

CALL FOR PAPERS (with apologies for cross-posting)

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IUI'13 Interdisciplinary Workshop on Location Awareness for Mixed and Dual Reality (LAMDa)

<http://www.dfki.de/LAMDa/>

In conjunction with IUI 2013, Santa Monica, CA (<http://iuiconf.org>)

Santa Monica, CA, USA, March 19th, 2013

lamda@dfki.de
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GENERAL TOPICS

Ambient Assisted Living
Cyber Physical Systems
Indoor Positioning
PolySocial Reality
Simulation in Dual Reality
Social Signal Processing

SUBMISSION DEADLINES

A short abstract until January 9, 2013
Full paper until January 21, 2013

THEME

The LAMDa workshop aims at discussing the impact of Dual Reality (DR) and Mixed Reality (MR) on Location Awareness and other applications in Smart Environments as well as their impact on human sociability in general. This impact is especially interesting in the field of Ambient Assisted Living and the upcoming field of Cyber Physical Systems (CPS).

Virtual environments - which are an essential part of Dual and Mixed Realities - can be used to create new applications and to enhance already existing applications in the real world. Besides that, existing sensors in the real world can be used to enhance the virtual world as well.

Even well known techniques, like the Kalman-filter, can be seen as an example for this type of application: Sensor measurements in grounded reality (the real world) are brought into virtual environments in form of models that describe the error distribution of the sensors. The virtual environments can then be used to make a prediction for the next measurement in grounded reality. Both results - the prediction and the measurement - are used to refine the virtual world and to bring more accurate sensor measurements into the real world.

On a more philosophical level, it can be argued that all Mixed/Blended/Dual/Grounded and Virtual realities exist within one reality. PolySocial Reality (PoSR) is a theoretical perspective that subsumes other 'reality' paradigm models while providing a framework to express their behaviors. PoSR is the aggregate of all the experienced 'locations' and 'communications' of all individual people in multiple networks at the same or different times. PoSR describes the network transaction space that people traverse with others to maintain social relationships via various apps, mobile services, sensors, platforms, technologies and conversation spaces. At its most positive, PoSR extends our capacity for social relations, at its worst, it fragments and isolates people from each other. The underpinnings of PoSR were developed for LAMDa'11, and papers describing it in detail can be found here:

IUI2011, LAMDa'11: <http://www.dfki.de/LAMDa/accepted/ACulturalPerspective.pdf>

Suitable topics for the workshop include, but are not limited to:

- Mixed Reality (MR) and Dual Reality (DR)
 - Utilization of MR/DR in Location Based Services
 - Combination of real world and virtual data
 - Integrating multiple identities (identity in DR)
 - Social interaction in DR
 - Techniques for model creation
 - Integration of simulators and additional services in DR
 - Visualization Techniques for Data Flow and Crude Product Positioning
- Positioning and Location Based Services
 - Indoor/Outdoor Positioning Technologies
 - Always Best Positioned Systems (Sensor Fusion)
 - Privacy Issues in Positioning Technologies
- Location Based Social Signal Processing in MR/DR
 - Group members location (mix of real world and virtual world group members)
 - Detecting other group members and their behavior
 - Sensing, processing, representation and visualization of the social context
- PolySocial Reality
 - Applications that utilize sensing, representation and processing to increase sociability between human beings in groups--outside of their machines.
 - Applications that take advantage of "secondary attention" and merge existing application knowledge between apps and the environment.
- Cyber Physical Systems (CPS)
 - Enhancement of CPS using MR/DR
 - Possible impact of CPS on sociability
 - The role of positioning in CPS (person and object tracking)
- Ambient Assisted Living (AAL)
 - Enhancing AAL applications with MR/DR
 - The effects of PoSR on AAL
 - Privacy aspects in AAL

For further information, please have a look at <http://www.dfki.de/LAMDa/topics.html>.

SUBMISSION

We ask for position papers (up to 4 pages) that address one or more of the research questions mentioned above, or that describe findings and ideas that relate to these research questions.

All submissions should be prepared according to the standard HCI Archive Format:

<http://chi2012.acm.org/cfp-formatting-instructions.shtml#archiveformat>

We ask participants to submit a short abstract (up to one page) till January 9th. The full paper can be submitted until January 21st.

Please send your submissions (PDF) to LAMDa@dfki.de

For more details, please have a look at: <http://www.dfki.de/LAMDa/cfp.html>

IMPORTANT DATES

Submission of Abstract:	January 09, 2013
Submission of Paper:	January 21, 2013
Author Notification:	February 11, 2013
Camera-Ready versions:	February 18, 2013
Workshop Date:	March 19, 2013

WORKSHOP FORMAT

Our goal is to advance the research of DR/MR/PoSr and location awareness by sparking lively discussions between researchers from several disciplines. Each session will begin with brief oral presentations of the contributions, after which we will focus on interactive discussions, which will lead to new insights and ideas.

Notes of the discussions will be kept, reviewed at the end of the workshop, and published on the workshop web page.

ORGANIZERS

- Sally Applin, University of Kent Canterbury (sally@sally.com)
- Eyal Dim, University of Haifa - Israel (dimeyal@bezequint.net)
- Gerrit Kahl, DFKI - Germany (gerrit.kahl@dfki.de)
- Tim Schwartz, DFKI - Germany (tim.schwartz@dfki.de)

Contact: lamda@dfki.de