# Preface

*Technology Enhanced Learning: Best Practices* is the fourth book in the *Knowledge and Learning Society Book Series*. Three titles are already available in the bookstores:

- *Intelligent Learning Infrastructure for Knowledge Intensive Organizations: A Semantic Web Perspective*
- *Open Source for Knowledge and Learning Management: Strategies Beyond Tools*
- *Ubiquitous and Pervasive Knowledge and Learning Management: Semantics, Social Networking and New Media to their Full Potential*

This book is complementary and is published together with the 5th book of the series entitled:

- *Knowledge Management Strategies: A Handbook of Applied Technologies* (Editors: Miltiadis D. Lytras, Meir Russ, Ronald Maier, and Ambjörn Naeve)

For mid-2008, two more edited volumes which contribute further to our vision for the knowledge society are planned.

- *Knowledge and Networks: A Social Networks Perspective* (Editors: Miltiadis D. Lytras, Robert Tennyson, and Patricia Ordonez De Pablos)
- *Semantic Web Engineering for the Knowledge Society* (Editors: Jorge Cardoso and Miltiadis D. Lytras)

Technology Enhanced Learning is the best term to describe the domain of Knowledge Society Technologies as applied in the Learning context.

"Learning for anyone, at any time, at any place" is the motto. With the shift towards the knowledge society, the change of working conditions and the high-speed evolution of information and communication technologies, peoples' knowledge and skills need continuous updating. Learning based on collaborative working, creativity, multidisciplinary, adaptiveness, intercultural communication and problem solving has taken on an important role in everyday life. The learning process is becoming pervasive, both for individuals and organizations, in formal education, in the professional context, and as part of leisure activities. Learning should be accessible to every citizen, independent of age, education, and social status and tailored to individual needs.

Meeting these social challenges is a leading issue of research on the use of technology to support learning (e.g., the 6th and 7th EU Framework Programme for Research and Technological Development, 2002-2013).

In the context of Knowledge Society, the focus of research in this area has been on applications of technologies for user-centered learning, building on the concept of human learning and on sound pedagogical principles with the key objectives to be:

- To increase the efficiency of learning for individuals and groups
- To facilitate transfer and sharing of knowledge in organizations
- To contribute to a deeper understanding of the learning process by exploring links between human learning, cognition, and technologies

In this book, we applied a clear editing strategy. We wanted and, thanks to the excellent contributors, we made it:

- Go beyond the traditional discussion on Technology Enhanced Learning
- Provide a reference book for the area with main emphasis to be paid on practical aspects.
- Make learning oriented edition; in other words, the proposed book can be seen as a textbook for everybody interested in TEL.

The whole book is organized around the following pillars of the Technology Enhanced Learning Agenda:

**Technology Enhanced Learning: An Emerging Episteme**

- **The technology enhanced learning domain:** Philosophical routes, demonstration of various communities, success stories, lessons learned
- **Technology enhanced learning key issues:** Effective strategies, learning models and theories, deploymenent of ict's in education, policy issues of TEL, integration issues, extensibility, interoperability

**Technology Enhanced Learning: The Theories**

- Pedagogical theories and models of TEL
- Constructivist approaches to TEL
- Collaborative/Context Aware/Personalized TEL approaches
- Communities of learners and TEL

**Technology Enhanced Learning: The Practices**

- TEL practices in primary and secondary educations
- Surveys of ICT's adoption in K-12 education
- Future of TEL

**Technology Enhanced Learning: The Applications in Domains**

- TEL tools / Emerging technologies and New generation TEL
- Challenges for the future/Specification of Government Policies for the Promotion of TEL in education.
- Roadmaps for the future

We are very happy since during the preparation of this edited book we also launched the *International Journal of Technology Enhanced Learning* (IJTEL), which can be found at http://www.inderscience.com/ijtel

IJTEL fosters multidisciplinary discussion and research on technology enhanced learning (TEL) approaches at the individual, organisational, national, and global

levels. Its key objective is to be the leading scholarly scientific journal for all those interested in researching and contributing to the technology enhanced learning episteme. For this reason, IJTEL delivers research articles, position papers, surveys, and case studies aiming to:

- Provide a holistic and multidisciplinary discussion on technology enhanced learning research issues
- Promote the international collaboration and exchange of ideas and know how on technology enhanced learning
- Investigate strategies on how technology enhanced learning can promote sustainable development

Our wonderful journey in the research and vision for the knowledge society has one more stop. In September 2008 (and in each forthcoming September), we organize the Athens World Summit on the Knowledge Society (for more information, e-mail Lytras@ceid.upatras.gr).

