Editorial

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Biographical notes: K.S. Babai is the Principal, Meenakshi Sundararajan Engineering College, Chennai. A post graduate in Computer Science from IIT Madras, she has implemented key projects in the areas of quality in education and examination reforms. She has an academic experience of over 40 years. Her areas of interest include theory of computation and graph theory in which she has presented several papers. She is currently involved in projects of environmental concerns through her study in the area of natural background radiation levels present in the city which has been well received by many in the academic and industry circles.

U. Deepa is an Assistant Professor in the Department of Information Technology, Meenakshi Sundararajan Engineering College. She graduated with an MS (Computer Science) from Purdue University, Indianapolis. She was earlier employed with Verizon Data Services, Tampa, USA as a System Software Architect and has been responsible in developing several modules of their key interfacing systems. Her areas of research interest include data mining, image processing and artificial intelligence.

Electronic business is one of the most rapidly evolving applications of internet-based technologies. The various advances made in internet technology are propelling e-commerce and its applications forward with remarkable speed. Electronic transactions are changing the way money changes hands in today's global market and are becoming as familiar as physical transactions. New technologies in the field lead to new and unprecedented levels of security and trust in e-business and both organisations and individuals are slowly making a transition partial to the electronic way.

In this context, it becomes paramount that research in this area be given priority. The *International Journal of Electronic Business* aims to facilitate the promotion and coordination of e-business methods. This special issue, titled 'Internet Technology: Emerging Technologies & Applications', is a compilation of papers that were presented in the International Conference on Information Systems and Software Engineering

(ICISSE 2009) conducted by Meenakshi Sundararajan Engineering College, Chennai, India, during 28–30 December 2009 and as independent papers through portal for the special issue. These six papers were chosen for publication through a double blind review process by experts in the field and represent the cutting-edge research carried out in various areas of e-business.

In the first paper 'The effects of website design on purchase intention in online shopping: the mediating role of trust and the moderating role of culture', Boudhayan Ganguly, Satyabushan Dash, Dianne Cyr and Milena Head discuss the impact the cultural clime and the design of a website have on a purchaser's intent to buy the product. They propose an empirical model to study the influence of trust in the buyer's decision to purchase from an online store and how the same store can cater to buyers from different backgrounds by accommodating their cultural sensibilities in a moderating fashion.

In the paper 'Seeing is believing: using Data Visualisation for formative feedback in computer supported online learning collaboration', Joe Griffin and Julie Pichon discuss the group-based approach to online learning and assessment. This paper describes the nature of the problem and the use of formative assessment to provide useful learner feedback. Further, the paper introduces the DVReport, a data visualisation tool developed as an add-on for Modular Object Oriented Dynamic Learning Environment (Moodle) and its prospective applications in virtual learning. Data Visualisation (DV) is a technique that uses graphical representation to display complex data sets and abstract important information.

As learning virtual systems increasingly incline towards web-based interfaces, there arises a need for a system that differentiates learners based on their speed, capacity and interest. The paper 'Frame-based Intelligent Tutoring System with weighted attributes and adaptive hypermedia' by Aditya Chopra, Devang Negandhi, Soumith Chintala, A. Kannammal, N.Ch. Sriman Narayana Iyengar and V. Ramachandran proposes an adaptive tutoring system with multiple hypermedia frames that use a weighted approach to utilise the student's history and current performance to generate appropriate content on each frame. The frame generation also employs beta distribution. Mathematical models are used to generate an intelligent tutoring system that focuses on student evaluation and adaptation of the content in the system according to student needs.

One of the most rapidly growing areas on the web today is social networking. The popularity of this trend can be capitalised by the e-business community. Jia Shen, Lauren Eder and J. Drew Procaccino in the paper 'Social comparison and trust in the acceptance of social shopping websites' observe that retailers are also joining the e-business arena by setting up shop through Social Networking sites to form Social Shopping sites. The Technology Acceptance Model (TAM) consists of two basic factors – Perceived Usefulness and Perceived Ease-of-Use. This paper extends this model by two other factors – Trust and Tendency for Social Comparison. The practical implications of the design and use of such shopping sites are also discussed.

P.S. Neelakanta and Renata C.T. Sardenberg, in their paper 'Digital Ecology: a medley of computer-centric digital informatics and environmentalism', apply ecological models to electronic business applications to interesting results. The paper provides an explanation of digital ecosystems, their architecture and their comparison with the most advanced communication platforms. Unlike traditional environments, digital ecosystems are self-organising systems that form different architectural models, poised to draw benefits from ongoing work in the semantic web ontology. Modern business enterprises

have swarming complex digital ecosystem requirements that the models are trying to bridge through research and value-generating applications.

Rathimala Kannan and G. Marthandan in 'Exploring hyperlink structure of electronic commerce websites: a Webometric study' use hyperlink analysis to determine the relations among the traffic ranking of the website of an organisation, its performance as a business and the Webometrics data pertaining to the site. A study involving USA's 50 best small companies is presented, to serve as evidence to this association and as an indicator of the popularity enjoyed by the business.

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