Obtaining feature-and sentiment-based linked instance rdf data from unstructured reviews using ontology-based machine learning

D. Teja Santosh, author

Abstrak

Online reviews have a profound impact on the customer or newbie who want to purchase or consume the product via web 2.0 e-commerce. Online reviews contain features which form half of the analysis in opinion mining. Most of the today's systems work on the summarization taking the average of the obtained features and their sentiments leading to structured review information. Often the context surrounding the feature is undermined which helps in clearly classifying the sentiment of the review. Web 3.0 based machine interpretable Resource Description Framework (RDF) also structures these unstructured reviews in the form of features and sentiments obtained from traditional preprocessing and extraction techniques with the context data also provided for future ontology based analysis taking support of Wordnet 2.1 lexical database for word sense disambiguation and Sentiwordnet 3.0 scores used for sentiment word extraction. Many popular RDF vocabularies are helpful in the creation of such machine process-able data. In the work to follow, this instance RDF forms the basis for creating/upgrading the (available) OWL Ontology that can be used as structured data model with rich semantics towards supervised machine learning generating sentiment categories and are validated for precise sentiments. These are sent back to the interface as corresponding {feature, sentiment} pair so that reviews are filtered clearly and helps in satisfying the feature set of the customer.