Data & Society (SOC 225)
COVID-19 Online Edition

Zack W. Almquist
Spring Quarter, 2020

Class Schedule

Lecture: Asynchronous
Lab BB: F 1:30PM - 2:20PM Savery 117
Lab BA: F 2:30PM - 3:20PM Savery 117
Lecture URL: https://canvas.uw.edu/
Lab URL: https://github.com/uw-soc-225/uw-soc-225

Professor

Name: Zack W. Almquist
Office: Savery Hall 231
Office Hours: 9:00AM - 10:20AM (TU & TH)
Email: zalmquist@uw.edu

Teaching Assistants

Name: Yuan “Monica” Gao Rollinson
Office: Virtual
Office Hours: 1:00PM - 2:00PM (TU) & 11:30AM-12:30PM (F)
Email: monicagr@uw.edu
Lab: BA

Name: Ihsan Kahveci
Office: Virtual
Office Hours: 10:00AM - 11:00AM (M) & 10:00AM - 11:00AM (W)
Email: ikahveci@uw.edu
Lab: BB
Course Description

Social implications of the digital revolution, including ethical issues associated with algorithmic design and privacy. Discusses data science as a new occupation that uses data to understand or influence people’s behavior. Students will use a sociological lens to explore how our increasingly digital lifestyle changes institutions and social relations.

What is Sociology and Social Inquiry Exemplars

“Sociology is a study of society, patterns of social relationships, social interaction and culture of everyday life. It is a social science that uses various methods of empirical investigation and critical analysis to develop a body of knowledge about social order, acceptance, and change or social evolution. Sociology is also defined as the general science of society.” - Wikipedia

• How does Zillow or Redfin recommend housing locations to people?
  – Do the algorithms Zillow or Redfin employ increase or decrease racial/ethnic segregation in the population (e.g., Seattle)?
  – Do the algorithms Zillow or Redfin employ increase or decrease socio-economic segregation in the population (e.g., Seattle)?

• How does Social Media (Facebook, Instagram, Twitter) impact the spread of information?
  – What are some of the positive implications (e.g., friendship maintenance after high school)?
  – What are some of the negative implications (e.g. differential spread of fake news by age groups)?

• What are the implications of police and law enforcement’s use of Machine Learning on the criminal justice system?
  – Do these algorithms work towards reducing or increasing racial disparities in the legal system (e.g., algorithmic bias and/or data collection bias)?

• The use of Machine Learning in medicine holds the promise of improved medical diagnoses, drugs and other life saving measures; however, the full implications of highly computerized medical system are not clear:
  – What does this mean for patient privacy?
  – What does this mean for medical insurance for individuals in the US?
– What does this mean for patient care? Could there be unintended consequences (e.g., algorithmic bias)?


**Course Objectives**

- Be able to identify how companies and governments use Big Data and algorithms for benefits and harms at individual and societal level.

- Be able to identify how companies and government use Big Data and algorithms to identify and target individuals.

- Be able to identify how Big Data has changed the social sciences and how it will effect the social sciences in the future.

- Be able to write up an effective 1-2 page business-style memo on a data and society Topic.

**Lab Objectives**

- See Lab Syllabus.

**Prerequisites**

None.

**Course Requirements**

**Asynchronous**

Due to COVID-19 this class will be asynchronous. That means that we will NOT meet at any pre-specified time. I will assign readings and videos that you can do at any time that is convenient for you. I will assign activities and discussions that you can do at any time that is convenient for you. This is because we all have disrupted schedules, due to childcare, illness, internet access, sharing laptops, etc. Some of you might even be with your families in other countries, making our regularly scheduled class-time in the middle of the night for you. An asynchronous class will ensure that everyone can learn and participate fully in this trying time. Participation activities will generally have a 24 hour, 48 hour or 72 hour limit for completion. All other activities will usually have 1 week for completion.
The problem with an asynchronous class is that we will not get to meet, to know each other well, or to share ideas in person. In addition, I will not be there in class to look over your shoulder and make sure you’ve all done your reading on time. This means you’ll have to be independent and take your own learning in your hands. There is a lot to learn about social science research and it’s exciting. It really is.

While we won’t have class time in person or together online, we can still communicate. I will hold a combination of group office hours and individual office hours via Zoom. I encourage you to sign up for my office hours and we can talk via Zoom video conferencing. You can sign up for 10 minute slots during office hours on our canvas website. A document describing how to sign up is under the files tab on canvas. I encourage you to email me at zalmquist@uw.edu and the TAs as needed. Emails is our preferred method of communication (rather than Canvas messages). I will respond to your email within 72 hours. I encourage you to participate in the class discussion on our canvas website. I will monitor and participate in the canvas discussions. Both TAs will also hold group and individual office hours.

