## SOCI 3238: Digital Sociology

Department of Sociology
The Chinese University of Hong Kong

AY2023-24 Term 1

Wednesdays 14:30-16:15 Yasumoto Int'l Acad Park 503

#### **Contact Information**

Instructor: Professor LEE Jaemin E-mail: <a href="mailto:jaeminlee@cuhk.edu.hk">jaeminlee@cuhk.edu.hk</a>
Office hours: By appointment
Office: Sino Building Room 418

Tutor: Mr. LI Yujie

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. This course also applies sociological perspectives and concepts to understand new social problems that we face in the age of big data and new media. 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.

# **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	45%
Project Report	45%

#### Attendance (10%)

- Attendance will be a crucial part for your success, as the material builds on itself cumulatively throughout the course. I will highly compensate diligent and active students (i.e., full attendance for lectures and tutorials).
- Class starts promptly on time. Arrivals after attendance check will be counted as lateness.
- Equal weights will be given for participation in tutorials.

#### **Assignments** (45%)

- Reflection memo on a problem in the digital age (15%)
- Metaverse learning (15%)
- Web-scraping coding exercise using **R** (15%)
- We will use Blackboard and other communication tools to communication each other. For all assignments, late submission is not allowed without a 24 hours prior notice. Schedules TBA.

### **Project Report** (45%)

- Presentation (10%) + Paper (35%).
- Project report is a demonstration of analysis on real-world data. This is a
  "short" and "light" version of a research paper in the sense that it focuses on
  data exploration (i.e., without literature review and theoretical discussion). It
  should involve some elements of computational social science methods and
  digital data.
- It's a team project of two. You will be paired with another student to work together.
- Presentation (15 minutes) 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.

#### **Schedule**

#### Lectures

Week	Date	Topic
1	Sep-06	Course Overview
2	Sep-13	Digital Revolution
3	Sep-20	Digital Research Designs (1)
4	Sep-27	Digital Research Designs (2)
5	Oct-04	Web-based Data Collection (1)
6	Oct-11	Web-based Data Collection (2)
7	Oct-18	Machine Learning
8	Oct-25	CONSULTATION WEEK*
9	Nov-01	Text Analysis (1)
10	Nov-08	Text Analysis (2)
11	Nov-15	Text Analysis (3)
12	Nov-22	Network Analysis
13	Nov-29	STUDENT PRESENTATION

<sup>\*</sup> Lecture will be replaced by meetings with project teams. Project teams will be asked to register a time to meet the instructor.

Note: This schedule is tentative and subject to minor changes.

#### **Tutorials**

You can expect 4 to 5 meetings in a designated time and place – which will be announced later after our tutor collects your availability via a survey/emails.

## Reading

The following books will be used as primary references for our lectures:

- Skopek, Jan. 2023. Research Handbook on Digital Sociology. Northampton, UK: Edward Elgar Publishing. Online access: <a href="https://julac-cuhk.primo.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService-e&package\_service\_id=62888255630003407&institutionId=3407&customerId=3405&VE=true">https://julac-cuhk.primo.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService-e&package\_service\_id=62888255630003407&institutionId=3407&customerId=3405&VE=true</a>
- Salganik, Matthew. 2019. *Bit by Bit: Social Research in the Digital Age*. Princeton University Press. Online access for a review version: https://www.bitbybitbook.com/en/1st-ed/preface/
- Nelimarkka, Matti. 2022. Computational Thinking and Social Science: Combining Programming, Methodologies, and Fundamental Concepts. Sage. A review version available at http://codingsocialscience.org/book/r1/
- Silge, Julia, and David Robinson. 2017. *Text Mining with R: A Tidy Approach*. O'Reilly Media, Inc. Online access: <a href="https://www.tidytextmining.com/">https://www.tidytextmining.com/</a>
- Kumar, Ashish, and Avinash Paul. 2016. *Mastering text mining with R*. Packt. Online access:

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

Required readings, if any, will be announced in 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.