

Preface

In the early 1990s, e-business ushered in what is now called “the global economy.” It revolutionized the process of buying, selling, and exchanging products and services, and spawned a host of business and technological innovations. As globalization and competition pose new opportunities and challenges, firms face increased pressures from stakeholders to create e-business values. They are attempting to find which e-business models and applications will contribute effectively to their sustainability, growth, and innovation. Innovations in technology in the e-business area have constantly encouraged firms to improve existing business processes and to come up with new business models and applications. Recently, advancements of wireless technologies have extended the reach of e-business to mobile business environments. As a growing number of customers utilize mobile devices to exchange information and to conduct business transactions, firms are competing to provide the most value-added, innovative, convenient mobile services for their customers. While large firms have been the early adopters and beneficiaries of most e-business innovations, an increasing number of small and medium-sized enterprises (SMEs) are also rapidly adopting e-business to better serve customers, improve productivity, extend a market base, and stay competitive.

E-business brought about a paradigm shift caused by “disruptive” technology that is radically changing the traditional way of doing business. The global economy emerging from the Internet revolution changed the rules and principles traditionally held by business firms. The paradigm shift was unprecedented in terms of the complexity and magnitude, and pressured firms to be more innovative and proactive to business problems than ever before. Anecdotal evidence of excellent companies such as e-Bay and Amazon.com shows that they understand the dynamics of the complex interrelated internal and external forces imposed on the company, develop comprehensive business plans from multi-layered stakeholders’ perspectives, and implement the plans at the right time, magnitude, and place. However, in light of the current lack of comprehensive studies in e-business planning and management, an overarching framework is in urgent need to assist e-business managers in analyzing enabling technologies and the success factors when developing e-business plans.

Although a large volume of literature is already available on e-business, many new ideas and applications are constantly emerging and provide potential opportunities and challenges for further research. In light of this phenomenon, it is high time to take stock of the new knowledge in e-business development and management. **Encyclopedia of E-Business Development and Management in the Global Economy** provides a repository for academicians, researchers, and industry practitioners to share and exchange their research ideas, theories, and practical experiences, discuss challenges and opportunities, and present tools and techniques in all aspects of e-business development and management in the global economy.

This book is divided into twelve sections with a total of 129 articles: **Section 1, Theoretical Foundations of E-Business**, discusses various e-business theories and the impacts of e-business to the economy and society; **Section 2, E-Business Planning and Performance Evaluation**, addresses planning and performance evaluation methodologies for e-business; **Section 3, E-Marketplaces**, discusses various types of e-marketplaces and related technologies; **Section 4, E-Business Strategies**, addresses competition, dynamics, and trends in e-business; **Section 5, E-Business Models**, discusses various business models and their value creating opportunities; **Section 6, E-Business Management**, discusses organizational culture, leadership, management methods, customer management, and practices for e-business; **Section 7, Online Consumer Behavior**, presents e-commerce consumer acceptance models, trust, and psychological perspective on online consumer behavior; **Section 8, Mobile Commerce**, addresses mobile consumer behavior, mobile marketing, mobile virtual community, and mobile services; **Section 9, E-Business System Development**, presents service-oriented architecture, system design principles, quality of service, and e-business applications development; **Section 10, Web Services and E-Business Process Integration**, discusses various web service technologies and issues in business process integration; **Section 11, E-Business: Issues, Challenges, and Opportunities**, addresses digital divide, technological and regulatory challenges, emerging economies, and new e-business application opportunities; and **Section 12, Emerging Trends**, presents new web technologies, Web 2.0, and future trends. A brief introduction of each article follows:

Section 1: Theoretical Foundations of E-Business consists of nine articles. “The Macroeconomic Impacts of E-Business on the Economy” by Daniel Heil and James E. Prieger, Pepperdine University (USA), covers some of the impacts e-business has on the economy, emphasizing macroeconomic effects. It suggests directions for future research and discusses issues that e-business presents policymakers. “The Microeconomic Impacts of E-Business on the Economy” by James E. Prieger and Daniel Heil, Pepperdine University (USA), covers both the predicted impacts of e-business on the economy suggested by microeconomic theory, to understand why e-business has proliferated, and their empirical magnitude, to show the economic benefits. “The Power Laws of Enterprise 2.0” by Jacques Bughin, McKinsey & Company, Inc (Belgium), presents key stylized facts around the adoption, use and success of social software, a phenomenon dubbed “Enterprise 2.0.” “Prices on the Internet” by Jihui Chen, Illinois State University (USA), reviews price dispersion and related literatures, and discuss future research directions. “Price Dispersion on the Internet: A Further Review and Discussion” by Fang-Fang Tang, Peking University (China); Xiaolin Xing, Fannie Mae (USA), reviews significant price differences and persistent price dispersions in the Internet markets. “The Electronic Law of One Price (eLOP)” by Camillo Lento, Alexander Serenko, and Nikola Gradojevic, Lakehead University (Canada); Lorne Booker, McMaster University (Canada); Sert Yol, Lakehead University (Canada), tests the eLOP by utilizing two datasets with online price data. Pairwise comparison tests reveals that the eLOP does not hold true for any of the product price categories tested. “Trust in Electronic Commerce: Definitions, Sources, and Effects” by Hongwei Du, California State University, East Bay (USA); Albert Lederer, University of Kentucky (USA); Jiming Wu, California State University, East Bay (USA), discusses the concept of trust, its definitions, and sources. “Avatar Theory” by Ching-I Teng, Chang Gung University (Taiwan); Shao-Kang Lo, Chinese Culture University (Taiwan), presents Avatar Theory to outline fundamental propositions related to avatars. Avatar Theory can provide a background theory for subsequent avatar studies related to online games. “Relationship between Second Life and the U.S. Economy” by Rosemarie Reynolds, Yusuke Ishikawa, and Amanda Macchiarella, Embry-Riddle Aeronautical University (USA), investigates the relationship between the economies of Second Life and the United States, using financial data collected from Linden Lab and the Federal Reserve.

