



Special Issue for the *Computers in Human Behavior* (CHB) journal

## **“Education and pedagogy with *learning objects* and *learning designs*”**

### **Motivation:**

The term “*pedagogy*” is defined by the Merriam-Webster’s Online Dictionary as “the art, science, or profession of teaching”, and the term “*education*” as “(2) the field of study that deals mainly with methods of teaching and learning in schools”. These definitions clearly state the methodological aspect of education as the application of certain knowledge and guidelines to the design of learning programs or activities. Recent advances in the standardization of Web-based learning resources have resulted in a degree of consensus about the concepts of reusable “learning objects” and “learning designs”. Specifications as IEEE LOM, SCORM or IMS LD among others deal with the description of these kinds of resources and provide models for their construction. Nonetheless, there is still much work needed in the study of the pedagogical knowledge or design guidelines required for the education-oriented design of these resources. Research in that direction includes experimental studies, application of learning theories or pedagogical design guidelines to learning objects, techniques for describing pedagogical assumptions or hypotheses, and critical analysis of the support currently provided by standards to cover the pedagogical perspective. This is the focus of the topic of this special issue.

The idea came from the experience we had last year organizing a Spanish conference on the topic in collaboration with Departments of Pedagogy and Psychology from several Spanish Universities, called SPDECE. The proceedings of the conference with abstracts in English are available at <http://sunsite.informatik.rwth-aachen.de/Publications/CEUR-WS/Vol-117/>

The pluri-disciplinary flavour of SPDECE raised many interesting questions that would be addressed in the coming 2005 edition of the conference, organized by the Open University of Catalonia (<http://www.uoc.edu/symposia/spdece05/index.html>). It also served us to communicate relevant pedagogical issues and results.

### **Objectives:**

The main objective of the special issue is that of reporting recent high-quality research on pluri-disciplinary studies related to the use of digital reusable learning objects and learning designs from a pedagogical perspective.

Contributions should therefore deal with reuse-orientation and technological issues **but also** to theories of learning, empirical studies or insights that are potentially useful to Psychologists, Cognitive Scientists or Educational Psychologists.

Topics of interest include (but are not limited to):

- How learning theories or design guidelines apply to the design of learning objects or complex reusable activities.
- Analysis of current standards (e.g. LOM, SCORM, IMS LD) from the perspective of educational psychology or pedagogy.
- Representation of the pedagogical assumptions for the design of reusable learning objects and learning designs as metadata.
- Practical relevant experience with learning-object based education.
- Designing reusable objects for different cognitive abilities.

The edition will be managed by Dr. Miguel-Angel Sicilia, and scientifically evaluated by **Dr. Pilar Lacasa** and **Dr. Julià Minguillón**, covering the more “pedagogical” and the more “technological” issues respectively. Short bios are provided below. Members of the technical committee of SPDECE 2005 and of the board of AIS SIGRLO (<http://www.sigro.org>) will act as editors and reviewers.

### **Important dates**

Submission of extended abstracts (2-3 pages): **10 September 2005.**

Notification about appropriateness for the special issue: **20 September 2005**

Submission deadline: **25 November 2005.**

Notification of acceptance/rejection: **15 January 2006.**

Final papers due: **15 March 2006.**

Direct your submissions to [msicilia@uah.es](mailto:msicilia@uah.es)

NOTE: The submission of extended abstract is intended to provide feedback to authors about the appropriateness of their paper to the topics of the special issue.

### **Short bios**

**Pilar Lacasa** is a full Professor at the University of Alcalá. She is the Director of the BSc Programme in Psychopedagogy at the University of Alcalá. She is Coordinator of a combined PhD programme in Education, run in partnership with the Autonomous University of Madrid (UAM) and the National University for Distance Education (UNED), as Professor of Developmental Psychology and Education.

Dr. Lacasa leads the research group “Grupo Imágenes Palabras e Ideas” (GIPI) (“Images, Words and Ideas Group”), a fully equipped research centre in the Faculty of Documentation. The group currently consists of eight postdoctoral researchers and six postgraduate students with a multidisciplinary background from five different institutions. The main research lines developed by the GIPI investigators include a) citizenship and media, b) computer games as learning tools, c) ICT and literacy, d) multiple literacies in educational and family settings, and e) language acquisition and emergent literacy. In all of these areas, the group has developed innovative methodological approaches, and has led the debate about the development of teacher training programmes and educational policy in Spain.

The priority activities of the Group include collaboration with educational centres, in the course of which pupils and GIPI researchers cooperate in the creation of new educational scenarios, which contribute on the one hand to the acquisition of new literacies and on the other, to the integration of immigrant children.

Dr. Lacasa has been a visiting scholar at the Universities of Utah and British Columbia, and at MIT. Her most relevant publications have been published in Linguistics and Education and Social Psychology.

**Julià Minguillón** received his BS degree in Computer Science in 1995, his MS degree in 1997 and his PhD in 2002 from the Universitat Autònoma de Barcelona (UAB). Since 1994 he has been with the Combinatorics and Digital Communications Group at the UAB and, in 2001, he joined the Universitat Oberta de Catalunya (UOC), the open University of Catalonia, the largest open University in Spain. His research interests are in the e-learning field: technology enhanced learning, learning process formalization and standardization, ontologies, user modeling in virtual environments, and web mining for personalization purposes.