

FOREWORD

It is hard to overestimate the importance of electronic communications in the development of modern social life. What would life be like without email? without 24 hour ATM access to our bank funds? without easy and immediate access to a wealth of information from our homes and offices? It is hard to believe that many alive now can remember when television was unavailable. In the world of our parents and especially grandparents even radios and telephones were new and exotic tools. In just a few short generations our lives have changed so much.

The consequences of these changes have been immense in our social life but they also are transforming our economic life. Only a very short time ago engaging in an economic transaction over the Internet was an extraordinary and even worrisome procedure. Issues of reliability, security, and trust were always in the back of the mind of the brave adventurers who first took advantage of online shopping. Today, however, many of us rely on one-click shopping to meet many of our needs. It remains very pleasant to browse through a bookstore, but if one is interested only in a particular book and can wait a few days for delivery it is so much more convenient to buy online. In the case of some products, such as software and, increasingly, music one need not even wait for the postman: delivery is as quick as one's online connection.

From a consumer and marketing perspective what is most crucial is the convenience and surface design of e-commerce sites. The facade of any effective e-commerce site must, however, rest on a well-designed infrastructure. If a system is not designed well from the ground up it simply will not be effective. In this issue we have several important articles that present research on these important nuts and bolts issues.

In their article, Heng Ma, Chin-Yang Tai, and Wei-Neng Hsu consider the most appropriate resources for business-to-business trading with specific reference to the Taiwanese context. Examining current practice, they find that the use of an Electronic Data Interchange architecture was costly in terms of resources used. They argue that combining an XML and Secure Electronic Transaction (SET) establishes a dynamic architecture that is much more efficient in its use of human resources. In this case, a simpler architecture can play the same role as a more complex one.

E-commerce, in almost every aspect of internet usage, is increasingly interactive and dependent on two-way communications. Although the Internet is not yet in danger of replacing more traditional means of communication it has fostered new and effective ways of engaging in dialogue through voice and through text. In their article, Md. Mehedi Masud, Khandaker Shaidul Islam, and Md. Kamrul Islam present an object-oriented application, using a client-server architecture, that can provide an effective means of establishing such communication.

The necessary hardware of communications is explored in the article authored by Settapong Malisuwan, Monton Charoenwattanaporn, Ut Goenchanart, and Vichate Ungvichian. Wireless communications between people and machines is becoming essential for modern life and business but the freedom and flexibility made possible by wireless technology is only possible if the information is effectively transmitted and received. For this one needs appropriate antennas and these authors provide a cogent analysis of microstrip antennas.

Chih-Hung Tsai, Ching-Liang Chang, and Lieh Chen, on the other hand, explore the managerial procedures for choosing vendors among a wide variety of alternative sources for materials. In the old days such decisions were often made through personal contact with salespersons but modern business demands require that more formal means be used. The authors explore the application of Grey Relational Analysis to obtain a determination of the objectively best vendor with whom to do business. This issue is not all work, however. To take care of the use of computers in play, these authors also contribute an article that uses the same technique to make a more accurate determination of the winner in the decathlon competition.

B. Fong, G. Y. Hong, and A.C. M. Fong examine the broad managerial context that must maintain both the deep infrastructure and user interface of an e-commerce system in good working order. Managerial control is, of course, an essential aspect of any business activity but, as the authors suggest, the rapid growth of e-commerce sales makes such control particularly important. This can only be effectively accomplished when the process is placed in a proper framework and the authors present an illuminating example of such a framework.

Practical uses of IT can only be implemented if researchers devise the basic techniques that can form a groundwork for advanced applications. Very many applications require objects to be classified and in their article Gamal A. M. Al-Shawadfi and Hindi A. Al-Hindi look to neural nets as an appropriate technology for performing this task.

When Assumption University was founded as a business oriented institution, the methods of business practice were very different from what they are today. Over the years we have managed to keep up with this progress and the IJCIM represents part of the university's efforts in this area. Our technologies have changed in a quite extraordinary manner but our basic goals and purposes remain the same.

Prof. Dr. Srisakdi Charmonman
Editor-in-Chief