Section 2: E-Business Planning and Performance Evaluation consists of nine articles. “E-Business Adoption and its Impact on Performance” by Sabah Abdullah Al-Somali, Ben Clegg, and Roya Gholami, Aston University (UK), discusses the process of e-business implementation, usage and diffusion (routinisation stage) on business performance. “B2B Website Benefits Realization in Australian SMEs” by Chad Lin, Curtin University of Technology (Australia); Yu-An Huang, National Chi Nan University (Taiwan); Rosemary Stockdale, Massey University (New Zealand), examines the relationships between B2B website adoption readiness, B2B website adoption constraints, IT investment evaluation, and B2B benefits in Australian SMEs. “Lifelong Learning in the Knowledge Economy: An Empirical Analysis of e-Learning Adoption at Firm-Level” by Maria Rosalia Vicente and Ana Jesus Lopez, University of Oviedo (Spain), examines e-learning adoption among a sample of European firms (an area for which empirical evidence is quite scarce), and investigates the factors driving its introduction. “Measuring the Quality of E-Business Services” by Mark Springer, Craig K. Tyran, and Steven Ross, Western Washington University (USA), develops a framework to compare and contrast different models of e-service quality. “Measuring B2C Quality of Electronic Service: Towards a Common Consensus” by Mahmoud Amer and Jorge Marx Gómez, Carl von Ossietzky University of Oldenburg (Germany), proposes a B2C electronic Service Quality “eSQ” model of consensus summarizing the past research efforts. The Business Value of E-Collaboration: A Conceptual Framework” by Lior Fink, Ben-Gurion University of the Negev (Israel), provides a conceptual framework for researchers and practitioners who are interested in investigating and understanding the organizational impacts of collaborative technologies. “A Model on Antecedents and Consequences of E-Procurement” by M. José Garrido, Ana Gutiérrez, and Rebeca San José, Universidad de Valladolid (Spain), analyzes whether different Internet tools are used throughout all purchasing phases and whether the characteristics of the buying situation determined the use of the Internet in that process. “Global Online Performance and Service Orientation” by Anna Morgan-Thomas, University of Glasgow, UK; Robert Paton, University of Glasgow (UK), examines the contribution of e-commerce to SME globalization. The focus here is explicitly on existing firms and their online activities. “Electronic Funds Transfer Systems and the Landscapes of Global Finance” by Barney Warf, University of Kansas (USA), summarizes some of the major public and private EFTS networks and the repercussions for capital markets, stock exchanges, and foreign exchange markets.

Section 3: E-Marketplaces consists of nine articles. “Intermediaries in E-Commerce: Value Creation Roles” by Nirvikar Singh, University of California, Santa Cruz, (USA), examines the evolution and robustness of intermediation in e-commerce, by examining the fundamental economics of intermediation in terms of economies of specialization, scale, and scope. “Identifying the Factors that Lead to a Successful Intermediary in Electronic Commerce” by Margaret Jackson and Marita Shelly, RMIT University (Australia), explores the factors that have led to the success of financial intermediaries and in particular, BPAY Ltd. in Australia. “A Framework for Identifying B2B E-Marketplace Strategies” by George Mangalaraj and Chandra S. Amaravadi, Western Illinois University (USA), reviews existing literature and provides a parsimonious framework for classifying electronic marketplaces. “Electronic Logistics Marketplaces” by Yingli Wang, Mohamed Naim, and Andrew Potter, Cardiff Business School, (UK), defines and describes Electronic Logistics Marketplaces (ELMs) in terms of their architectures, features and functionalities, impact on logistics practice and benefits to stakeholders, and future requirements. “An Agent-Based B2C Electronic Market in the Next-Generation Internet” by Vedran Podobnik, University of Zagreb (Croatia); Krunoslav Trzec, Ericsson Nikola Tesla (Croatia); Gordan Jezic, University of Zagreb (Croatia), presents an agent-based framework for the business-to-consumer (B2C) electronic market, comprising user agents, broker agents and provider agents, which enable Internet us-

