

Les Miserables (<https://gephi.org/datasets/lesmiserables.gml.zip>)

Les Miserables: coappearance weighted network of characters in the novel Les Miserables. D. E. Knuth, The Stanford GraphBase: A Platform for Combinatorial Computing, Addison-Wesley, Reading, MA (1993).

Using Les_Miserables.star, answer the following questions:

1. What is Social Network Analysis?
2. What is Egocentric Social Network Analysis?
3. What is Sociocentric social network analysis?
4. Which graph property tells us the number of subreddits an subreddit is linked to?
5. Which graph property tells us the number of times a subreddit has been linked to or linked another subreddit?
6. What is Eccentricity?
7. What is meant by Graph Radius?
8. What is meant by Graph Diameter?
9. How many nodes have the highest Eccentricity? Where are they in the network?
10. How many nodes have the lowest Eccentricity? Where are they in the network?
11. What is the Radius of the graph?
12. What is the Diameter of the graph?
13. What is the Average Path Distance of the graph?
14. What is a component?
15. What is Connectivity Degree?
16. Which nodes have a Connectivity Degree greater than 1? Who is holding the graph together?
17. How many components are on the graph if they are removed?
18. What is Centrality?
19. What is Degree Centrality?
20. Which node has the highest Degree Centrality?
21. What would the In-Degree Centrality of a Source?
22. What would be the Out-Degree Centrality of a Sink?
23. What is PageRank Centrality?
24. Which node has the highest PageRank Centrality?
25. What is Betweenness Centrality?
26. Which node has the highest Betweenness Centrality?
27. What is Closeness Centrality?
28. How does this node's betweenness score compare with their Connectivity Degree?
29. Which node has the highest Closeness Centrality?
30. How does this node's closeness score compare with their Eccentricity?

Other Analytics:

31. What is Multiplexity?
32. What is Reciprocity?
33. What is Weight?
34. What is a Clustering Coefficient?
35. What is the Local Clustering Coefficient?
36. What is the Global Clustering Coefficient?
37. What is Eigenvector Centrality?

38. What is Katz Centrality?
39. What is HITS Centrality?
40. What is a hub?
41. What is an authority?