



RESEARCH ARTICLE

Analysis of Attribute Association Rule from Large Medical Datasets towards Heart Disease Prediction

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Abstract— Cardio vascular disease is a major threat to half of the world population. The term heart disease is related to all the diverse diseases affecting the heart. The healthcare industry generates large amount of data that are too difficult to be analyzed by traditional methods. Hence computer assisted methods are necessary to make correct decisions. Heart disease is a term that assigns to a large number of medical conditions related to heart. These medical conditions describe the abnormal health conditions that directly influence the heart and all its parts. The main issue about mining association rules in a medical data is the large number of rules that are discovered, most of which are irrelevant. A rule-based decision support system (DSS) is presented for the diagnosis of coronary vascular disease (CVD). Such number of rules makes the search slow. However, not all of the generated rules are interesting, and some rules may be ignored. In medical terms, association rules relate disease data measures the patient risk factors and occurrence of the disease. Association rules are compared to predictive rules mined with decision trees, a well-known machine learning technique. In this paper we propose a new system to find the strength of association among the attributes of a given data set. The proposed system has several advantages since it is automatically generated. It provides CVD diagnosis based on easily and none invasively acquired features.

Key Terms: - Data mining; Association Rule Mining; Decision Tree; Machine Learning Technique

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