Homework 4

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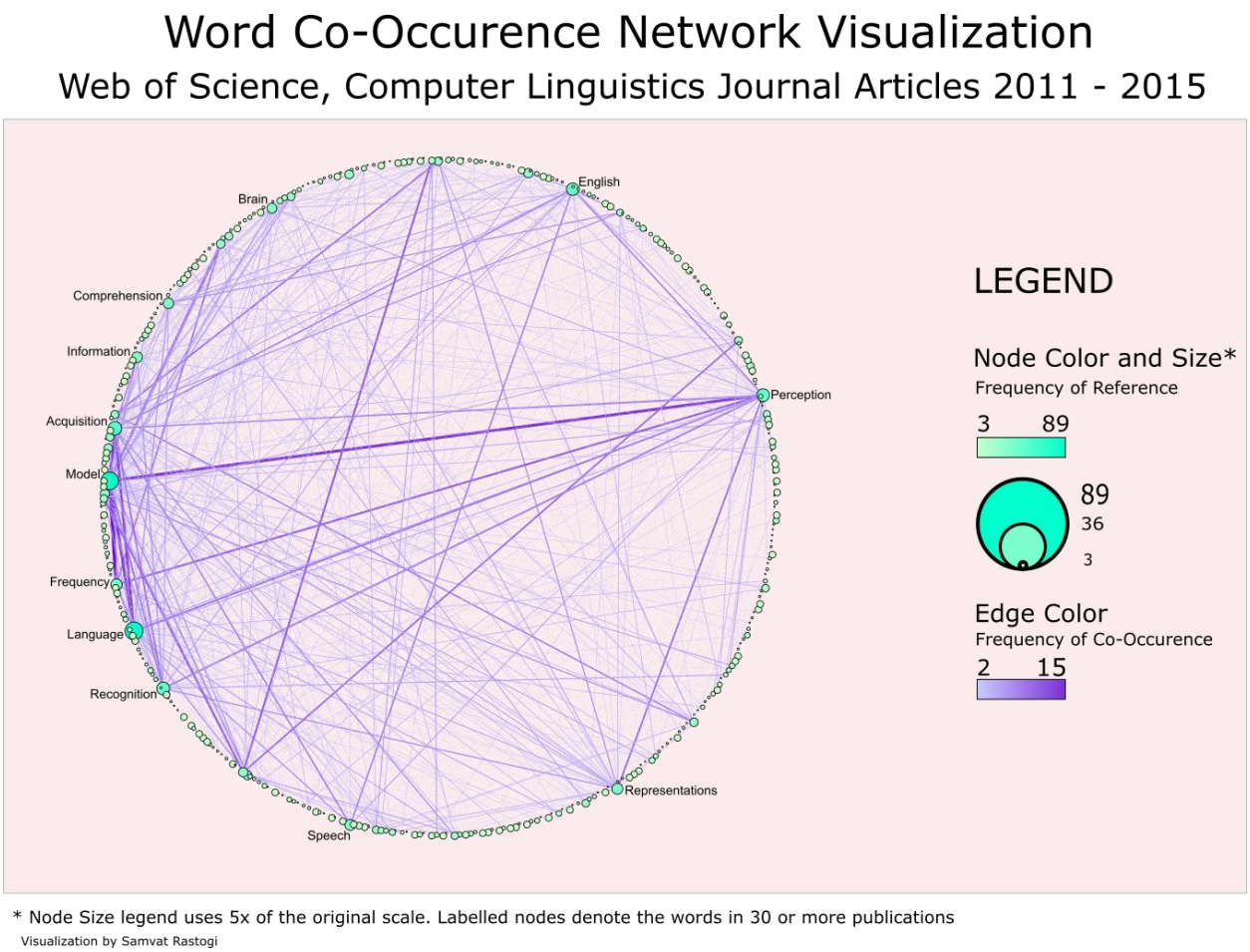
ILS-Z 637 Information Visualization

Topical Data Visualization – Approach

This document provides the essential information about the Topical Data visualization which I have made. Below is a snapshot of visualization. A high-resolution copy of same can be found here.



The above visualization is based on the dataset provided in the homework description in Canvas.

The Process:

1. The Data set was already preprocessed, So I created a Word Co-Occurance map directly from the data.

2. As problem statement demanded edges with minimum weight of 2, I filtered out all the edges below 2 using Extract Edges above and below value of 1.000.

3. After this, I removed isolated nodes and self loops in the extracted data and performed a NAT analysis over it with output below and created the visualization.

This graph claims to be undirected.

Nodes: 374

Isolated nodes: 0

Node attributes present: label, numberofpublications, references

Edges: 1206

No self loops were discovered.

No parallel edges were discovered.

Edge attributes:

Did not detect any nonnumeric attributes.

Numeric attributes:

	min	max	mean
weight	2	15	2.58706

This network seems to be valued.

Average degree: 6.4492

This graph is not weakly connected.

There are 6 weakly connected components. (0 isolates)

The largest connected component consists of 361 nodes.

Did not calculate strong connectedness because this graph was not directed.

Density (disregarding weights): 0.0173

Additional Densities by Numeric Attribute