# Editorial: The strategic impact and diffusion of electronic commerce technologies and services

## Guest Editors:

#### Angel Salazar and Ray Hackney

## Lawrence Green

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**Biographical notes:** Dr. Lawrence Green is a Research Associate at PREST at the University of Manchester. He teaches and supervises at Masters and Doctoral level, and is currently involved in European Commission funded research projects concerning

- the development of new metrics for B2B e-commerce
- innovation in services in the public sector
- the future for Information Society Technologies in the European Research Area.

Dr. Green recently co-organised the 12th Annual Conference of RESER (Réseau Européen Services et Espace) and hosted the event at Manchester's Institute of Innovation Research.

Welcome to this special issue of the *International Journal of Information Technology and Management*. The theme of this special issue relates to the strategic impact and diffusion of electronic commerce technologies and services. Special consideration has been given to contributions that have brought novelty and shown research rigour.

This issue contains selected peer-reviewed contributions from scholars who had previously submitted and presented best quality papers to the two international Business Information Technology Conferences organised by the Manchester Metropolitan University Business School and held in Guayaquil and Manchester, in the Summer and Autumn of 2002, respectively.

There are 15 papers in all. The first paper is entitled, 'The impact of e-marketplaces on buyer–supplier relationships: a cross industry perspective of the 'move to the middle' hypothesis'. This paper is by a team of researchers, Andrew White, Elizabeth Daniel and Mark Wilkinson, from the Cranfield School of Management. Their paper explores the impact of electronic marketplaces on the relationship between buyers and suppliers. The authors present case studies of buying organisations in four distinct industries that are participating in electronic marketplaces. The findings of this study suggest that

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electronic marketplaces can form an important part of an IT-enabled supplier relationship management strategy.

The second paper is entitled, 'The challenge of cyber-marketing planning and implementation', by Ashok Ranchhod at Southampton Business School, Călin Gurău at Heriot Watt University, and Ray Hackney at Manchester Metropolitan University Business School. This conceptual paper investigates and presents new propositions, and requirements, of the strategic planning process in the context of cyber marketing implementation.

The third paper is entitled, 'Developing e-business models in practice: the case of the regional online newspaper'. This paper is by Cornelia Krueger at University of Koblenz-Landau and Paula Swatman at Deakin University. The authors present a review of relevant literature concerning e-business models, which is followed by a series of mini-case studies of online regional newspapers in Germany, France and Italy. This study is part of a longer-term research project focusing on the effectiveness and impact of business models in the digital content sector.

The fourth paper is entitled, 'A case to examine organisational change'. Karen Neville, University College Cork, presents an investigation of the success of change management in supporting the implementation of a large organisational adjustment, in the shape of CRM, across several subsidiaries of a multi-national organisation.

The fifth paper is entitled, 'Websites and small businesses: a research agenda exploring problems and barriers', by James Boyes and Zahir Irani, from Brunel University. This paper documents and analyses current literature that considers the barriers and problems experienced by small businesses when attempting to use the World Wide Web for commercial gain. Based upon this analysis, a research agenda is proposed.

The sixth paper is entitled, 'Investigating the integration of SMEs' information systems: an exploratory case study', by Marinos Themistocleous and Hsin Chen from Brunel University. This paper presents an investigation and analysis concerning the integration of SMEs by reviewing the normative literature. In addition, a case study was conducted to explore the integration efforts of SMEs and to understand how they respond to problems in integration.

The seventh paper is entitled, 'Success factors for implementing e-government services: the case of the Austrian e-government service portal', by Harald Mahrer from Vienna University of Economics and Business Administration, and Roman Brandtweiner from Danube University. This paper illustrates the lessons learned from the implementation and management of a web-based government information system in Austria. The paper advocates that IS failure models must be considered as viable concepts for practitioners when it comes to identifying potential obstacles in the development of web-based government information systems. Based on a case study and lessons derived from the analysis, the authors seek to identify the main success factors and success drivers for implementing e-government services.

