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EMPIRICAL METHODS IN DISCOURSE INTERPRETATION AND GENERATION: GOALS OF THE WORKSHOP

Computational theories of communicative action (discourse interpretation and generation) provide the basis for the design of many types of AI systems (e.g., intelligent tutors, believable agents, intelligent spoken language systems, intelligent software agents (softbots), etc.) Developing the robust, broad coverage, theories of discourse that are needed in today's systems requires an empirical basis. However, there are no shared methods, tools or resources for the discourse community.

In addition, much work in computational theories of discourse to date has focused on specifying the mechanisms underlying a particular discourse phenomenon. It is often difficult to tell how prevalent that phenomenon is, whether it is related to other observed and studied phenomena, and what percentage of the cases a particular theory covers.

This symposium has two foci: (1) an investigation of the empirical methods that can be used in the development and evaluation of computational theories of discourse, (2) the development of a set of shared resources for the computational discourse community. The papers and the invited presentations focus on empirical methods and their benefits, e.g., by presenting an empirical method and a result derived using that method, and cover the following topics:

- Corpus-Based methods as applied to theories of discourse.
- Methods for evaluating dialogue or discourse modules in implemented systems.
- Simulation tools or testbeds used in developing and evaluating theories of discourse.
- Coding schemes developed and tested for the quantitative study of some discourse phenomenon, particularly papers that show that multiple judges can use the coding scheme with replicable results.
- Tools that support (semi-)automatic or empirical studies of discourse phenomena.
- Papers that apply or extend methods used in traditionally empirical disciplines (e.g., psychology or sociolinguistics) to computational theories of discourse.
- Empirical analyses using any method that distinguishes between claims made by different computational discourse theories.

We hope that the workshop stimulates both discussion and further thought about how to develop testable theories and ways of evaluating systems, as well as ideas about resources that we can share within the community.