



Facebook Status Generator

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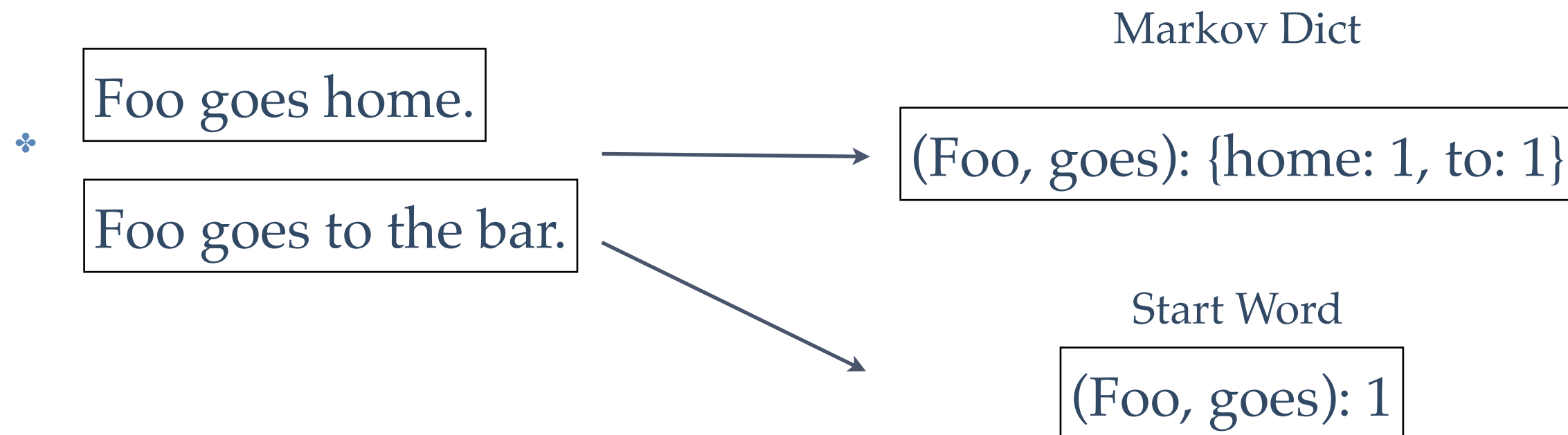
Overview

- ❖ Goal: to generate a likable Facebook status
 - ❖ Learn how to produce a readable sentence
 - ❖ Learn the way a particular person communicates
 - ❖ Learn how to make a sentence popular among a specific group of people

Learn to Make a Readable Sentence

- Markov Chain

- ❖ The Twitter data set (5 million tweets)
- ❖ Content-free process



Learn How a Person Communicates

- ❖ Pull personal data from Facebook using Facebook GraphAPI and private token
- ❖ Text processing using NLTK