Paper eight is entitled, 'Knowledge-based competitive advantage in the internet age: discovering emerging business strategies', by Dennis Dunn and Angel Salazar, from Manchester Metropolitan University Business School. This paper explores, from a knowledge management perspective, how information technology is making a differential strategic contribution to selected organisations. Emergent strategies are categorised as Knowledge Replication, Knowledge Diffusion/Leveragability, Knowledge Innovation, Knowledge Giveaway, and Knowledge Commercialisation. The paper discusses the advantages and potential limitations of each one of the suggested business strategy types, and develops recommendations on how other organisations might seek to capitalise their corporate knowledge.

The ninth paper by Roman Brandtweiner, Danube University, and Harald Mahrer, Vienna University of Economics and Business Administration is entitled, 'The development of e-business in Austria'. This paper describes the development of e- and m-business in Austria during the period 1998 to 2002. The overall findings show that a majority of companies – according to adaptation of Moore's model for e-commerce strategies – are still at the beginning of the expansion stage. Austrian firms have already prepared their infrastructure for e-business but a clear e- and m-business strategy is still missing.

Paper ten is entitled, 'The mobile internet: an international comparison of the European and American wireless application protocol (WAP) and the Japanese iMode', by Geoffrey Elliot and Huong Tang, London South Bank University. This paper provides an international comparison of the historical, economic and technological differences between the wireless application protocol (WAP) and the iMode mobile internet service.

Paper eleven, entitled 'Mobile applications: new application model', is by Rok Rupnik, Marjan Krisper and Bajec Marko, University of Ljubljana. The authors discuss mobile applications in the context of information society and define their scope and limitations. They introduce a classical mobile application model, context, context-awareness, and context-aware mobile application model. In order to show the potential of information support in the state of mobility, the authors then discuss types of mobile applications and emphasise the significance of workflow concepts for mobile applications.

Paper twelve is entitled, 'Impact of the service model for delivering enterprise applications', by George Feuerlicht, University of Technology, Sydney, and Jiri Vorisek, Prague University of Economics. This paper discusses the business drivers for application servicing and describes the benefits of this approach in the context of enterprise applications. The authors describe the enabling technological infrastructure for application servicing and associated business models for outsourced applications.

'On support of business activities by internet commerce: case of Top 100 Czech firms', paper thirteen, is by Jaroslav Jandos, Prague University of Economics. The paper presents results of analysis of e-commerce adoption in the top 100 firms in the Czech Republic. Assessment is based on evaluation of company websites executed from the customer's point of view. For evaluation, the 'website business evaluation' (WBE) method was used. Results show that most of Top 100 Czech firms are using e-commerce, typically in the form of a website; however, most of them only for the support of the information phase of market transactions. Even in the Czech Republic, this use – which a few years ago could present competitive advantage – is becoming a common and almost imperative from business point of view.

Paper fourteen is entitled, 'Improving mobile operator information system efficiency through enterprise application integration', by Ivan Rozman, Matjaž B. Jurič, Marajan Heričko from University of Maribor, and Ivan Vezočnik, Development Center IRC, and Marjan Krisper, University of Ljubljana. The paper presents a case study of integration in a major mobile phone operator company, contributes to the general understanding of legacy systems integration, gives a solid basis for making a decision about the underlying technology and presents an integration procedure that demonstrably works in practice.

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We conclude this special issue with a paper entitled, 'Understanding ICT-based business models in developing countries', by Alexander Osterwalder, University of Lausanne. The paper presents a Business Model Framework that helps in analysing ICT-based business models and illustrates this through the Village Phone Program of the telecommunication operator Grameen Phone in Bangladesh. Furthermore, the paper proposes a so-called Business Model Handbook to improve knowledge transfer related to ICT-based business models.

We would like to express our gratitude to the Inderscience staff for their high-quality professional assistance during the pre-publication process and to all the authors who share their research outcomes and insights with the readers in this special edition. We would also like to thank the ad hoc reviewers. Without them this special edition would not be possible.