Les Mes Project 1 questions

1. Explain your purpose (e.g., inform, persuade, educate, entertain, etc.) for analyzing

this network?

-The purpose of analyzing the network of characters within Les Misérables is to inform readers of the impact of having many or few connections.

Showing the characters with the most links can predict who the most involved characters. The more involved they are can lead to predicting their influence on the plotline.

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2. Now open the file using Gephi.

 What can you ascertain about the graph you see?

From what I can see from initially opening this graph, each node/character is in some way or another connected to at least one other character in the series. Even if there is only one connection, there are no nodes that have zero links.

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3. Now run three to five Layout algorithms. Make sure to run the Yifan Hu algorithm as one of

your choices.

 Show a small screenshot of each one and briefly explain what changed and why?

Force Atlas 2:

Dual Circle:

Yifan Hu:

Openord:

Radial Axis:

 At this point, which Layout seems most useful and why?

To accomplish my initial goal of informing my audience and using these network layouts to predict who the most involved characters are, it seems like the Yifan Hu layout highlights the number connections the most.

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4. Now add some emphasis to your diagram by sizing, color coding, and naming the nodes.

 Show a screenshot of this action.

 What have you learned from your new diagram?

Adding color to the Yifan Hu layout seems highlights the what I predicted about nodes with the most connections. The higher degree nodes are highlighted by their size which is also complimented by the spread web of connections along the outside.

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5. Now run some statistics about the network such as connectivity, centrality, clustering, etc.

You decide which ones are most relevant.

 Explain what statistical results you found. Please show graphs and/or numbers

generated by Gephi in your explanation.

 Are there any communities or giant components, please explain?

Communities based on the modularity, as modularity splits the nodes into clusters based on how many connections they have. Another thing that should be noted is the weight of each connection. The weight of each connection or the thickness of each line shows how many times the characters interact with each other. The thicker the line the stronger the community.

 Do you see any homophily or density in your network, please explain?

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6. Final contemplation.

 Can you think of any other relevant network data that would have enhanced or

made the study more interesting? Please explain.

-Seeing the nodes grouped together based on their type of relationship or the type of interactions and appearances would have add another level of variety to the dataset. From there, you might be able to analyze how the group of nodes or communities would interact with the other communities.

 Summarize what you learned in this project (three paragraphs maximum).

The Les Miserables network dataset was an interesting study to say the least. This assignment was a great way of learning how to visualize the different aspects within a network. Upon the initial upload of the dataset, it was hard to draw any conclusions or make any prediction based on the mess of the nodes and links. After running some of the layouts, adding names, colors and some weight to the degrees, it was easier to visualize the relations between the nodes and the communities that formed from them.

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7. Submitting your project assignment: You must upload your paper into WebCourses in PDF

format and your file name should follow this naming convention: last name-first nameCNT5805-research project1.pdf