

Community detection and learning in social networks

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Modern online social network platforms generate huge amount of data and pose new challenges to data mining techniques. This kind of data is heterogeneous, mixing texts, images, videos and relational links (interactions between users, friends relationships). Analyzing efficiently this data is important for a lot of applications, e.g. social network community management, recommendation systems, marketing. In this communication, we present some recent work in social network analysis and community detection. We address the problem of global community detection taking into account not only the links between actors, but also the attributes associated to each node. In a second part, we study the dynamic of the local communities in social networks and show how to construct simple models to predict the behavior of the users. A real world application to churn prediction is presented.