# Design and use of digital resources for teaching and learning: interdisciplinary research is a necessity?

INRP, Lyon, 14-15 May 2009



Nowadays technological progress has significant impact on education and on teaching and learning activities, both in and outside a classroom. The symposium organized by EducTice is an occasion to address the issues of new forms of sharing resources and experiences (scenarios, resource depositories on the web...). What are relationships between design and usage of resources, what models to conceive, how to take account of quality of shared resources, by which processes, which approaches, disciplinary and interdisciplinary? The symposium will be an occasion to question ongoing research carried out by the National Institute for Pedagogical Research (INRP) and its partners. National and international viewpoints will be called upon to outline the issues of ongoing research.

# Programme

Thursday, May 14

9h30, Opening by Serge Calabre, director of INRP and Luc Trouche, head of EducTice team

10h-12h, Plenary talk by Richard Noss, introduction by Jana Trgalova

Title: Visions and challenges for Technology Enhanced Learning research

**Abstract:** The Teaching and Learning Research Programme (TLRP) is the major educational research programme in the UK funded by the National Research Councils. TLRP's first projects started in January 2000 and the 'generic phase' (consisting of a wide-ranging portfolio of projects) is expected to end during 2009. The Technology Enhanced Learning projects began in 2007 and this phase will continue into 2011 and, probably beyond. Drawing on key themes currently being investigated by the TEL projects and beyond, I will try, in this presentation, to outline a methodological framework for understanding and developing research in the field.

## 13h45-16h, Workshops, presentation of ongoing research projects

13h45-14h, Introduction Éric Sanchez and Wouter Van Jooligen

14h-15h, Presentations of ongoing research projects carried out by EducTice:

- P2S-CORISE (Topic: Scientific inquiry), Eric Sanchez
- SPE-languages (Topic: Scenario), Jean-Paul Moiraud and Valérie Emin
- EXPRIME (Topic: Mathematics education), Gilles Aldon

• Observatory of geomatics practices (Topic: Geomatics), Sylvain Genevois

15h-16h, Presentations of research projects at an international level:

- Pairform@nce, Catherine Loisy
- Intergeo, Sophie Soury-Lavergne
- Science Created by You, Eric Sanchez and Wouter van Joolingen

**16h30-18h, Plenary talk** by Anne-Marie Bardi, introduction Catherine Loisy Anne-Marie Bardi is co-author of a report <u>Contribution of new technologies to the evolution</u> <u>of the educational system</u> (in French)

Title: Contribution of technologies to the evolution of the educational system

**Abstract**: Necessities of management and communication and needs of teaching lead unavoidably schools towards integrated systems of information. This apparent simplification produces new and fruitful complexities: actors play their role at levels that no more necessarily local, one in presence or not of another, during the school time or not, in surprising interactions that come up every day. Does the state education know how to exploit these potentialities? How to favour them? Will it know how to accompany the change that is called for? The talk will aim at identifying ongoing evolutions in both educational system and use of resources and digital devices, at analysing possible convergences and obstruction factors and at drawing some perspectives.

#### Friday, May 15

#### 9h-10h15, Plenary talk by Pierre Tchounikine, introduction Jean-Philippe Pernin

Title : Design of TEL environments: various approaches, various issues

**Abstract**: A TEL environment is a conjunction of a didactical and/or pedagogical intention and a computer-based environment. Computational dimension of the design may result from various approaches (from pure technological innovation to making operational pedagogical models, through exploitation if norms and standards). It may result from a simple realization (engineering work) or it may require a research work in computer science. Misunderstandings arising at this level are one of the reasons of numerous failures in research/development in this scientific domain. The talk will aim at clarifying possible articulations between researchers in computer science and in human and social sciences.

#### 10h30-12h30, Workshops, then plenary talk, introduction Luc Trouche

10h30-12h, Presentations of research projects from two disciplinary perspectives:

- TATIANA: computer science and human and social sciences perspectives, Kris Lund, Gregory Dyke and Jean-Jacques Girardot
- RiConFor: design and use perspectives, May Madeth
- ScenEdit: computer science and didactics points of view, Valérie Emin and Frank Sauret

• Res: Doc: presentation of a project submitted by EducTice in an ANR call (National Agency of Research), Luc Trouche and Ghislaine Gueudet

12h-12h30, Plenary talk by Alain Mille, director of Apprentice PPF programme

Title: Necessity of interdisciplinary research in TEL

**Abstract**: Structuring and assessing scientific research is essentially disciplinary whereas we all agree that TEL research are, in essence, multidisciplinary. Setting up the PPF programme "Learning with technologies?" is an attempt of a genuine organization of this necessary multidisciplinarity. Its functioning, outcomes and limits in terms of the answer to the above-mentioned question will be discussed.

**14h-16h, Round table** chaired by <u>Nicolas Balacheff</u>, chair of the scientific committee of the EducTice team, with plenary speakers (A.-M. Bardi, A. Mille, R. Noss, P. Tchounikine and L. Trouche)

Theme: Questions about evolution of research on TEL

## Links

- INRP <u>http://www.inrp.fr/inrp</u>
- EducTice team <a href="http://eductice.inrp.fr/EducTice">http://eductice.inrp.fr/EducTice</a>
- Registration <a href="http://www.inrp.fr/manweb/info\_manifestation.php?man\_id=55">http://www.inrp.fr/manweb/info\_manifestation.php?man\_id=55</a>