Introduction to Probabilistic Ontologies

Rafael Penaloza

Dipartimento di Informatica, Sistemistica e Comunicazione
University of Milano-Bicocca, Italy
`rafael.penalozanyssen@unimib.it`

Abstract. Probabilities are a prominent formalism for measuring and handling uncertainty. It is thus natural to try to use them to represent uncertain knowledge in an ontology. However, building a probabilistic ontology requires many design choices, many of which are often made implicitly or without fully grasping their consequences. In this tutorial, we take a look at these design choices, what they mean, and when can they be used adequately.