Preface

Communication is the key!!

THE FOURTH WAVE

The search for extraterrestrial life is becoming more urgent—lest we humans end up with claustrophobia! Jet travel could not have shrunk physical distance at the speed with which the Internet has meshed the world of words, sounds, and pictures. Businesses of all types and sizes find a level playing field in the cyberspace and, barring a few troglodytes of no particular age group, the world is connected. Alvin Toffler was right when he asserted in his popular book, *Third Wave[1]*, that not only are we all affected by change, but even the *rate* of change is *accelerating.* A quick look around you as you read chapters from this book—sitting, traveling, working, or sleeping—ratify Toffler's thoughts. And if, indeed, the rate of change is increasing, we are already *beyond* the third wave of information. This *Fourth Wave,* which is right upon us, is the wave of communication! Everyone is connected to everyone else *independent of time and location.* And mobile technologies provide the underlying basis for this age of communication, ensuring that businesses and people are connected directly and personally irrespective of where they are and what time of day or night it is. Riding on the back of the traditional Internet, mobile networks ensure that information that was available through a physical computing gadget at a fixed location is now available anytime and anywhere. This has obviously resulted in the tremendous popularity of mobile applications in the business domain. Furthermore, the *infrastructure* related to mobile technologies is also unique and, in some sense, distinctly different from the physical Internet. In simple business terms, setting of a transmission tower for mobile communications is relatively easier than installing physical lines to provide connectivity. Even the use of a satellite for communication purposes is becoming easier and cheaper for large organizations and governments than setting up of the costly fiber optics or similar physical wires and networks. Thus, because of their ease of usage from an end user's viewpoint, ease of setting up and usage of infrastructure, and rapidly dropping costs, mobile technologies are influencing global business like never before. Based on this phenomenal importance of mobile technologies, especially to mobile business, this book compiles contributions from a wide range of researchers and practitioners in their investigations and usage of mobile technologies in business.

PARADIGM SHIFT

Advances in mobile technology are reshaping the relationship between business and technology. There is a "paradigm shift"—it is now no longer just a matter of providing technological solutions for business problems. This is so because mobile technology is now becoming a *creative cause* for hitherto unknown new business models and business processes. This leads to complexities in adopting mobility in business, as both technology

and business forces need to be balanced against each other. A similar balance is also aimed in the compilation of chapters in this book that bring together the technical, methodological, and social dimensions of mobile business to the fore. For example, while some chapters discuss the strategic needs of a business as a reason to use mobile technologies, other chapters demonstrate how mobile technology itself is considered as a driver for new business challenges as well as solutions.

The paradigm shift in terms of mobile technology adoption has occurred because, in practical terms, mobile technologies, including mobile applications, gadgets, networks, and content management systems, together work as a catalyst for deep structural change in how organizations accomplish goals. Although such a change requires significant effort in terms of BPM (Business Process Modeling), still the effort in applying mobile technologies to business processes and organizational structures is worthwhile as it allows organizations to gain greater reach and leverage new kinds of service delivery and interaction, culminating in significant productivity gains. In fact, it is not just organizations that stand to benefit with the advances in mobile technologies; the potential ease with which individuals can interact with organizations globally through mobile technologies also creates tremendous opportunities for easing the quality of life of people and society. Thus mobile technologies are becoming a creative cause for a paradigm shift in the business world that requires thinking, understanding, and case study experiences, as have been gelled together in this treatise.

MISSION

The aforementioned discussion highlights the crucial need to bring together the thinking and practical experiences of practitioners and consultants together with researchers and academics. This crucial need has been satisfied in this book, making it a significant contribution to the literature on usage and application of mobile technologies and networks in global business. This book provides significant *strategic* input into 'mobility', aiming to bring together thoughts and practices in technical, methodological, and social dimensions of this fascinating technology. Stated more succinctly, the mission of this book is:

To make a substantial contribution to the literature on 'mobility' encompassing excellence in research and innovation as well as demonstrated application of mobile technologies to mobile business.

CORE CONTENTS

For the sake of comprehensibility as well as enabling readers to focus on their area of interest, this book is divided into sections as follows:

- **Location:** Deals with location-based services that form the crux of the mobile revolution as applied to businesses.
- **Health:** Focuses on the phenomenal potential for application of mobility in the health sector.
- **Technical:** Focuses on the core mobile technologies.
- **Network:** Discusses the research and application of wireless and mobile networks.
- **Security:** Deals with the security aspect of mobile technologies.
- **Strategic:** Focuses on the strategic planning and management aspect of mobile technologies in business.
- **Application**: Discusses the incorporation of mobility in software applications.
- **Method:** Revolves around methodologies and processes related to mobile technologies including discussions on mobile transition processes.
- **Customer:** Focuses on the end user/customer aspects of mobility in business.

- **Social:** Handles the research as well as thoughts dealing the socio-cultural aspects of the influence of mobile technologies in society.
- **Case Study:** Discusses the practical application of mobility in practical business scenarios.

AUDIENCE

The following are the major categories of readers for this book:

- **Programmers and architects** of mobile-enabled software systems will find the discussions on technologies, networks, and security directly applicable to their work.
- **Business process modelers** and **information architects** will find the chapters dealing with incorporation of mobile technologies in business processes quite relevant.
- **Methodologists** and **change managers** will be interested in the chapters that describe the transition processes from existing to mobile businesses.
- **Sociologists** and **legal experts** will find the discussions on cross-border socio-cultural issues in applications of mobile technologies and the resultant globalization of businesses a fascinating read.
- **Strategic management** may find some of the earlier strategic discussions in this book quite relevant in setting the strategic directions of their organizations—especially because these chapters have been contributed by practicing senior managers.
- **Researchers** and **academics** will find numerous hooks in the research-based chapters of this book in terms of identifying areas of research, as well as following research methods when dealing with "mobility." Thus, the strong research focus of this book—especially the detailed and relevant references at the end of each contributed chapter, the research methodologies followed, and the discussions on research results (especially some excellent "action research"-based case studies)—make this book an ideal reference point for active researchers in this area.

ENDNOTE

[1]   Agricultural (first), Industrial (second), and Information (third) wave

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Critiques

Readers are invited to submit criticisms of this work. It will be an honor to receive genuine criticisms and comments on the chapters and their organization in this edited book. I am more than convinced that your criticisms will not only enrich the knowledge and understanding of the contributory authors and myself, but will also add to the general wealth of knowledge available to the ICT and mobile community. Therefore, I give you, readers and critics, a sincere *thank you* in advance.