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Editorial: Awareness and reaction in personal learning environments

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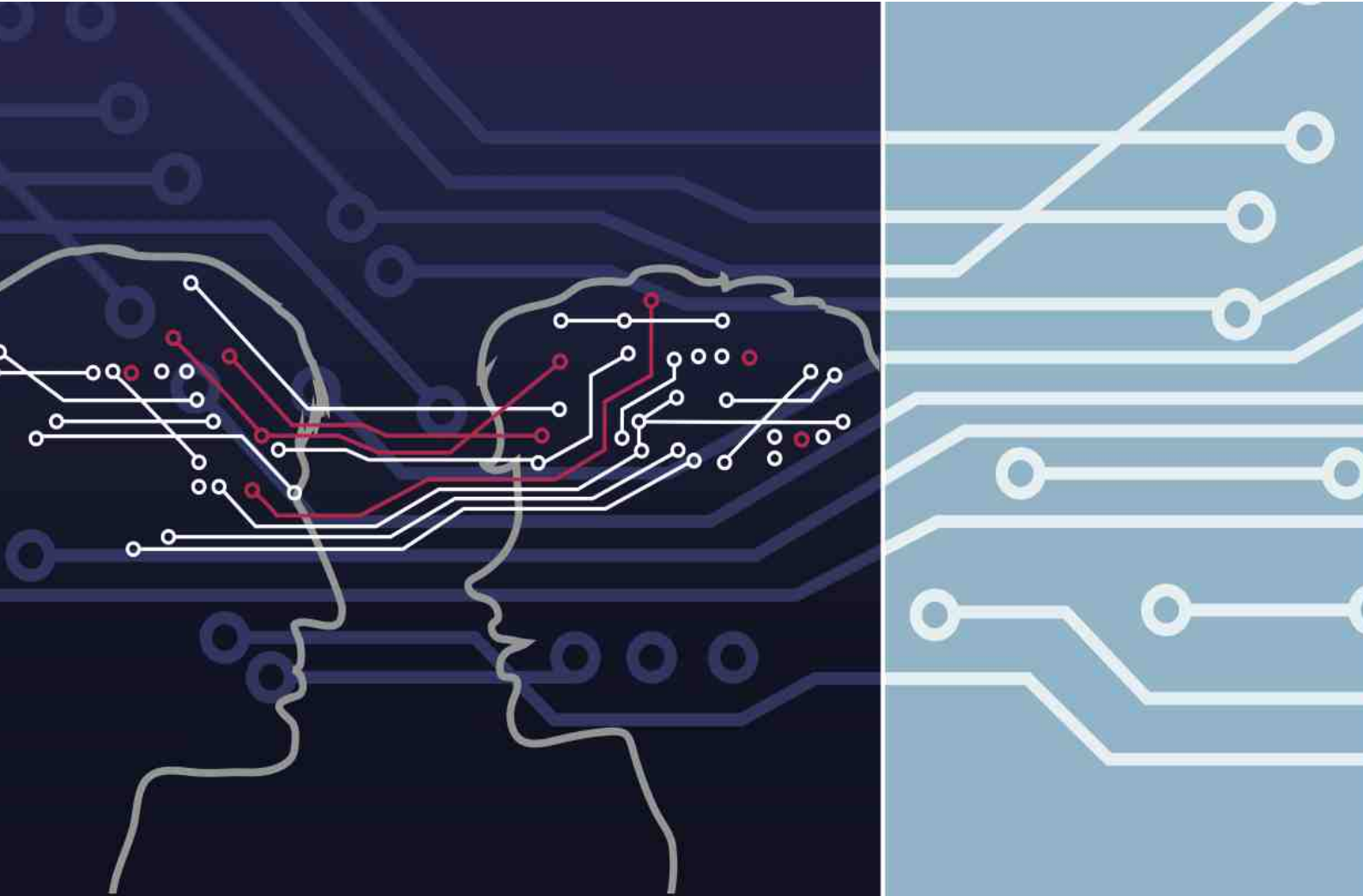
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Proceedings of the 1st Workshop on Awareness and Reflection in Personal Learning Environments

In conjunction with the PLE Conference 2011

Southampton, United Kingdom, July 11, 2011

**Wolfgang Reinhardt
Thomas Daniel Ullmann
(Eds.)**

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Editorial: Awareness and Reflection in Personal Learning Environments

While different researchers have stressed the importance of awareness and reflection support in Personal Learning Environments (PLEs) there is no agreed set of such functionalities in existence yet. Also we lack a structured overview of awareness and reflections issues that learners are facing in their daily learning activities. As both researchers and developers interested in the PLE domain seem to be in need of such information in order to best tailor their R&D activities, this workshop brought together participants from educational science, psychology, social science, computer science, and design to collect requirements and open issues in the domain.

