Fifth Doctoral Consortium

at the

European Conference on Technology Enhanced Learning

September 29, 2010

Barcelona, Spain

Doctoral Consortium Chairs

Katherine Maillet, Institut Telecom Sud-Paris, France

Tomaz Klobucar, IJS, Slovenia

Ralf Klamma, RWTH Aachen University, Germany

Stellar Representatives

Denis Gillet, EPFL, Switzerland

Marie Joubert, University of Bristol, UK

Programme Committee

Franziska Arnold
Rosa Bottino
Daniel Burgos
John Cook
Joseph Corneli
Paul De Bra
Evelina De Nardis
Michael Derntl
Dimoklis Despotakis
Pierre Dillenbourg
Berrin Dogusoy
Liliane Esnault
Serge Garlatti
Denis Gillet
Eleonora Guglielman
France Henri
Eelco Herder
Shakeel Iqbal
Marie Joubert
Ralf Klamma
Tomaz Klobucar
Moshe Leiba
Stefanie Lindstaedt
Ana Loureiro
Katherine Maillet
Alexander Mikroyannidis
Jad Najjar
Ramón Ovelar
Donatella Persico
Dirk Peters
Zinayida Petrushyna
Marcela Porta
Ekaterina Prasolova-Førland
Ijaz Qureshi
Kamakshi Rajagopal
Adolfo Ruiz-Calleja
Andreas Schmidt
Birgit Schmitz
Mike Sharples
Anna Siewiorek
Peter Sloep
Carl Smith
Marcus Specht
Thomas D. Ullmann
Guillermo Vega-Gorgojo
Fridolin Wild
Martin Wolpers
Esra Yecan

Preface

These proceedings are comprised of the submissions of 18 PhD candidates who are researching in the area of Technology Enhanced Learning (TEL). These students submitted a PhD plan, which was initially reviewed by the organising committee in order to make a decision about whether or not to accept the student for the Doctoral Consortium. Later each submission was reviewed by two senior academics and one peer, and students were required to revise their submissions in the light of these reviews.

The papers provide a window into the current issues of concern in TEL research and range widely from those investigating research in classrooms to those designing and trialling new technological approaches to enhancing learning in both formal and informal settings. Some of the research discussed is in a mature stage and the students are in a position to report on findings and the implications of these findings, and other research is at an early stage and as such, still in the process of clear formulation.

The Doctoral Consortium is a forum within which students at all stages of their PhD study will be supported; for some students this support will aim to prepare the student for a final viva or panel examination, and for others the support will help the student formulate a rigorous and useful study.

The Doctoral Consortium is jointly funded by the European Association of Technology Enhanced Learning (EATEL) (http://www.ea-tel.eu/) and the STELLAR European Network of Excellence (http://stellarnet.eu). Both EATEL and STELLAR aim to build early researcher capacity through doctoral schools and consortia.

Katherine Maillet
Ralf Klamma
Tomaz Klobucar
Denis Gillet
Marie Joubert

Table of Contents

The Impact of Patterns on the Exchange of Practical Knowledge
Franziska Arnold 1– 6

Crowdsourcing a Personalized Learning Environment for Mathematics
Joseph Corneli 7 –12

Argumentative Interactions in Online Asynchronous Communication
Evelina De Nardis 13–18

Capturing Multi-Perspective Knowledge of Job Activities for Training
Dimoklis Despotakis 19–24

Experts' & Novices' Concept Map Formation Process: An Eye-Tracking Study
Berrin Dogusoy 25–30

E-learning and disability: accessibility as a contribute to inclusion
Eleonora Guglielman 31–36

Assessing Mathematical Problem Solving Behavior in Web-Based Environments Using Data Mining
Moshe Leiba 37–42

Building Knowledge in Virtual Environments – Influence of Interpersonal Relationships: the outlined research
Ana Loureiro 43–48

Exploring how faculties use and rate Web 2.0 for teaching and learning purposes
Ramón Ovelar 49–54

Towards an Adaptive Enterprise Systems Learning Environment for Higher Education
Dirk Peters 55–60

Self-modeling and Self-reflection of E-learning Communities
Zinayida Petrushyna 61–66

Implementing Technology Enhanced Learning to impede the declining interest in Computer Science (CS) studies and careers in Europe
Marcela Porta 67–72

Supporting the creation and use of Personal Learning Networks of Professionals in Social Work
Kamakshi Rajagopal 73–78

A Linked-Data-based search system of educational tools for the Web of Data
Adolfo Ruiz-Calleja 79–84

Supporting knowledge construction with mobile learning games
Birgit Schmitz 85–90

The Design and Evaluation of Augmented Learning Spaces
Carl Smith 91–96

Activating Thinking Skills with Mash-Up Research Environments: A Proposal
Thomas Daniel Ullmann 97–102

Using an Online System with Exemplary Teaching Videos to Support the Professional Development of Prospective Faculty Members
Esra Yecan 103–108