



**6th International Workshop on
Personalization Approaches in Learning Environments
PALE 2016**

<http://adenu.ia.uned.es/workshops/pale2016>

<http://ceur-ws.org/Vol-1618/#PALE>

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UMAP 2016 in Halifax, Canada

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PALE History

UMAP 2011 – Girona, Spain



UMAP 2012 – Montreal, Canada



UMAP 2014 – Aalborg, Denmark



UMAP 2013 – Rome, Italy



UMAP 2015 – Dublin, Ireland



Workshop Themes

Which approaches can be followed to cater for the increasing amount of information available from immediate (e.g., in terms of wearable devices) to broader contexts in order to provide effective and personalize assistance in learning situations?

- **Affective computing**
- **Big data in education**
- **Personal and context modeling**
- **Data processing within and across learning situations**
- **Ambient intelligence**
- **Personalization in MOOCs**
- **Learning recommendation and explanations**
- **Learner and context awareness**
- **Cognitive and meta-cognitive scaffolding**
- **Social issues in personalized learning environments**
- **Open-corpus educational systems**
- **Adaptive mobile learning**
- **Reusability, interoperability, scalability**
- **Evaluation of adaptive learning environments**
- **Wearable devices for sensing and acting in ubiquitous learning scenarios**
- **Inclusive and adaptive education**

Submissions & Reviewers

16 submissions – 12 accepted

- Hana Bydzovska
- Rosa Carro
- Mihaela Cocea
- Owen Conlan
- Paul De Bra
- Matt Dennis
- Stefan Dietze
- Sabine Graf
- Tomas Horvath
- Mirjana Ivanovic
- Kinshuk
- Noboru Matsuda
- Kasia Muldner
- Alexander Nussbaumer
- Alexandros Paramythis
- Elvira Popescu
- Sergio Salmeron-Majadas
- Carsten Ullrich
- Peter van Rosmalen
- Stephan Weibelzahl
- Naomi Wixon

Many thanks!

Workshop Schedule

09:00 - 09:05 PALE 2016 Introduction

09:05 - 10:30 **Session 1:** 4 presentations, Learning Café

10:30 - 11:00 Coffee Break

11:00 - 12:30 **Session 2:** 4 presentations, Learning Café

12:30 - 13:30 Lunch Break

13:30 - 15:00 **Session 3:** 4 presentations, Learning Café

15:00 - 15:30 Coffee Break and PALE 2016 discussion & conclusions

Learning Cafe Methodology

Presentations (4 x 10 min)

Discussion (40-45 min)

2-3 table discussions moderated by the presenters
Participants change tables after about 15 min

Summary (5-10 min)

Each presenter introduces the key questions and elaborated answers

Session 1 : Modelling emotions and skills

09:10 - 09:20

Addressing Affective States with Empathy and Growth Mindset

Ivon Arroyo, Schultz, S., Wixon, N., Muldner, K., Burleson, W., and Woolf, B. P.

09:20 - 09:30

Towards an emotional engagement model: Can affective states of a learner be automatically detected in a 1:1 learning scenario?

Alyuz, N., Okur, E., Oktay, E., Genc, U., Aslan, S., Mete, S. E., Stanhill, D., Arrrich, B., and Esme, A. A. Kocaturk, Mustafa

09:30 - 09:40

Affective and behavioral assessment for adaptive intelligent tutoring systems

Gimenez, L. M. et al

09:40 - 09:50

Modeling Skill Combination Patterns for Deeper Knowledge Tracing

Yun Huang, Guerra, J., and Brusilovsky, P.

09:50 - 10:05

Learning Café 1 - Round 1

10:05 - 10:20

Learning Café 1 - Round 2

10:20 - 10:30

Summary of Learning Café 1

Session 2: Understanding users' needs

11:00 - 11:10

Exploring Requirements for an Adaptive Exercise Selection System

Juliet Okpo, Dennis, M., Masthoff, J., Smith, K., and Beacham, N.

11:10 - 11:20

Exploring the Impact of Extroversion on the Selection of Learning Materials

Manal Alhathli, Masthoff, J., and Siddharthan, A.

11:20 - 11:30

Combining Content Analytics and Activity Tracking to Identify User Interests and Enable Knowledge Discovery

Andrii Vozniuk, Rodriguez-Triana, M. J., Holzer, A., and Gillet, D.

11:30 - 11:40 Theory-driven Learning Analytics and Open Learner Modelling: The Teacher's Toolbox of Tomorrow?

Kickmeier-Rust, M. and Albert, D.

11:40 - 11:55

Learning Café 2 - Round 1

11:55 - 12:10

Learning Café 2 - Round 2

12:10 - 12:25

Learning Café 2 - Round 3

12:25 - 12:30

Summary of Learning Café 2

Session 3: Delivering personalized support

14:00 - 14:10

Detecting Cheaters in MOOCs Using Item Response Theory and Learning Analytics

Giora Alexandron, Lee, S., Chen, Z., and Pritchard, D. E.

14:10 - 14:20

Tracking and Reacting to the Evolving Knowledge Needs of Lifelong Professional Learners

Oluwabukola Ishola and McCalla, G.

14:20 - 14:30

Towards Personal infrastructure to manage long term open learner models

Gilliot, J.-M., Nour El Mawas, and Garlatti, S.

14:30 - 14:40

WiBAF into a CMS: Personalization in Learning Environments Made Easy

Alejandro Montes Garcia, Stash, N., Fabri, M., De Bra, P., Fletcher, G. H. L., and Pechenizkiy, M.

14:40 - 15:00

Learning Café 3 - Round 1

15:00 - 15:20

Learning Café 3 - Round 2

15:20 - 15:30

Summary of Learning Café 3

PALE 2016 Discussion & Conclusions