

Proceedings of the 1st International Workshop on Cloud Education Environments (WCLOUD 2012)

Antigua, Guatemala, November 15-16, 2012



Edited by:

Alexander Mikroyannidis
The Open University
Knowledge Media Institute
Milton Keynes MK7 6AA, United Kingdom

Rocael Hernández Rizzardini
Galileo University
Departamento GES (Galileo Educational System)
Guatemala City, Guatemala

Hans-Christian Schmitz
Fraunhofer FIT
Schloss Birlinghoven
53754 Sankt Augustin, Germany



PREFACE

Cloud Learning Environments (CLEs) or *Cloud Education Environments (CEE)* consider the cloud as a large ecosystem, which is not owned by any educational organization. Within this ecosystem, learners and educators act as the users and producers of cloud-based learning services. They have complete control over the choice, use and sharing of the learning tools and content provided by these services.

This approach has the potential to enable and facilitate both formal and informal learning. It allows learners to learn anywhere and at anytime. It also facilitates collaboration among learners and educators. Additionally, the openness, sharing and reusability of learning tools and content on the web are technically enabled and promoted.

This workshop has been focused on the exchange of relevant trends and research results, as well as the presentation of practical experiences gained while developing and testing cloud education environments, both from a teaching and a learning perspective.

All papers submitted to this workshop were peer-reviewed and 13 papers were selected for publication in the proceedings. We would like to thank all the authors for their contributions. We also thank the local organization committee from Galileo University in Guatemala led by Byron Linares.

The Workshop Chairs

Rocael Hernández Rizzardini
Hans-Christian Schmitz
Alexander Mikroyannidis

PROGRAMME COMMITTEE

Andreas Pester (CUAS, Austria)
Byron Linares (Galileo University)
Carlos Delgado Kloos (UC3M)
Christian Guetl (TU Graz)
Daniel Burgos (UNIR, Spain)
Denis Gillet (EPFL, Lausanne)
Erik Duval (KU Leuven)
Erik Fokke (U&I Learning)
Felix Mödritscher (WU, Austria)
Femke Morsch (Surfnets BV, Utrecht)
Golberi de Salvador Ferreira (IFSC, Brazil)
Hector Amado (Galileo University)
Heinz Ulrich Hoppe (Universität Duisburg-Essen)
Kirsten Veelo (Surfnets BV, Utrecht)
Lee Chao (Houston-Victoria)
Manuel Castro (UNED, Spain)
Martin Llamas Nistal (UVigo, Spain)
Martin Wolpers (Fraunhofer FIT, Sankt Augustin)
Miguel Morales (Galileo University)
Mohammad Al-Smadi (TU Graz)
Nelson Baloian (U Chile)
Nils Faltin (IMC AG)
Peter Scott (The Open University, UK)
Rafael Pastor Vargas (UNED, Spain)
Ralf Klamma (RWTH)
Scott Wilson (University of Bolton, UK)
Victor Garcia-Barrios (CUAS, Austria)
Xavier Ochoa (Centro de Tecnologías de Información, Ecuador)

TABLE OF CONTENTS

The importance of "Cloud Education" at Development Organizations <i>Agustin de La Varga González</i>	1
weSPOT: A cloud-based approach for personal and social inquiry <i>Alexander Mikroyannidis, Alexandra Okada, Peter Scott, Ellen Rusman, Marcus Specht, Krassen Stefanov, Aristos Protopsaltis, Paul Held, Sonia Hetzner</i>	7
A Cloud Computing for the learner's usage tracks analysis <i>Mariam Chaabouni, Mona Laroussi</i>	12
Dynamic Customization of eTextBooks <i>María Blanca Ibáñez, Carlos Delgado Kloos</i>	18
Cloud computing for teaching and learning MPI with improved network communications <i>Fernando Gomez-Folgar, Antonio Garcia-Loureiro, Tomas Fernandez Pena, Isaac Zablah, Raúl Valín Ferreiro</i>	22
Render on the cloud: Using CineLerra on virtualized infrastructures <i>Isaac Zablah, Antonio Garcia-Loureiro, Fernando Gomez-Folgar, Tomas Fernandez Pena</i>	28
Cloud Services for Learning Scenarios: Widening the Perspective <i>Marc Jansen, Lars Bollen, Nelson Baloian, Ulrich Hoppe</i>	33
Personal Learning Environments and Embedded Contextual Spaces as Aggregator of Cloud Resources <i>Denis Gillet, Evgeny Bogdanov</i>	38
A cloud-based architecture for an affective recommender system of learning resources <i>Derick Leony, Abelardo Pardo, Hugo Alexer Parada Gélvez, Carlos Delgado Kloos</i>	41
Supporting Self-Regulated Learning in Personalised Learning Environments <i>Sylvana Kroop, Marcel Berthold, Alexander Nussbaumer, Dietrich Albert</i>	47
Measuring emotional responses to experiences with Cloud-based learning activities <i>Rocael Hernández Rizzardini, Hector R. Amado-Salvatierra</i>	53
On the use of cloud technologies to provide remote laboratories as a service <i>Daniel Sanchez, Agustin Caminero, Roberto Hernández, Rafael Pastor, Salvador Ros, Antonio Robles-Gomez, Llanos Tobarra</i>	57
Cloud Services within a ROLE-enabled Personal Learning Environment <i>Rocael Hernández Rizzardini, Byron H. Linares Roman, Alexander Mikroyannidis, Hans-Christian Schmitz</i>	61