

Exploration–Exploitation Dilemma in Recommender Systems: Is It the Time to Switch to the Exploration Mode Again?

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Abstract

Machine Learning (ML) became the predominate research paradigm in Recommender Systems over the last several years leading to many fundamental advances in the field, both in the academia and in the industry. Unfortunately, these achievements were accomplished as a result of shifting focus from other research paradigms towards ML. In this talk, I will argue that it is crucial for the Recommender Systems field to broaden its scope of inquiry by enhancing its focus on other disciplines, such as psychology and marketing, sociology and social science, management and organizational behavior, economics, decision science and other disciplines that have been underexplored in Recommender Systems. By shifting the focus of inquiry towards the “exploration” component of the explore-exploit paradigm, we can potentially achieve new significant breakthroughs in recommender systems. I will present some case studies supporting this claim.

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