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## Discovering Action Paths.

### Sommario/riassunto

We are surrounded by data, numerical, categorical and otherwise, which must to be analyzed and processed to convert it into information that instructs, answers or aids understanding and decision making. Data analysts in many disciplines such as business, education or medicine, are frequently asked to analyze new data sets which are often composed of numerous tables possessing different properties. They try to find completely new correlations between attributes and show new possibilities for users. Action rules mining discusses some of data mining and knowledge discovery principles and then describe representative concepts, methods and algorithms connected with action. The author introduces the formal definition of action rule, notion of a simple association action rule and a representative action rule, the cost of association action rule, and gives a strategy how to construct simple association action rules of a lowest cost. A new approach for generating action rules from datasets with numerical attributes by incorporating a tree classifier and a pruning step based on meta-actions is also presented. In this book we can find fundamental concepts necessary for designing, using and implementing action rules as well. Detailed algorithms are provided with necessary explanation and illustrative examples.