Chinese Whispers - An Efficient Graph Clustering Algorithm

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The article was written by (Biemann 2006). It was was cited 303 times according to Google Scholar. The task performed was graph-clustering. They used x metric over x.

Hypothesis

A randomized graph-clustering algorithm would perform well of small worlds.

Evidence and Results

Dataset

The dataset used are all from the natural language processing world.

Results

Contribution

The authors propose

Algorithm 1 Chinese Whispers

Input: An initial graph G of V multidimensional vectors to be clustered; A maximum number of iterations maxite rations

Output: An assignment of the clusters for each vertex $\in G.V$

- 1: **procedure** ChineseWhispers(G)
- 2: for each vertex $(i, v) \in enum(G.V)$ do
- 3: $\operatorname{class}(v_i) \leftarrow i$
- 4: end for
- 5: while maxiterations > 0 do
- 6: $maxiterations \leftarrow maxiterations 1$
- 7: end while
- 8: **return** ClusterAssignments
- 9: end procedure

Small world graphs

Controversial Ideas

Weaknesses

Future Work

References

Biemann, Chris (June 2006). "Chinese Whispers - an Efficient Graph Clustering Algorithm and its Application to Natural Language Processing Problems". In: Proceedings of TextGraphs: the First Workshop on Graph Based Methods for Natural Language Processing. New York City: Association for Computational Linguistics, pp. 73–80. URL: https://www.aclweb.org/anthology/W06-3812.