

Re: Does natural language skill translate to programming skill?

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Aidan Kehoe wrote:

Ar an t-aonú lá déag de mí Márta, scríobh LEE Sau Dan:

- > For comparison, many AI reseach try to process natural language using
- > LISP or Prolog, whose grammars are so much more regular and simpler
- > than Perl.

Spamassassin, one of the few widely useful and deployed natural language processing applications, was written entirely in Perl.

If Spamassassin does language processing, then Google (and any other search engine) also does. They use very simple techniques like pattern matching, edit distance and maybe a simple thesaurus.

I switched from Prolog to Perl, because Perl is powerful and fast. My Perl scripts provide impressive results on text (written natural language), like information extraction, collect simple semantic nets, detect the use of synonyms and homonyms. But for parsing a complete sentence and do some reasoning with it, I would use Prolog.

I m not aware of any natural language processing applications written in Prolog or Lisp that have served a useful purpose beyond a) absorbing research grant money or b) proving that Prolog, Lisp and traditional computational linguistics approaches are ill-suited to natural language processing.

About 1987 I supervised a student, who did his diploma thesis on "application of conceptual graphs". His program written in Prolog was able to read in laws, and a user could enter an individual problem (case) related to this law, and the program solved the problem. The results were impressive. But it is easier to parse German texts than English ones.

Of course, computers will never understand poems or headlines in the yellow press with such techniques.

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A friend of mine develops an artificial barkeeper. This is based on the idea of Eliza, and tries to do small talk. AFAIK it is written in Lisp. It's nice, because it combines language processing with artificial emotions (and tries to measure the emotions of the user).

Helmut Wollmersdorfer

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