Les Mes Project 1 questions

1. There is a network extracted from the famous novel Les Miserables written in1862 by

the renowned French author Victor Hugo. Besides this novel, it has been performed as a

musical and more recently as a movie. You are going to analyze this work using Gephi. You

may download the file here Gephi Github open source database. After downloading it, open

it up with a text editor so you become familiar with the data.

Each node is a character and there is an edge between two characters if they appear in the

same chapter. Les Miserables is written in over 300 short chapters, so two characters that

appear in the same chapter are very likely to meet or talk in other chapters as the plot in

the novel unfolds. The edges are weighted, and the weight is the number of chapters those

characters appear together in.

 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?

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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?

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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?

 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.

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

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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