Abstract

Inductive learning enables the system to recognize patterns and regularities in previous knowledge or training data and extract the general rules from them. In literature there are proposed two main categories of inductive learning methods and techniques. Divide-and-Conquer algorithms also called decision Tree algorithms and Separate-and-Conquer algorithms known as covering algorithms. This paper first briefly describe the concept of decision trees followed by a review of the well known existing decision tree algorithms including description of ID3, C4.5 and CART algorithms. A well known example of covering algorithms is RULE Extraction System (RULES) family. An up to date overview of RULES algorithms, and Rule Extractor-1 algorithm, their solidity as well as shortage are explained and discussed. Finally few application domains of inductive learning are presented.
An Overview of Inductive Learning Algorithms


Index Terms

Computer Science

Algorithms
Keywords
Data Mining  Rules Induction  RULES Family  REX-1  Covering Algorithms
Inductive Learning
ID3
C4.5
CART
and Decision Tree algorithms