

Book Review

Community Detection and Mining in Social Media

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This book has five chapters, three appendices and bibliography.

The chapter 1 on Social Media and Social Computing has documented the nature and characteristics of social networks and community detection. The explanation about the emerging of social networks and their properties constitute this chapter followed by a discussion on social community. The nodes, ties and influence in the social networks are the core of the discussion in the second chapter. Centrality is the core discussion here and the degree of centrality and its measure is explained. Understanding network topology is required for social networks concepts.

The community effort of social network is explained through the third chapter on community detection and evaluation. The requirement of the nodes for node-centric criteria is important for community detection methods, which are explained through the methods on complete mutuality. Network-centric community detection relies on network partition where this character is important to define community detection and understanding. The techniques such as vertex similarity, block model approximation, spectral clustering, modularity maximization, are detailed subsequently in this chapter. Hierarchy-centric community detection is the next discussion.

In heterogeneous networks, heterogeneous interactions form the core character which is described in this chapter, 4. There are various types in such heterogeneous networks and the concepts such as network integration, utility integration, future integration, partition integration and others are explained with illustrations, algorithms and models.

The discussion on social media mining given in the chapter 5; wherein two applications, viz., evolution pattern in social media and leveraging social media networks are specified. Network data is useful for deriving classification where collective classification and community-based learning are presented with some illustrations.

The book has the final part as appendices such as Data collection, computing betweenness and k-Means Clustering are given. The book also has an extensive bibliography.

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