

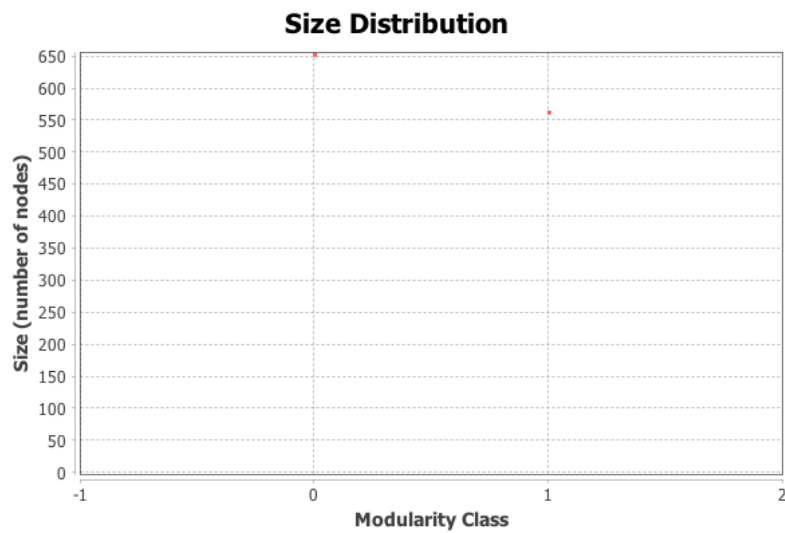
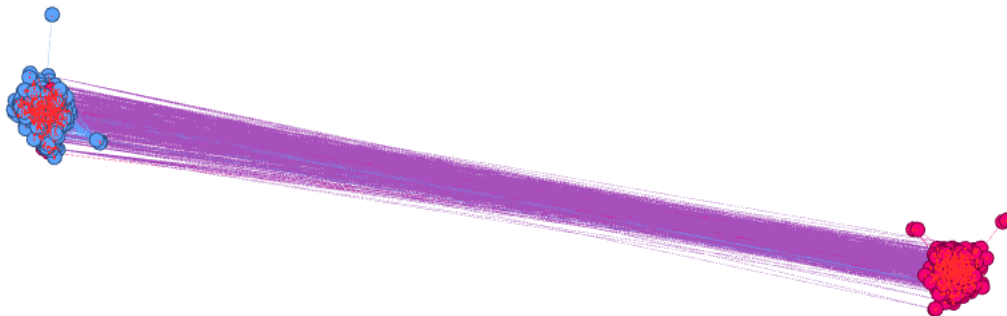
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5/2/18
CS 491

Lab 7

Community Detection

[was unable to create/implement my own k-means algorithm in time]

Using Gephi:



Gephi found 2 communities using modularity with a resolution of 2.
One was of size 664 and the other was of size 554.

	Correctly Labeled	Incorrectly Labeled	Total
Community 0	543	11	554
Community 1	451	213	664
Total	994	224	1218

Community 1:

Precision = $543/994 = 0.546$

Recall = $543/554 = 0.980$

f-measure = $(2 * 0.546 * 0.980) / (0.546 + 0.980) = 0.701$

Community 2:

Precision = $451/994 = 0.454$

Recall = $451/664 = 0.679$

f-measure = $(2 * 0.454 * 0.679) / (0.454 + 0.679) = 0.544$