ers to select an Internet Service Provider in an automated manner. “Concept of Agent-based Electronic Marketplace” by Norleyza Jailani, Ahmed Patel, Muriati Mukhtar, Salha Abdullah, and Yazrina Yahya, Universiti Kebangsaan Malaysia (Malaysia), explains the concepts of an electronic marketplace (e-marketplace) and the types of e-marketplaces in today’s computing environment that is facilitated and driven by the Internet. The concept of software agent and the different types of agents which may exist in an e-marketplace application in the current setting of the global economy is also discussed. “Concept of Mobile Agent-Based Electronic Marketplace Safety Measures” by Ahmed Patel, Universiti Kebangsaan Malaysia, (Malaysia), extends the basic concepts of Mobile Agent Systems (MAS) to elaborate on the principles and address the key issues of security, privacy, trust, and audit for normal e-business and digital forensics purposes. “Time Constraints for Sellers in Electronic Markets” by Kostas Kolomvatsos, and Stathes Hadjiefthymiades, University of Athens (Greece), describes a model for the seller behaviour and through this model quantifies the maximum time of seller participation. “Towards Efficient Trust Aware E-Marketplace Frameworks” by Malamati Louta, Harokopio University of Athens, Greece; Angelos Michalas, Technological Educational Institute of Western Macedonia, (Greece), proposes enhancements to the sophistication of the negotiation functionality that can be offered by e-commerce systems in open competitive communications environments.

Section 4: E-Business Strategies consists of five articles. “Assessing Relational E-Strategy Supporting Business Relationships” by Anne-Marie Croteau, Anne Beaudry, and Justin Holm, Concordia University (Canada), develops an integrative construct of e-strategy, mainly focusing on the relationships built between and within companies. “Leading the Organizational Dynamics of E-Business Firms” by Esin CAN MUTLU, Yasemin BAL, and Pinar BÜYÜKBALCI, Yıldız Technical University (Turkey), conceptually discusses the important organizational aspects in e-business firms and supports them with the needed leadership traits. “Adoption of e-Commerce by Canadian SMEs: Defining Organisational, Environmental and Innovation Characteristics” by Lynn L. Sparling, Okanagan College (Canada); Aileen Cater-Steel and Mark Toleman, University of Southern Queensland (Australia), focuses on the definitions of organisational, external, environmental and innovation variables in the organisational context. “E-Business Strategy in Franchising” by Ye-Sho Chen and Chuanlan Liu, Louisiana State University (USA); Qingfeng Zeng, Shanghai University of Finance and Economics (China), discusses how e-business can be “meaningfully” used in franchising. “Exploring the impact of Government Policies and Corporate Strategies on the Diffusion of Mobile Data Services: Case of Economies at Different Stages of Transition” by Tugrul U Daim, Portland State University (USA); Jing Zhang, Beijing University of Posts and Telecommunications (China); Byung-Chul Choi, Samsung Information Systems America (SISA) (USA), explores how governments and businesses impact the diffusion of mobile data services with their policies and strategies.

Section 5: E-Business Models consists of nine articles. “eBusiness and the Resource-based View: Towards a Research Agenda” by Pedro Soto-Acosta, University of Murcia (Spain), provides a review of the adoption of a resource-based view of the firm (RBV) in e-business literature and suggests directions for future research. “E-Commerce Business Models: Part 1” and “E-Commerce Business Models: Part 2” by Khaled Ahmed Nagaty, The British University in Egypt, (Egypt), presents various e-commerce business models and their advantages and disadvantages, and discusses the important issues and problems facing e-commerce web sites. “Creating Business Opportunities Based on Use of Electronic Knowledge Business Models” by Tsung-Yi Chen, Nanhua University (Taiwan); Yuh-Min Chen, National Cheng Kung University (Taiwan), explores the knowledge value chain in the collaborative innovation era, introduces the knowledge commerce model, and analyzes possible revenue streams and opportunities

associated with knowledge commerce. “Online Private Sales Clubs: An Emerging Model Of Fashionable E-Commerce at Promotional Prices” by Ana Isabel Jiménez-Zarco, Open University of Catalonia (Spain); María Pilar Martínez-Ruiz, Castilla la Mancha University (Spain); Silvia Sivera-Bello and Sandra Vilajoana-Alejandre, Open University of Catalonia (Spain), identifies some of the keys to success, as well as the growth opportunities associated with the online private sales club. “Business Model Renewal: The TIA-MARIA Framework for Enterprise Realignment” by Rebecca De Coster, Brunel University, (UK), develops a framework for business model renewal based on case study research into firms entering the emerging sector of mobile networking. “Architecture Model for Supply Chain Orchestration and Management” by Marijn Janssen, Delft University of Technology (the Netherlands), discusses the role of Supply Chain Orchestrators, with the aim of deriving an architectural model for the integration of the activities of organizations in the supply chain. The architecture model is illustrated and evaluated using a case study. “Ambient e-Service: a bottom-up collaborative business model” by Yuan-Chu Hwang, National United University, (Taiwan), presents an ambient e-service framework that characterizes ambient e-services with three dimensions (value stack, environment stack and technology stack). Several ambient e-service applications are also exemplified. “Online Auctions: Pragmatic Survey and Market Analysis” by James K. Ho, University of Illinois at Chicago (USA), presents a survey and market analysis of various online auction business models.

