Social Network Extraction: A Review of Automatic Techniques

Abstract

The advent of Web 2.0 has been instrumental in paradigm shift of how people communicate. These communications are a rich source of relationship data. Analyzing such a vast amount of relationship data is not a trivial task. Social Network Analysis is a promising field of research to take advantage of this huge pool of relationship data. But before this data is analyzed from Social Network Analysis perspective, Social Networks have to be extracted from this data. Social network extraction deals with the extraction of online social networks from a wide variety of online resources. These resources include web documents, e-mail communication, Internet relay chats, web usage logs, event logs, instant messenger logs, online blogs etc. Social network extraction is beneficial for many Web mining and social network applications such as expert finding for research guidance, potential speakers and contributors for conferences, journals, workshops, product recommendation, targeted advertising etc. In the last decade, many efforts have been made in the area of social network extraction. As a result, a good number of social network extraction methods have been proposed in the literature. These social network extraction methods use different sources for social network extraction. Some of these systems also use data from more than one resource. Although there are some social
network extraction methods which construct a social network manually and as such cannot be considered in this work, as we deal with automatic methods only. In this paper, we classify automatic methods for social network extraction on the basis of information source they use. We also outline a general framework for social network extraction and give some future directions.

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