Personalized Search: Potential and Pitfalls
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ABSTRACT
Traditionally search engines have returned the same results to everyone who asks the same question. However, using a single ranking for everyone in every context at every point in time limits how well a search engine can do in providing relevant information. In this talk I present a framework to quantify the "potential for personalization" which we use to characterize the extent to which different people have different intents for the same query. I describe several examples of how we represent and use different kinds of contextual features to improve search quality for individuals and groups. Finally, I conclude by highlighting important challenges in developing personalized systems at Web scale including privacy, transparency, serendipity, and evaluation.

Keywords
Personalized search, web search, user modeling, human-computer interaction for information retrieval.

Biography
Susan Dumais a Distinguished Scientist and Deputy Managing Director of the Microsoft Research Lab in Redmond, and an adjunct professor at the University of Washington. Prior to joining Microsoft, she was at Bell Labs where she worked on Latent Semantic Analysis, techniques for combining search and browsing, and organizational impacts of new technology. Her current research focuses on user modeling and personalization, context and search, and temporal dynamics of information. She has worked closely with several Microsoft groups (Bing, Windows Desktop Search, SharePoint, and Office Online Help) on search-related innovations. Susan has published widely in the fields of information science, human-computer interaction and cognitive science, and holds several patents on novel retrieval algorithms and interfaces. She is Past-Chair of ACM's Special Interest Group in Information Retrieval (SIGIR), and serves on editorial boards, technical program committees, and government panels. She was elected to the CHI Academy in 2005, an ACM Fellow in 2006, received the SIGIR Gerard Salton Award for Lifetime Achievement in 2009, was elected to the National Academy of Engineering (NAE) in 2011, received the ACM Athena Lecturer and Tony Kent Strix Awards in 2014, was elected to the American Academy of Arts and Sciences (AAAS) in 2015, and received the Lifetime Achievement Award from Indiana University Department of Psychological and Brain Science in 2016.

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