapters showing various angles on these issues. The chapters in this section show that the research emphasis is now shifting from enhancing interoperability and integration at the data exchange level towards more higher and strategic levels. Obstacles are not merely technological in nature. In fact, the technological aspects may turn out to be far less of a challenge than the strategic, organizational, legal, political and social aspects and are complicated by the diverse interest of stakeholders that need to trust each other to cooperate.

The first chapter of the section is entitled “Activity-Based Costing in Public Administrations: A Business Process Modeling Approach” and is authored by Jörg Becker, Philipp Bergener, and Michael Räckers. In this chapter, the authors use a costing approach as an efficiency measurement for public administrations. Especially through the introduction of New Public Management and double-entry accounting, Public Administrations get the opportunity to use cost-centered accounting mechanisms to assess process performance and evaluate their activities in a holistic concept. The authors show how process modeling can be a useful instrument to help the public administrations to capture relevant process knowledge and thus create the data basis for activity-based costing.

The second chapter is written by Loukis Euripides and Alexander Xenakis and is entitled “Knowledge Interoperability among Parliaments and Government.” This chapter focuses on extracting value knowledge from information from parliament. The authors argue that knowledge is hidden in numerous text documents, so it cannot be efficiently exchanged and exploited. It is therefore highly important to extend the concept of interoperability among the Information Systems (IS) of Parliaments and Government Agencies, so that it covers not only the “operational level,” but also the “knowledge level” as well. This would enable the efficient exchange of not only data and functionality, but also of public policy related knowledge. The argument is based on the use of the complex problems representation ontology provided by the “Issue-Based Information Systems” (IBIS) framework for codifying the public policy related knowledge created in the various stages of legislation formulation in Parliaments. An application of the proposed methodology is presented for the case of the Law on the “Contracts of Voluntary Cohabitation,” which has been recently passed by the Greek Parliament.
In the third chapter, entitled “Investigating the Landscape in National Interoperability Frameworks,” Yannis Charalabidis (University of the Aegean, Greece), Fenareti Lampathaki (National Technical University of Athens, Greece), and Dimitris Askounis (National Technical University of Athens, Greece) compare and outline the current landscape of National Interoperability Frameworks. National Interoperability Frameworks are continually revised and expanded across the globe in an effort to support the increasing need for seamless exchange of information. They found that most frameworks have a certain degree of maturity and provide recommendations for countries to develop their frameworks. The main purpose of the chapter is to contribute to discussions about the interoperability progress.

The fourth chapter examines the role of key stakeholders in integration projects. The chapter is entitled “Examining the Role of Stakeholder’s in Adopting Enterprise Application Integration Technologies in Local Government Domain,” and it is written by Muhammad Kamal and Vishanth Weerakkody, Brunel University, UK. The authors argue that stakeholder management has been given much attention in e-government and can make or break a project. It would therefore be judicious to give greater contemplation to the research on examining the role of a number of stakeholders in EAI adoption process in Local Government Authorities (LGAs). The authors apply the concept of stakeholder theory to analyse the importance of stakeholders during the EAI adoption process. In particular, the chapter explores the perception of different stakeholders on the factors influencing EAI adoption in LGAs and their involvement in the adoption lifecycle phases. The authors highlight that each stakeholder involved in the EAI adoption process has a significant role by utilising their knowledge and expertise, contributing towards the success of the EAI projects and improving organisational performance.

The fifth and last chapter of the section and the book is entitled “Understanding Shared Services: An Exploration of the IS Literature” and deals with Shared Services. The chapter is authored by Suraya Miskon, Wasana Bandara, Erwin Fielt, and Guy Gable (Queensland University of Technology). The authors argue that this subject is relevant, as Shared Services have been extensively adopted in practice as one means for improving organizational performance. However, through an archival analysis of IS research, the authors found that the academic literature reveals that Shared Services, though mentioned in more than 100 papers, has received little in depth attention. The chapter presents detailed review of literature from main IS journals and conferences, findings evidencing a lack of focus and definitions and objectives lacking conceptual rigour. The chapter concludes with a tentative operational definition, a list of perceived main objectives of Shared Services, and an agenda for related future research.

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