Text Processing

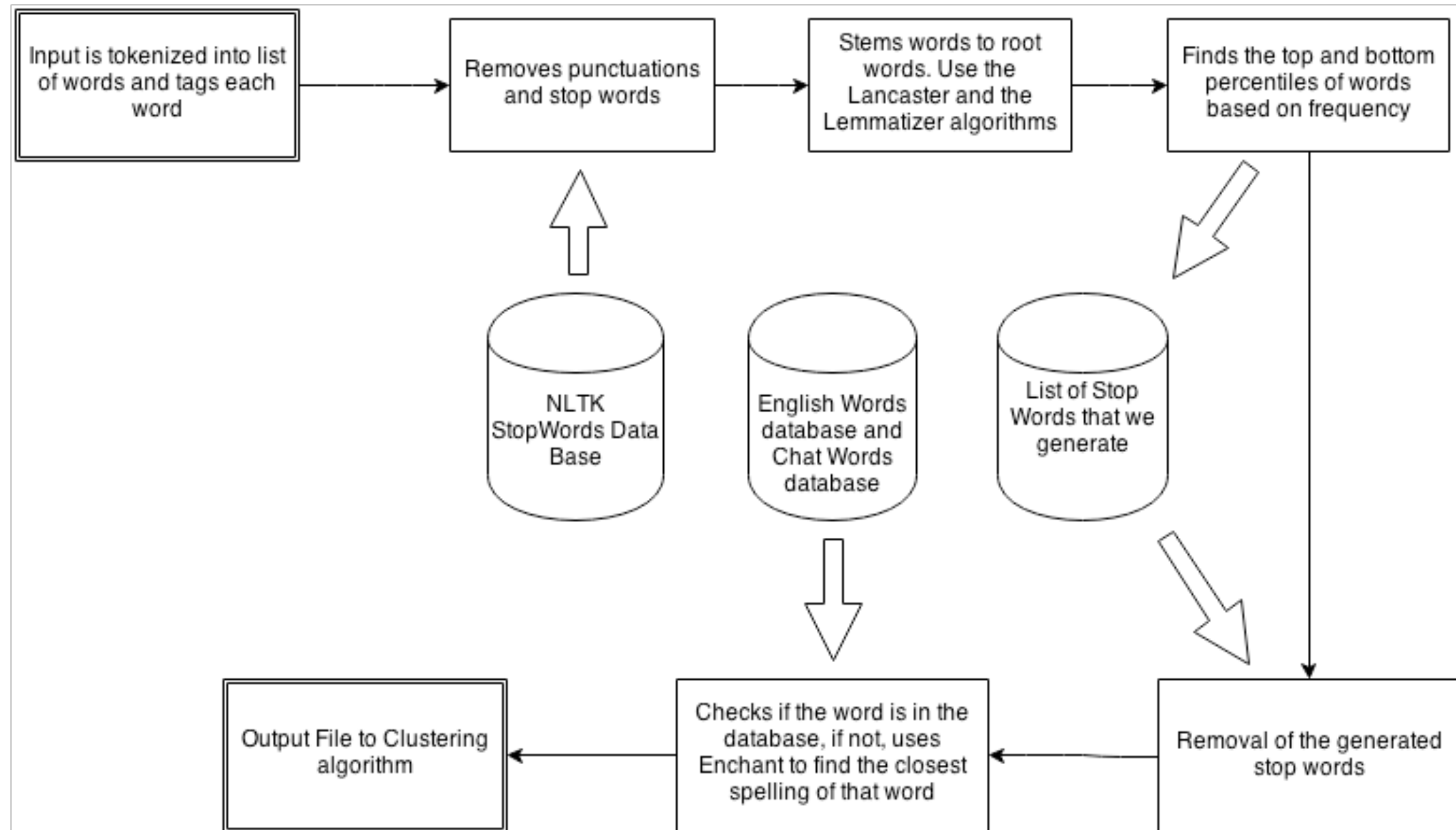


Figure 1. Text Processing Flow Diagram

Learn to Make a Status Likable

- Clustering

- ❖ Construct edge-weighted graph using processed texts
- ❖ Clustering algorithms
 - ❖ Spectral Clustering with Normalized Laplacian (Shi and Malik, 2000)
 - ❖ DBSCAN
 - ❖ Clustering Coefficients by Networkx
 - ❖ Heuristic

