

Word Embeddings Evaluation Report

This report compares the performance of different word embedding methods across multiple evaluation metrics.

Overview

Number of methods compared: 2

Total evaluations: 64

Performance Summary

SimLex-Correlation

Co-occurrence

Mean: 0.483

Std: 0.297

Range: [0.007, 0.994]

Neural

Mean: 0.756

Std: 0.159

Range: [0.531, 0.896]

WordSim-Correlation

Co-occurrence

Mean: 0.581

Std: 0.288

Range: [0.026, 0.977]

Neural

Mean: 0.615

Std: 0.406

Range: [0.008, 0.863]

Analogy-Accuracy

Co-occurrence

Mean: 0.256

Std: 0.142

Range: [0.000, 0.333]

Neural

Mean: 0.333

Std: 0.000

Range: [0.333, 0.333]

Clustering-Silhouette

Co-occurrence

Mean: 0.202

Std: 0.219

Range: [-0.016, 0.824]

Neural

Mean: -0.001

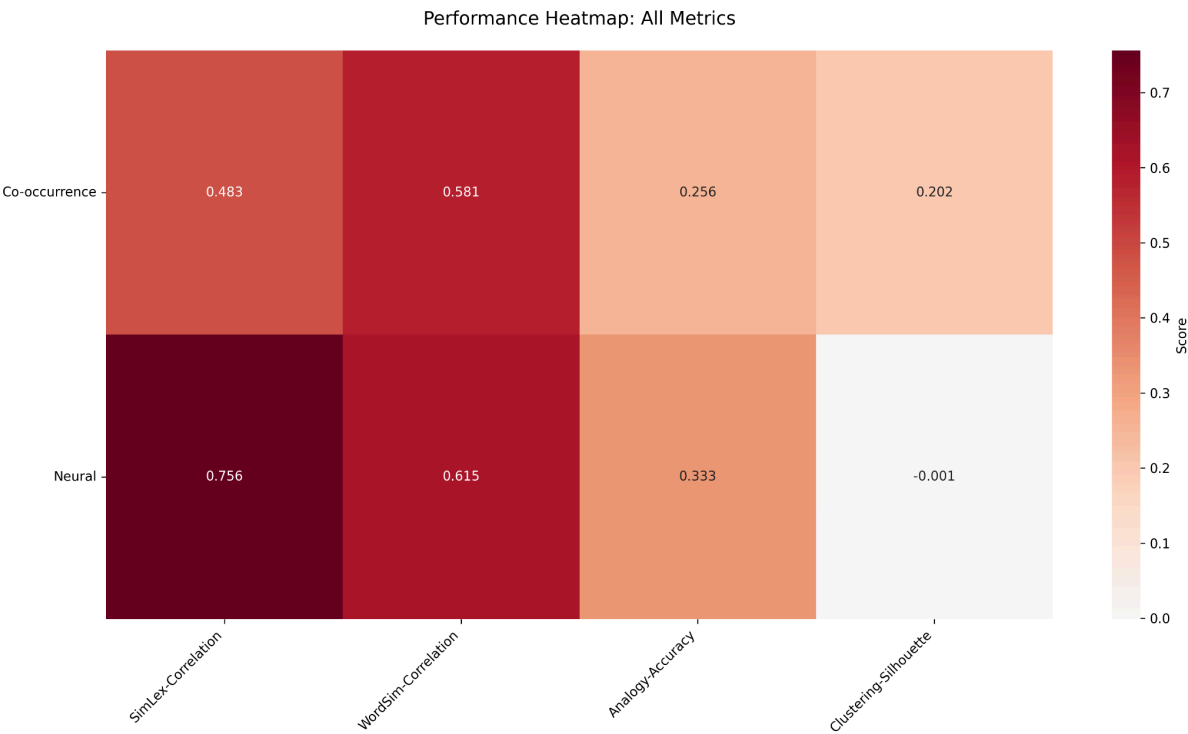
Std: 0.017

Range: [-0.013, 0.023]

Visualizations

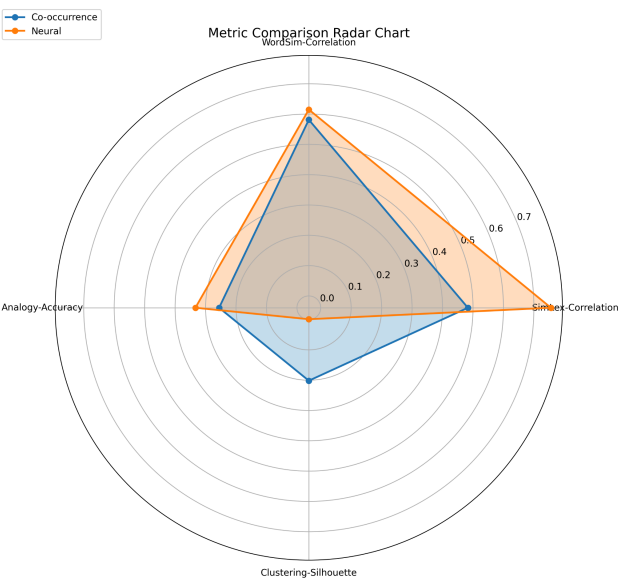
Performance Heatmap

Heatmap showing the average performance of each method across all metrics.



