# Chinese Whispers - An Efficient Graph Clustering Algorithm

Nisim Hurst

Tuesday 14 May 2019

# Chinese Whispers - An Efficient Graph Clustering Algorithm

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 **do**
- 6: end while
- 7: **return** ClusterAssignments
- 8: 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.