

## Preface

E-learning is a field at the crossroads of different scientific areas bringing together technologists and instructors. E-learning is the unifying term to describe the fields of online learning, web-based training, distance learning and technology-delivered instruction. More terms have been devised in the past to reflect the different views of people working in the broad area of computer supported learning.

Being such a broad field, it has advanced at a very fast pace; practitioners and scientists from different disciplines work together to deliver a wide range of educational tools. While the interdisciplinary nature of e-learning yields specific tools and solutions, designed on pedagogical principles, new, more intelligent and adaptive tools are needed to satisfy the needs of different groups of students and different instructional aims. A deeper understanding of the implications of e-learning for students and for learning is another demand, if we are to improve the quality of the services on offer.

Therefore, although there are a number of scholarly publications related to e-learning, there is always a need for alternative applications and viewpoints. Hence, the main aim of this publication is to present specific tools and discuss issues related to the development and utilization of e-learning tools. A number of tools and use cases are presented, some of which relate to specific educational systems and topics. Adaptivity, utilization of new technologies in informal learning, engineering and accounting, are among the discussed topics.

Chapter 1, by Sabrina Leone and Giuliana Guazzaroni, discusses the pedagogical sustainability of interoperable formal and informal learning environments. Advantages and drawbacks are highlighted, in terms of technological and pedagogical effectiveness.

Valeria Pandolfini in Chapter 2 analyzes how it is possible to integrate teaching models and use of new technologies in an adult blended course, and to adapt training experiences to the target group, in order to offer a personalized course.

Chapter 3 by Luis Payá, Oscar Reinoso, David Úbeda, Luis M. Jiménez and José M. Marín presents the implementation of an interactive tool so that students can monitor and control the evolution of a team of mobile robots through the Internet. This platform is designed for a computer vision and robotics taught subject and it allows students to learn and practice the basic concepts on those fields and their relationships.

Chapter 4 written by Bob Barrett surveys current online teacher training standards and trends, in terms of what is required of new online instructors. It focuses on the use of the online learning environment as a vehicle to help instructors to prepare for online teaching.

Kevin Downing, Kristina Shin and Flora Ning in Chapter 5 describe a case study which examines detailed data related to student and tutor usage of an asynchronous discussion board as an interactive communication forum.

Chapter 6, written by Yasushige Ishikawa, Mutsumi Kondo and Craig Smith, reports on the development of an innovative interoperable Information and Communication Technology (ICT) application for English teaching in primary schools in Japan. An investigation into the use of the ICT application during a four month period at two primary schools is also described.

Lea Kuznik in Chapter 7, discusses the potentials and the new challenges in the educational field of virtual worlds for adults, youth and children.

Chapter 8 by Cristina Barna, Manuela Epure and Ruxandra Vasilescu, relates to the importance of e-learning in the European Lifelong Learning Program 2007 – 2013, and presents the Romanian case as a comparative study with the EU and US standards in higher education.

Chapter 9 by Minoru Nakayama, Hiroh Yamamoto and Rowena Santiago surveyed bachelors and masters students who were enrolled in online courses at a Japanese university for a period of three years, in order to study learners' behavior while they are engaged in online courses.

Chapter 10 by Alicia Mateos- Ronco and M<sup>a</sup> del Mar Marín- Sánchez, describes the authors' experience in designing e-learning methodologies for the teaching of accountancy in the Business Administration Degree Course at the Polytechnic University of Valencia. The methodology designed for teaching accounting, is based on PBL (Problem Based Learning).

Mario G.R. Pagliacci in Chapter 11, focuses on learning methods in entrepreneurial and managerial training. ICT changed the role of entrepreneurs and managers and as a consequence the study claims that, targets, contents and methodologies of entrepreneurial and managerial training need to be revised and inter-active teaching methods have to be adopted.

Ugo Barchetti, Alberto Bucciero and Luca Mainetti in Chapter 12, present the design of a solution for Computer-Supported Cooperative Learning (CSCL) that is able to connect both stationary and mobile users in live shared-learning sessions. The authors started from experiences that were mainly technology-driven to arrive at the development of two subsystems, OpenWebTalk and MobileWebTalk in which users cooperate to perform the same learning task.

Chapter 13 by Anthonia Maduekwe and Adeola Adeosun, presents a survey aimed at identifying the level of usability and applicability of interoperable educational tools in Nigeria language teacher education.

Chapter 14 by Jocene Vallack, formulates how subphenomenology uses intuition to access unconscious knowing, and reveal an archetypal image of the research in question. Subphenomenology is a formula, which can be applied to any weblog data, or indeed any creative work, to enable researchers to understand more about the universal implications of their most subjective reflections.

The last Chapter 15 by Peter Neema-Abooki and Alfred Kitawi aims at highlighting and proposing an e-learning fourfold strategy in the management of universities based on Ideological, Methodological, Output, and Ecological factors.

These studies discuss various aspects related to the development and utilization of learning technology applications. Researchers and lecturers of tertiary education shared their experiences in engaging with learning technology tools. Innovative approaches to the use of virtual world tools in education and to teaching with learning tools have been presented. Overall, this research publication focuses on the utilization and adoption of e-learning tools by educators and presents a number of current studies of best practice.