

Language Technology I 2014/2015

Relation Extraction Exercises 2

1. What are three major Vs of Big Data?

Answers: Slide 74

2. Why is domain adaptation a challenge for big text data analytics?

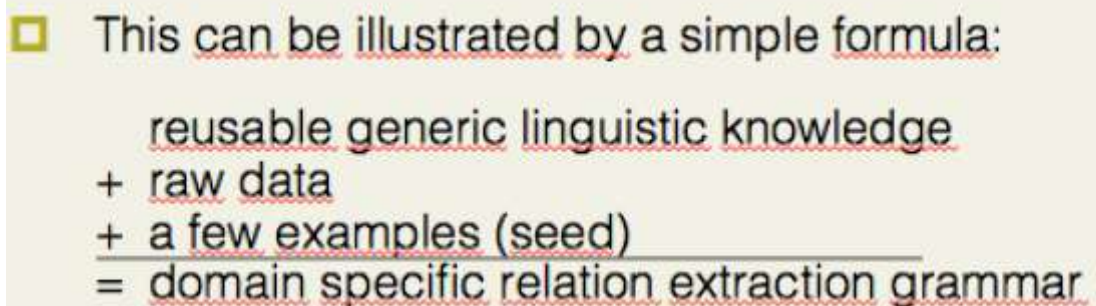
Answers: Slide 76

3. Please describe the DARE and Web-DARE system:

- How can the DARE system be formulated as a single “formula”?
- What is the input of the Web-DARE system?
- Which linguistic components does DARE and Web-DARE use?
- Explain the bootstrapping mechanism employed.
- The 2014 Xmas travel question: Why don't DARE people like islands?

Answers:

- Slide 72



□ This can be illustrated by a simple formula:

$$\begin{array}{l} \text{reusable generic linguistic knowledge} \\ + \text{raw data} \\ + \text{a few examples (seed)} \\ \hline = \text{domain specific relation extraction grammar} \end{array}$$

- Slide 90: 1) semantic seed: examples of relations; 2) web documents
- Slide 90: 1) named entity recognition; 2) parser with grammar
- Slides 45-60: Abstraction yields more generic rules. Reparsing yields new mentions and new events. Iterate until fix point reached.
- Slide 68. Many islands render the bootstrap mechanism powerless. Solution: Establish “bridges” between islands using other data. Also use linguistic semantic relations from Wordnet or ontologies, e.g. synonymy or hyperonymy.