Linguistic Inference and Textual Entailment

Summer 2007

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RTE

- The shared task "Recognising Textual Entailment":
- RTE-1: Proceedings of the First Recognising Textual Entailment Workshop, 2005
- RTE-2: Proceedings of the Second Recognising Textual Entailment Workshop, 2006
- Example pairs of Text and Hypothesis from RTE 1

#1

- The Arabic-language television network Al-Jazeera reports it has received a statement and a videotape from militants.

- Al-Jazeera is an Arabic-language television network.

(923, follows)

#2

- For hundreds of family members holed up in a hotel not far from the Stockholm ferry terminal, where the boat Estonia was to have docked Wednesday morning after an overnight trip from the Estonian capital of Tallinn, the suspended rescue effort was just the latest in a day of heartbreaking reports.
- The Estonia set sail from Tallinn.

(642, follows)

#3

- Security authorities have declared a state of maximum emergency in Guatemala, which is located directly in the path of the hurricane.

- There is a state of maximum emergency in Guatemala because of the hurricane.

(1179, follows)

#4

- With $549 million in cash as of June 30, Google can easily afford to make amends.

- Some 30 million shares have been assigned to the company's workers.

(2164, does not follow)

#5

- Like the United States, U.N. officials are also dismayed that Aristide killed a conference called by Prime Minister Robert Malval in Port-au-Prince in hopes of bringing all the feuding parties together.

- U.N. officials take part in a conference called by Prime Minister Robert Malval.

(1933, does not follow)

#6

- Budapest again became the focus of national political drama in the late 1980s, when Hungary led the reform movement in eastern Europe that broke the communist monopoly on political power and ushered in the possibility of multiparty politics.
- In the late 1980s Budapest became the center of the reform movement.

(702, follows)

#7

- As a real native Detroiter, I want to remind everyone that Madonna is from Bay City, Mich., a nice place in the thumb of the state's lower peninsula.

- Madonna was born in Bay City, Mich.

(1626, follows)

#8

- Even though the rug was ripped out from under Lollapalooza this week, Jane's Addiction frontman Perry Farrell is optimistic that the eclectic music festival he co-founded in 1991 will resurface and it might be sooner than you think.
- Perry Farrel hopes to found another music festival.

(198, does not follow)

#9

- In 1954, in a gesture of friendship to mark the 300th anniversary of Ukrainian union with Russia, Soviet Premier Nikita Khrushchev gave Crimea to Ukraine.

- Crimea became part of Ukraine in 1954.

(617, follows)

#10

- Iraq's representative to the United Nations, Nizar Hamdoun, announced today, Sunday, that thousands of people were killed or injured during the four days of air bombardment against Iraq.
- Nizar HAMDOON, Iraqi ambassador to the United Nations, announced that thousands of people could be killed or wounded due to the aerial bombardment of Iraq.

(1156, does not follow)

Topics for Seminar Talks

- I. Prototypical Alternative Approaches:
- Shallow Methods for RTE: Monz&de Rijke 2001, Jijkoun&de Rijke 2005, Kouylekov&Magnini 2005, Herrera et al. 2005
- Abduction for deep linguistic reasoning and RTE: Hobbs et al. 1988, Hobbs et al. 1993, Raina et al. 2005

Topics for Seminar Talks

- II. Recent work in "classical" linguistic inference
- Linguistic Inference using Description Logic: Koller et al. 2004

- Linguistic Inference with Model Generation: ???
- Linguistic Reasoning through distributed theorem proving: ???

Topics for Seminar Talks

III. Deep linguistic information for RTE

- Computing polarity of clauses: Nairn et al. 2006
- Logical Reasoning for Textual Entailment: Tatu et al. 2006, Bos & Markert 2006
- Do we need fine-grained logic-based specification of textual entailment? Zaenen et al. 2005, Manning 2006, Crouch et al. 2006
- Exploiting structured semantic information for Textual Inference: Burchardt et al. 2005, Burchardt et al. 2006

Topics for Seminar Talks

- IV. Further Topics in RTE
- Graph Embedding Techniques for RTE: ???
- Paraphrases as a source for textual inference: ???

Reading for next meeting(s)

- Patrick Blackburn & Johan Bos (2003): *Computational Semantics*. Theoria 18(1): 27-45

- Ch. Monz and M. de Rijke: *Light-Weight Entailment Checking for Computational Semantics*, in: ICoS-3 2001