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e-Learning 2013

EDITED BY
Miguel Baptista Nunes
and Maggie McPherson



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E-LEARNING 2013

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INFORMATION SYSTEMS 2013

**PROCEEDINGS OF THE
INTERNATIONAL CONFERENCE
E-LEARNING 2013**

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FOREWORD

These proceedings contain the papers of the International Conference e-Learning 2013, which was organised by the International Association for Development of the Information Society and co-organised by The University of Economics in Prague (VŠE), Czech Republic, 23 – 26 July, 2013. This conference is part of the Multi Conference on Computer Science and Information Systems, 22 - 26 July 2013, which had a total of 948 submissions.

The e-Learning 2013 conference aims to address the main issues of concern within e-Learning. This conference covers both technical as well as the non-technical aspects of e-Learning.

The conference accepts submissions in the following seven main areas: Organisational Strategy and Management Issues; Technological Issues; e-Learning Curriculum Development Issues; Instructional Design Issues; e-Learning Delivery Issues; e-Learning Research Methods and Approaches; e-Skills and Information Literacy for Learning.

The above referred main submission areas are detailed:

→ **Organisational Strategy and Management Issues**

- Higher and Further Education
- Primary and Secondary Education
- Workplace Learning
- Vocational Training
- Home Schooling
- Distance Learning
- Blended Learning
- Change Management
- Educational Management
- Continuous Professional Development (CPD) for Educational and Training Staff
- Return on e-Learning Investments (ROI)

→ **Technological Issues**

- Learning Management Systems (LMS)
- Managed Learning Environments (MLEs)
- Virtual Learning Environments (VLEs)
- Computer-Mediated Communication (CMC) Tools
- Social Support Software
- Architecture of Educational Information Systems Infrastructure
- Security and Data Protection
- Learning Objects
- XML Schemas and the Semantic Web
- Web 2.0 Applications

→ e-Learning Curriculum Development Issues

- Philosophies and Epistemologies for e-learning
- Learning Theories and Approaches for e-learning
- e-Learning Models
- Conceptual Representations
- Pedagogical Models
- e-Learning Pedagogical Strategies
- e-Learning Tactics
- Developing e-Learning for Specific Subject Domains

→ Instructional Design Issues

- Designing e-Learning Settings
- Developing e-Learning Pilots and Prototypes
- Creating e-Learning Courses
 - Collaborative learning
 - Problem-based learning
 - Inquiry-based learning
 - Blended learning
 - Distance learning
- Designing e-Learning Tasks
 - E-learning activities
 - Online Groupwork
 - Experiential learning
 - Simulations and Modelling
 - Gaming and edutainment
 - Creativity and design activities
 - Exploratory programming

→ e-Learning Delivery Issues

- e-Delivery in different contexts
 - Higher and Further Education
 - Primary and Secondary Schools
 - Workplace Learning
 - Vocational Training
 - Distance Learning
- Online Assessment
- Innovations in e-Assessment
- e-Moderating
- e-Tutoring
- e-Facilitating
- Leadership in e-Learning Delivery
- Networked Information and Communication Literacy Skills
- Participation and Motivation in e-Learning

→ e-Learning Research Methods and Approaches

- Action Research
- Design Research
- Course and Programme Evaluations
- Systematic Literature Reviews

- Historical Analysis
- Case Studies
- Meta-analysis of Case Studies
- Effectiveness and Impact Studies
- Evaluation of e-Learning Technologies
- Evaluation of Student and Tutor Satisfaction
- Learning and cognitive styles
- Ethical Issues in e-learning

→ **e-Skills and Information Literacy for Learning**

- Teaching information literacy
- Electronic library and information search skills
- ICT skills education
 - in schools and colleges
 - for business, industry and the public sector
 - in adult, community, home and prison education
 - informal methods (peer groups, family)
- Education for computer-mediated communication skills
 - Netiquette
 - Online safety for children and vulnerable users
 - Cybercrime awareness and personal prevention
- Student production of online media
 - Web design
 - Digital storytelling
 - Web 2.0 tools
 - etc.
- Digital media studies

