1. Name a number of research questions that can be answered about individual Facebook networks using SNA. Explain each question a bit and why it’s interesting.

Answer:

(a). Who are the important people. I will check their degree, betweenness, and eigenvector to see who play important roles in my network. I can see who has a lot of friends and who do not, who link different groups.

(b). Do clusters exist? How many are they? What kind of people are in the clusters? Through checking clusters I can clearly distinguish different groups in the network.

(c). Do my friends know each other? Who do they know?

2. Write several paragraphs describing what you found in your ego network. Begin with the research questions you want to answer. Describe briefly the processes you used including any filtering. Finally, describe your results in text and with appropriate figures.

Answer:

Figure 1 is my Facebook network. Because my Facebook account has been only used for 3 months and most of my friends in China cannot access into Facebook, there are only 43 friends in my network. The vertex color is based on different clusters, the opacity represents eigenvector centrality and the size is represented by betweenness. Female are represented by solid triangle and male are represented by disk. Those who have not mentioned their gender are represented by diamond.

One distinct trait of my Facebook network is that, there are four clusters and each of them is independent, no edge exists between different clusters except the yellow cluster and green cluster. Clusters are explicit, the groups they represented also very clear. The red cluster is undergraduate students in CIS, the green cluster represents a group of Chinese students, the blue cluster is my girlfriend’s friends. You can see the biggest triangle in the green cluster, that is my girlfriend, other alters in that cluster are her classmates or friends.
The green cluster is very interesting too. The biggest disk is a PHD student who has just graduated from CIS, whose name is Han, Qin. Hence those people in the green cluster are Han, Qin’s friends or classmates. The left yellow vertex is my roommate, he is a senior in UO. Interestingly, he knows a female who knows the people in the green cluster.

We also can see that there are two sole alters in the left bottom. Frankly, I have no idea who they are. That explains why they don’t have any edge connected to any cluster in the network.

I used the Facebook application called “Friend Wheel” which mentioned in textbook. This wheel shows my social network clearly, also very beautiful. The clusters are very explicitly shown in the graph as same as what shown in my own figure.
3. Briefly discuss the use of visualization for human problem solving. Why is it important in an analysis such as SNA and Facebook? What are the difficulties you may encounter with choosing visual coding (with examples from your own experience with this homework)?

Answer:

The use of visualization is very important for human problem solving. Visualization can make abstract things, such as numerical statistics, to be visible. When you see tons numbers you hardly can know what they mean. But if you visualize these numbers to graphs you can clearly see what are the numbers represent. Especially in the analysis of statistics, people apply methods of visualization to explain the meaning of mass of data.

In the case of analyzing social network of Facebook or other SNA, visualization is utterly important. Because in SNA and Facebook, we emphasize on relationships between people
rather than solely attributes data. It is impossible to indicate relations between people using only numbers or words, but visualization can. A simple line connected two vertices can represent “relation” between the two people. So we cannot do SNA without visualization.

The difficulty I may encounter is which way I should choose to present relations between vertices and attributes of vertices. Sometimes I don’t know what size or opacity of an vertex can represent. I have also encountered the difficulty of expressing the graph clearly and accurately.

4. Using the text as a guide (Section 11.2) and the following newspaper article, briefly discuss the attitude of Facebook toward privacy.

Facebook, as a successful social network site, has been facing privacy problems since it is built. As a social network site which focuses on building a platform for people making friends, it must open many personal information let others see, because if you want to make friends with others you must introduce yourself and show your own information to the people who you want to get along with. However, not like in real-life world, personal information can be too easily collected by not only your friends but also ads or marketing companies. So Facebook has to keep users’ information safe, not been used by those profit institutions. However, from this report, I think what Facebook did is far away from satisfactory. Lots of users’ information was transmitted to dozens of advertisers and Internet tracking companies. Maybe it is just a casual accident, however it shows that Facebook does not care about users’ personal information as good as we imagine. They should do more works on protecting user's information rather than opening more information to public. I always doubt that those SNS companies will truly keep users' information secured. It is very possible that they are selling information of their users to advertising companies. Another thing I often think about is that if someone delete his/her account in Facebook, is the account really deleted? Where is the personal information? Deleted? Who knows. Anyhow, I don’t think Facebook will remove those data from their database.