

## Call for Papers

### International Workshop on Connecting Analyses of Learning across Levels and Modalities

In conjunction with the 3rd International Conference on Emerging Intelligent Data and Web Technologies (EIDWT 2012).

19 - 21 September 2012, Bucharest, Romania  
<http://voyager.ce.fit.ac.jp/~eidwt2012/index.html>

#### Organizers

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#### Aims and Scope

Human learning phenomena spans a continuum of spatial and temporal scales, ranging from genes/cells to communities/cultures and from the order of micro-seconds to centuries. However, within the tradition of educational psychology, the de facto unit of analysis is the individual and the focus is on how that individual's behavior changes as a function of instruction. The traditional approach can be critiqued for not giving adequate consideration to the socially-situated, embodied, tool-mediated, cultural-historical and practical nature of learning, and the neurophysiological basis of learning and other related higher-order cognitive processes.

Recent innovations in learning technologies have allowed researchers to capture and study learning phenomena at various levels of granularity ranging from biological to socio-cultural levels. In particular, innovations in ICT have led to new ways to engage learners with the subject matter as an individual, as part of a small group, or as a member of a virtual online community. Moreover, innovations in neuro-imaging, eye-tracking, multimedia and social networking have opened up new ways to capture and study what is going on during technology-mediated learning activities at multiple levels.

This workshop aims to bring researchers who study learning from different levels of analysis and by employing a variety of methodologies. The goal of the workshop is to provide a venue for:

- presentation of alternative methodological and theoretical positions in the analysis of technology-mediated learning
- discussion of mutually informing connections among different approaches and levels of analysis

Some guiding questions for the workshop include (but not limited to):

- How learning manifests itself at different levels of analysis?
- How can we coordinate findings from different levels of analysis with different methodological insights?
- What are the commensurate/incommensurate themes across levels?
- What are some key mechanisms for bridging multiple modalities and analytical scales?

## Topics

Topics of interest include (but not limited to):

- Technology-mediated learning
- Learning in virtual online communities
- Learning in collaborative small groups
- Multimodal corpora of learning interactions
- Interaction analysis of multimodal data
- Socio-cultural analyses of learning
- Dialogic/polyphonic approaches to studying learning
- Analysis of gestures and bodily orientations/movements
- Eye tracking studies of learning (single/dual eye-tracking paradigms)
- Coordination of graphical, textual, narrative modalities
- Dynamic multimedia support for learning
- Representational affordances
- Cognitive models in learning
- Dynamical systems approaches to learning
- Statistical modeling of learning interactions at multiple levels
- Cognitive Neuroscience of Learning
  - with a particular emphasis on the implications of the functional organization of the cortex, distributed nature of neural processing, sensori-motor contingencies, plasticity, mirror-neuron hypothesis, neural correlates of linguistic, numerical and visuospatial competencies.

Prospective participants are required to submit a 4 to 6 pages long position paper by June 25<sup>th</sup>, 2012. Acceptance notifications will be sent by June 30<sup>th</sup>, 2012. The camera-ready versions of the papers will be due July 6<sup>th</sup>, 2012.

## Important dates

Paper Submissions: 25 June 2012  
Notification of Acceptance: 30 June 2012  
Camera-ready Submissions: 6 July 2012  
Conference: 19 - 21 September 2012.

## Instructions for Authors

Authors are invited to submit their manuscripts following the IEEE Conference Proceedings Manuscript style: two columns, single-spaced, including figures and references, using 10 font size, and number each page. You can find instructions for authors how to format the IEEE CS proceedings manuscripts, at the following web page:

<http://www.computer.org/portal/site/cscps>

All papers will be peer reviewed by at least two or more independent referees of the International Workshop Program Committee and accepted on the basis of their scientific merit, originality, significance, technical soundness, and clarity of exposition. The papers should be submitted electronically via the EIDWT-2012 submission system. Details are available from:

<http://voyager.ce.fit.ac.jp/~eidwt2012/submission.html>

Accepted papers will be published by the IEEE Conference Publishing Services (CPS) and archived in the Digital Library (www.ieee.org, Xplore service, only abstracts are free).