



## Call for participation

### Two-days Workshop on Tools and Technologies for Emotion Awareness in Computer-Mediated Collaboration and Learning

at the Alpine Rendez-Vous 2013 ([ARV'2013](#)),  
January, 28 – February, 1st

**Dates** of the workshop at the ARV'2013: Still to be defined.

**Location:** Villard-de-Lans, Vercors, French Alps. There will be free time in the afternoons for TEL community building during winter activities.

How does the understanding of our own emotions as well as our collaborative partners' emotions play a role in the way we interact and learn together? How to develop adaptive systems able to display emotional awareness information so as to improve the processes and outcomes of people collaborating through computers? We invite PhD students and researchers from different disciplines (education, psychology, language sciences, and computer science) to participate in a two-days workshop on emotion and emotion awareness in computer-mediated collaboration and learning. To participate, you need to submit a **position paper** (no more than two pages) in which you will describe your interest and research on the workshop topic as well as how you will contribute to the goals of the workshop. The workshop will be limited to **15-20 participants**. The attendance will be thus by invitation only, based on the reviewing of the position papers by the workshop committee.

#### Important dates:

**Submission deadline:** September 10, 2012 (see the "how to submit" section of the call).

We expect to send out invitations by **October 19, 2012**.

#### Rationale for this topic

**Emotions are recognized as playing a critical role in both individual and collaborative learning.** A change in the learners' emotional state can reorient their attentional focus and can induce a change in the way they think, act, interact with others and regulate their behavior in the learning situation. Current research on emotion in learning context point out the necessity to better understand which emotions are most important for different kinds of learning activities. In the TEL (Technology Enhanced Learning) context, there is also a need to build tools and technologies that can help learners become more aware of their emotions and how they impact their learning experiences. In the field of computer-supported collaborative learning (CSCL), there is still research on how emotions – and in particular emotion awareness - influence the way people interact and learn together. The current literature shows, however, that the collaborative learning experience is characterized by continuous fluctuations of tensions and emotions between learning partners. Negative and positive emotions certainly have impact on the use of collaborative strategies as well as collaborative processes such as mutual modeling and perspective taking.

In face-to-face (FTF) situations, people rely on a whole set of explicit and implicit mechanisms to adapt to their partners and the communication situation. In computer-mediated collaboration (CMC), contextual non-verbal cues – e.g., facial expressions, voice intonation, head movement, eye gazes – are missing or seriously limited. The awareness of others – and in particular their emotions – may be therefore impaired and this may lead to inefficient interactions. Based on group awareness technologies, emotion awareness tools can be developed to display and share information about collaborators' emotions. These tools could not only increase emotion awareness in CMC but could also increase it in comparison to FTF collaboration. Emotion awareness tools can be explicit with each collaborator explicitly expressing his/her feelings, and implicit with a system automatically assessing the collaborators' emotions.

Automatically estimating affective states of computer users is part of the "affective computing" discipline. Affective computing's main goal is to design computer interfaces able to express, detect and react to users emotions. These emotional adaptation strategies are thus of high interest for augmenting the computer-mediated communication loop and for improving emotional awareness. Several techniques have been developed to automatically capture and estimate users' emotions from different types of emotional cues such as facial expressions, speech or physiological signals. However many issues remained unresolved that would enable reaching a competitive emotion recognition system based on multimodal signals. The most prominent ones are the temporal fusion of several emotional cues, the automatic determination of emotional time periods of interest and ecological emotion assessment.

## Goals for the workshop

In the workshop, we will focus on two main goals:

- **Focus 1: Emotion awareness in CSCL.** This focus will be on understanding how learners' emotions and emotion awareness influence collaborative learning processes and outcomes. In the CSCL context, we will address the questions of how to display learners' emotions during interaction and how such a display affects the processing of emotional information and also the appraisal of the collaborative situation and its consequence on the quality of collaboration and the group outcomes.
- **Focus 2: Affective computing and CSCL.** This focus will be on emotion awareness in CSCL from an affective computing perspective. What can CSCL and affective computing bring to each other? What can CSCL gain from research on automatic emotion recognition? And how can the affective computing field include CSCL issues to its research agenda? We will also address the question of how to develop adaptive systems able to automatically display emotional awareness information depending on the moment-to-moment characteristics of the interaction.

