Overview of Community Mining

Community mining is another descriptive analytics task for social networks. A community is generally described as a substructure, or subset of nodes of a graph with dense linkage between the members of the community and sparse linkage outside the community. Communities often occur in the World Wide Web, telecommunication networks, academic networks, and friendship networks. You can also encounter communities in fraud detection. Think about fraud rings, for example, in which various fraudsters collaborate to initiate fraudulent behavior.

Many techniques are available for community mining. In this lesson, we briefly discuss two basic techniques: the Girvan-Newman algorithm and graph partitioning. Other more advanced techniques have been suggested in the literature, such as spectral clustering, methods that directly optimize the Q-modularity, and methods for finding overlapping communities. You might want to explore these advanced methods on your own.

Social Network Analytics

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