

Recommender systems aim to provide users with personalized recommendations of online products or services to handle the increasing problem of online information overload and improve customer experience and relationship management. This talk will present ten recent developments to resolve issues of data scarcity, cold start, and data uncertainty in recommender systems, using advanced computational intelligence techniques, including trust-enhanced recommender systems, multi-criteria enhanced recommender systems, fuzzy recommender systems, tree-structured recommender systems, group recommender systems, cross-domain recommender systems, tag-inferred recommender systems, social network-based recommender systems, user preference drift-aware recommender systems, and recommender system virtualization. Real-world applications of recommender systems in e-learning, e-government, and e-business intelligence are presented to demonstrate how the new developments can significantly enhance data-driven customer relationship management, marketing, and business decision making.