Therefore, the workshop was designed in an interactive way, which was supported by the unique spirit of the PLE conference¹. The goal of the workshop was to collaboratively develop an integrated roadmap for future research and development in the domain. To achieve this goal we organised the workshop in a special way, which led to very fruitful discussions and a very satisfying outcome.



Figure 1: Outcome of the #ARPLE11 Workshop

The notice board shows the clustered research challenges in awareness and reflection as the result of 8 hours of concentrated work. To get to this point, we used a unique concept for the workshop, which turned out to be highly interactive and productive. We started

¹Also see the conference website at <http://www.pleconf.com/>

the workshop with short firehouse presentations of the participants to position individual's research in the area of awareness and reflection. Each presenter outlined challenges in this field based on four questions:

- What are you researching?
- What are the challenges of your research?
- What should we, as the participants of this workshop, focus on?
- What should be on the research agenda of the next five years?

The four questions were then used in the following brainstorming session using the brainwriting pool technique. The concept of the brainwriting pool allows to quickly generate ideas about the future research challenges of awareness and reflection and to let others annotate and develop these ideas (Figure 2).



Figure 2: Brainwriting pool

We generated over 200 challenges and annotations, which were clustered during the workshop. Therefore, we discussed the annotated notes and agreed to a set of overarching themes, which were extended during the process. All notes could be codified into one of the final eight clusters:

1. Fostering reflection and awareness.
2. Language and structure.
3. Support in e-learning environments.

-
4. The meta-level of reflection and awareness.
 5. Assessment of reflection.
 6. Emotions.
 7. Modelling.
 8. Skills.

We visualised the themes and their notes with a card story board. Based on the card story board the participants prioritised the clusters using the "long short list" technique. Every participant had to vote for three themes, which are the most important ones for future research in the area of awareness and reflection in Personal Learning Environments (see Figures 3, 4 and 5). In the final challenge and milestone session we discussed the outcomes of the workshop.

We think that we achieve a respectable result of this one day workshop thanks to all participants, who made this workshop such a great success.

The accepted papers, which are included in this proceedings and presented during the firehouse introduction, reflect the themes discovered during the workshop.

Wolfgang Reinhardt's and Christian Mletzko's paper on "Awareness in Learning Networks" argues for a refinement of the CSCW concept of awareness in the context of learning networks and personal learning environments. Awareness in learning networks is not only to re-establish face-to-face interactions, it also should include awareness about learning objects and services as well as other participants of the networks and the relations between them.

Kamakshi Rajagopal's paper on "Supporting Network Awareness: easing learners' journeys or challenging them to see?" makes a point about the need to change current views on the design of technologies supporting awareness and reflection in social networks. The focus of technology development should change from mere provision of awareness tools (solution-directed technology) as it does not take into account the needed proficiency to use such tools. Therefore, she argues for a design helping users to engage with data in a meaningful way (training-directed technology).

In the paper "EnquiryBlogger - Using Widgets To Support Awareness and Reflection in PLE Settings", Rebecca Ferguson, Simon Buckingham Shum and Ruth Deakin Crick present a tool aiming to support bloggers to become more aware of the dynamics involved with learner-driven enquiry and to help them to reflect about their skills development.

Thomas Daniel Ullmann, Rebecca Ferguson, Simon Buckingham Shum and Ruth Deakin Crick paper on "Designing an Online Mentoring System for Self-Awareness and Reflection on Lifelong Learning Skills" reports on an online tool, which aims to support mentees to become more self-aware about their lifelong learning skills and to foster reflection with the support of an online mentor.

Philip Meyer's and Thomas Sporer's position paper on "Introducing Feedback Mechanisms to Users of Higher Education ePortfolios" reports on a study conducted to explore the acceptance of feedback on reflective e-portfolios.

