

CENTER FOR COGNITIVE SCIENCE
University at Buffalo, State University of New York

Wednesday, February 18, 2004

280 Park Hall
North Campus
2:00 pm –4:00 pm

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and Information Systems
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**From Turing to Tutoring:
Latent Semantic Analysis as Cognitive Model
and Budget Natural Language Understanding**

This talk will center on Latent Semantic Analysis (LSA), a vector-based technique for representing and comparing texts. Following a brief history of LSA and description of the process by which its representations are built, LSA will be discussed as a model for human language learning and representation. Despite the fact that it ignores syntax altogether, LSA has neared or matched human performance on a variety of tasks. For single-sentence texts, however, LSA does not perform well, presumably due (at least in part) to its ignorance of syntax. Research by Dennis et al, Kanejiya et al, and myself has explored augmenting LSA with various types of structural knowledge. This work parallels psychological studies on the effects of structure on similarity judgments. The talk will conclude with descriptions of applications of LSA as an expectation-based natural language understanding mechanism.

Refreshments will be available

Everyone is welcome to attend!

For information please call the Cognitive Science Office at (716) 645-3794 or check
<http://www.cogsci.buffalo.edu/Activities/Colloquium/CLLQs04/2004spring.htm>

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