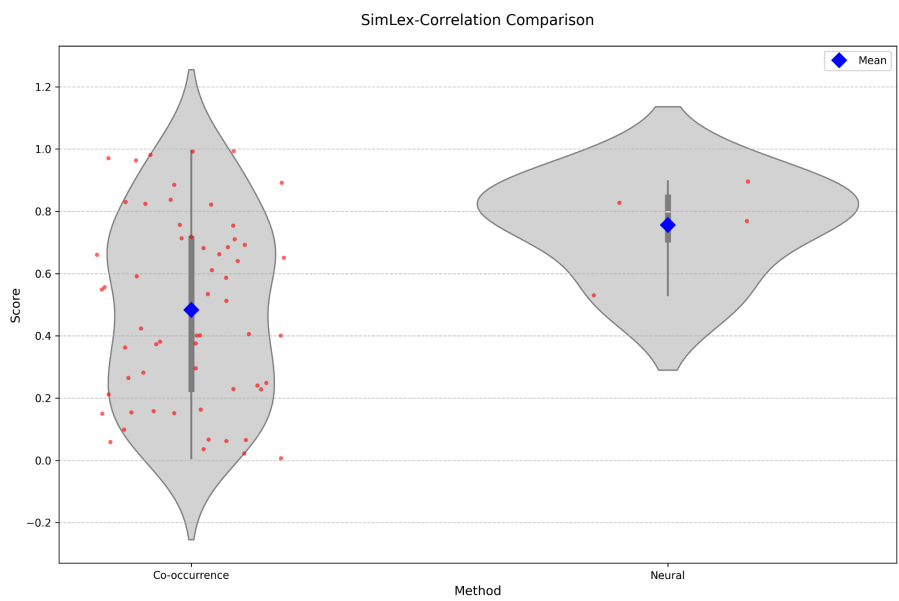
Radar Chart Comparison

Radar chart comparing the relative strengths of each method across metrics.



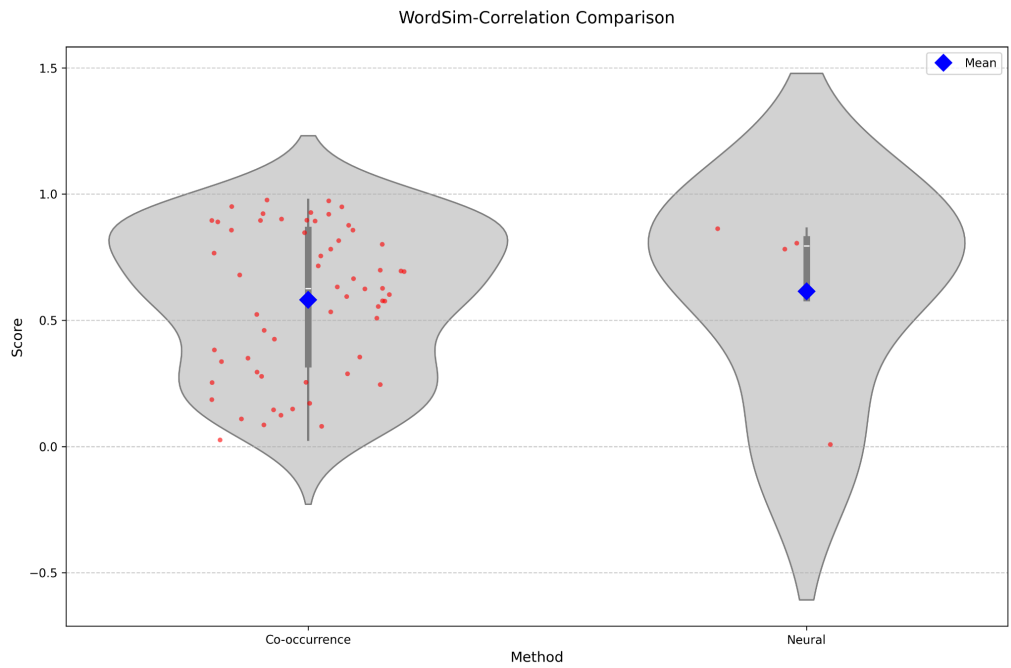
SimLex-Correlation Distribution

Distribution of SimLex-Correlation scores across methods, showing individual data points, means, and overall spread.