Section 6: E-Business Management consists of twenty articles. “Configurators/Choiceboards: Uses, Benefits, and Analysis of Data” by Paul D. Berger, Bentley University (USA); Richard C. Hanna and Scott D. Swain, Northeastern University (USA); Bruce D. Weinberg, Bentley University (USA), discusses the uses and benefits of configurator/choiceboard systems, and how the analysis of its usage can be beneficial to the company. “E-CRM: A Key Issue in Today’s Competitive Environment” by María Pilar Martínez-Ruiz, University of Castilla-La Mancha (Spain); María Rosa Llamas-Alonso, University of León (Spain); Ana Isabel Jiménez-Zarco, Open University of Catalonia (Spain), highlights the importance of e-CRM as a key business process for global companies, gaining a better understanding of its benefits from different managerial perspectives, emphasizing key factors for effective implementation, and pointing out challenges and future directions in the field. “Effective Virtual Project Management Using Multiple E-Leadership Styles” by Margaret Lee, Capella University (USA), reviews management concepts for virtual teams that include leadership styles such as control-related models, transformational and transactional leadership styles, leadership that empowers team members to self-manage, and situational and contingency leadership styles. “On-Line Credit Card Payment Processing and Fraud Prevention for e-Business” by James G. Williams, University of Pittsburgh (USA); Wichian Premchaiswadi, Siam University (Thailand), addresses the issue of credit card fraud in terms of how cyber-criminals function and the potential solutions used to deter credit card fraud attempts. “Virtual Stock Markets as a Research Tool in Marketing and Management” by Lorenz Zimmermann, Ludwig-Maximilians-University Munich (Germany), explains the basic concept of Virtual Stock Markets (VSM), describes the potential areas of application, and shows examples of successful implementations in business practice. “Potential Benefits of Analyzing Website Analytic Data” by Elizabeth Votta, Roosevelt University (USA), presents potential benefits of analyzing website analytic data, including: discovering traffic trends, targeting market segmentation, developing best practices, optimizing landing pages, and improving conversion rates. “Teams of Leaders Concept (ToL) and E-Business Operations” by Dag von Lubitz, MedSMART Inc. (USA), presents the concept of teams of leaders (ToL) and its implications to e-business operations. ToL centers on the active, platform independent fusion of advanced IM, KM and high performing leader teams. “Customer Relationship Management (CRM): A Dichotomy of Online and Offline Activities” by

Kelley O'Reilly and David Paper, Utah State University (USA), documents how companies can determine the best blended approach to CRM initiatives that balance both online and offline marketing initiatives. "Understanding E-Payment Services in Traditionally Cash-Based Economies: The Case of China" by Xiaolin Li and Dong-Qing Yao, Towson University (USA); Yanhua Liu, Wuhan College of Economics and Management (China), examines a series of issues pertaining to China's e-payment services, which include China's e-payment growth, mechanisms, characteristics, opportunities and challenges. "Scenario Driven Decision Support" by M. Daud Ahmed, Manukau Institute of Technology (New Zealand); David Sundaram, University of Auckland (New Zealand), introduces scenario as a DSS component and develops a domain independent, component-based, modular framework that supports scenario management process. "e-HRM in TURKEY: A CASE STUDY" by Yonca GÜROL, Yildiz Technical University, (Turkey); R. Ayşen WOLFF, Haliç University (Turkey); Esin ERTEMSİR BERKİN; Yildiz Technical University (Turkey), investigates several specific and critical points that will contribute to a better understanding of E-HRM by illustrating how it is used by a Turkish firm in the health sector. "ARIBA: A Successful Story in E-Commerce" by Zhongxian Wang, Montclair State University (USA); Ruiliang Yan, Indiana University Northwest (USA); James Yao, Montclair State University (USA), review major events and innovations that helped ARIBA to grow and succeed rather than fail. "Integrated Optimal Procedure of Internet Marketing" by Lan Zhao, Chongqing University (China) and SUNY/College at Old Westbury (USA), focuses on how to integrate all the phases of Internet marketing process into a seamless pipeline. "Managerial Succession and E-Business" by Anthonia Adenike Adeniji, Covenant University (Nigeria), focuses on why succession planning is crucial in e-business and in the global economy. "E-business and Web Accessibility" by Panayiotis Koutsabasis, University of the Aegean (Greece), proposes measures for reaching and maintaining a good level of Web accessibility in terms of the specifications, design and evaluation phases of a user-centered approach to systems development. "Understanding the Use of Business-to-Employee (B2E) Portals in an Australian University through the Management Lens: A Qualitative Approach" and "Understanding the Use of Business-to-Employee (B2E) Portals in an Australian University through the Employee Lens: A Quantitative Approach" by Md Mahbubur Rahim, Monash University (Australia); Mohammad Quaddus, Curtin University (Australia); Mohini Singh, RMIT University (Australia), analyse the views of the portal steering committee (who represent the interests of the university senior management) relating to the portal usage behaviour of university staff and identify the key factors which they believe to have contributed to employees' low usage practices of portals. "An Exploratory Study on the User Adoption of Central Cyber Government Office of the Hong Kong Government" by Kevin K.W. Ho, The University of Guam (Guam); Calvin Chun Yu, The Hong Kong University of Science and Technology (Hong Kong); Michael C.L. Lai, Hong Kong Police Force (Hong Kong), investigates those factors affecting the user adoption of the Intranet Portal of the Hong Kong Government, a.k.a., Central Cyber Government Office (CCGO). "An Exploratory Study on the Information Quality Satisfaction of Central Cyber Government Office of the Hong Kong Government" by Kevin K.W. Ho, The University of Guam (Guam), examines the information quality satisfaction of the Central Cyber Government Office (CCGO), which is a communication portal developed by the Hong Kong Government. "Visual Merchandising in Online Retailing based on Physical Retailing Design Principles" by Tony Pittarese, East Tennessee State University (USA), presents effective design guidelines for the creation of successful online stores which are based on the design principles and practices of physical retailers.

