Preface

Electronic services have exploded in both population and popularity within the last decade. The establishment of the dot-com era in the late 90’s first introduced electronic services to the common consumer, at the same time leading many companies to begin offering electronic services to end-users. In spite of the ‘bursting’ of the dot-com bubble in the early years of the 21st century, electronic services continue to remain an integral part of the modern information technology landscape. From academic web portals and online banking to web mining and online knowledge sharing, this constantly-evolving array of electronic services is critical to the success of modern businesses, academic communities, and consumers.

With the constant changes in the landscape of electronic services, it is a challenge for researchers, practitioners, and experts to take in the volume of innovative advances and up-to-the-moment research in this diverse field. Information Science Reference is pleased to offer a three-volume reference collection on this rapidly growing discipline, in order to empower students, researchers, academicians, and practitioners with a wide-ranging understanding of the most critical areas within this field of study. This collection provides the most comprehensive, in-depth, and recent coverage of all issues related to the development of cutting-edge electronic services, as well as a single reference source on all conceptual, methodological, technical and managerial issues, and the opportunities, future challenges and emerging trends related to the development, application, and implications of electronic services.

This collection entitled, “Electronic Services: Concepts, Methodologies, Tools and Applications” is organized in eight (8) distinct sections, providing the most wide-ranging coverage of topics such as: 1) Fundamental Concepts and Theories; 2) Development and Design Methodologies; 3) Tools and Technologies; 4) Utilization and Application; 5) Organizational and Social Implications; 6) Managerial Impact; 7) Critical Issues; and 8) Emerging Trends. The following provides a summary of what is covered in each section of this multi-volume reference collection:

Section 1, Fundamental Concepts and Theories, serves as a foundation for this extensive reference tool by addressing crucial theories essential to the understanding of information resources management. Chapters such as “E-Services: Characteristics, Scope and Conceptual Strengths” by Ada Scupola, Anders Henten and Hanne Westh Nicolajsen, and “Services, E-Services, and Nonservices” by Anders Henten give an overview of electronic services while examining the provision and development of electronic services at the conceptual level. “Web Services, Service-Oriented Computing, and Service-Oriented Architecture: Separating Hype from Reality” by John Erickson and Keng Siau sheds some light on the definition of service-oriented architecture and the difficulties of assessing the value of web services. Additional selections, including “The Evolution of B2B E-Services from First Generation E-Commerce Solutions to Multichannel Architectures” by Christine Legner, and “Electronic Marketplace Support for B2B Business Transactions” by Norm Archer focus on the evolution, evaluation, and adoption of electronic services for business-to-business commerce. These and several other foundational chapters provide a wealth of expert research on the elemental concepts and ideas surrounding electronic services.
Section 2, Development and Design Methodologies, presents in-depth coverage of the conceptual design and architecture of electronic services, focusing on aspects including portal design, service design, and service delivery. Design concerns are the focus of such chapters as “Building Portal Applications” by Jana Polgar and Tony Polgar, and “Creating Successful Portals with a Design Framework” by Joe Lamantia. “The Evolving Portfolio of Business-to-Business E-Services: Service and Channel Innovation” by by Christine Legner explains why a well-designed business-to-business architecture is required to cope with the growing number of electronic services and the complexity of serving multiple electronic channels, offering solutions for how to do so. M. Ángeles Moraga, Julio Córdoba, Coral Calero, and Cristina Cachero’s “A General View of Quality Models for Web Portals and a Particularization to E-Banking Domain” presents and compares several portal quality models, with a particular focus on models adapted for e-banking situations. With contributions from leading international researchers, this section offers copious developmental approaches and design methodologies for electronic services.

Section 3, Tools and Technologies, presents extensive coverage of the various tools and technologies used in the development and implementation of electronic services. This comprehensive section includes such chapters as “Towards a Design Process for Integrating Product Recommendation Services in E-Markets,” by Nikos Manouselis and Constantina Costopoulou, and “Web Mining for Public E-Services Personalization” by P. Markellou and A. Panayiotaki, which describe various techniques and models for providing more personalized services in online environments. “Improving M-Commerce Services Effectiveness with the Use of User-Centric Content Delivery” by Panagiotis Germanakos, Nikos Tsianos, Zacharias Lekkas, Constantinos Mourlas, and George Samaras presents tools to adapt to the challenges and constraints caused by the mobility in the business sector. Finally, electronic services and technologies for students’ use are discussed in “21st Century E-Student Services” by Gary R. Langer. In all, this section provides coverage of a variety of tools and technologies that inform and enhance modern electronic services.

Section 4, Utilization and Application, describes how electronic services have been utilized and offers insight on important lessons for their continued use and evolution. Including chapters such as “Web Services in Distributed Information Systems: Availability, Performance and Composition” by Xia Zhao, Tao Wang, Enjie Liu, and Gordon J. Clapworthy, and “Evolution of Online Financial Trading Systems: E-Service Innovations in the Brokerage Sector” by Alexander Yap and Wonhi Synn, this section investigates numerous methodologies that have been proposed and enacted in electronic services, as well as their results. As this section continues, a number of case studies in the use of electronic services are presented from multiple industries across the world, in selections such as “E-Banking Diffusion in the Jordanian Banking Services Sector: An Empirical Analysis of Key Factors” by Ali Alawneh and Ezz Hattab, “E-Services in Danish Research Libraries: Issues and Challenges at Roskilde University Library” by Ada Scupola, and “Business Process Change in E-Government Projects: The Case of the Irish Land Registry” by Aileen Kennedy, Joseph P. Coughlan and Carol Kelleher. Contributions found in this section provide comprehensive coverage of the practicality and current use of electronic services.

