



# Irony Detection Based on Character Language Model Classifiers

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## Abstract

*With the development of social networks and e-commerce, these media became regular spaces for ironic or sarcastic opinions. The detection of ironic opinions can help companies and government to improve products and services. Reliably identifying sarcasm and irony in text can improve the performance of natural language processing techniques applied to opinion mining, sentiment analysis and summarization. There are two main ways to detect irony in texts: features based classification and text classification without features. Most researchers focus their studies on the features creation that characterizes irony. However, there are new approaches that classify irony directly without feature creation. In this paper, we propose a new approach to detect irony by applying character language model classifiers without any feature engineering. We evaluated some algorithms from API LingPipe on Twitter and Amazon datasets including the SemEval-2018 Task 3 dataset for irony detection of English tweets. Several experiments were developed for analyzing the performance of each algorithm per each balanced and unbalanced collections created from the original datasets. The proposal obtained competitive values of accuracy, precision, recall and F1-measure.*

**Keywords:** Irony classification, Machine learning, Supervised learning

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