CIS 677 Knowledge-Based Interfaces
Designing Social Networks for Human Behavior

Final Project or Research Paper
Fall 2010

DUE Wednesday, December 8 at 5pm in my CIS mailbox in Deschutes main office. This is worth 50% of your grade (10% presentation & 40% written paper). Late assignments are not accepted, although early ones are!

Choosing the Topic
The final project (case study) or research paper can be chosen from numerous topics. (See below.) The topic must be related to the course and approved by the instructor. At the November 4 class I will ask you to give me a brief 1-2 paragraph description of the topic that you have chosen including several potential references. I will notify you as to whether this is acceptable and include some guidance if necessary. If you need help defining a topic, please come to my office hours or make a special appointment before November 7. At November 11 class I will ask you to hand in a list of proposed references.

Oral Presentation
During the last week of class (November 30 & December 2), you will give a 20 minute presentation about your final project or research paper. For Tuesday, November 30 the speakers will be Kurt, Ryan and Pete. For Thursday, December 2, the speakers will be Xiao, Yang and Moji. You may use Powerpoint or not. Spend your time preparing the content and what you want to say. You don’t need to make it visually fancy. Keep your presentation content-oriented and focused on social networks. Explore the following: interesting questions, main ideas, methods used, results (or conclusions), problems, examples, etc. Remember that the purpose of the presentation is the communication of ideas and the creation of discussion. Pose a few questions for the class. Relax and look at each member of the audience and smile.

Written Products
Format. The project report or research paper should be well-written and researched. Correct grammar and spelling are expected. Citations are to be given at the end of the paper. These citations should fully document the reference sources including website URL’s. Please submit a pdf and a paper version of your final written product.

Length. The project report or research paper should be between 15-20 pages double-spaced with 1” margins.

Contents. I am particularly looking for evidence that you grasp some of the larger abstract ideas. Remember that the final project or research paper is the best means by which you can demonstrate what you have learned in class.
Project

A project involves working with a software program: either the NodeXL code or some other product. A project explores various ideas that we have discussed in this class. Remember, you will need to state the questions, gather the data if needed, build the model, program it, run experiments, and write a report.

Possible Topics:
- Create your own discussion board, wiki or social network (drupal?) and use SNA to monitor and test the design
- Extend the text’s case study of Facebook, Twitter or Wikipedia using NodeXL
- Do a case study on any chapter we have not covered in the book
- Do a case study of data that is available in repositories

Turn-in for the Project:
1. A description of the software you used and the OS environment.
2. A sample output run demonstrating basic functionality.
3. Write a report summarizing and analyzing the results from your exploration of the topic chosen. Note that this paper should include a thorough discussion of the questions you asked, the experiments you conducted, graphic representations of the input and output data, and the results you obtain. You also will want to generalize your findings.

Research Paper

Alternatively, you may choose to write a technical research paper. Topics should explore in depth issues of computer-based social networks.

Possible Topics:
- Integrating SNA into the design of social networks
- Analysis of privacy for social networks using SNA
- Algorithms for Visualizing networks
- Algorithms for Custer analysis

Turn-in for the Research Paper:
1. Write a paper focusing on the research topic. Clearly state the topic. Define the important terms. Why is this topic important? What are the critical issues? Summarize the literature and past research. What are the results? What hasn't been solved and why not? Provide complete list of references read and cited. Note, the style of this paper is scholarly. Please conform to standard practice in the field, e.g. an ACM journal or proceedings paper.