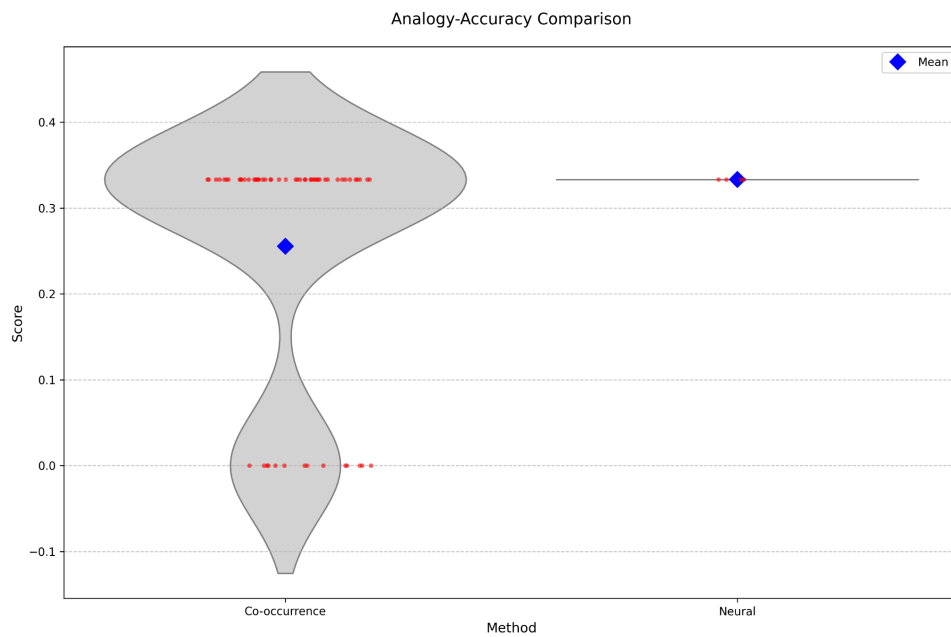
WordSim-Correlation Distribution

Distribution of WordSim-Correlation scores across methods, showing individual data points, means, and overall spread.



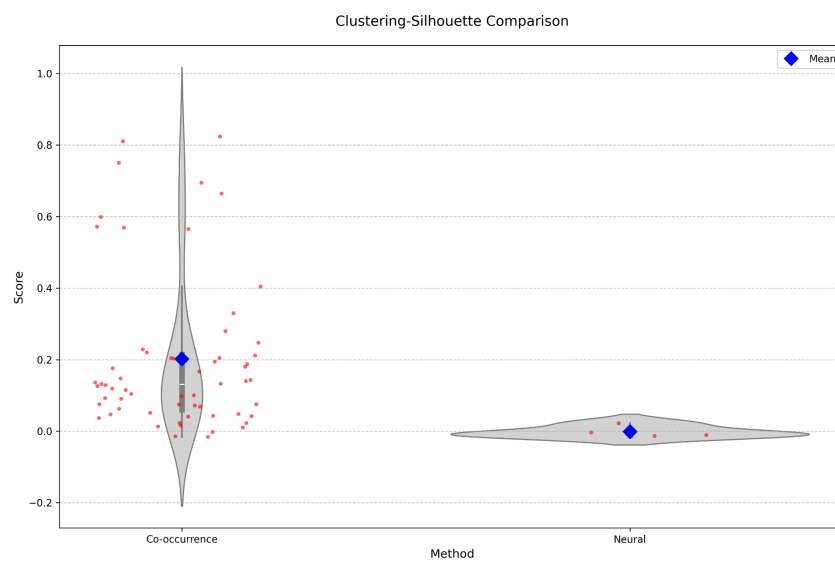
Analogy-Accuracy Distribution

Distribution of Analogy-Accuracy scores across methods, showing individual data points, means, and overall spread.



Clustering-Silhouette Distribution

Distribution of Clustering-Silhouette scores across methods, showing individual data points, means, and overall spread.



Detailed Statistics

<i>Method</i>	<i>Metric</i>	<i>Mean</i>	<i>Std Dev</i>	<i>Min</i>	<i>Max</i>
<i>Co-occurrence</i>	<i>SimLex-Correlation</i>	<i>0.483</i>	<i>0.297</i>	<i>0.007</i>	<i>0.994</i>
<i>Co-occurrence</i>	<i>WordSim-Correlation</i>	<i>0.581</i>	<i>0.288</i>	<i>0.026</i>	<i>0.977</i>
<i>Co-occurrence</i>	<i>Analogy-Accuracy</i>	<i>0.256</i>	<i>0.142</i>	<i>0.000</i>	<i>0.333</i>
<i>Co-occurrence</i>	<i>Clustering-Silhouette</i>	<i>0.202</i>	<i>0.219</i>	<i>-0.016</i>	<i>0.824</i>
<i>Neural</i>	<i>SimLex-Correlation</i>	<i>0.756</i>	<i>0.159</i>	<i>0.531</i>	<i>0.896</i>
<i>Neural</i>	<i>WordSim-Correlation</i>	<i>0.615</i>	<i>0.406</i>	<i>0.008</i>	<i>0.863</i>
<i>Neural</i>	<i>Analogy-Accuracy</i>	<i>0.333</i>	<i>0.000</i>	<i>0.333</i>	<i>0.333</i>
<i>Neural</i>	<i>Clustering-Silhouette</i>	<i>-0.001</i>	<i>0.017</i>	<i>-0.013</i>	<i>0.023</i>