Special Issue on Information Systems: Simulation Modelling, E-Commerce and Knowledge Management

Editor's Editorial

In the *Journal of Computing and Information Technology Vol. 12 No. 4, December 2004* I told the story of how I agreed to arrange for a Special Issue on Information Systems to be produced by my colleagues in the Universities to which I am a Visiting Professor: Brunel University and the London School of Economics. Two colleagues at Brunel University agreed to 'volunteer' as guest editors. They are Jyoti Choudrie and Steve Love. In their efforts they have been well administered, advised and cared for by Carolyn Bailey, our Editorial Administrator at Brunel University.

Jyoti and Steve have done such a good job, that two special issues have in fact materialised, the first on Healthcare and Mobile Computing in December 2004's issue, and now this second special issue on Simulation Modelling, E-Commerce and Knowledge Management. The 5 papers by Brunel University authors and the 1 from the London School of Economics in this Special Issue make a total of 9 from Brunel University and 3 from the London School of Economics in the two Special issues.

But this numerical analysis disguises the global nature of modern universities. In this Special Issue we have co-authors from a British university, namely Warwick University, an American university, namely Oklahoma State University, as well as an employee of an American company operating in Britain. And, whilst there are many British authors, there are also authors whose places of birth include Greece, (Indians originating from. . .) East Africa, Scandinavia, Egypt and other parts of the Arab world including the Sudan, Hong Kong and Rumania. So it is a truly international offering for you, the readers. We hope you enjoy reading these papers as much as we enjoyed writing them. In fact, we enjoyed doing it so much, we might do it again — watch this space!

Ray J. Paul

Guest Editor's Editorial

As a continuum to examining the current information systems research in two of the leading UK departments of Information Systems, this issue has several papers from various strands. The issue begins with two papers focused upon simulation modelling and models by Tillal Eldabi, Man Wai Lee and Ray Paul and Simon Taylor, Stewart Robinson and John Ladbrook.

In their paper, Eldabi, Lee and Paul assess four widely used world views by utilising five proposed criteria, which are designed based upon the characteristics of the Grab and Glue framework. The results of their evaluation reveal that none of the views are suitable to be used for developing a

simulation model by following the Grab-and-Glue framework, although all of them can be applied to model development. It is recommended that a new world view should be developed based upon the Grab-and-Glue framework, taking into consideration the disadvantages of the existing world views.

The second paper on simulation modelling by Taylor, Robinson and Ladbrook has a different focus. In this paper, the emphasis is placed upon the problem of whether it is possible to support human-to-human collaboration in simulation modelling through the use of commonly available groupware technology. Taylor, Robinson and Ladbrook utilise a survey approach to examine the perceived use of Netmeeting in simulation and some resulting applications of the emerging net conferencing tool. The results from their evaluation indicate that it is possible to support collaboration in simulation modelling.

The next section of this second special issue contains two papers related to e-commerce. The first is by Ghada ElSaid and Kate Hone and the second is by Fernando Mendo and Guy Fitzgerald.

In the first paper, ElSaid and Hone describe an exploratory card sorting study conducted with Egyptian consumers. Particularly, the study was designed to examine the e-commerce interface features that are most salient to this user group and to explore how these relate to user intentions to engage in Internet shopping. The results support the role of site familiarity in predicting purchase intentions within this cultural setting.

Continuing on the theme of the e-commerce, the next paper by Mendo and Fitzgerald contains an analysis of the Stages of Growth model in the context of progression of Internet technologies adoption by SMEs in the UK. Additionally, alternative explanations of e-business progression are presented and an interpretative multitheoretical framework to study the evolution is suggested. In order to study the SMEs adoption in an insightful way, Mendo and Fitzgerald suggest that the proposed framework may be utilised as a new lens with a simple a priori theory in mind.

The third and final section of this special issue contains two papers that are diverse in nature, but offer a different aspect to the focus of this issue. In the first of the papers, Venters, Cornford and Cushman offer a methodology to understand knowledge management. In the second, Ghinea and Thomas offer an approach to map user-oriented parameters to a Quality of Service (QoS) network.

Venters, Cornford and Cushman propose a sociology of knowledge approach as a basis for understanding the potential of knowledge management for the work of a complex inter-organisational domain — the UK construction industry and have the specific aim of increasing the sustainability of the processes and products of this industry. For this purpose, Soft Systems Methodology (SSM) is introduced as a method of conceptualising the industry's knowledge environment that leads towards technological interventions, which aim to increase sustainability in construction industry practice. The authors conclude that the cyclical nature of SSM and its action research approach align well with iterative and incremental software development processes. This allows the technology to be introduced into practice and the changes in this practice can be observed.

The final paper in this issue, authored by Ghinea and Thomas, argues that network parameters defining the network QoS must be driven by user-centric parameters such as user expectations and requirements for multimedia transmitted over a network. For this purpose a mechanism for mapping user-oriented parameters to network QoS parameters is outlined. To obtain this mechanism, the paper surveys existing methods for mapping user requirements to the network. There is also a survey of research in the area of adaptable communications architectures and protocols. The results discussed in this paper illustrate that a user-biased approach to networking does provide tangible benefits to the user.

Jyoti Choudrie and Steve Love