

Call for Papers

Journal of Universal Computer Science

Special Issue on

Technology for learning across physical and virtual spaces

Introduction

Nowadays education does not happen exclusively face-to-face, in the physical space. Neither does it happen exclusively through online tools in the virtual space, like Virtual Learning Environments, blogs or wikis. There is a continuous transfer from one space to another: certain activities are done in the classroom, some are accessed on a web virtual learning environment or a 3D world, then the students perform the activities and collaborate ubiquitously either physically or digitally.

This is what has been traditionally understood under the heading of blended learning, but recent technological advances have opened broad opportunities to link these spaces more profoundly, thus enabling the realization of learning activities across spaces that incorporate and coordinate objects from them all. Examples are: the use of augmented reality, that superimposes a digital layer on top of the physical space, providing extra information or linking objects; the use of 3D virtual spaces mirroring the physical space (e.g. showing an image from the physical world coming from a camera); sensors or RFID technology in the physical space that can provide information such as identity or location to digital applications; or tangible computing devices that enable the manipulation of objects in the physical space that have impact on the digital space...

The main different spaces that can be linked to support innovative activities include virtual learning environments, 3D virtual worlds, physical classrooms and open learning spaces that can be integrated with virtual spaces through roomware, mobile and location-aware technologies. New research questions arise in this new technological and learning context: How to design and technologically support innovative learning scenarios across physical and virtual spaces? What are the opportunities and challenges that learning scenarios across spaces pose to the learners' assessment? Can educational technology specifications offer interoperability solutions to facilitate the transfer between spaces? How can educators orchestrate, adapt, monitor and evaluate the learning process occurring across different virtual and physical spaces?

Topics

Educational scenarios, technological solutions and evaluation studies focused on learning activities happening across spaces, which can include, but are not limited to:

- Virtual Learning Environments
- 3D Virtual Worlds
- Roomware and other pervasive devices for the classroom
- Mobile and location-aware technologies for open learning space

Transversal topics include, but are not limited to:

- Architectures, frameworks, models
- Design of activities, assessment
- Interoperability, educational technology specifications, data flow, linked data
- Orchestration, adaptation, monitoring, evaluation

Related topics include also:

- Augmented reality
- Augmented virtuality
- Mediated reality

Important Dates

- Submission deadline: 15 December 2011
- Decision notification after first round of reviews: 15 February 2012
- Submission of revised version: 31 March 2012
- Final decision: 15 May 2012
- Submission of final version: 31 May 2012

Submission Guidelines

Manuscripts should not exceed 20 pages. All submissions must be in English, formatted according to the guidelines of Journal of Universal Computer Science (JUCS), and submitted as pdf-files. The submission guidelines can be found at <http://www.jucs.org/ujs/jucs/info/submissions>

Manuscripts should be submitted via email to davinia.hernandez@upf.edu, cdk@it.uc3m.es and juaase@tel.uva.es. The subject of the submission email should be: "*JUCS SI Submission: Technology for learning across physical and virtual spaces*".

Guest Editors

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