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## **Preface**

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**Biographical notes:** Martin Wolpers is group leader of the research group on context and attention in personalised learning environments. His research interests deal with the application of research results in artificial intelligence and psychology to the area of technology enhanced learning. By making learning systems respond to individual needs, goals, requirements and interests, he strives to improve the learning experience significantly. In addition to being Fraunhofer Attract awardee, he is also project coordinator of the European FP7 Integrated Project “Responsive Open Learning Environments (ROLE)” as well as the eContent+ project “Metadata for Architectural Contents in Europa (MACE)”. He has published numerous papers at international conferences and in well-renown journals.

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## **1 Introduction**

Technology Enhanced Learning is undergoing a significant shift in paradigm towards more collaborative and self-directed personalised learning experiences. Instead of addressing the needs of groups of learners in a uniform way, new approaches emerge that are tailored to the individual learner and her situation, and empower and support her to engage in collaborative learning scenarios. Learning will thus become a more and more individualised experience. Furthermore, the progress in learning technology interoperability leads to unlocking learning resources from proprietary solutions so that they become easier to find and exchange. This trend is reinforced by the use of social information, an expansion of the personal social network for informal learning, new settings as in exploratory environments and new approaches as in story-telling and educational games.

Based on the outcomes of the nine workshops of the 3rd European Conference on Technology Enhanced Learning (EC-TEL 2008), this special issue aims at giving an overview of achievements in TEL. The issue clearly demonstrate the paradigm shift by providing insights in the form of extended versions of the best papers of the workshops of EC-TEL 2008. The themes in this issue look onward beyond recent achievements and main stream to discuss specific topics, emerging research issues, new trends and endeavours in TEL.

The peer review process has been very strict. First, all workshop programme committees were asked to nominate their two best papers. The respective authors were asked to submit extended versions of their workshop papers with new, yet unpublished results. With the help of the review committee whose members are listed below, the eight papers of this issue have been selected for publication.

Topics in this special issue are naturally very broad. All papers deal with the improvement of technology enhanced learning, but their various foci range significantly:

- the analysis of collaborative interactions in virtual 3D learning environments
- interactive storytelling
- an analysis of how computer games are used for learning
- usage of observations about user activities in office applications for learning
- the formal definition of informal learner types
- the usage of collaboration scripts for virtual chemistry experiments
- the usage of tags to create a better interplay between learning resource platforms and their users
- and finally on research on improving the learning experience through the combination of community features with learning resource relations and contextualised attention metadata.

We believe that the present issue provides several interesting and relevant papers that quite timely describe current achievements. We wish the reader an enjoyable reading experience.

## **2 Review committee**

The review committee is assembled of the various workshop organisers of EC-TEL 2008. It is furthermore extended with selected experts in their fields to incorporate additional areas of expertise.

- Dietrich Albert, University of Graz, Austria
- Vladimir Batagelj, University of Ljubljana, Slovenia
- Alexandra Cristea, University of Warwick, UK
- Ingo Dahn, University of Koblenz, Germany
- Erik Duval, K.U. Leuven, Belgium
- Denis Gillet, EPFL, Switzerland
- Sergio Gutierrez-Santos, London Knowledge, UK Lab
- Eelco Herder, Forschungszentrum L3S, Germany
- Andreas Harrer, University Eichstätt-Ingolstadt, Germany
- Cord Hockemeyer, University of Graz, Austria
- Richard Hotte, LICEF Research Center, Canada
- Ralf Klamma, RWTH Aachen, Germany
- Harald Kosch, University of Passau, Germany

- Paul Lefere, Open University, UK
- Andreas Lingau, Knowledge Media Research Center, Germany
- Stefanie Lindstaedt, Know Center Graz, Austria
- Katherine Maillet, INT, France
- Alke Martens, University of Rostock, Germany
- Jon Mason, InterCog Pty Ltd, Australia
- David Massart, EUN, Belgium
- Martin Memmel, DFKI, Germany
- Xavier Ochoa, Escuela Superior Politécnica del Litoral, Ecuador
- Daniel Rehak, Learning Systems Architecture Lab, USA
- Andreas Schmidt, FZI, Germany
- Marc Spaniol, Max Planck Institute for Computer Science, Germany
- Marcus Specht, Open Universiteit, The Netherlands
- Stefaan Ternier, Open Universiteit, The Netherlands
- Riina Vourikari, Open Universiteit, The Netherlands
- Katrien Verbert, K.U. Leuven, Belgium
- Fridolin Wild, WUW, Austria