Office Hours

For lecture material your first point of contact should be me (zalmquist@uw.edu) and for Lab material your first point of contact should be the Teaching Assistants: Yuan “Monica” Gao Rollinson (monicagr@uw.edu) and İhsan Kahveci (ikahveci@uw.edu).

Poll Everywhere and Class Participation

We will use Poll Everywhere regularly in class. Class participation will awarded based engagement with the Poll Everywhere activity. UW-IT has a link on Poll Everywhere, here.

Google Documents

We will make extensive use of Google Drive and google documents. It will be very important to share your google document to me (zalmquist@uw.edu) and both TAs (“Monica” Gao Rollinson (monicagr@uw.edu) and Ihsan Kahveci (ikahveci@uw.edu)) to facilitate timely grading. All Google Document assignments will be submitted by generating a shared link and submitting to canvas.

Computers and Lab

See Lab Syllabus.
Readings
Weekly readings assignments can be found on the course syllabus. All readings are assumed to be completed before each lecture/seminar. You are expected to read over the class notes each week and make sure you are familiar with the material as the course progresses. Questions are encouraged.

Weekly Reading Check Ins
At the end of each week (Friday) I will post a question about the reading for you to respond to. You should maintain a single Google Document that will submit the link to via Canvas on Monday. Expectation is that each reading response should be around 100-200 words and be relevant to topics and readings of the week. Readings will be grade as 0, 0.5 or 1 score. Your lowest score will be dropped.

Participation
Individuals are expected to attend every course, to have completed every reading, and to participate with questions and discussion on each topic as presented. If you plan on missing any class period you are responsible for all material and for contacting the instructor in a timely manner. Participation will be grade as 0, 0.5 or 1 score. Class participation will be based on:

- Peer Review Case Study - One peer review for each memo.
- Poll Everywhere - One-two per each week.
- Small group activities - Will use Google Sheets assigned via Canvas.
- Discussion boards - One activity per week.
- Google Survey: Regular Class check-ins on how the class is doing (2 times over the quarter)

Note: Your 5 lowest participations scores will be dropped.

Memos
Over the quarter you will be asked to write three 2-page Business Memos centered around the concepts covered in the course. You will have one week from when the hypothetical for the memo is handed out to turn it in. Your lowest Memo grade will be dropped.

We will be using VeriCite which is integrated with Canvas. The University has a license agreement with VeriCite, an educational tool that helps prevent or identify plagiarism from
Internet resources. The VeriCite Report will indicate the amount of original text in your work and whether all material that you quoted, paraphrased, summarized, or used from another source is appropriately referenced.

**Grading**

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<tr>
<th></th>
<th>% Points</th>
<th>Number Grade</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>Participation:</td>
<td>30%</td>
<td>4.0-3.9</td>
<td>A</td>
</tr>
<tr>
<td>Weekly Reading Check Ins:</td>
<td>20%</td>
<td>3.8-3.5</td>
<td>A-</td>
</tr>
<tr>
<td>Memos (3):</td>
<td>50%</td>
<td>3.4-3.2</td>
<td>B+</td>
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Lectures, readings, labs (when relevant), and review sessions are provided for each student’s benefit. It is the responsibility of the student to take advantage of these opportunities to acquire and demonstrate mastery of course material, so as to achieve his or her desired grade.

**Letter grade assignment**

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<thead>
<tr>
<th>% Points</th>
<th>Number Grade</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>100-97</td>
<td>4.0-3.9</td>
<td>A</td>
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<tr>
<td>96-90</td>
<td>3.8-3.5</td>
<td>A-</td>
</tr>
<tr>
<td>87-89</td>
<td>3.4-3.2</td>
<td>B+</td>
</tr>
<tr>
<td>86-84</td>
<td>3.1-2.9</td>
<td>B</td>
</tr>
<tr>
<td>83-80</td>
<td>2.8-2.5</td>
<td>B-</td>
</tr>
<tr>
<td>79-77</td>
<td>2.4-2.2</td>
<td>C+</td>
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<tr>
<td>76-74</td>
<td>2.1-1.9</td>
<td>C</td>
</tr>
<tr>
<td>73-70</td>
<td>1.8-1.5</td>
<td>C-</td>
</tr>
<tr>
<td>69-67</td>
<td>1.4-1.2</td>
<td>D+</td>
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<td>66-64</td>
<td>1.1-0.9</td>
<td>D</td>
</tr>
<tr>
<td>63-60</td>
<td>0.8-0.7</td>
<td>D-</td>
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<tr>
<td>59-0</td>
<td>0</td>
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**Required Texts**

