

# Trends

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## Why can't computers understand human language?

— Dianne Moscrip, staff writer

**D**r. Janine Toole, VP for Technology Development at Gavagai Technology — a company that develops sophisticated content-analysis software for improved information access — spoke about content-analysis software at our March chapter meeting. The main question of the evening was “Why can't computers understand human language?”

The answer was “ambiguity.” Our language is easy for us to understand because we have a frame of reference for the words we use. However, to a computer without that frame of reference, communication becomes wrought with ambiguity. The computer would be forever asking for clarification of meaning since many words can be construed differently, depending on the topic.

Natural Language Processing (NLP), software that analyses how words are used in context, is being used to overcome this challenge. Toole explained where we are in the development of NLP today, as well as what the future holds.

The major use for NLP is information retrieval. As a sample of this, we looked at how Web search engines try to locate a topic. In one example, we used

the Google ([www.google.ca](http://www.google.ca)) search engine, which statistically analyzes queries and returns documents containing a high percentage of your query. Then, we tried Ask Jeeves, ([www.ask.com](http://www.ask.com)) a search engine where you input a question, and it asks you a number of qualifying questions to narrow down your query. The return hits were in the thousands for both of these examples. This showed us that without proper clarification, you could surf all day to locate relevant information. Clarifying your topic as much as possible can result in higher quality return hits.

Another use for NLP is speech recognition, which many of us associate with personal speech recognition programs for home use. Toole, however, was referring to cell phone and telephone operator usage. Computer aided language learning was another example. In all of these, constraining the problem results in superior processing.

With improvements in technology, we could see more complicated uses for NLP. The application software could be embedded in software we use

everyday, like MS Word, to improve the original function in some way, such as improved grammar checkers — say, it ain't so. ■■

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Zen...



*There is a chasm  
of carbon and silicon  
the software can't bridge.*

- Rahul Sonnad

[http://www.salon.com/21st/chal/  
1998/02/10chal2.html](http://www.salon.com/21st/chal/1998/02/10chal2.html)

## Application deadline

**T**he deadline for application to Douglas College's Print Futures: Professional Writing Program is May 31, 2002. Go to [www.douglas.bc.ca/calhtm/programs/ppf.htm](http://www.douglas.bc.ca/calhtm/programs/ppf.htm) for details.

