The Past, Present and Future of Web Information Retrieval

Dr. Monika Henzinger

Google Inc.

Abstract: Web search engines have emerged as one of the central applications on the Internet. In fact, search has become one of the most important activities that people engage in on the the Internet. Even beyond becoming the number one source of information, a growing number of businesses are depending on web search engines for customer acquisition.

The first generation of web search engines used text-only retrieval techniques. Google revolutionized the field by deploying the PageRank technology - an eigenvector-based analysis of the hyperlink structure - to analyze the web in order to produce relevant results. Moving forward, our goal is to achieve a better understanding of a page with a view towards producing even more relevant results. This presentation will describe these techniques, the main challenges, and will offer an overview of the search engine of the future.