Section 7: Online Consumer Behavior consists of thirteen articles. "Internet Consumer Behavior: Flow and Emotions" by Marie-Odile Richard, University of Montreal (Canada); Michel Laroche,

Concordia University (Canada), develops the flow construct of Internet consumer behavior, composed of skills, challenge and interactivity, and the emotions construct, composed of pleasure, arousal and dominance. “Internet Consumer Behavior: Web atmospherics” by Marie-Odile Richard, University of Montreal (Canada); Michel Laroche, Concordia University (Canada), presents six variables of web atmospherics: navigational characteristics, website structure, website organization, effectiveness of its content, website informativeness, and website entertainment. “Internet Consumer Behavior: Behavioral Variables” by Marie-Odile Richard, University of Montreal (Canada); Michel Laroche, Concordia University (Canada), examines the key behavioral variables identified by the literature: exploratory behavior, site attitude, product attitude, site involvement and product involvement. “Internet Consumer Behavior: Major Moderating Variables” by Marie-Odile Richard, University of Montreal (Canada); Michel Laroche, Concordia University (Canada), describes some of the key moderating variables such as gender, need for cognition (NFC) and optimum stimulation level (OSL). “Consumer Information Sharing” by Jonathan Foster and Angela Lin, University of Sheffield (UK), provides an up-to-date review of the practice of consumer information sharing. “B2C E-Commerce Acceptance Models Based On Consumers’ Attitudes and Beliefs: Integrating Alternative Frameworks” by Ángel Herrero-Crespo and Ignacio Rodríguez-del-Bosque, Universidad de Cantabria (Spain), describes the main principles of Theory of Planned Behaviour, the Technology Acceptance Model and Decomposed Theory of Planned Behaviour and examines their weaknesses and strengths for the research of e-commerce acceptance. “Effect of Perceived Risk On E-Commerce Acceptance: State of the Art and Future Research Directions” by Ángel Herrero-Crespo and Ignacio Rodríguez-del-Bosque, Universidad de Cantabria (Spain), examines the influence that perceived risk in online shopping has on the process of e-commerce adoption by end consumers. “Third Party Internet seals: Reviewing the Effects On Online Consumer Trust” by Peter Kerkhof, VU University Amsterdam (the Netherlands); Guda van Noort, University of Amsterdam (the Netherlands), presents an overview of findings regarding the persuasiveness of Internet seals and reflects upon possible explanatory mechanisms for these effects. “The Importance of Gender, IT Experience, and Media-Rich Social Cues on Initial Trust in e-Commerce Websites” by Khalid AlDiri, Dave Hobbs, and Rami Qahwaji, University of Bradford (UK), investigates how to increase the perceived trustworthiness of vendor websites. “Using the Internet to Study Human Universals” by Gad Saad, Concordia University (Canada), provides a brief overview of how the Internet is a powerful tool for investigating many human preferences, choices, emotions, and actions which occur in universally similar manners. “The Neurocognitive and Evolutionary Bases of Sex Differences in Website Design Preferences: Recommendations for Marketing Managers” by Eric Stenstrom and Gad Saad, Concordia University (Canada), examines how sex differences in the processing of spatial and perceptual information lead to differential preferences in website design for men and women. “Exploring Video Games from an Evolutionary Psychological Perspective” by Zack Mendenhall, Marcelo Vinhal Nepomuceno, and Gad Saad, Concordia University (Canada), demonstrates how an evolutionary psychological (EP) approach could elucidate why video games have increased in popularity, and how it is related to our evolved human nature. “An Integrated Model for e-CRM in Internet Shopping: Evaluating the Relationship between Perceived Value, Satisfaction and Trust” by Changsu Kim, Yeongnam University (Korea); Weihong Zhao, Jiangxi Normal University (China); Kyung Hoon Yang, University of Wisconsin-La Crosse (USA), develops an integrated e-CRM model by investigating the psychological process that occurs when a customer maintains a long-term relationship with an Internet online retailer.

Section 8: Mobile Commerce consists of eleven articles. “Mobile Communications / Mobile Marketing” by Suzanne Altobello Nasco, Southern Illinois University Carbondale (USA), introduces

