An Integrated Semantic Framework

Developing & Applying an Integrated Semantic Framework for Natural Language Understanding

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What I'm working on

- An ISF which analyses English textual data at multiple levels
  - Lexical semantics
  - Structural semantics
  - Event profiling
  - Sentiment
- But all of the analyses are represented in a single **integrated** deep information structure

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Why this matters

- Structures and meaning of expressions are deeply analysed in a monostratal linguistic framework (constructions+semantics).

- This enables computers to **understand** language much better than before.

  - And we can study the interactions

- Applications:

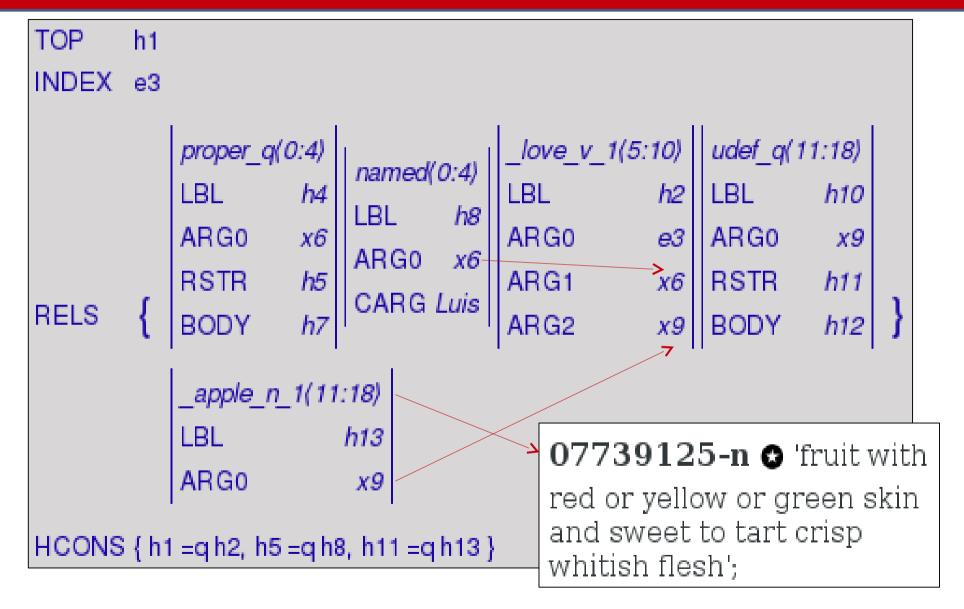 - Information extraction; Machine Translation; Auto summarisation; Question answering

Current status of the project

- Able to analyse 90% of English Wikipedia.

- Model the meaning of 117,659 concepts (155,287 English words)

- Lexical semantics has been integrated into Structural semantics for most words

  - Now working on the long-tail

    - Multi-word expressions

    - Decomposable semantics

    - Unknown/new words and concepts

Example: "Luis loves apples."

The End **Thank you**