

## GUEST EDITORIAL PREFACE

# Advances in Web-Based Learning

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## INTRODUCTION

The international conference series on Web-based learning (ICWL) has been established as renowned event covering the newest trends in distance education and electronic learning technologies. A central aspect that has made this conference series so successful is its diversity. On the one hand side, the contributions do not only cover aspects from computer science, but also pedagogy or any other discipline where Web-based learning is being applied. Hence, events of this series are a melting pot of interdisciplinary research and experience sharing, leading to novel insights and collaborations among researchers from various disciplines. On the other hand side, the tradition of ICWL represents also the cooperation of European and Asian researchers to advance the field of Web-based learning. Numerous joint research papers and joint projects have emerged from the successful track record of ICWL events.

In 2009, the 8<sup>th</sup> ICWL 2009 was held in Germany's westernmost located and truly European city Aachen. Accordingly, authors that submitted work to the ICWL 2009 conference came from more than 30 countries with remark-

ably many submissions from across Europe. As a city of pilgrimage, knowledge from the East found its way on the ancient routes and Western ideas traveled in the other direction. Exactly these old traditions are revitalized in the papers collected for this special issue. ICWL 2009 was jointly organized by the Hong Kong Web Society, RWTH Aachen University, and Max Planck Institute for Computer Science.

## PAPER OVERVIEW

This special issue includes five outstanding out of the more than 100 hundred submissions we received for ICWL 2009. After an already rigorous review process at the conference, we invited only 12 authors to submit an extended version of their contribution to this special issue. All these submissions were of very high quality, but unfortunately it was only possible to include the following top-ranked submissions into this special issue, which – however – give an excellent overview about the various topics covered in Web-based learning at ICWL 2009.

The first contribution from Angel del Blanco Aguado, Javier Torrente Vigil, Pablo

Moreno Ger and Baltasar Fernandez-Manjón (Universidad Complutense de Madrid) deals with educational gaming. In particular, it introduces the integration of adaptive games in student-centered virtual learning environments. The next article from Michael Derntl (University of Vienna) incorporates Web 2.0 for Web-based learning. His submission aims at revealing student blogging activities using RSS feeds and LMS logs. After that, Kwong-Hung Lai, Howard Leung, Zhi-Hui Hu, Jeff K. T. Tang and Yun Xu (City University of Hong Kong, University of Science & Technology of China, Hefei and CityU-USTC Advanced Research Institute, Suzhou) address issues in oriental language learning. Against the background of gaming again, their contribution describes automatic online educational game content creation by identifying similar Chinese characters with radical extraction and graph matching algorithms. Next, Frederick W.B. Li, Rynson W.H. Lau and Parthiban Dharmendran (Durham University, UK and City University of Hong Kong) introduce an adaptive course generation framework. Their approach is based on the concept space and the concept filters to support adaptive course generation where comprehensive student characteristics are considered. Last but not least, Elvira Popescu (University of Craiova, Romania) deals with the use of learning styles in technology-enhanced learning. She introduces a so-called "Unified Learning Style Model" (ULSM) for technology-enhanced learning.

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