mobile communication technologies, and discusses various mobile marketing and advertising strategies. “C2C Mobile Commerce: Acceptance Factors” by Lori N. K. Leonard, University of Tulsa (USA), presents a model of an individual’s intention to make use of mobile devices for C2C e-commerce which includes usefulness, ease of use, convenience, trust, and security. “Exploring the Mobile Consumer” by Kaan Varnali and Cengiz Yilmaz, Boğaziçi University (Turkey), provides insights into consumers’ experience with mobile marketing by presenting a review of the mobile consumer behavior literature in an organized framework. “The Personalization Privacy Paradox: Mobile Customers’ Perceptions of Push-Based vs. Pull-Based Location Commerce” by Heng Xu, John M. Carroll, and Mary Beth Rosson, Pennsylvania State University (USA), presents the personalization privacy paradox, and discusses the different impacts of pull and push mechanisms on the privacy personalization paradox. “Mobile Gaming: Perspectives and Issues” by Krassie Petrova, Auckland University of Technology (New Zealand), identifies the determinants of mGaming success and suggests recommendations for mobile game design and mGaming service provisioning. “Role of Personal Innovativeness in Intentions to Adopt Mobile Services – Cross-service approach” by Sanna Sintonen and Sanna Sundqvist, Lappeenranta University of Technology (Finland), contributes to the research on behavioral intentions to use mobile services. The key role is attributed to innovativeness in predicting mobile service adoption. “Service Discovery Techniques in Mobile E-commerce” by Nandini Sidnal, K.L.E.S. College of Engineering and Technology (India); Sunilkumar S. Manvi, Reva Institute of Technology and Management (India), discusses various mobile E-commerce issues with its main focus on the service discovery issue. It also elaborates on various syntax and semantic based service discovery mechanisms and concludes with future directions to service discovery mechanism. “Perspectives on the Viable Mobile Virtual Community for Telemedicine” by Jan-Willem van ’t Klooster, Pravin Pawar, Bert-Jan van Beijnum, Chariz Dulawan, Hermie Hermens; University of Twente, (the Netherlands), contributes to Mobile Virtual Community (MVC) in general and mobile patient monitoring and treatment in particular by 1) analyzing in detail the robustness and other requirements to be fulfilled by the technical platform for MVCs, 2) providing guidelines for MVC platform development based on service orientation, and 3) discussing the actors, front-end views and service components involved. “Socio-Economic Effects on Mobile Phone Adoption Behavior among Older Consumers” by Sanna Sintonen, Lappeenranta University of Technology (Finland), evaluates what influences the usage of mobile phones among the aging consumers. “Mobile Agents in E-Commerce” by Bo Chen, Michigan Technological University (USA), highlights good features of the mobile agent paradigm for the applications in e-commerce. A number of selected mobile agent-based e-commerce systems and the agent platforms are introduced. “Mobile Telephony as a Universal Service” by Ofir Turel, California State University Fullerton (USA); Alexander Serenko, Lakehead University (Canada), discusses the need for reasonably priced, high quality telecommunication services to everyone who wishes to employ them and suggests the inclusion of mobile telephony services in the “universal service” basket.

Section 9: Web Services and E-Business Process Integration consists of seven articles. “Web Service Discovery, Composition, and Interoperability” by Duy Ngan Le, Karel Mous, and Angela Goh, Nanyang Technological University (Singapore), presents a brief survey, problems and possible solutions to three Web service operations (Web Service Discovery, Composition, and interoperability). “Case based web services” by Zhaohao Sun, University of Ballarat (Australia); Gavin Finnie, Bond University (Australia); John Yearwood, University of Ballarat (Australia), proposes CWSR: a case-based web service reasoner. It examines the correspondence relationship between web services and CBR and provides a unified treatment for case-based web service discovery, composition and recommendation. “Web Services E-Contract

and Reuse” by Marcelo Fantinato, University of São Paulo (Brazil); Maria Beatriz Felgar de Toledo, State University of Campinas (Brazil); Itana Maria de Souza Gimenes, State University of Maringá (Brazil), presents a two-level e-contract metamodel. This metamodel is designed to promote the reuse of e-contracts during e-contract negotiation and establishment, taking into account contract templates. “Situational Enterprise Services” by Paul de Vrieze and Lai Xu, SAP Research (Switzerland); Li Xie, GuangDong Polytechnic Normal University (China), investigates how to apply new Web technologies to develop, deploy and execute enterprise services. “Social Networks and Web Services-based Systems” Zakaria Maamar, Zayed University (U.A.E); Leandro Krug Wives, Federal University of Rio Grande do Sul – UFRGS (Brazil), defines a social network in the context of Web services and shows how this network is built and used to discover Web service. “Interoperability Issues of Business Processes-Key Issues and Technological Drivers” by Ejub Kajan, State University of Novi Pazar (Serbia), gives an overview of the main obstacles in system integration, a critical assessment of existing approaches and recent research efforts in order to overcome interoperability problems. “Integrated Business Process Designs and Current Applications of Workflow Systems in E-Business” by Mabel T. Kung and Jenny Yi Zhang, California State University at Fullerton (USA), shows a comprehensive list of the structural integration of workflow models and designs that are currently applied to e-business.

