CS 579
Online Social Network Analysis Introduction/Syllabus

Dr. Cindy Hood

8/19/25

Course Objectives

- ▶ Learn the fundamentals of social media analysis
  - ▶ Data
  - ▶ Modeling
  - ▶ Qualitative analysis techniques
  - ▶ Graphs
  - ▶ Networks
  - ▶ Data mining/modeling techniques
- ▶ Apply these fundamentals to real-world problems
  - ▶ Homework assignments
  - ▶ Projects
- ▶ Communicate results and insights
  - ▶ Reports
  - ▶ Presentations

Instructor

- Dr. Cindy Hood

- Associate Professor of Computer Science and Engineering

- hood@illinoistech.edu

- Two offices

  - SB 217D (office hours here)

  - IIT Tower 10F6-2

- Office hours Tuesday 3-4pm and by appointment
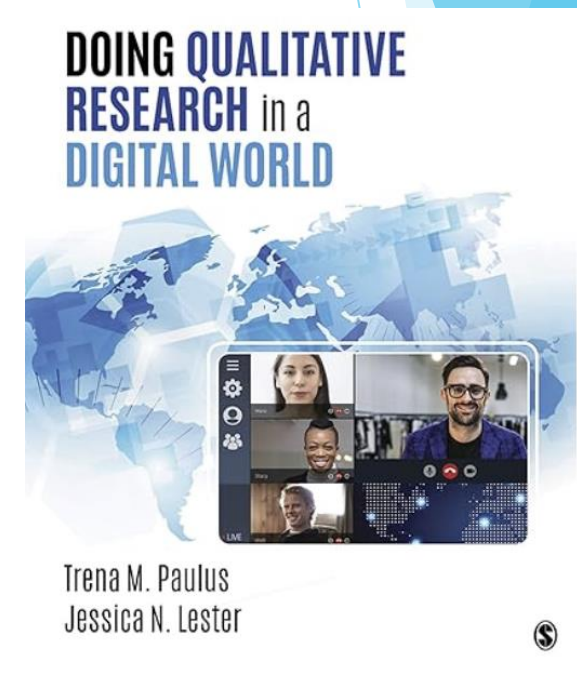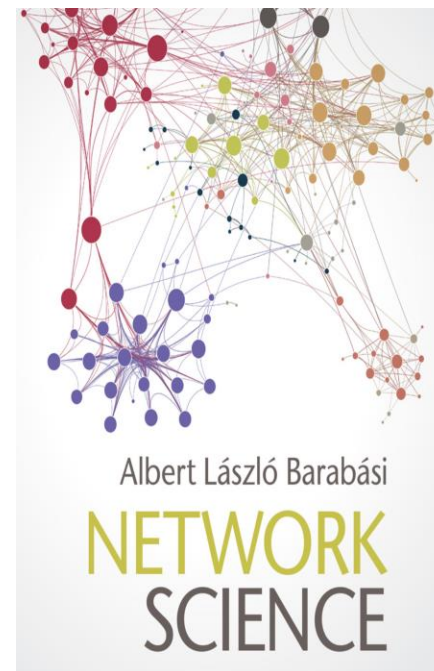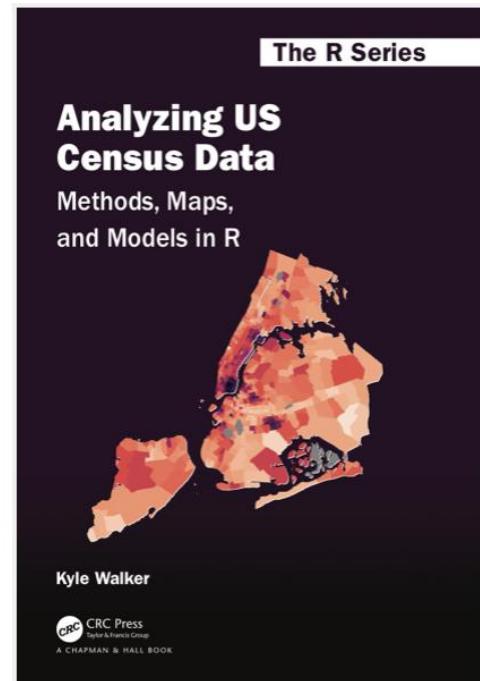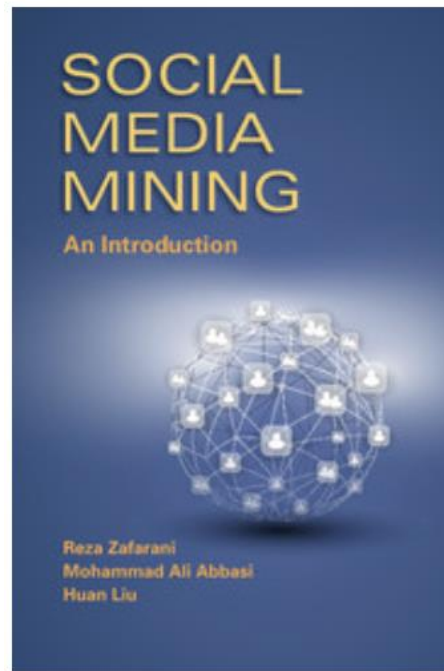
Teaching assistants TBD

