Incorporating User State in Task Based Information Retrieval and Recommendation of Educational Resources

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Accurate representation of user state plays a critical role in understanding user needs and providing them with accurate information at the correct time. In this talk, I will talk about two applications in which incorporating user state could be highly important: task based information retrieval and recommendation of educational resources. In the first part of the talk, I will describe the work we have done on incorporating representations of user state to task based search engines and show how one can use these representations to predict user needs. I will then move on to recommendation of educational resources, describe a way of representing user state (skills) and describe methods that can be used to match learners with educational resources based on their skill level.

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Emine Yilmaz is a Turing Fellow and Professor at University College London (UCL), Department of Computer Science, as well as an Amazon Scholar at Amazon. Between 2012 and 2019, she also worked as a research consultant for Microsoft Research Cambridge, where she used to work full as a researcher prior to joining UCL. Emine’s current research interests include information retrieval, data mining and applications of machine learning. Her research until now has received several awards including a Bloomberg Data Science Research Award in 2018, the Karen Sparck Jones Award in 2015 and the Google Faculty Research Award in 2014. She has published research papers extensively at major venues such as ACM SIGIR, CIKM and WSDM, gave several tutorials as part of top conferences, and organized various workshops. She has served in various roles including co-editor-in-chief for the Information Retrieval Journal, PC Chair for ECIR 2020, ACM SIGIR 2018 and ACM ICTIR 2017 Conferences, Practice and Experience Chair for ACM WSDM 2017, and as the Doctoral Consortium Chair for ECIR 2017. She is also one of the recipients of the prestigious EPSRC Fellowship.