
Editorial

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Biographical notes: Lorna Uden is the Emeritus Professor of IT Systems in the Faculty of Computing, Engineering and Technology at Staffordshire University. Her research interests include technology learning, HCI, activity theory, knowledge management, web engineering, multimedia, e-business, service science and innovation, mobile computing, cloud computing, and problem-based learning.

Welcome to V6N4 issue of *IJLT*. There are five papers in this issue. The topics cover from iPod use to evaluation of web-based educational systems using statistical multidimensional analysis. The first paper, 'Beyond potential: a two-year study of iPod use in a Japanese university', is by Michael Vallance and Hiroshi Numata. This paper describes a two-year study of Japanese students using iPods in a communications course, during which they accessed and recorded audio Podcasts. The results of pre and post standardised tests revealed no significant difference in scores. The authors have rightly pointed that without hard qualitative evidence, the transformation of education, learning and associated pedagogical practices is surely an illusion. It is thus posited that research on iPod use or any other mobile device deemed to be educationally transformative must include quantitative evidence. Pre and post test scores of experimental and other groups, as quasi-experimental groups, are a good place to begin the research in higher education institutes. Without these studies then, practitioners, the media, technology companies and ministries of education will simply become blind to the limitations of technology in education. It is vital that we have qualitative evidence to support the effect of learning by technology.

The second paper is by Luciana A.M. Zaina, Jose F. Rodrigues Jr., Maria Angélica C. de Andrade Cardieri and Graça Bressan entitled 'Adaptive learning in the educational e-LORS system: an approach based on preference categories'. According to these authors, the offering of educational materials matching the students' learning profiles supports the learning-teaching process by aiding the students with content that suits their learning styles. In this paper, they proposed a methodological systematisation, the e-LORS system with preference categories, a configuration that is able to suggest learning objects concerning the students' learning styles. In their work, they have designed a learner model that sorts out the learning profiles in different dimensions and in accordance to several aspects. The core of their modelling is the use preference categories as descriptive metadata for learning styles. A prototype of system e-LORS was developed and experimented along two academic semesters with 347 students from three engineering courses. The results demonstrated the accuracy of the e-LORS content

selection and, also, the satisfaction of the students during their academic activities. Further empirical studies would be needed to validate the effectiveness of the system.

The third paper, 'Contextualisation of reusable learning systems: theoretical and practical analysis, approach and case study', is by Rim Drira, Bruno Warin and Mona Laroussi. This paper is concerned with technology enhanced learning (TEL) systems for the implementing of learning scenarios in learning management systems (LMS). It is on the contextualisation of reusable learning scenarios. These authors have proposed a design process based on a model driven architecture (MDA) approach for the contextualisation of reusable learning scenarios. Their work is intended for instructional designers who aim to reuse existent learning scenarios, to contextualise them according to their learning context and to execute them by means of a chosen LMS. The proposed conceptual framework is based on the multi-scale approach, which is a solution for analysing complex systems. This framework focuses on studying three scales (context, learning system and learning systems' components) and their relationships. To allow a deeper understanding of the contextualisation problem, they complement this conceptual framework with a detailed case study of a learning scenario, called Mepulco, implemented in two different universities, and highlighted the impact of context on learning scenarios. Further tests for the usefulness of the tools with a greater number of designers with different profiles, working in different contexts will be required.

The fourth paper is by Tim Kotnour, Rafael Landaeta and Stephanie Lackey entitled 'Training system impact assessment: a review, reconceptualisation, and extension'. This paper focuses on reviewing and extending the current literature on impact assessment of training systems. These authors proposed a model of training system assessment that considers organisational aspects of the training system, the life cycle of training systems, and the different stakeholders of training systems. Their investigation is based on the definition of training systems as socio-technical human resource development initiatives. The intent of the training system assessment model is to help organisations providing and receiving training, as well as organisations managing the research and development of training systems with the ability to evaluate the performance of a training system through its life cycle from the identification of programme needs to selecting and conducting R&D to implementation to defining and measuring results. The initial model was developed and applied to the Next Generation Expeditionary Warfare Intelligent Training (NEW-IT) case study. The initial application demonstrates an initial usefulness of the extended model. Further work needs to be completed to further understand and apply the model.

The final paper, 'A methodology for evaluating web-based educational systems using statistical multidimensional analysis', is by George Zardas, Odysseas Moschidis, Ioannis Mavridis and Athanasios Manitsaris. In their paper, these authors have developed an evaluation methodology that utilises the statistical method of multidimensional analysis and a new coding of scales. A correspondence analysis method for the processing of the evaluation data on a number of thematic variables was presented. Each thematic variable included a set of clarifying sub-questions. The application of statistical processing of data with multidimensional analysis aimed to locate factors that may lead to negative conclusions about the system. Following on, a refinement process was performed in order to locate the particular sub-questions that can be used to revise the design rules and the guidelines used through the system development, in order to improve the usability, learnability and adaptivity of the educational system under evaluation.

The proposed methodology was applied on a web-based educational system to demonstrate its applicability and effectiveness. The evaluation conducted was based on responses provided by 144 students from the University of Macedonia and the Technological Educational Institute of Lamia (TEIL) in Greece. The methodology will need to be evaluated empirically to prove its usefulness.