Logistics

- **Class meets Tuesdays/Thursdays 11:25am - 12:40pm**
  - HH 002

- **All material posted to Canvas**
  - Class video
  - Lecture Slides (when available)
  - Assignments

Class Resources
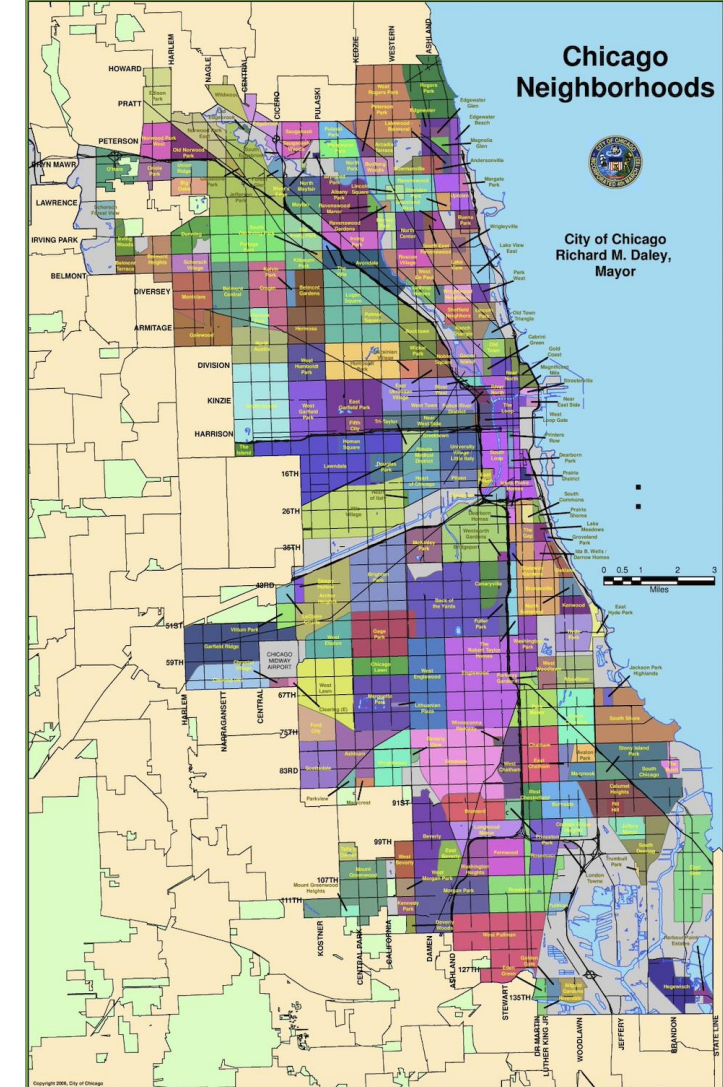
- We will be using a variety of resources including

- http://www.socialmediamining.info

- https://walker-data.com/census-r/

- http://networksciencebook.com

Real world data: Chicago

- 77 community areas
- 178 Neighborhoods

Real world data: FCC Comments

▶ Who influences the FCC decision-making?

Welcome to the FCC's Electronic Comment Filing System

ECFS serves as the repository for official records in the FCC's docketed proceedings from 1992 to the present. The public can use ECFS to retrieve any document in the system, including selected pre-1992 documents.

Communication

- Class will be the primary source of class information
- Don't be shy about asking questions
- This course will be best with active participation from everyone
- Your perspective is valued
- Respectful discussion
  - Ok to disagree

Covid-19 (still...) and other health issues

- Do not come to class if you are not feeling well

- Masking optional

- Flexibility

- Let me know if you need help
  - Earlier is better

- IIT Student Health and Wellness Center

  - www.iit.edu/shwc

  - 312.567.7550

Grading Policy

- Homework assignments (~5) 20%
- Semester Project 30%
- Presentations 10%
- Exams 40%
  - Exam 1 20%
  - Exam 2 20%

Late Penalty

- Each student is allocated 7 days of no-penalty extension time to be used on homework and projects
    - Extension time utilized in 1 day units (not less)
    - For team projects, each team member must use their own extension time
    - Extension is automatic, doesn't need to be requested
    - Max extension time may be limited on some assignments
        - This will be specified when assignment is given out
- After extension time is exhausted
    - 20% deduction for each day late
        - Lateness is assessed in day units

Academic Honesty

▶ Violations of the University Academic Integrity policy will not be ignored. Penalties include reduced or no credit for submitted work, a failing grade in the class, suspension, and expulsion.

