



**The Lynne and William Frankel Center
for Computer Science**



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Distinguished Lecturer Series

Supported by Jeffrey and Holly Ullman



Andrei Broder

Yahoo! Research Silicon Valley, California

Andrei Broder is a Fellow and Vice President for Computational Advertising in Yahoo! Research. Previously he was an IBM Distinguished Engineer and the CTO of the Institute for Search and Text Analysis in IBM Research. From 1999 until 2002 he was Vice President for Research and Chief Scientist at the AltaVista Company. He was graduated Summa cum Laude from Technion, the Israeli Institute of Technology, and obtained his M.Sc. and Ph.D. in Computer Science at Stanford University under Don Knuth.

His current research interests are centered around computational advertising, web search, context-driven information supply, and randomized algorithms. Broder is co-winner of the Best Paper award at WWW6 (for his work on duplicate elimination of web pages) and at WWW9 (for his work on mapping the web). He has authored more than eighty papers and was awarded twenty-five patents. He is an ACM Fellow, an IEEE fellow, and past chair of the IEEE Technical Committee on Mathematical Foundations of Computing.

Query Understanding using Web Relevance Feedback

In the past decade, Web search engines have evolved from a first generation based on classic IR algorithms scaled to Web size and thus supporting only informational queries, to a second generation supporting navigational queries using Web specific information (primarily link analysis), to a third generation enabling transactional and other "semantic" queries based on a variety of technologies and external information sources aimed to directly satisfy the unexpressed "user intent". At the same time, the Web is still expanding, the number and cultural diversity of Web users is still growing, and the average Web query is still infamously just 2.4 words long, thus inferring this user intent is as challenging as ever.

"Rare" queries, which in aggregate represent a significant portion of the query volume, are often completely incomprehensible to an outside observer; nevertheless, the goal of many of these queries becomes quite clear once we study their results. Starting from this simple observation, in a series of papers [SIGIR2007, SIGIR2008, CIKM2008] we have developed a robust methodology of "query understanding" based on viewing each search result of a query as an independent source of information about its intent. Applications include query classification, improved search advertising, query substitution for optimizing relevance and revenue in ad search, and cross-lingual taxonomy re-use for query classification.

12:00-13:00 on Thursday, 14 August, 2008—Saal Auditorium, Alon Bldg (37/202)

12:00-13:00 יום ה' 14 באוגוסט 2008—באודיטוריום סאל בבנין אלון (202/37)