A SURVEY ON FEATURE SELECTION METHODS

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ABSTRACT

Feature selection has been the focus of interest for quite some time and much work has been done. It is in demand, in the areas of application for high datasets with tens or hundreds of thousands of variables are available. This survey is a comprehensive overview of many existing methods from the 1970’s to the present. The strengths and weaknesses of different methods are explained and methods are categorized according to generation procedures and evaluation functions. The objective of feature selection is three fold: improving the prediction performance of the predictors, providing faster and more cost-effective prediction and providing a better understanding of the underlying process that generated the data. This survey identifies future research areas in feature subset selection and introduces newcomers to this field.