## **SOCI 3238: Digital Sociology**

Department of Sociology
The Chinese University of Hong Kong

AY2022-23 Term 2

Mondays 09:30-11:15 Yasumoto Int'l Acad Park 505

#### **Contact Information**

Professor: LEE Jaemin, Ph.D. E-mail: <u>jaeminlee@cuhk.edu.hk</u> Office hours: By appointment Office: Sino Building Room 418

Teaching Assistant: LI Yujie, M.Sc.

E-mail: <u>yjli@link.cuhk.edu.hk</u>
Office hours: By appointment
Office: Sino Building Room 421

### **Course Description**

Changes in technology—specifically the transition from the analogue age to the digital age—request a new visit to longstanding sociological questions and a comprehensive approach to the epistemic, methodological and normative issues of "computational social science" as an emerging interdisciplinary field. This undergraduate-level course introduces digital forms of research that advances theories of human behaviour by applying computational techniques to large-scale data from social media, dynamic networks, real-time digitised and administrative records, and social simulations. Students will learn and practice social research methods in the digital age. Particular attention throughout the course will be paid to learning and implementing the **R** statistical program. Social Statistics (SOCI2004) or equivalent is a prerequisite, which can be waived upon consultation with the instructor.

## **Learning Objectives**

By the end of this course, students should be able to:

- 1. Describe the opportunities and challenges that the digital age creates for social research.
- 2. Use essential programming and computational techniques to analyse digital forms of social data.
- 3. Evaluate modern social research from the perspectives of both social science and data science.
- 4. Practice sociological imaginations on the new social problems that we face in the age of big data and new media.

## **Assessment and Grading**

The grade for the course will be calculated as a weighted average of the following components:

Attendance (Lecture & Tutorial)	10%
Assignments	40%
Final Paper	50%

#### Attendance (10%)

- Attendance will be a crucial part for your success, as the material builds on itself cumulatively throughout the course. Do not fall behind. If you start falling behind, see your tutor immediately, in order to catch up.
- I will not punish your one-time absence/lateness with a harsh grade. At the same time, I will highly compensate diligent and active students (i.e., full attendance for lectures and tutorials).
- Class starts promptly on time. Arrivals after 5 minutes of the class beginning will be counted as lateness.
- Equal weights will be given for participation in tutorials.

### **Assignments** (40%)

- There will be a combination of assignments.
  - Writing 2-3 essays and discussion: (i) Reflection essays on new problems in the digital age; and (ii) article summary and critical review.
     We will use Blackboard and other communication tools to communication each other.
  - o Programming assignment: Web-scraping coding exercise using **R**.
- For all assignments, late submission is not allowed without a 24 hours prior notice.

#### Final Paper (50%)

- Final paper is a team project of two. You will be paired with another student to work together.
- Presentation (10%) + Paper (40%).
- You can choose to write a research paper or project report. While the former is a typical form of social science research, the latter applies academic insights/analysis to a real-world case. It should involve some elements of computational social science methods and digital data.
- Presentation (15-20 minutes) is required and will take place in the last week. Goal is to spread good ideas to everyone.
- Due dates, specific instructions, and assessment criteria TBA.

#### Grading

#### **Grade Descriptors**

- A Excellent: Outstanding performance on all learning outcomes.
- A- Very Good: Generally outstanding performance on all (or almost all) learning outcomes.
- B Good: Substantial performance on all learning outcomes, OR high performance on some learning outcomes which compensates for less satisfactory performance on others, resulting in overall substantial performance.
- C Fair: Satisfactory performance on the majority of learning outcomes, possibly with a few weaknesses.
- D Pass: Barely satisfactory performance on a number of learning outcomes.
- F Failure: Unsatisfactory performance on a number of learning outcomes, OR failure to meet specified assessment requirements.

### Reading

I recommend the following books as primary references for lectures:

Salganik, Matthew. 2019. *Bit by Bit: Social Research in the Digital Age*. Princeton University Press. Freely accessible at <a href="https://www.bitbybitbook.com/en/1st-ed/preface/">https://www.bitbybitbook.com/en/1st-ed/preface/</a>

Nelimarkka, Matti. 2022. Computational Thinking and Social Science: Combining Programming, Methodologies, and Fundamental Concepts. Sage. A review version available at <a href="http://codingsocialscience.org/book/r1/">http://codingsocialscience.org/book/r1/</a>

Silge, Julia, and David Robinson. 2017. *Text Mining with R: A Tidy Approach*. O'Reilly Media, Inc. Read online: https://www.tidytextmining.com/

Kumar, Ashish, and Avinash Paul. 2016. *Mastering text mining with R*. Packt. Read online via CUHK library:

https://julac.hosted.exlibrisgroup.com/permalink/f/1fusua3/CUHK\_IZ51990329770003407

Required readings, if any, will be announced in class. It is your responsibility to do the reading *before* class. Readings will be mainly based on the combination of the above books, but supplemented by other articles/sources that will be uploaded on Blackboard.

## **Academic Honesty**

Please keep in mind the university's policy on academic honesty. Plagiarism will not be tolerated in the term paper and assignments. The ideas and language should be your own, and any outside sources must be clearly and properly cited. There are severe consequences if you commit any acts of academic dishonesty. In addition to the department's policy and guidelines for citations, please refer to the university-level disciplinary guidelines and procedures. The Faculty of Social Science has also compiled a handout to alert students of the importance of academic honesty and the consequences of violating the University's Rules. To this end, the final term paper should be submitted to VeriGuide.

# **Schedule**

## Lectures

Week	Date	Topic
1	Jan-09	Course Overview
2	Jan-16	Research Designs (1)
3	Jan-23	NO CLASS: Chinese New Year
4	Jan-30	Research Designs (2)
5	Feb-06	Research Designs (3)
6	Feb-13	Data Collection (1)
7	Feb-20	Data Collection (2)
8	Feb-27	Text analysis (1)
9	Mar-06	NO CLASS: READING WEEK
10	Mar-13	Text analysis (2)
11	Mar-20	Text analysis (3)
12	Mar-27	Network Analysis (1)
13	Apr-03	Network Analysis (2)
14	Apr-10	NO CLASS: Easter Monday
15	Apr-17	Wrap-up; Student Presentation

<sup>\*</sup> This schedule is tentative and subject to minor changes.

## **Tutorials**

TBA