Abstract

This work proposes a bio-inspired based methodology in order to extract and evaluate user's web texts / posts. To validate the methodology, a dataset is constructed using real data arising from Greek fora. The obtained results are compared with a commonly used machine learning technique (decision trees- C4. 5 algorithm). The bio-inspired algorithm (namely the hybrid PSO/ACO2 algorithm) achieved average classification accuracy 90.59% in a 10 fold cross validation experiment, outperforming the C4. 5 algorithm (83. 66%). The proposed methodology could be easily integrated with a decision support system providing services in the fields of e-commerce or e-government in order to help merchants acquire customer satisfaction or public administrators capture common understanding.
Using Bio-inspired intelligence for Web opinion Mining

- Choi, Y. and C. Cardie. Structured local training and biased potential functions for
Using Bio-inspired intelligence for Web opinion Mining


- Turney, P. Thumps up or thumbs down? Semantic orientation applied to unsupervised classification of reviews. in In Proceedings of the 40th Annual Meeting of the association for Computational linguistics. 2002.


- Lapata, M., Barzilay, R., Automatic evaluation of text coherence: Models and representations, in Proceedings of the 19th International Joint Conference on Artificial
Intelligence. 2005.


Index Terms

Computer Science

 Artificial Intelligence

Keywords

Artificial Intelligence  Bio-inspired Algorithms  Decision Trees  PSO/ACO  Web texts  Web Opinion Mining