

Case studies with evolving fuzzy grammars

ABSTRACT

Evolving fuzzy grammars have been introduced as a way of identifying meaningful text fragments such as addresses, names, times, dates, as well as finding phrases that indicate complaints, questions, answers, general sentiment, etc. Once tagged in this way, the fragments can undergo further processing e.g. text mining. Fuzziness arises because we do not require a complete match between text and the grammar patterns, and the evolving aspect is necessary because it is rarely possible to specify all patterns in advance. In this paper we briefly describe the evolving fuzzy grammar (EFG) approach and present two experiments: (i) to compare its performance to named-entity recognition systems and (ii) to highlight the importance of evolving new grammars as novel text fragment patterns are seen. In both cases, the EFG system performs well.

Keyword: Evolving system; Fuzzy grammar; Text mining