The e-Learning 2013 conference received 231 submissions from more than 36 countries. Each submission has been anonymously reviewed by an average of four independent reviewers, to ensure that accepted submissions were of a high standard. Consequently only 36 full papers were approved which means an acceptance rate of 16 %. A few more papers were accepted as short papers, reflection papers and posters. An extended version of the best papers will be selected for publishing as extended versions in the Interactive Technology and Smart Education (ITSE) journal (ISSN:1741-5659) and also in the IADIS International Journal on WWW/Internet (ISSN: 1645-7641). Other outlets may also receive extended versions of the best papers, including journals from Inderscience

Besides the presentation of full papers, short papers, reflection papers and posters, the conference also included two keynote presentations from internationally distinguished researchers. We would therefore like to express our gratitude to Thomas C. Reeves, Professor Emeritus of Learning, Design, and Technology, College of Education, The University of Georgia, USA, and also to Doc. Ing Jan Lojda, President of the Czech Association of Distance Teaching Universities, Czech Republic, for accepting our invitation as keynote speakers. Also a special thanks to Peter L. Stanchev, Kettering University, USA and Institute of Mathematics and Computer Science, Bulgarian Academy of Sciences, Bulgaria, for presenting a tutorial.

A successful conference requires the effort of many individuals. We would like to thank the members of the Program Committee for their hard work in reviewing and selecting the papers that appear in this book. We are especially grateful to the authors who submitted their papers to this conference and to the presenters who provided the substance of the meeting. We wish to thank all members of our organizing committee.

Last but not the least, we hope that everybody will have a good time in Prague, and we invite all participants for the next edition that will be held in Lisbon, Portugal.

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CONFERENCE TUTORIAL

CONVERTING A REGULAR LEARNING COURSE INTO DISTANCE COURSE

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ABSTRACT

The beginnings of distance education date back over one hundred years ago to the age of correspondence education when Frederick Turner ran the correspondence history program at the University of Wisconsin. Recent research clearly shows that students who learn at a distance do not learn any better or any worse than the traditional students.

Web 2.0 and social software tools have tremendous potential to remove the barriers of distance education. The social dimension of Web 2.0 tools has already begun to change the traditional paradigm of distance education. The challenges that social software addresses (meeting, building community, providing mentoring and personal learning assistance, working collaboratively on projects or problems, reducing communication errors, and supporting complex group functions) have application to educational use.

In the tutorial, we identify the milestones of techniques that were developed to meet the needs of a new type of learning that beneficially exploits the domain of distance-learning courses. A methodology for converting a regular course into a distance course is presented. For the conversion process we use the ADDIE technology. The ADDIE (Analysis, Design, Development, Implement, and Evaluate) model is the generic process traditionally used by instructional designers and training developers. The five phases represent a dynamic and flexible guideline for building effective training and performance support tools. Topics such as: develop instructional strategy, develop and select instructional materials; design and conduct formative evaluation, revise instruction; design and conduct summative evaluations are also presented. Some of the education theories such as: theories of independence and autonomy, theories of industrialization of teaching, theories of interaction and communication are discussed. The conversion process, the technique issues, requirements and conversion steps are outlined. Different distance learning technologies are given.

The conversion of the regular course “Web technology” into distance course is presented. “Web technology” is a regular course that was converted into a distance course, which we designed and implement in the frame of the “Master of Science in Information Technology program” in the Kettering University. The course is based on video, textbooks, “Blackboard” system based information and e-mail communications. The course is accompanied by a list of books, which are required to be used by the learner to prepare for each session as well as a list of recommended books and papers, which discuss various issues and elaborate on the topics.

As is the case in writing a textbook, the development of a good distance education course is a long-term process of trials and errors.

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