

MISQ Archivist

Mobile App Recommendation: An Involvement-Enhanced Approach

Jiangning He, Xiao Fang, Hongyan Liu, and Xindan Li

Abstract

Given the ubiquitous and critical role of mobile apps in people's lives as well as the sheer size of the market, developing effective mobile app recommendation methods that can help users locate the apps they desire is critical for both users and platforms. Premised in involvement theory, we propose a novel mobile app recommendation method that integrates both users' download and browsing behaviors for mobile apps, in contrast to existing methods that rely on download behaviors but neglect browsing behaviors. Specifically, we introduce a novel model that appropriately combines download and browsing behaviors to learn users' overall interests in and involvement with apps, we develop a new algorithm to infer the model's parameters, and we propose an innovative mobile app recommendation strategy that combines users' overall interests and their current interests to recommend apps. Finally, using data collected from one of the largest mobile app platforms in China, we demonstrate and analyze the superior performance of our method over several state-of-the-art mobile app recommendation methods.

Keywords: Mobile app recommendation, data mining, machine learning, graphical model, product involvement