Building Bayesian Influence Ontologies
Literature Review

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March 13, 2019

1 Introduction

In Section 2, we discuss a variety of classical approaches used to measure similarity. In Section 3, we discuss the concept of a Bayesian Network. In Section 4, we discuss methods used to learn Bayesian network structures and evaluate them. In Section 5, we discuss the application of Bayesian Networks to measuring similarity.

2 Similarity Metrics

3 Bayesian Networks

When considering a joint probability distribution across n random variables, classical probability states that the number of parameters needed to represent the distribution grows exponentially in n [Koller and Friedman 2009]. Even in the simple case of binary variables, we would still need $2^n - 1$ parameters to describe the distribution. This is clearly unfeasible for practical applications, in which the number of random variables can grow very large.

4 Score-Based Structure Learning

5 Bayesian Similarity

References

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