As the economic importance of the web has grown, so has the importance of prominent placement in web search engines. As a result, search engine designers must worry not only about how to provide the best results for their users, but also how to prevent unscrupulous web site creators from manipulating their ranking. Implicit measures of user preferences, such as click data, may offer a way out of this engine vs. spammer arms race. At the same time, click data has dangers of its own – for example, the potential for positive feedback loops. There are also dangers in imputing positive relevance assessments to user behaviors that may actually reflect surprise or puzzlement.

My interest in harnessing implicit user behavior to improve the search experience dates back to an experimental IR system I created as part of my graduate research [1], in which user clicks resulted in changes not only to the current search results, but also to the underlying search features. While managing Information Access research at Apple, I was involved in some early work on collaborative filtering [2]. Now, as technical lead of Advanced Development for the organization formerly known as AltaVista, I’d like to revisit some of these earlier techniques as they apply to the problem of web search.

References:
