

New Book: Web-Based Intelligent e-Learning Systems: Technologies and Applications

to be published by Idea Group Inc. in 2005

Call for Book Chapters

Introduction

Computer based training/learning tools offer a cost-effective solution to employee or student training. Advances in information and communication technologies, and specifically in Multimedia, Networking and Software Engineering allow the apparition of a new generation of computer-based training systems. Intelligent Tutoring Systems (ITSs) hereby form an advanced generation of Computer Aided Instruction (CAI) systems, which have been developed and evaluated for many years in the field of artificial intelligence in education. The key feature of ITSs is their ability to provide a user-adapted presentation of the teaching material. The emergence of the World Wide Web increased the usefulness of such systems. Internet is today the ubiquitous supporting environment for virtual and distributed learning environments. As a consequence, many institutions, both public and private, take advantage of new technologies to offer training products and services at all levels. Learning over the Internet has some advantages, including there is no restriction of geographical location or time limitation to learners, learners can take the courses at their own pace, regardless of other learners' progress, and courses developed for the web may prove cheaper than hiring a qualified teacher each time the course is administered. So the various tools recently have been launching and many web-based learning products are available in markets.

Compared with the classical educational methods, the web-based learning/training systems have so many advantages. However, just putting a tutorial online does not provide education in the real sense. There is always a need for communication between the tutor and the students as well as among students. So facilities such conferencing, mailing, bulletin board, etc need to be sensibly applied and integrated with the course material. The course conducted may also be a combination of classroom sessions and the Internet. More important, the web-based learning/training systems should be very similar to human tutor. So such systems should be more intelligent through adopting artificial intelligence and cognitive science techniques. In addition, with the increasing popularity of e-learning systems, the proliferation of interoperability e-learning specifications raises the need of extending existing e-learning platforms so that they can be used efficiently in a distributed environment where material producers, service providers and users (either learners or teachers) exchange information using standard models. The interoperability problem consequence of the proliferation of web-based e-learning systems is being considered by key standardization institutions and the most relevant educational software consumers worldwide.

Web-based e-learning/training systems are increasingly popular and have been extensively applied for the learning/training activities in some areas such as course teaching, clinic competency examination, astronaut training and etc. The research and development of Web-based e-learning systems are receiving increasing attention.

The Overall Objective of the Book

The web-based intelligent e-learning systems are interdisciplinary in nature, related closely to such fields as artificial intelligence (decision making, machine learning, planning and scheduling), cognitive science, software engineering, web-based information systems, and education. This book aims to provide a single record of current technologies and applications in Web-based intelligent e-learning systems. This will discuss the major aspects of web-based intelligent e-learning systems-standards and certifications, design and development, key

techniques, prototypes, products, and applications. The objective of the book is to provide state of the art information to academics, researchers and industry practitioners who are involved or interested in the design and development of advanced and emerging learning technologies with ultimate aim to empower individuals and organizations in building competencies for exploiting the opportunities of the knowledge society.

The Target Audience

Researchers, engineers, and graduate students interested in the technologies and applications of web-based intelligent e-learning systems will find this book a starting point and a reference for research and development. In particular, learning content producers, learning management system vendors, computing platform vendors, and learning service providers are also the audience for the book.

Recommended Topics

- e-Learning Technology Systems Standards and Specifications
- Standard Supporting of e-Learning Technology Systems
- Compliance of Current Products with Learning Technology Standards
- Architecture of e-Learning Technology Systems
- Pedagogical and Organizational Frameworks
- Information Retrieval and Visualization Methods for e-Learning
- Adaptivity in e-Learning Technology Systems
- Interactive e-Learning Technology Systems
- Educational Modeling Languages
- Metadata for Learning Resources
- Learning Objects for Personalized Learning
- Building Learning Communities
- Evaluation of e-Learning Technology Systems
- Educational Paradigms
- Instructional Design Theories
- Teaching and Learning Strategies
- Artificial Intelligence in e-Learning
- Concretizing Technologies in e-Learning
- Advanced Uses of Multimedia and Hypermedia
- Participatory Simulations
- Virtual Reality for e-Learning
- Mobile Learning Applications
- Peer-to-Peer Learning Applications
- Implementation of Prototypes with Applications
- Technical Analyses of e-Learning Products
- Current Product Survey
- Real Applications of Prototypes or Products

Other related topics may be proposed as well.

Important Dates

May 15, 2004: submission of proposals/invitations for chapters

May 31, 2004: notification of acceptance

August 30, 2004: submission of full chapters

November 30, 2004: submission of revised chapters

January 15, 2005: final version of chapters

Submission Guidelines

You are invited to submit a proposal of 2-4 pages describing the focus of your paper. The proposal should also give the tentative organization of the paper (section titles with section summaries). Papers should be original and should not be submitted for publication or published elsewhere.

The book is scheduled to be published by Idea Group, Inc., publisher of the “Idea Group Publishing”, “Information Science Publishing”, and “IRM Press” imprints in 2005.

Electronic submissions are required. Please e-mail your proposal or questions to:

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