▶ The full IIT Code of Academic Honesty can be found at https://www.iit.edu/student-affairs/student-handbook/fine-print/code-academic-honesty

▶ Specific details will be included for each assignment/project

　▶ Ask if you have questions

From Student Handbook

Illinois Tech expects students to maintain high standards of academic integrity. Students preparing for the practice of a profession are expected to conform to a code of integrity and ethical standards commensurate with the high expectations society places upon the practitioners of a learned profession. In sum, no student may seek to gain an unfair advantage over another.

It shall be a violation of this Code of Academic Honesty for a student to engage in conduct that violates the established standards of their major academic discipline, the established standards of the academic discipline in which they are engaged, the established standards of the profession for which they are training, or the standards of Illinois Tech set forth herein. In addition, it is a violation of this Code of Academic Honesty for a student knowingly to engage or attempt to engage in any of the following or to engage or to attempt to engage in a course of action that would cause a reasonable person to conclude a violation of any of the following:

1. The misrepresentation of any work submitted for credit or otherwise as other than the product of a student's sole independent effort, such as using the ideas of others without attribution and other forms of plagiarism;

2. The use of any unauthorized assistance in taking quizzes, tests or examinations;

3. The acquisition, without permission, of tests, answer sheets, problem solutions or other academic material when such material has been withheld from distribution by the instructor;

4. Deliberate and harmful obstruction of the studies, research or academic work of any member of the Illinois Tech community;

5. Making a material misrepresentation in any submission to or through any office of Illinois Tech to a potential employer, agency, professional society, meeting, or organization, which includes, without limitation, any unauthorized access to Illinois Tech's digital or electronic systems for the purposes of altering or seeking to alter or submitting or seeking to submit false, misleading or inaccurate information; or

6. The intentional assistance of others in the violation of the standards set forth in this Code of Academic Honesty.

Disabilities

- Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must obtain a letter of accommodation from the Center for Disability Resources. The Center for Disability Resources (CDR) can be reached by telephone at 312-567-5744 or email disabilities@iit.edu

Illinois Tech's Sexual Harassment and Discrimination Information

- Illinois Tech prohibits all sexual harassment, sexual misconduct, and gender discrimination by any member of our community. This includes harassment among students, staff, or faculty. Sexual harassment of a student by a faculty member or sexual harassment of an employee by a supervisor is particularly serious. Such conduct may easily create an intimidating, hostile, or offensive environment.

- Illinois Tech encourages anyone experiencing sexual harassment or sexual misconduct to speak with the Office of Title IX Compliance for information on support options and the resolution process.

- You can report sexual harassment electronically at iit.edu/incidentreport, which may be completed anonymously. You may additionally report by contacting the Title IX Coordinator, Virginia Foster at foster@iit.edu or the Deputy Title IX Coordinator at eespeland@iit.edu.

- For confidential support, you may reach Illinois Tech's Confidential Advisor at (773) 907-1062. You can also contact a licensed practitioner in Illinois Tech's Student Health and Wellness Center at student.health@iit.edu or (312)567-7550

- For a comprehensive list of resources regarding counseling services, medical assistance, legal assistance and visa and immigration services, you can visit the Office of Title IX Compliance website at   https://www.iit.edu/title-ix/resources.

Interactions

- We will use Piazza discussion boards
- All questions on class material should be posted on discussion board
  - TA's or other students can reply

Definition of Social

social /sō′shəl/ 🔊

adjective

1. Of or relating to human society and its modes of organization.
   "social classes; social problems; a social issue."

2. Of or relating to rank and status in society.
   "social standing."

3. Of, relating to, or occupied with matters affecting human welfare.
   "social programs."

The American Heritage® Dictionary of the English Language, 5th Edition • More at Wordnik

Definition of Social Network

social network *noun*

1 : a network of individuals (such as friends, acquaintances, and coworkers) connected by interpersonal relationships

2 : an online service or site through which people create and maintain interpersonal relationships

> And millions of people have become comfortable using smart-phones to share information about themselves, via mobile apps that access *social networks* such as Facebook and Twitter.
> — *The Economist*

https://www.merriam-webster.com/dictionary/social%20network