

Guest Editorial –Advanced Learning Technologies

Ignacio Aedo¹, Mohamed Jemmi², J. Michael Spector³ and Larisa Zaiceva⁴

¹DEI Lab, Universidad Carlos III de Madrid, Leganés, Spain // ²University of Tunis, Tunisia // ³University of Georgia, Athens, GA, USA // ⁴Riga Technical University, Latvia // ignacio.aedo@uc3m.es // Mohamed.jemmi@fst.rnu.tn // mspector@uga.edu // Larisa.Zaiceva@rtu.lv

ICALT, the International Conference on Advanced Learning Technologies, brings together researchers working on different disciplines related to the design, development, use and evaluation of technology-enhanced learning environments and to devising the new technologies that will be the foundation of the next generation of e-learning systems. In the 2009 and 2010 editions, celebrated in the wonderful cities of Riga (Latvia) and Sousse (Tunisia), three hundred researchers discussed about several topics related to the technology in the educational processes. ICALT 2009 received 310 submissions (266 full papers, 35 short papers and 9 posters) and 73 of them were accepted as full papers (27.44%). The acceptance rate of full papers of ICALT 2010 was 31.03% and 302 papers were submitted to the conference (258 full papers, 36 short papers and 8 posters). Editors of this special issue selected a number of full papers of both editions that got the highest scores during the conference review processes. These papers went through a peer review process for this special issue. We'd like to thank all the reviewers that contributed with their judgment and comments to select the papers in this issue; their names listed below in recognition of their efforts. After the review process, 6 papers were finally selected to illustrate some of the main advances presented in both editions of the conference.

The first paper of this special issue is “Design and Implementation of a 3D Multi-User Virtual World for Language Learning”, authored by Ibañez et al, shows an approach to foster communication skills within a 3D multi-user virtual world with minimum teacher's help. In the second paper, “Language Technologies to Support Formative Feedback”, Berlanga et al propose the automatic development of conceptual maps of student works to ascertain learners' progress and identify remedial actions. Next paper, “Designing for Automatic Affect Inference in Learning Environments” from Afzal and Robinson, sets a discussion of motivational and methodological issues involved in automatic affect inference in learning technologies. Semantic web technologies and web 2.0 are two of the trending topics that provide mechanisms to improve the learning processes and the two following papers apply them in different approaches: while the fourth paper, “A Learning Content Authoring Approach based on Semantic Technologies and Social Networking: an Empirical Study” from Nešić et al, uses these technologies to improve the authoring of learning contents, the fifth one, “Designing Collaborative E-Learning Environments based upon Semantic Wiki: From Design Models to Application Scenarios” from Li et al, makes use of them to facilitate collaborative knowledge construction and maximize resource sharing and utilization. Finally, Sampson and Zervas in their paper, “A Workflow for Learning Objects Lifecycle and Reuse: Towards Evaluating Cost Effective Reuse”, introduce a workflow for learning objects lifecycle that can support their reuse and a set of metrics for cost effective of their reuse.

This special issue tries to provide to the reader a broad panoramic of some working areas of ICALT. We hope you enjoy this special issue and that you explore more contributions to this research area in next ICALT conferences.

We recognize the contribution of reviewers: Nian-Shing Chen, Kinshuk, Demetrios G. Sampson, and Telmo Zarranandia.