Section 5, Organizational and Social Implications, includes chapters discussing the organizational and social impact of electronic services. “Factors Relating to the Adoption of Internet Technology by the Omani Banking Industry” by Salim Al-Hajri and Arthur Tatnall presents a discussion of the enablers and the inhibitors of Internet technology adoption in Oman, and “Early User Involvement and Participation in Employee Self-Service Application Deployment: Theory and Evidence from Four Dutch Governmental Cases” by Gerwin Koopman and Ronald Batenburg demonstrates that the deployment success of electronic self-services is positively related to the extent of early user involvement and participation. This section continues with issues in consumer trust and electronic services, covered in chapters such as “Culture and Consumer Trust in Online Businesses” by Robert Greenberg, Bernard Wong-On-Wing, and Gladie Lui, and “Building Consumer Trust for Internet E-Commerce” by George Yee. The section
concludes with several chapters remarking upon consumer attitudes towards different electronic services, in selections such as Jesus Enrique Portillo Pizana’s “Measuring Consumer Attitudes Towards Self-Service Technologies.” Overall, these chapters present a detailed investigation of the complex relationship between individuals, organizations and electronic services.

Section 6, **Managerial Impact**, presents focused coverage of electronic services as it relates to improvements and considerations in the workplace. “Competence of Information Technology Professionals in Internet-Based Ventures” by Tobias Kollmann and Matthias Häsel articulates the knowledge and skills required by IT professionals in young Internet-based firms in order to find suitable partners and align e-business strategy and information technology. “Contract Negotiation in E-Marketplaces: A Model Based on Dependency Relations” by Larbi Esmahi and “E-Contracting Challenges” by Lai Xu and Paul de Vrieze presents an overview and examples of protocols commonly used to implement negotiation in e-markets and electronic contracts. In all, the chapters in this section offer specific perspectives on how managerial perspectives and developments in electronic services inform each other to create more meaningful user experiences.

Section 7, **Critical Issues**, addresses vital issues related to electronic services, which include self-services, online financial activities and the security of web-based services. Chapters such as “Effectiveness of Web Services: Mobile Agents Approach in E-Commerce System” by Kamel Karoui and Fakher Ben Ftima, and “Self-Service Systems: Investigating the Perceived Importance of Various Quality Dimensions” by Calin Gurau focus on the effectiveness of self-service systems and consumer behavior when using those systems. Later selections, such as “A Survey of Attacks in the Web Services World” by Meiko Jensen and Nils Gruschka, “Security Threats in Web-Powered Databases and Web Portals” by Theodoros Evdoridis and Theodoros Tzouramanis, and “An Approach for Intentional Modeling of Web Services Security Risk Assessment” by C. Misra Subhas, Kumar Vinod, and Kumar Uma address security by looking at tools, resources and patterns in attacks. This section also asks unique questions about ways to valuing a company’s intellectual capital, electronic services in the library virtualization process, and online journalistic services.

The concluding section of this authoritative reference tool, **Emerging Trends**, highlights areas for future research within the field of electronic services, while exploring new avenues for the advancement of the discipline. Beginning this section is “Sponsored Search as a Strategic E-Service” by Roumen Vragov. This selection discusses the potential of sponsored searching, while evaluating the extent to which consumers and advertisers can rely on sponsored search as an effective strategic infomediary. Emerging electronic therapeutic systems are presented in “The Digital Divide and the Emerging Virtual Therapeutic System” by Christine H. Barthold and John G. McNutt, and “E-Therapy” by Catarina I. Reis, Carla S. Freire, and Josep M. Monguet. These chapters explore systems of online health and mental healthcare, both formal and informal, and discuss their effectiveness. These and several other emerging trends and suggestions for future research can be found within the final section of this exhaustive multi-volume set. Although the primary organization of the contents in this multi-volume work is based on its eight sections, offering a progression of coverage of the important concepts, methodologies, technologies, applications, social issues, and emerging trends, the reader can also identify specific contents by utilizing the extensive indexing system listed at the end of each volume. Furthermore to ensure that the scholar, researcher and educator have access to the entire contents of this multi volume set as well as additional coverage that could not be included in the print version of this publication, the publisher will provide unlimited multi-user electronic access to the online aggregated database of this collection for the life of the edition, free of charge when a library purchases a print copy. This aggregated database provides far more contents than what can be included in the print version in addition to continual updates. This unlimited access, coupled with the continuous updates to the database ensures that the most current research is accessible to knowledge seekers.
As a comprehensive collection of research on the latest findings related to using technology to providing various services, *Electronic Services: Concepts, Methodologies, Tools and Applications*, provides researchers, administrators and all audiences with a complete understanding of the development of applications and concepts in electronic services. Given the vast number of issues concerning usage, failure, success, policies, strategies, and applications of electronic services in organizations, *Electronic Services: Concepts, Methodologies, Tools and Applications*, addresses the demand for a resource that encompasses the most pertinent research in electronic services development, deployment, and impact.