Prevailing perspectives

James Allen [1987]

There can be two underlying motivations for building a computational theory. The technological goal is simply to build better computers, and any solution that works would be acceptable. The cognitive goal is to build a computational analog of the human-language-processing mechanism; such a theory would be acceptable only after it had been verified by experiment.

Noam Chomsky [1996]

The question of whether a computer is playing chess, or doing long division, or translating Chinese, is like the question of whether robots can murder or airplanes can fly — or people; after all, the "flight" of the Olympic long jump champion is only an order of magnitude short of that of the chicken champion (so I'm told). These are questions of decision, not fact; decision as to whether to adopt a certain metaphoric extension of common usage.

NLU pre 2010

- **Based on syntactic parsing**
  - Maps text to a structured representation, or logical form, over which rules-based and/or probabilistic reasoning can be conducted to achieve some task
  - Relies on POS tagging, which are annotations of words in a sentence with their syntactic roles
  - Not robust to variations in raw input!

Notable successes

- Eliza (1966)

- IBM Watson (2011)

"How has the price of apple changed over the years"

Parse Tree

Dependency Diagram