On Dependency Between the Evidence and the Hypothesis in Data

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Abstract

Inductive rules, $E \to H$, are a way to express relationships in a dataset, meaning that the knowledge of E supports conclusion H, and can be supported by data with different intensities. Confirmation indices are used to measure the degree for which evidence E supports or contradicts a conclusion H. Many confirmation measures have been defined in the literature in different ways depending on the framework. The agreement of a confirmation index with the dependency between the evidence and the hypothesis in data is an important problem. There are many situations where, a confirmation measure indicates strong confirmation, while in fact there is only weak dependency between the evidence and the hypothesis. In this talk, we study coefficients allowing to quantify the degree of dependency between the evidence and the hypothesis in data.

Keywords: confirmation measures, evidence, statistical dependency.

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