The expected contributions of the workshop are to refine the new CSCL research agenda that aims at better integrating affective and emotion awareness issues. The aim is also to engage in collective and interdisciplinary thinking about how to develop tools of learning that help co-learners understand, manage and use their emotions in a CSCL situation. After the workshop, a white paper will be written and made available online via the [workshop website](http://www.affective-sciences.org/EATMI/EmotionAwarenessWorkshop) (<http://www.affective-sciences.org/EATMI/EmotionAwarenessWorkshop>). A special issue in a journal might be also considered.

## Workshop structure

Prior to the workshop, documentation for the workshop will be circulated 4-5 weeks to prepare attendees. It will include a presentation of the topics and issues to be discussed, the timeline and expected outcomes of the workshop as well as the position papers of the participants. This documentation will be published on the [workshop website](http://www.affective-sciences.org/EATMI/EmotionAwarenessWorkshop). Below please find a preliminary schedule for the two-days workshop:

### Day 1

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|---------------|---|
| 08:30 – 12:00 | Introductory paper presentations and then keynote presentations |
| 12:30 – 16:30 | Lunch and then snow activities                                  |
| 16:30 – 20:00 | Small group works and then 1 <sup>st</sup> plenary discussion   |

### Day 2

- |               |   |
|---------------|---|
| 08:30 – 12:00 | Discussion groups   |
| 12:30 – 16:30 | Lunch and then snow activities                                |
| 16:30 – 20:00 | Final plenary discussion and then summing up of main outcomes |

## Keynote speakers

We have the pleasure of announcing the following two esteemed keynote speakers:

- **Michael Baker.** Michael Baker is Research Director at the "Traitement et Communication de l'Information" laboratory (UMR 5141 CRNS – Telecom ParisTec, France). He is an internationally recognized researcher in the Computer-Supported Collaborative Learning (CSCL) field. He is the co-editor of the book "Affective Learning Together: The socio-emotional turn in collaborative learning research" (in press; Routledge & EARLI).
- **Dirk Heylen.** Dirk Heylen is Professor Socially Intelligent Computing at the University of Twente (The Netherlands), working in the Human Media Interaction group. His main research interest are in the automatic processing of face-to-face interactions between humans or humans and social computing systems such as robots or virtual agents.

## How to submit to the workshop

Please send your position papers by September 10, 2012 as email attachments in Word or PDF format to: [gaelle.molinari@unidistance.ch](mailto:gaelle.molinari@unidistance.ch) and [Guillaume.Chanel@unige.ch](mailto:Guillaume.Chanel@unige.ch).

## Workshop coordinators and committee

<b>Gaëlle Molinari</b>	Distance Learning University Switzerland & TECFA, University of Geneva, Switzerland.
<b>Guillaume Chanel</b>	Swiss Center for Affective Sciences & Computer Vision and Multimedia Laboratory, Computer Science Department, University of Geneva, Switzerland.
<b>Kristine Lund</b>	ICAR Lab (UMR5191) – CNRS, University of Lyon, ENS-Lyon, France.
<b>Armin Weinberger</b>	Saarland University, Germany.
<b>Denis Lalanne</b>	Department of Informatics, University of Fribourg, Switzerland.
<b>Fabien Ringeval</b>	Department of Informatics, University of Fribourg, Switzerland.

## Workshop Venue

The ARV 2013 will be mainly hosted by the "Grand Hôtel de Paris" in Villard-de-Lans where special rates (see below; price to be confirmed) have been negotiated.

- 1 night: 95€ (single), 64€ (twin)
- 2 nights: 88€ (single), 57€ (twin)
- 3 nights: 82€ (single), 53€ (twin)
- Restaurant: 22€ (noon) and 26€ (evening)
- The coffee breaks are offered by the organizers