ENDORSED BY:

SIGSEM, the ACL Special Interest Group in Computational Semantics
SIGGEN, the ACL Special Interest Group in Generation
SIGLEX, the ACL Special Interest Group on the Lexicon

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INTRODUCTION

One of the grand challenges of NLP, AI, and Cognitive Science is to develop models of what words mean (lexical semantics) in terms of the non-linguistic world. Recently there has been growing interest in using corpus and data based techniques for this task. In other words, trying to learn what words mean by analysing a 'parallel corpus' of (A) non-linguistic data and (B) linguistic texts that describe or otherwise are based on the non-linguistic data. Recent examples of such work include learning verb semantics from visual-image sequences; learning the meaning of time phrases from a collection of weather forecasts based on numerical weather simulations; and learning the meaning of mathematical predicates from human verbalisations of theorem-prover output.

We felt that while the enterprise of learning semantic information from conventional text-only corpora is well established, work on learning word meanings from nonlinguistic data was being undertaken by researchers in many diverse fields. We needed a venue for these researchers to meet, exchange ideas, and become familiar with each other's work.

Our intention from the start was to make this an interdisciplinary workshop, attracting papers and attendees from the NLP, AI, Cognitive Science, and Machine Vision communities. While we needed to choose a particular venue that is home to one of these communities, in this case NAACL-HLT, to host this workshop, we hoped for participation from other areas of AI and Cognitive Science including Vision and Robotics researchers with interest in learning how to relate sensor data to words, and psychologists with interest in cognitive models of how people learn to relate words to the non-linguistic world. We assembled a program committee that included representation from all these communities and disseminated the call for papers among these communities. We were unsure that we would succeed in attracting such interdisciplinary participation. We were pleasantly surprised and quite pleased with the response that we received from our call for papers. Indeed, our program has papers from members of all of the above communities. These are divided into sessions that (roughly) focus on learning from image, video, robotics, and other types of data.

For logistic reasons, we got off to a late start in organising this workshop. We would like to thank the authors—for writing papers—and the program committee members—for reviewing those papers—with fast turnaround. A number of researchers told us that they would have liked to submit papers but were unable to do so given the tight deadlines. They expressed the desire that this workshop be the beginning of a new research community that would hold future meetings. We share that desire. Our hope in organising this workshop is that it will help 'gel' this new and exciting research area, by bringing together interested people from different communities and different perspectives who bring different approaches and methods to bear on the same problem of learning word meanings from non-linguistic data.

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