Section 10: E-Business System Development consists of thirteen articles. “Facilitating Interaction between Virtual Agents By Changing Ontological Representation” by Fiona McNeill and Alan Bundy, University of Edinburgh (UK), presents the Ontology Repair System, which is designed to be a tool for automated agents acting on behalf of people or systems. “Modeling Collaborative Design Competence with Ontologies” by Vladimir Tarasov, Kurt Sandkuhl, and Magnus Lundqvist, Jönköping University (Sweden), applies ontology engineering to modeling competences of individuals, including different competence areas like cultural competences, professional competences and occupational competences. “Event Driven Service-Oriented Architectures for E-Business” by Olga Levina and Vladimir Stantchev, Berlin Institute of Technology (Germany), provides an introduction on the event- and service-oriented technologies, their origins and application areas. “Speeding up the Internet: Exploiting Historical User Request Patterns for Web Caching” by Chetan Kumar, California State University San Marcos (USA), discusses proxy caching approaches that exploit historical user request patterns in order to reduce user request delays. “The Effect of User Location and Time of Access on Ecommerce: A Long Tail Study of Website Requests” by Chetan Kumar, California State University San Marcos (USA), discusses how user location and time of access affect website visitations, and the resulting implications for e-commerce. “Incorporating Knowledge Management into E-Commerce Applications” by Sandra Moffett, Martin Doherty, and Rodney McAdam, University of Ulster (UK), reviews how knowledge discovery, corporate collaboration and rapid decision making challenges can be incorporated into e-commerce applications, and presents tools and techniques which should be incorporated into a fully functioning web commerce application. “Application of Semantic Web Technology in E-Business: Case Studies in Public Domain Data Knowledge Representation” by Sotirios K. Goudos, Aristotle University of Thessaloniki (Greece); Vassilios Peristeras, National University of Ireland (Ireland); Konstantinos Tarabanis, University of Macedonia (Greece), presents a flexible and scalable framework of an information system for complex cases and shows the advantages of the semantic web technologies application to e-Business. “Design Elements and Principles for Maintaining Visual Identity on Websites” by Sunghyun R. Kang and Debra Satterfield, Iowa State University (USA), examines design factors and determines which of these factors affect people’s ability to identify and perceive information on web sites. It will discuss how design elements can cross media boundaries and create a consistent and effective user experience between the

physical business and its presence on the web. “Designing e-Business Applications with Patterns for Computer-Mediated Interaction” by Stephan Lukosch, Delft University of Technology (The Netherlands); Till Schümmer, FernUniversität in Hagen (Germany), discusses aspects common to e-business collaboration applications and presents an approach to capture the best practices within these applications by means of patterns.. “A SOA-Based Framework for Internet-Enabled CRM” by Wei-Lun Chang, Tamkang University (Taiwan), identifies the significant elements and value of Internet-Enabled CRM and provides a roadmap and practical and managerial implications for future CRM. “Building Context-Aware E-Commerce Systems: A Data Mining Approach” by Anahit Martirosyan, Thomas Tran, and Azzedine Boukerche, University of Ottawa (Canada), extends usage of context as compared to previously designed context-aware e-commerce systems. While in previous work, context was mainly considered for mobile e-commerce systems, it proposes to build and use context for e-commerce systems in general. “Efficient Service Task Assignment in Grid Computing Environments” by Angelos Michalas, Technological Educational Institute of Western Macedonia (Greece); Malamati Louta, Harokopio University of Athens (Greece), uses an Ant Colony Optimization algorithm (ACO) for service task allocation in Grid computing environments. “Policy Driven Negotiation to Improve the QoS in the Data Grid” by Ghalem Belalem, University of Oran (Es Senia) (Algeria), integrates into consistency management service, an approach based on an economic model for resolving conflicts detected in the data grid.

Section 11: E-Business: Issues, Challenges, and Opportunities consists of nine articles. “Understanding the dimensions of the broadband gap: more than a penetration divide” by Maria Rosalia Vicente and Ana Jesus Lopez, University of Oviedo (Spain), focuses on the analysis of the European broadband gap by means of multivariate statistical methods, and in particular, factor and cluster analyses. “E-inclusion: European Perspectives Beyond the Digital Divide” by Bridgette Wessels, University of Sheffield (UK), outlines the background to the emergence of the term ‘e-inclusion’ and its definition and provides the policy response by the European Union. “Importance of Electronic Record Preservation in E-Business” by Helena Halas, SETCCE, Slovenia; Tomaž Klobučar, SETCCE and Jožef Stefan Institute (Slovenia), analyzes electronic records preservation for business organizations from an organizational perspective. “Electronic Commerce Prospects in Emerging Economies Lessons from Egypt” by Sherif Kamel, The American University in Cairo, (Egypt), addresses the development of the digital economy in Egypt focusing on the challenges faced relating to a number of social, technological, financial and legal issues and the road map formulated in collaboration between the different stakeholders, including the government, the private sector and the civil society to diffuse e-commerce in Egypt. “Using Assistive Technology to Ensure Access to E-Learning for Individuals with Disabilities” by Hwa Lee, Bradley University (USA), provides an overview of technology access for E-Learning for individuals with disabilities including legislations relevant to technology access for individuals with disabilities. “A Holistic View of the Challenges and Social Implications of Online Distribution: The Case of Pensions” by Tina Harrison, The University of Edinburgh, U.K.; Kathryn Waite, Heriot Watt University (UK), critically evaluates the extent to which use of the Internet has facilitated and promoted pension distribution in the UK, as well as identifying the forces that are constraining or facilitating further change. “The Global Telecommunications Industry Facing the IP Revolution: Technological and Regulatory Challenges” by Harald Gruber, European Investment Bank (Luxembourg), unravels the interplay between the evolution of technology, market performance of the telecommunications sector and regulation in order to put the role of telecommunications for e-business into perspective. “Evolving e-Business Systems: Transgenic Forces in International Realpolitik Space in 2050” by Denis Caro, University of Ottawa (Canada), posits that transgenic governance forces are evolving and will engage future international e-business

professionals in a multi-polar world of 2050. “E-recruiting: Sources, Opportunities, and Challenges” by In Lee, Western Illinois University (USA), classifies the various e-recruiting sources and discusses opportunities and challenges in developing and managing e-recruiting.

