

Call for Participation INTERSPEECH 2014 COMPARE: COMPUTATIONAL PARALINGUISTICS CHALLENGE

Cognitive & Physical Load

Organisers:

Björn Schuller (Imperial College London, UK)
Stefan Steidl (FAU Erlangen-Nuremberg, Germany)
Anton Batliner (TUM, Germany)
Julien Epps (University of New South Wales / NICTA, Australia)

Dates:

Paper Submission	24 March 2014
Final Result Upload	16 June 2014
Camera-ready Paper	20 June 2014

The Challenge

The Interspeech 2014 Computational Paralinguistics Challenge (ComParE) is an open Challenge dealing with states of speakers as manifested in their speech signal's acoustic properties. There have so far been five consecutive Challenges at INTERSPEECH since 2009 (cf. the Challenge series' repository at <http://www.compare.openaudio.eu>), but there still exists a multiplicity of not yet covered, but highly relevant paralinguistic phenomena. Likewise, we introduce two new tasks by the Cognitive Load Sub-Challenge and the Physical Load Sub-Challenge.

For these Challenge tasks, the COGNITIVE-LOAD WITH SPEECH AND EGG database (CLSE), and the MUNICH BIOVOICE CORPUS (MBC) with high diversity of speakers and different languages covered (Australian English and German) are provided by the organisers. CLSE features Australian speakers recorded during different cognitive load. Next, MBC contains speech under physical exercising. Heart rate and skin conductance were measured by according sensors.

In these respects, the *INTERSPEECH 2014 COMPUTATIONAL PARALINGUISTICS CHALLENGE (COMPARE)* shall help bridging the gap between excellent research on paralinguistic information in spoken language and low compatibility of results. In summary, two Sub-Challenges are addressed:

- In the *Cognitive Load Sub-Challenge*, the ternary level of cognitive load has to be classified based on acoustics.
- In the *Physical Load Sub-Challenge*, the exercising state (running / resting) and by that heart rate state (high pulse / low pulse) have to be classified automatically.

The measure of competition will be Unweighted Accuracy. Transcription of the train and development sets will be known. Both Sub-Challenges allow contributors to find their own features with their own machine learning algorithm. However, a standard feature set will be provided per corpus that may be used. Participants will have to stick to the definition of training, development, and test sets. They may report on results obtained on the development set, but have only five trials to upload their results on the test sets, whose labels are unknown to them. Each participation will be accompanied by a paper presenting the results that undergoes peer-review and has to be accepted for the conference in order to participate in the Challenge. The organisers preserve the right to re-evaluate the findings, but will not participate themselves in the Challenge.

Overall, contributions using the provided or equivalent data are sought for (but not limited to):

- Participation in a Sub-Challenge
- Contributions focussing on Computational Paralinguistics centred around the Challenge topics

The results of the Challenge will be presented at Interspeech 2014 in Singapore, Singapore. Prizes will be awarded to the Sub-Challenge winners. If you are interested and planning to participate in INTERSPEECH 2014 COMPARE, or if you want to be kept informed about the Challenge, please send the organisers an e-mail (bjorn.schuller@imperial.ac.uk) to indicate your interest and visit the homepage:

<http://emotion-research.net/sigs/speech-sig/is14-compare>

