CIS 677: Knowledge-Based Interfaces

Designing Social Networks for Human Behavior

Homework #7: QUESTIONS for TEXT Chapter 11 Facebook

November 7, 2010

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Due: Tuesday, November 9 at 10:00am, 200 Deschutes

Answer the following questions. Be precise and succinct in your answers. Make two copies: Turn in one copy to Prof. Douglas at beginning of the class; keep the second one for discussion.

Chapter 11 involves using SNA with Facebook data.

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

(a) Research Question 1

What’s the most important person in my Facebook social network?

I use Facebook mostly follow my friends’ recent status; most of my friends on it are actual friends, colleagues, classmates.

(b) Research Question 2

Is there anyone act as bridge between my friends clusters?

(c) Research Question 3

Although my friends networks on Facebook is limited in numbers, however, there must be some interesting clusters or something in common, find it.

Section 11.4 – 11.7 describes an analysis of an ego network for one of the authors of the text using a Facebook account. I want you to download, construct and analyze an ego network following the example in the book using NodeXL. Half of
you have Facebook accounts already. Please use your own account for this.

Others of you should either get an account, or find a friend who has one to analyze.

The goal for this question is to produce a visualization resembling Figure 11.9. This visualization uses an ego network (without the ego plotted), a clustering algorithm that colors the vertices, a categorical shape labeling of vertices, and graph metrics such as betweenness and eigenvector centrality that are coded visually. The category chose is gender, but you could use anything that you want.

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.

Research Question 3

When I first implement the data, I was quite sad, because this time, due to the censorship, my friend connection is limited, what’s surprised me is the result of clustering:

The first figure of auto cluster:
To watch closely, I add some legends on the figure, it will explain the finding more precisely:

My friends fit quite well in the automatic cluster tool, there are 4 clusters:

Colleagues: they are not familiar with bypass the internet great firewall, so there are only 2 of them.

Undergraduate: they're more scattered without close connection, I'll blame the technique definition of Facebook which only allow English names.

High school: these people are far more interconnected. They formed several Strong triadic closures.
Graduate friend: they’re seems like my undergraduate connection, but, when I go deeper, I find the reason is different: the lack of interconnection is mainly due to the interdisciplinary not the technique of Chinese names.

Research Question 2

It’s pretty interesting when the NodeXL finished calculating the betweenness and eigenvector centrality.

I find two key people in my network; one is my friend who spends 14 years with me from junior high school to undergraduate. However, the most surprised part is the other key person whom I merely talked is linked between one of my graduate friends in U.S and one of my graduate friends in China. That’s a miracle and advancement of six-degree theory.
Also, I add the ring figure to this page; it doesn’t tell me anything more. So I just put it there without any further discussion.
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)?

The visualization is to provide vivid figures to stimulate human color and perception cells to combine the information and knowledge. Our brain could be trapped when deal with numbers and matrix data, thus the visualization of data not only provides us another macro perspective view of existing data, but also gives us a chance to set our mind free to think again the same problem.
The beauty of SNA in Social mediated network is the data presents in a 2-demension space, with edges and vertices, there are tremendous combination of colors, opacities, widths and even the blank space itself.

One difficult I encounters is the lack of sufficient data, the example is I couldn’t figure out what a “unexpected” networks looks like, such as ex-girlfriend’s friends network, all the friends connection in my Facebook account is based on my reality friendship.

4. Using the text as a guide (Sections 11.2) and the following newspaper article,

Briefly discuss the attitude of Facebook toward privacy.

Upon my search, I believe the accusing in the newspaper is too vague to verify.

We admit, the privacy is a big issue in our society, especially when we’re in the evolution of computer-mediated world. The privacy condition is changing from time to time.

Anyway, consider the recent policy of Facebook’s privacy statement. It’s hardly to accuse such a self-regulated company. Its privacy policy contains clauses specify many scenarios including protecting minor children.

From its privacy policy website, I found the Date of last revision is October 5, 2010.

http://www.facebook.com/policy.php

It’s pretty up-to-date.

From the article, I found the Facebook have been approved by TRUSTe, which is a company following the strict privacy protecting regulation will be awarded.

In addition, there also more video clips address Facebook’s privacy protection: http://www.facebook.com/privacy/explanation.php

In conclusion, I fully believe Facebook did what he could to prevent privacy become an issue, and the company will do everything they can to stop the identity theft.