

Preface

This 1½-day workshop will continue the success of the 2003 Workshop on Text Meaning, which was held at the Human Language Technology Conference of the North American Chapter of the Association for Computational Linguistics in Edmonton. It aims to:

- re-establish the research community of knowledge-based interpretation of text meaning;
- explicate the implicit treatments of meaning in current knowledge-lean approaches and how they and knowledge-rich methods can work together; and
- emphasize the construction of systems that extract, represent, manipulate, and interpret the meaning of text (rather than theoretical and formal methods in semantics).

Most, if not all, high-end NLP applications—such as machine translation, question answering and text summarization—stand to benefit from being able to use text meaning in their processing. But the bulk of work in the field in recent years has not pertained to treatment of meaning. The main reason given is the complexity of the task of comprehensive meaning analysis and interpretation.

Computational linguistics has always been interested in meaning, of course. The tradition of formal semantics, logics, and common-sense reasoning system has been continuously maintained for many years. But also, much work has been devoted to building practical, increasingly broad-coverage meaning-oriented analysis and synthesis systems. Lexical semantics has made significant progress in theories, description, and processing. Formal aspects of ontology work have also been studied. The Semantic Web has further popularized the need for automatic extraction, representation, and manipulation of text meaning: for the Semantic Web to really succeed, capability of automatically marking text for content is essential, and this cannot be attained reliably using only knowledge-lean, semantics-poor methods.

While there has recently been a flurry of specialized meetings devoted to formal semantics, lexical semantics, semantic web, formal ontology and others, the number of meetings devoted to knowledge-based text meaning processing—content rather than formalism—has been much smaller. The first Workshop on Text Meaning began to remedy this, and ten papers were presented on implemented systems and on related topics.¹

The call for papers of the present workshop suggested, without limitation, the following topics to potential contributors to the workshop:

- Implemented systems that extract, represent, or manipulate text meaning.
- Broad-coverage semantic analysis and interpretation.
- Knowledge-based text synthesis.
- The nature of text meaning required for various practical broad-coverage applications.
- Manual annotation of text meaning, including interlingual annotations.
- Pragmatics and discourse issues as parts of meaning extraction and manipulation.
- Ontologies supporting automatic processing of text meaning.
- Semantic lexicons.
- Microtheories to support text meaning extraction and manipulation: aspect, modality, reference, etc.
- Text meaning representations in semantic analysis.

¹The proceedings of this workshop are available at <http://acl.ldc.upenn.edu/W/W03/#W03-0900>.

- Reasoning to support semantic analysis and synthesis.
- Multilingual aspects of meaning representation and manipulation.
- Integrating semantic analysis and non-semantic language processing.
- Semantic analysis and synthesis systems based on knowledge-lean stochastic corpus-oriented methods.

The call for papers encouraged discussion of theoretical issues that are relevant to computational applications, including descriptions of processors and static knowledge resources. It specifically preferred discussions of content and meaning over discussions of formalisms for encoding meaning, and discussions of decision heuristics in processing over discussions of generic processing architectures and theorem-proving mechanisms.

Twenty-seven papers were submitted to the workshop, of which fifteen were selected for presentation and are included in these proceedings. In addition, two panel sessions were organized—see descriptions below in this volume.

Sergei Nirenburg and Graeme Hirst
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Organizers

GRAEME HIRST, Department of Computer Science, University of Toronto. *gh@cs.toronto.edu*

SERGEI NIRENBURG, Department of Computer Science and Electrical Engineering, University of Maryland, Baltimore County. *sergei@umbc.edu*

Program Committee

JAN ALEXANDERSSON, Deutsche Forschungszentrum für Künstliche Intelligenz, Saarbrücken

COLLIN BAKER, International Computer Science Institute, Berkeley

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GRAEME RITCHIE, University of Edinburgh

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YORICK WILKS, University of Sheffield