Clustering Algorithms

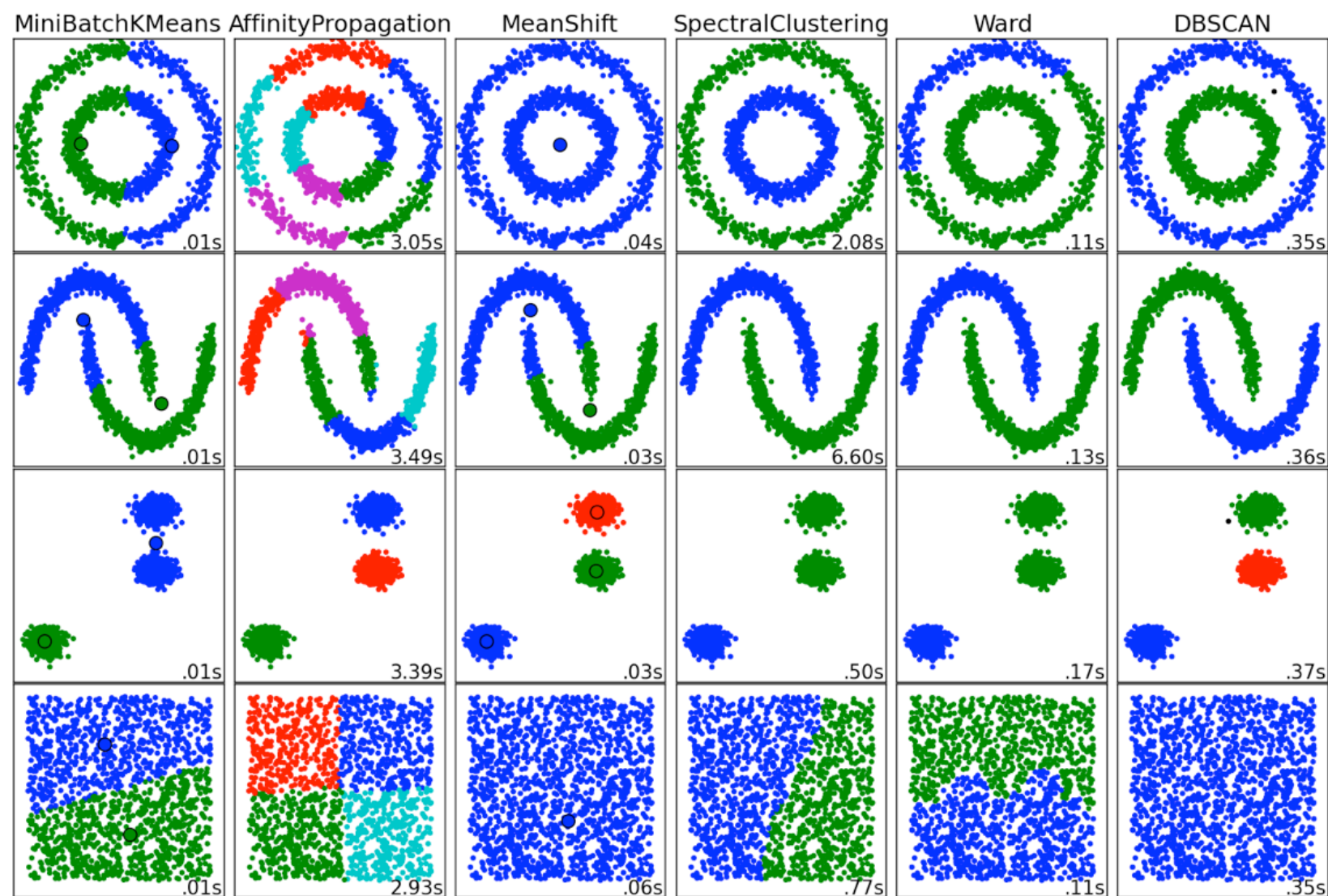


Figure 2. Comparison of Various Clustering Methods

Clustering Output

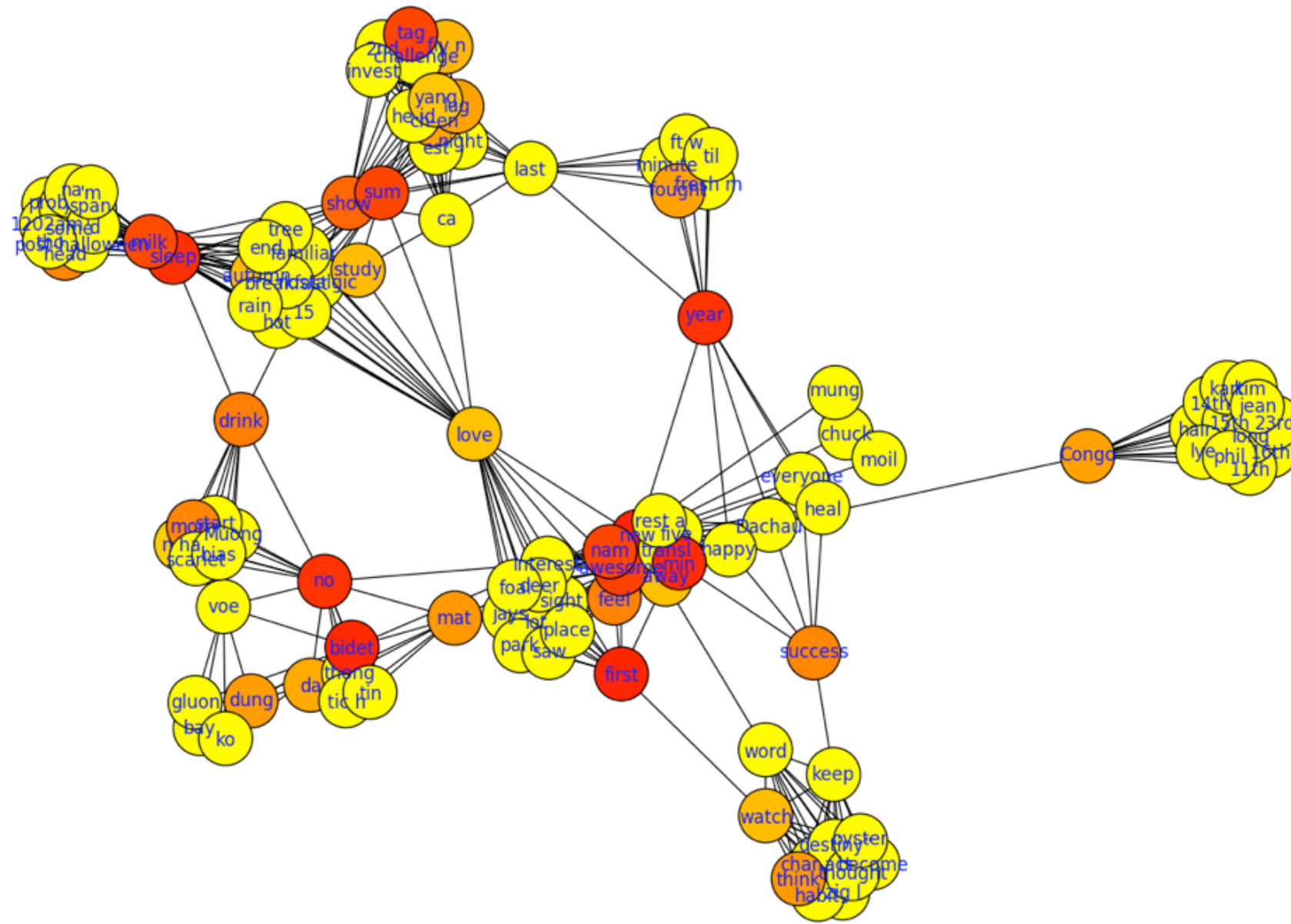


Figure 3. A Word Cluster from a Sample of Facebook Statuses

Clustering Output

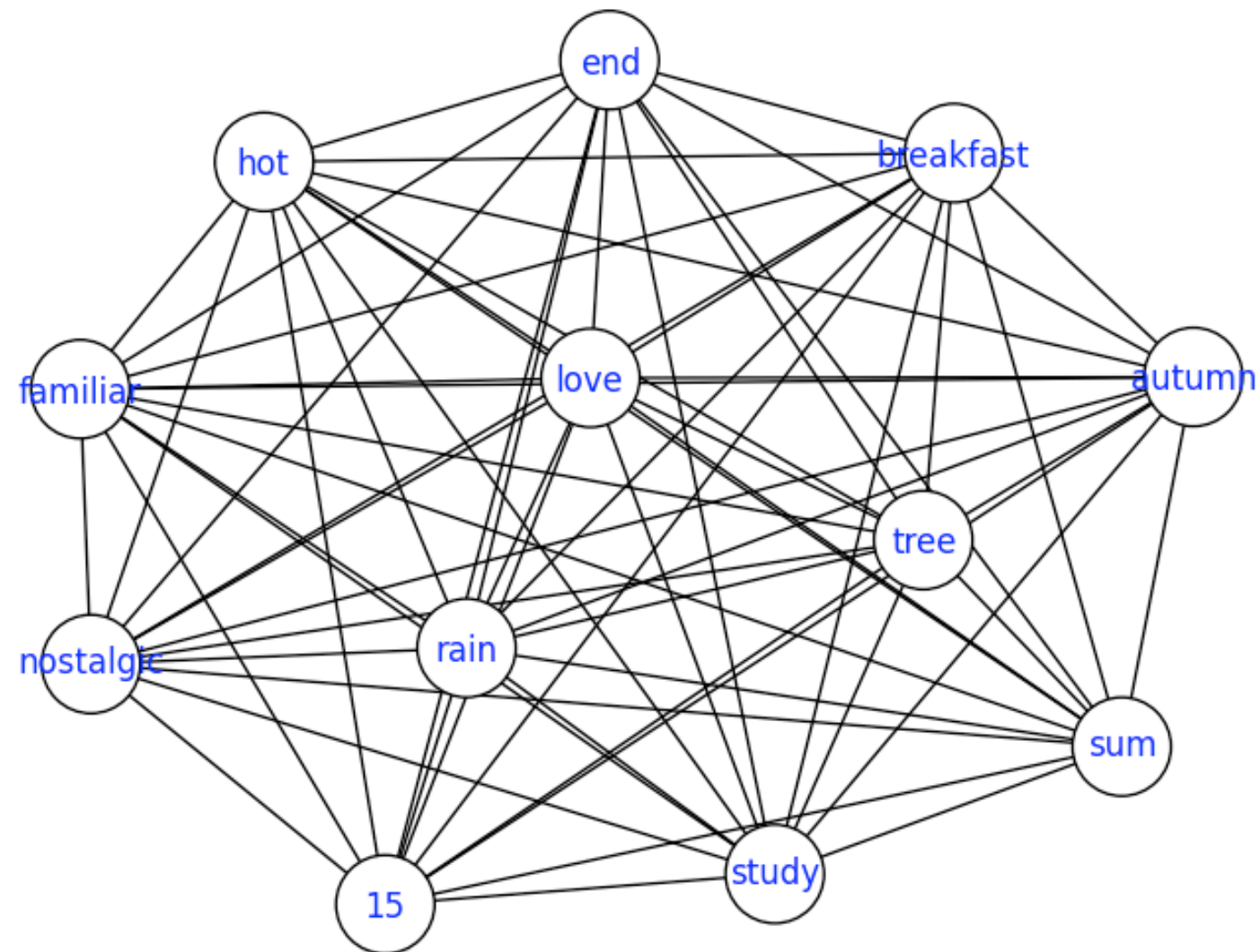


Figure 4. A Smaller Word Cluster from a Sample of Facebook Statuses

Generate a Sentence

- ❖ Combine information from the clustering and Markov Chain



Markov Data

(I, love): {sleep, study}

Clustering Data

[sleep]



Output

I love sleep.

- ❖ Note: Use stem words to filter but the original words to generate sentences.

Thank you