

D'Ulizia Arianna; Ferri Fernando; Grifoni Patrizia, **A Survey of Grammatical Inference Methods for Natural Language Learning**, Artificial intelligence review, Blackwell Scientific Publications – Exeter, 2011

Abstract: The high complexity of natural language and the huge amount of human and temporal resources necessary for producing the grammars lead several researchers in the area of Natural Language Processing to investigate various solutions for automating grammar generation and updating processes. Many algorithms for Context-Free Grammar inference have been developed in the literature. This paper provides a survey of the methodologies for inferring context-free grammars from examples, developed by researchers in the last decade. After introducing some preliminary definitions and notations concerning learning and inductive inference, some of the most relevant existing grammatical inference methods for Natural Language are described and classified according to the kind of presentation (if text or informant) and the type of information (if supervised, unsupervised, or semi-supervised). Moreover, the state of the art of the strategies for evaluation and comparison of different grammar inference methods is presented. The goal of the paper is to provide a reader with introduction to major concepts and current approaches in Natural Language Learning research