The Athens World Summit on the Knowledge Society aims at becoming the leading forum for the dissemination of the latest research on the intersection of Information and Communications technology (ICT) and any area of human activity including production, economy, interaction, and culture.

The Athens World Summit on the Knowledge Society brings together:

- Academics
- Business people and industry
- Politicians and policy makers
- Think tanks
- Government officers

The underlying idea is to define, discuss, and contribute to the overall agenda on how emerging technologies reshape the basic pillars of our societies towards a better world for all. This is why five general pillars provide the constitutional elements of the Summit:

- Government in the knowledge society
- Research and sustainable development in the knowledge society
- Social and humanistic computing for the knowledge society
- Information technologies for the knowledge society

- Education, culture, business, tourism, entertainment in the knowledge society.

The **Athens World Summit on Knowledge Society** event series provide a distinct, unique forum for cross-disciplinary fertilization of research, favouring the dissemination of research that is relevant to international research agendas as the EU FP7.

We do believe that this edition contributes to the literature. We invite you to be part of the exciting Technology Enhanced Learning Community and we are really looking forward to your comments, ideas, and suggestions for future editions.

## Structure/Edititng Strategy/Synopsis of the Book

When dealing with technology enhanced learning (TEL), it is really of no sense to try to be exhaustive, not only because of the fast pace in technologies that support technology enhanced learning but mostly due to the many different aspects of the domains. Moreover, when you are trying to investigate the new insights of TEL, like social networks, Wemantic Web, assessment, and knowledge and learning management, the mission becomes even more complex.

This is why from the beginning we knew that our book should be selective and focused. In simple words, we decided to develop a book with characteristics that would help the reader to follow several different journeys through the contents. We also decided to open the book to big audiences. While we could pursue through our excellent contacts and great network of collaborators a publication aiming to promote the discipline, we decided that it would be most significant (from a value adding perspective) to develop a reference book. And this is what we made with the support of great contributors: a state of the art reference book for technology enhanced learning providing an excellent overview of the emerging research agenda. Having the experience of the edition of four edited books and feedback from hundreds of researchers from all over the world, we decided to keep the same presentation strategy. We tried, and succeeded, we think, in developing a book that has three characteristics:

- It discusses the key issues of the relevant research agenda
- It provides practical guidelines and presents several technologies and
- It has a teaching orientation.

The last characteristic is a novelty of our book. Several times editions seem like a compilation of chapters without an orientation to the reader. This is why every

edited chapter is accompanied by a number of additional resources that increase the impact for the reader.

In each chapter, we follow a common didactic-learning approach:

- At the beginning of each chapter, authors provide a section entitled Inside Chapter**,** which is an abstract-like short synopsis of the chapter.

At the end of each chapter there are some very interesting sections where reader can spend many creative hours. More specifically the relevant sections are entitled:

- **Internet session:** In this section authors present one or more Web sites, relevant to the discussed theme in each chapter. The short presentation of each Internet session is followed by the description of an *Interaction* where the reader (student) is motivated to have a guided tour in the Web site and to complete an assignment.
- **Case study:** For each chapter, contributors provide "realistic" descriptions for one case study that readers must consider in order to provide strategic advice.
- **Useful links:** These refer to Web sites with content capable of exploiting the knowledge communicated in each chapter. We decided to provide these links in every chapter, even though we know that several of them will be broken in the future, since their synergy with the contents of the chapter can support the final learning outcome.
- **Further readings:** These refer to high quality articles available both in Web and electronic libraries. We have evaluated these resources as of significant value.