Section 12: Emerging Trends consists of fifteen articles. “Emerging Trends of E-Business” by Pengtao Li, California State University, Stanislaus (USA), presents the emerging trends of e-business in various areas, including Web services, Web 2.0, Mobile Commerce (M-Commerce), and corresponding ethical and social issues. “Virtual Commerce” by Suzanne Altobello Nasco, Robert E. Boostrom, Jr., and Kesha K. Coker, Southern Illinois University Carbondale (USA), presents virtual commerce in the context of virtual reality by illustrating how people buy and sell products and services in virtual worlds, and discusses how companies can incorporate virtual commerce into their existing marketing and overall business strategy. “The Web 2.0 Trend: Implications for the Modern Business” by Michael Dinger and Varun Grover, Clemson University (USA), introduces the use of Web 2.0 technologies in contemporary business environments, and presents a value oriented framework designed to guide firms in the development of Web 2.0 initiatives. “Web 2.0: The Era Of User Generated Content on Web Sites” by Jos van Iwaarden, Ton van der Wiele, and Roger Williams, Erasmus University (The Netherlands); Steve Eldridge, The University of Manchester (UK), looks into the role of user generated content (UGC) in purchasing decisions, and explains the strategic implications of UGC for online management of service quality. “Web 2.0 Concepts, Social Software and Business Models” by Matthes Fleck, Andrea von Kaenel, and Miriam Meckel, University of St. Gallen (Switzerland), provides an overview of the most prominent definitions, basic concepts and applications of the term Web 2.0, and investigates the Anderson’s long tail concept, issues of transparency and the effects of an interconnected user base on e-business. “Grounding Principles For Governing Web 2.0 Investments” by Steven De Hertogh, Vlerick Leuven Gent Management School (Belgium) and Amsterdam Business School (The Netherlands); Stijn Viaene, Vlerick Leuven Gent Management School and K.U. Leuven (Belgium), proposes a set of grounding principles for governing web 2.0 investments. These grounding principles refer to attention areas and key choices that management ought to pay heed to if it wants to successfully invest in Web 2.0 for the enterprise. “Web 1.0, Web 2.0 and Web 3.0: The Development of E-Business” by Tobias Kollmann and Carina Lomberg, University of Duisburg-Essen (Germany), highlights the characteristics of Web 1.0, Web 2.0, and Web 3.0. “The New Generation of Knowledge Management for the Web 2.0 Age: KM 2.0” by Imed Boughzala, TELECOM Business School (France); Moez Limayem, University of Arkansas (USA), introduces, defines, and clarifies the concept of KM 2.0 compared to the traditional KM in terms of scope, nature of knowledge, place of the individual, process, and technology. “Recommender Systems: An Overview” by Young Park, Bradley University (USA), presents a brief overview of recommender systems as an effective and powerful personalization tool in the e-commerce environment. “A Linguistic Recommender System for Academic Orientation” by E. J. Castellano and L. Martínez, University of Jaén (Spain), develops OrieB, a Web-DSS for Academic Orientation based on a Collaborative RS (CRS) for supporting advisors in their student guidance task. “Wireless Technologies: Shifting Into the Next Gear?” by Simona Fabrizi, Massey University (New Zealand), provides a theoretical explanation for an apparent paradox of why some Mobile Operators (MOs) postpone upgrades while others do not. “Search Engines: Past, Present and Future” by Patrick Reid, AstraZeneca (UK); Des Laffey, University of Kent (UK), covers key issues in the area of search engines and looks at emerging issues in search, including rich media and mobile, and privacy issues. “E-Government – Status Quo and Future Trends” by Tobias Kollmann and Ina Kayser, University of Duisburg-Essen (Germany), provides an overview of current findings in the realm of e-government and presents future directions of research. “Blog Marketing: Po-

tential and Limits” by Călin Gurău, GSCM – Montpellier Business School (France), investigates blog members’ perceptions and level of acceptance of blog marketing, and discusses findings and implications for blog marketing communications. “RFID Enabled B2B E-Commerce Technologies and Applications” by Ygal Bendavid, Ecole Polytechnique de Montreal (Canada), focuses on the emerging phenomenon of Radio Frequency Identification (RFID) technologies and the EPC Network by examining how it enables innovative B2B E-Commerce applications.

The Encyclopedia of E-Business Development and Management in the Global Economy is an excellent collection of the latest research and practices associated with e-business theories, strategies, management, technologies, applications, and trends. This encyclopedia is the first comprehensive book that presents aspects from the research, industry, managerial, and technical sides of e-business. As leading experts in the e-business area, the contributors did an excellent job of providing our readers with extensive coverage of the most important research topics, concepts, business practices, technologies, and trends. The projected audience includes policy-makers, e-business application developers, market researchers, managers, researchers, professors, and undergraduate/graduate students in various academic disciplines. I expect this encyclopedia to shed new insights for researchers, educators, and practitioners to better understand the important issues and future trends of e-business research and technologies.

In Lee, Ph.D.

Professor in Information Systems

Western Illinois University

Macomb, IL, USA

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