

ExProM 2015

**Second Workshop on Extra-Propositional Aspects of
Meaning in Computational Semantics (ExProM 2015)**

Proceedings

June 5, 2015
Denver, Colorado, USA

Funding for student travel grants was provided by the National Science Foundation under Grant No. 1523586.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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Curran Associates
57 Morehouse Lane
Red Hook, New York 12571
USA
Tel: +1-845-758-0400
Fax: +1-845-758-2633
curran@proceedings.com

ISBN 978-1-941643-44-0

Introduction

During the last decade, semantic representation of text has focused on extracting propositional meaning, i.e., capturing who does what to whom, when and where. Several corpora are available, and existing tools extract this kind of knowledge, e.g., semantic role labelers trained on PropBank, NomBank or FrameNet. But propositional semantic representations disregard significant meaning encoded in human language. For example, while sentences (1-2) below share the same propositional meaning regarding verb carry, they do not convey the same overall meaning. In order to truly capture what these sentences mean, extra-propositional aspects of meaning (ExProM) such as uncertainty, negation and attribution must be taken into account.

1. Thomas Eric Duncan likely contracted the disease when he carried a pregnant woman sick with Ebola.
2. Thomas Eric personally told me that he never carried a pregnant woman with Ebola.

The Extra-Propositional Aspects of Meaning (ExProM) in Computational Linguistics Workshop focuses on a broad range of semantic phenomena beyond propositional meaning, i.e., beyond linking propositions and their semantic arguments with relations such as AGENT (who), THEME (what), LOCATION (where) and TIME (when).

ExProM is pervasive in human language and, while studied from a theoretical perspective, computational models are scarce. Humans use language to describe events that do not correlate with a real situation in the world. They express desires, intentions and plans, and also discuss events that did not happen or are unlikely to happen. Events are often described hypothetically, and speculation can be used to explain why something is a certain way without a strong commitment. Humans do not always (want to) tell the (whole) truth: they may use deception to hide lies. Devices such as irony and sarcasm are employed to play with words so that what is said is not what is meant. Finally, humans not only describe their personal views or experiences, but also attribute statements to others. These phenomena are not exclusive of opinionated texts. They are ubiquitous in language, including scientific works and news as exemplified below:

- A better team might have prevented this infection.
- Some speculate that this was a failure of the internal communications systems.
- Infected people typically don't become contagious until they develop symptoms.
- Medical personnel can be infected if they don't use protective gear, such as surgical masks and gloves.
- You cannot get it from another person until they start showing symptoms of the disease, like fever.
- You can only catch Ebola from coming into direct contact with the bodily fluids of someone who has the disease and is showing symptoms.

- We've never seen a human virus change the way it is transmitted.
- There is no reason to believe that Ebola virus is any different from any of the viruses that infect humans and have not changed the way that they are spread.

In its 2015 edition, the Extra-Propositional Aspects of Meaning (ExProM) in Computational Linguistics Workshop was collocated with the Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) in Denver, CO. The workshop took place on June 5, 2015, and the program consisted of five papers (4 long papers and 1 short paper) and an invited talk by Lauri Karttunen. ExProM 2015 is a follow-up of two previous events: the 2010 Negation and Speculation in Natural Language Processing Workshop (NeSp-NLP 2010) and ExProM 2012.

We would like to thank the authors of papers for their interesting contributions, the members of the program committee for their insightful reviews, and Lauri Karttunen for giving the invited talk. We are grateful to the National Science Foundation for a grant to support student travel to the workshop.

Organizers:

Eduardo Blanco, University of North Texas, USA
Roser Morante, VU University Amsterdam, The Netherlands
Caroline Sporleder, Universität Trier, Germany

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Bonnie Webber - University of Edinburgh
Byron C. Wallace, UT Austin
Michael Wiegand - Saarland University

Invited Speaker:

Lauri Karttunen, Stanford University

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Workshop Program

Friday June 5 2015

8:00–09:00 *Breakfast*

9:15–9:30 *Opening remarks*

9:30–10:30 *Invited Talk: Lauri Karttunen*

10:30–11:00 **Coffee break**

11:00–12:30 **Session 1**

11:00–11:30 *Translating Negation: A Manual Error Analysis*
Federico Fancellu and Bonnie Webber

11:30–12:00 *Filled Pauses in User-generated Content are Words with Extra-propositional Meaning*
Ines Rehbein

12:00–12:30 *A Compositional Interpretation of Biomedical Event Factuality*
Halil Kilicoglu, Graciela Rosembat, Michael Cairelli and Thomas Rindflesch

12:30–2:00 **Lunch break**

Friday June 5 2015 (continued)

14:00–14:30 Session 2

14:10–14:30 *Committed Belief Tagging on the Factbank and LU Corpora: A Comparative Study*
Gregory Werner, Vinodkumar Prabhakaran, Mona Diab and Owen Rambow

14:30–15:00 *Extending NegEx with Kernel Methods for Negation Detection in Clinical Text*
Chaitanya Shivade, Marie-Catherine de Marneffe, Eric Fosler-Lussier and Albert M. Lai

15:00–15:30 Discussion and closing remarks