**Texts**


– [https://www.bitbybitbook.com/](https://www.bitbybitbook.com/)

MS Mario Small (2017). *Someone to Talk to.*


**News Articles, Popular Press and Online Resources**

A1 Article 1
A2 Article 2
A3 Article 3
A4 Article 4
A5 Article 5
A6 Article 6
A7 Article 7
A8 Article 8
A9 Article 9
A10 Article 10
A11 Article 11
A12 Article 12
A13 Article 13
A14 Article 14
A15 Article 15
A16 Article 16
A17 Article 17
A18 Article 18
A19 Article 19
A20 Article 20
A21 Article 21
Readings
Be prepared to discuss all readings assigned at anytime in lecture/seminar.

Course Policies

Late Submissions
In general late submissions are discouraged and this is in fact the basis for "the drop lowest policy" on all the assignments. I realize life happens and you should work hard to use your drop assignments when you really need them. If you end up needing to turn in work late after exhausting the drop policy, please email me (zalmquist@uw.edu) and I will work with you under the current circumstances.

Missing Class, etc.
It is expected that each member of the class will attend every lecture (and lab if taking the lab component of the course). If there is an appropriate reason to miss class it is expected that the individual will email or discuss in person with the instructor at least one week in advance. For any medical issues please see the UW website for university policies.
Cheating, etc.

All work is assumed to be your own and all individuals are expected to follow the university policy on cheating and misconduct. If you have any questions please consult the UW website for university policies and community standards.

Adjustments to Syllabus

This syllabus is subject to change due to the unforeseen and general volatility of the world due to COVID-19. All changes will be communicated via email and by update this pdf.

Weekly Themes

Week 1 (03/31): Prep week
Week 2 (04/07): Introduction
Week 3 (04/14): Data Science
Week 4 (04/21): Privacy: Overview
Week 5 (04/28): Privacy: Location Systems
Week 6 (05/05): Social Media: Privacy and Information Passing
Week 7 (05/12): Algorithms: Overview
Week 8 (05/19): Algorithms: Decision Making
Week 9 (05/26): Algorithms: Bias
Week 10 (06/02): Sociological Inquiry and Big Data
Week 11 (06/09): Finals Week
Course Calendar

Week 1  (03/31): Prep week

Week 2  (04/07): Introduction

- Readings (Text Books):
  - BB Chapters: 1.2
  - 1.3
- Readings (Articles):
  - A1-A6
- Reading Check In:
  - Question provided on Friday.

Week 3  (04/14): Data Science

- Readings (Text Books):
  - BB Chapters: 2.2
  - 2.3
- Readings (Articles):
  - A7-A9
- Reading Check In:
  - Question provided on Friday.

Week 4  (04/21): Privacy: Overview

- Readings (Text Books):
  - MK Chapter: 1
- Readings (Articles):
  - A10-A16
- Reading Check In:
  - Question provided on Friday.

- Memos:
  - Instruction provided on Friday.
Week 5 (04/28): Privacy: Location Systems

- Readings (Text Books):
  -
- Readings (Articles):
  - A17-A20

- Reading Check In:
  - Question provided on Friday.

- Memos:
  - Memo due end of day Friday.

Week 6 (05/05): Social Media: Privacy and Information Passing

- Readings (Text Books):
  - MS Chapters: 1-8
- Readings (Articles):
  - A21-A33

- Reading Check In:
  - Question provided on Friday.

- Memos:
  - Instruction provided on Friday.

Week 7 (05/12): Algorithms: Overview

- Readings (Text Books):
  - BC Chapter: Introduction
- Readings (Articles):
  -

- Reading Check In:
  - Question provided on Friday.

- Memos:
  - Memo due end of day Friday.
Week 8 (05/19): Algorithms: Decision Making

- **Readings (Text Books):**
  - BC Chapters 1-6
- **Readings (Articles):**
  -
- **Reading Check In:**
  - Question provided on Friday.
- **Memos:**
  - Instruction provided on Friday.

Week 9 (05/26): Algorithms: Bias

- **Readings (Text Books):**
  - MK Chapters: 1-4
- **Readings (Articles):**
  - A34
- **Reading Check In:**
  - Question provided on Friday.
- **Memos:**
  - Memo due end of day Friday.

Week 10 (06/02): Sociological Inquiry and Big Data

- **Readings (Text Books):**
  - BB Chapters: 1.3,2,3,6
- **Readings (Articles):**
  -
- **Reading Check In:**
  - Question provided on Friday.

Week 11 (06/09): Finals Week