Finally, Steven Warburton's position paper on "Developing Effective Peer-to-Peer Support Mechanisms for Large Scale Distance Learning Programmes" describes a real-world sce-

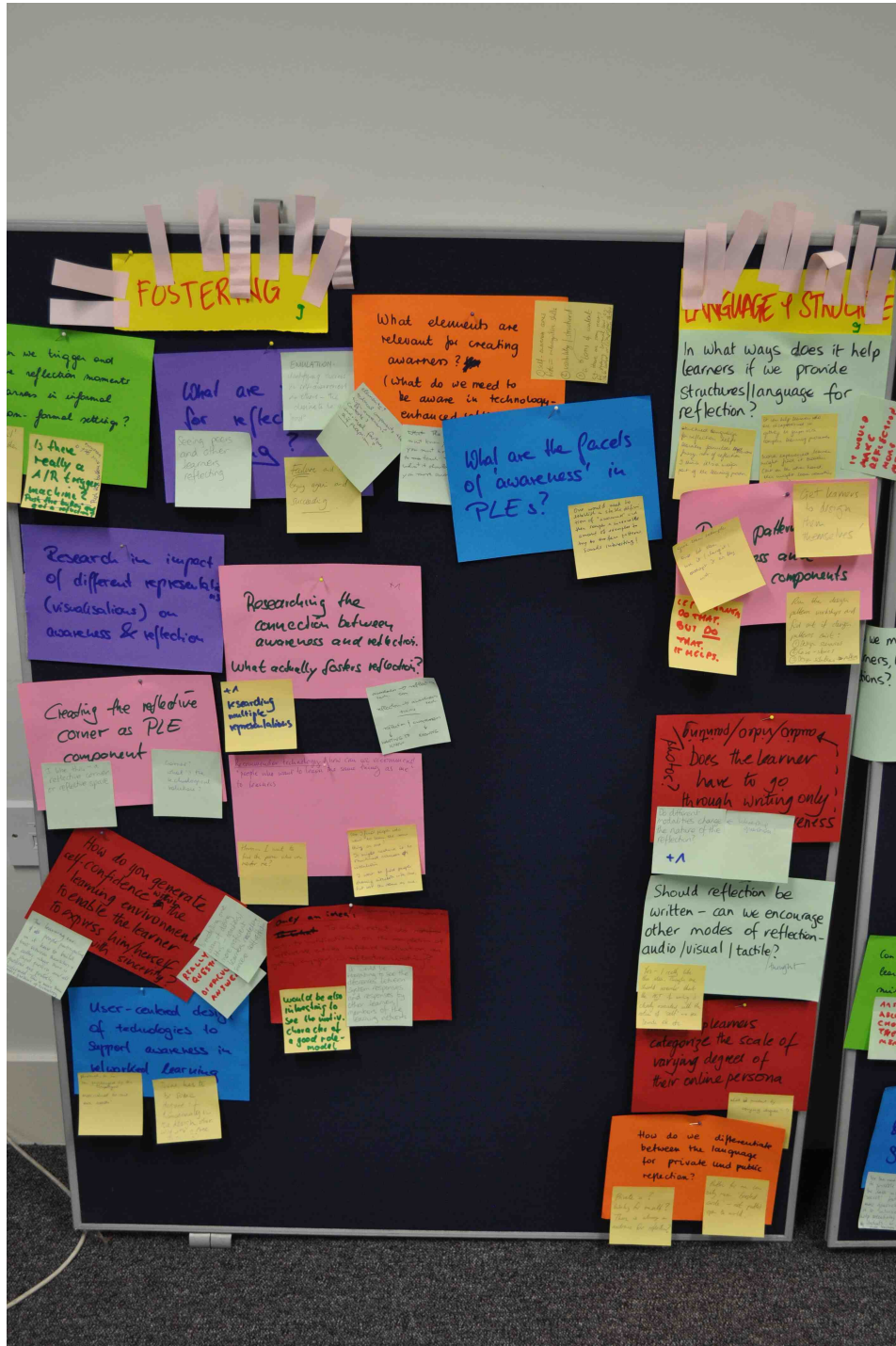


Figure 3: Outcome of the brainwriting and clustering activities (part 1)



Figure 5: Outcome of the brainwriting and clustering activities (part 3)



Figure 6: Participants of the #ARPLE11 Workshop (from the left to the right: Thomas Ullmann, Wolfgang Reinhardt, Steven Warburton, Rebecca Ferguson, Kamakshi Rajagopal, Peter Mortimer, Ilona Buchen, David Delgado, Philip Meyer, Mark van Harmelen, Jose Mota)

nario based on the problem of how to support study-alone students in finding opportunities for peer learning and reflection at distance.

You can find more information about the workshop and related workshops at the "Awareness and Reflection in Technology-Enhanced Learning" group on TELEurope.eu:
<http://teleurope.eu/artel>

November 2011

Wolfgang Reinhardt
Thomas Daniel Ullmann

Organizing Committee

Wolfgang Reinhardt, University of Paderborn, Germany.

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