Towards Mixed-Initiative Conversational Information Seeking

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Abstract

While conversational information seeking has roots in early information retrieval research, recent advances in automatic speech recognition and conversational agents as well as popularity of devices with limited bandwidth interfaces have led to increasing interest in this area. An ideal conversational information seeking system requires to go beyond the typical "query-response" paradigm by supporting mixed-initiative interactions. In this talk, I will review the recent efforts on developing mixed-initiative conversational information seeking systems and draw connections with early work on interactive information retrieval. I will describe methods for generating and evaluating clarifying questions in response to information seeking requests. I will further highlight the connections between conversational search and recommendation, and finish with a discussion on the next steps that require significant progress in the context of mixed-initiative conversational information seeking.

Keywords

Dialogue systems, conversational search, interactive information retrieval, pro-active conversations

Biography

Hamed Zamani is an Assistant Professor at the University of Massachusetts Amherst (UMass), where he also serves as the Associate Director of the Center for Intelligent Information Retrieval (CIIR). Prior to UMass, he was a Researcher at Microsoft. He received his Ph.D. from UMass under supervision of W. Bruce Croft and achieved the Outstanding Dissertation Award. He is an active member of the IR community and published over 80 peer-reviewed articles. He is known for his work on neural information retrieval and conversational information seeking. He is a recipient of NSF CAREER Award in 2022 for Conversational IR research. His group was also selected for the Alexa Prize Challenge 2021. He has co-organized multiple workshops at SIGIR, WSDM, and RecSys conferences and has served as Senior Program Committee members at major IR conferences, such as SIGIR, WSDM, CIKM, and WWW. He is currently serving as an Associate Editor for ACM Transactions on Information Systems (TOIS).