When looking back at our lives, there are several moments that make us feel that they influenced not only the way we think but also the way we give to the people and the society around us. Moreover, when we consider our contributions to the things we decided to serve, in other words the Episteme that enlightens our hearts, brains and souls, we feel that the future is the ultimate objective.

This convergence proves the momentum for our efforts. We are working hard, and given our historical background, we envision a better future. This edited book acknowledges the work of many academics and practitioners who inspired our minds toward the ultimate characteristic of human beings — our knowledge and learning capacity.

First of all, we would like to thank our friends and collaborators, who authored the chapters of this book. Their knowledge, expertise, imagination, and inspiration are evident in every line. We are convinced that this book is only the first part of a long-term collaboration.

Beyond the personal commitment of the editors and authors, several key people contributed to the final outcome, providing their resources as well as the required motivation in order for such intellectual work to be achieved. We offer our deepest appreciation and respect to Mehdi Khosrow-Pour, President of Idea Group Inc. and IRMA, who gave us the opportunity to serve our community and for his continuous commitment and contribution to our mutual vision. From the bottom of our hearts, we wish him health, prosperity, creativity, and well-being.

Our research is supported with the help and inspiration of several people who we would like to thank personally. Without their support, guidance, motivation, and knowledge, this important personal goal would never have been possible.
For their various forms of support in our efforts of compiling this special issue, we would like to express our gratitude to our colleagues in our respective research units: Nikos Korfiatis, Katerina Sykianaki, Danae Tsotra, Maria Pontikaki, Martsin Papadatos, Konstantinos Kolombatsos, and Axileas Anagnostopoulos, at the Semantic Web-enabled Information Systems (S-Wise) sub-unit, of RU-5 Research Unit, of the Academic Research Computer Technology Institute, (http://www.cti.gr), and Professor and Director Athanasios Tsakalidis, Dr. Spiros Sirmakezis, and Dr. Bill Vasiliadis of the Computers Engineering and Informatics Department, University of Patras in Greece, and Mikael Nilsson, Matthias Palmér, Fredrik Paulsson, Claus Knudsen, Henrik Eriksson, Pär Sjöberg, Mia Lindegren, Richard Wessblad, and Ioana Predonescu from the KMR group (http://kmr.nada.kth.se) at the Royal Institute of Technology (KTH) in Stockholm, and Uppsala Learning Lab in Uppsala.

We would also like to acknowledge a number of colleagues within our national and international networks of excellence for technology enhanced learning, people who share our common vision for the future role of advanced learning technologies and who have extraordinary abilities to collaborate:


- **PROLEARN** (http://www.prolearn-project.org): Wolfgang Nejdl, Martin Wolpers, Erik Duval, Wayne Hodgins, Gustaf Neumann, Bernd Simon,
The KMR group is a European research group, which is physically based at the Royal Institute of Technology in Stockholm, Sweden. Its members are driven by a desire to create new and powerful ways to structure and communicate information in order to support its exformation into knowledge and transmutation into understanding. The domains of research include educational, industrial as well as administrative settings.

The research of the KMR group revolves around a structured information architecture that is called a Knowledge Manifold. A KM supports a number of different strategies for the suppression and presentation of information. It consists of a number of linked information landscapes (contexts), where one can navigate, search for, annotate and present all kinds of electronically stored information. A KM is constructed by conceptual modeling of a specific knowledge domain in order to capture its underlying thought patterns in the form of context-maps.

When used for learning and knowledge management purposes, a knowledge manifold provides (at least) the following natural knowledge roles:

- **The Knowledge Cartographer**: who creates context-maps.
- **Librarian**: who fills the concepts in the context-maps with content components.
- **Composer**: who combines components and creates customized learning modules.
- **Coach**: who cultivates questions.
- **Preacher**: who provides live and engaging answers.
- **Plummer**: who connects questions to relevant preachers.
- **Mentor**: who maintains learner motivation and supports learner self-reflection.

These roles can be taken dynamically — by both teachers and learners. “You learn as long as you are teaching, and you teach as long as somebody else is learning” is the basic pattern at work here.
The KMR group makes use of the KM architecture in order to construct a kind of Human Semantic Web (HSW), which functions as a conceptual interface to the underlying (machine) Semantic Web. The group members are participating in a number of international efforts to develop a Public Knowledge and Learning Management Environment (PKLME) based on Semantic Web technology, open source and open international ICT standards. Besides the KM architecture, the contributions of the KMR group to this PKLME include:

- The Edutella\textsuperscript{2} infrastructure: A democratic (peer-to-peer) network infrastructure for search and retrieval of information about resources on the Semantic Web.
- The Conzilla\textsuperscript{3} concept browser: A knowledge management tool for overview creation and collaboration, which supports the construction, navigation, annotation and presentation of the information in a knowledge manifold.
- The SCAM\textsuperscript{4} framework: A metadata storage and access framework that helps applications to store and share semantic information about resources.
- The SHAME\textsuperscript{5} framework: An editor framework that supports an evolving annotation process of resources in a way that enables the growth of an “ecosystem” of quality metadata.
- The Formulator (or SHAMEEditor\textsuperscript{Editor}): a tool for editing metadata editors that is built on top of the SHAME framework.
- The Meditor\textsuperscript{6} editor: a flexible editor for metadata that can reuse parts of different metadata standards (such as e.g. LOM or Dublin Core).
- The Confolio\textsuperscript{7} system: An electronic portfolio network that is built on top of SCAM, SHAME and Edutella, and which supports collaborative and reflective learning techniques. A prominent feature of the Confolio system is that it provides an “opinion publication network” of distributed and semantically searchable annotations. This opens up a new level of possibilities for customer relationship management.
- The VWE\textsuperscript{8} composer: An environment for composing learning resources and building customized learning modules.

All KMR frameworks and tools are open source and based on Semantic Web technology. They are designed to support the ongoing shift of social interaction patterns from knowledge push to knowledge pull, such as the shift:

- from teacher-centric to learner-centric education.
- from doctor-centric to patient-centric health care.
• from _bureaucrat_-centric to _citizen_-centric administration.
• from _government_-centric to _citizen_-centric democracy.
• from _producer_-centric to _consumer_-centric business models.

**Endnotes**

1 Knowledge Management Research: http://kmr.nada.kth.se
2 http://edutella.jxta.org. This effort is coordinated by L3S (Learning Lab Lower Saxony).
3 www.conzilla.org
5 Standardized Hyper-Adaptable Metadata Editor: http://kmr.nada.kth.se/shame
6 http://knowgate.nada.kth.se:8180/SHAME/DemoEditor.jsp
7 www.confolio.org
8 Virtual Workspace Environment: www.vwe.nu