Introduction

- Educational material and activities are being digitized
- Technology is now offering possibilities to mix physical and digital elements with a finer granularity than in blended learning
- Learning descriptions (specifications and standards)
  - too web-oriented
  - still not adapted to the new mixed possibilities
- How to define learning processes in an abstract way, leaving the concrete details of enactment open
Example: Augmented Reality

- Superimposition of text, images or 3D models

Example: Virtual Reality

- 3D modelling of the real world, imaginary, augmented, or mediated worlds
WWW (World Wide Web): Images of Documents

- Works without electricity
- Burnable to make fire

Perfectly copiable
Searchable

GGG (Giant Global Graph): Images of Persons
What digital image do you project?

Parallel Worlds

Real, physical

Virtual, digital
Across Spaces

Focus

- New educational scenarios and technological solutions
- that exploit an integrated transfer
- from physical spaces,
  - such as the classroom or the playground,
- to virtual spaces,
  - such as virtual learning environments or 3D worlds
Some Research Questions

- 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 learning and 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?

Workshop Proceedings

- Preliminary Proceedings available

Davinia Hernández-Loo, Carlos Delgado-Kloos, Juan I. Asensio-Pérez (Eds.)

**Learning activities across physical and virtual spaces (AcrossSpaces)**

J.UCS Special Issue

- Special Issue on *Technology for learning across physical and virtual spaces*
- Dates
  - Submission deadline: 15 December 2011
  - Decision notification after 1st 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
- Participants at this workshop especially invited
- [www.jucs.org/ujs/jucs/info/special_issues/jucs_special_issue_Across_spaces_cfp.pdf](http://www.jucs.org/ujs/jucs/info/special_issues/jucs_special_issue_Across_spaces_cfp.pdf)

Programme: morning session (1)

- 9:00-9:15: Introduction
- 9:15-10:00: Keynote Speaker
  David Robert (MIT Media Lab):
  *Through the interreality boundary:
  Playful learning with Alphabot*
Programme: morning session (2)

- 10:00-10:15: John Cook (London Metropolitan U.): User Generated Contexts Across Spaces – Design Research Perspectives
- 10:15-10:30: Henriikka Vartiainen, Anu Liljeström, Jorma Enkenberg (U. Eastern Finland): A Model for Design-Oriented Pedagogy to Educate Learners to Meet the Future Needs
- 10:30-10:45: Mar Pérez Sanagustin (U. Pompeu Fabra), Valérie Emin (ENS Lyon), Davinia Hernández-Leo (U. Pompeu Fabra): Towards the design of learning scenarios combining activities across multiple spaces
- 10:45-11:15: Coffee break

Programme: morning session (3)

- 11:15-11:30: Davinia Hernández-Leo, Mar Pérez-Sanagustin (U. Pompeu Fabra): Group formation in learning flow activities across virtual and physical spaces
- 11:45-12:00: David Griffiths, Tim Goddard, Johnson Mark, Kris Popat, Paul Sharples, Scott Wilson (U. Bolton): Bottling the magic dust: an infrastructure for mixed-mode teaching and learning
- 12:00-12:15: Michael Gardner (U. Essex), Marie-Luce O’Driscoll (U. Bedfordshire): MiRTLE (Mixed-Reality Teaching and Learning Environment): from prototype to production and implementation
Programme: morning session (4)

- 12:15-12:30: Gustavo Salvador-Herranz (U. CEU Cardenal Herrera), David Pérez-López, Mariano Alcañiz, Manuel Contero (U. Politècnica de València): *Augmented reality at the primary school: a pilot study on a Natural Sciences course*
- 12:30-12:45: María Blanca Ibáñez, David Maroto, José Jesús García Rueda, Derick Leony, Carlos Delgado Kloos (U. Carlos III de Madrid): *Architecture for Collaborative Learning Activities in Hybrid Learning Environments*
- 12:45-13:00: Mikhail Fominykh, Ekaterina Prasolova-Forland (Norwegian U. of Science and Technology): *Conceptualizing Virtual Research Arena Framework: Learning Activities across Physical and Virtual Spaces*
- 13:00-14:30: Lunch

Programme: afternoon session

- 14:30-17:00: Discussion
  - Brainstorm visions and challenges of technology-supported learning activities performed across spaces *(45 min)*
  - Small groups will be formed by members sharing related visions or interested in similar challenges. These groups will further elaborate their visions or approaches to face the identified challenges *(60 min)*
  - The workshop will conclude the day with an open discussion exchanging the results of the group, summing up, and depicting a research agenda *(45 min)*
Announcements

- Proceedings now online
  
  www.ec-tel.eu/programme/
  workshops-ectel2011/acrossspaces

- Please send your slides to upload them on the web site as well
  
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  juaase@tel.uva.es
iED Summit Madrid, 28-29 Nov 11

- summit.ImmersiveEducation.org

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Great workshop!
Thank you all!