Data Ethics (PHIL 174)
Spring 2024

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Lecture: 12:30 – 1:50 pm, Tuesdays & Thursdays, Center Hall 113
Discussion sections and course TAs:
- Mondays, 10:00 am – 10:50 am: Louis Santoro <lsantoro@ucsd.edu>
- Tuesdays, 6:00 pm – 6:50 pm: Louis Santoro <lsantoro@ucsd.edu>
- Wednesdays, 3:00 pm – 3:50 pm: Richard Vagnino <rvagnino@ucsd.edu>
- Fridays, 9:00 am – 9:50 am: Richard Vagnino <rvagnino@ucsd.edu>

Danks office hours: Wednesdays, 3:30-4:30 pm either in-person (A&H 0462) or Zoom (link on Canvas). Please use Canvas to sign-up for a timeslot (or to check about drop-in)
Course materials: Everything will be on the course Canvas site (http://canvas.ucsd.edu)
Course communication: All course announcements will be posted on Canvas. If you need to contact Prof. Danks or your TA, then you *must* use your UCSD email address and include 'PHIL 174' in the subject line. Replies can be expected within 24-48 hours. Please note that grade disputes will be discussed and resolved in-person (or via Zoom), not via email.

Learning objectives
By the end of this course, students will be able to:
- Describe the many ways that ethical issues arise throughout the lifecycle of a data science effort
- Generate appropriate ethical questions for a given data science effort
- Work individually or collaboratively to develop more ethical & responsible data science projects

Course requirements
Attendance: This course will be exploring ethical issues around data and AI in multidisciplinary ways that will likely take you outside of your intellectual comfort zone. So although attendance during lectures is *not* required, I strongly urge you to consider attending them. There will be opportunities for questions and discussion in every lecture, which can play a helpful role in building your understanding of key concepts. I realize that you may sometimes need to miss lecture, so podcasts will be provided, but there will *not* be a synchronous Zoom option.

Depending on the week, discussion sections will either involve extensive discussion or focused project work. In either case, it is important for you to attend and contribute, so attendance *is* required at the discussion section meetings.

Assignments: The core assignments for the course will be project-based: (i) a multi-part project (in group, if you want) during the quarter; and (ii) a unified individual project at the end of the quarter. The full set of assignments (and point values) are:
- <u>In-quarter projects</u> (3×15% = 45%):
  1. A "pitch deck" and video presenting a design of an ethical data collection effort
  2. A whitepaper/essay describing and justifying an ethical data analysis effort
  3. A "pitch deck" and video presenting ethical use & revision of a data science effort
- <u>Reflections</u> (4×2% = 8%): You will be asked to reflect on aspects of data science in your everyday life as an individual and as a UCSD student (1-2 paragraphs each).

- <u>Final project</u> (40%): You will analyze the ethics of a data science effort across its lifecycle. This final project will require you to individually do each of the tasks from the different parts of the in-quarter project, and can take the form of a video presentation, whitepaper/essay, or structured webpage (your choice, but no mix-and-match). You will need to provide a (brief) description of your focus/topic during week 9 so we can give feedback to improve the final project.
- <u>Discussion section attendance</u> (7×1% = 7%): Attendance at each discussion section (with one "no questions asked" absence) is worth one percentage point. Discussion section attendance is *not* required in Week 1 (as the class starts), or Week 9 (due to the Memorial Day holiday).

For the in-quarter project, we will provide a set of acceptable (broad) topics from which you can choose. You are permitted to work with up to two other people (i.e., you can have a 1-, 2-, or 3-person group), though *you all must be in the same discussion section*. All in-quarter projects will be graded to the same standard, regardless of how many people contributed.

For the individual project, you will select your own topic (subject to our feedback), and it *must* be different than your in-quarter projects.

Extensions/late submission: Due dates & times for all assignments are listed below. **Please plan ahead, as no extensions will be granted and no late submissions will be accepted, except in *truly* exceptional circumstances** (e.g., Canvas going offline or documented medical emergency). If you think that an exception is warranted, then you must email Prof. Danks (and cc your TA) as soon as feasible. All relevant materials will be provided in a timely manner so that you can complete assignments significantly before their due dates, if you are concerned about finishing on time.

Final grade: Your final grade will be determined by the following scale:

- A+: 97.00 – 100.00
- A: 93.00 – 96.99
- A-: 90.00 – 92.99
- B+: 87.00 – 89.99
- B: 83.00 – 86.99
- B-: 80.00 – 82.99
- C+: 77.00 – 79.99
- C: 73.00 – 76.99
- C-: 70.00 – 72.99
- D+: 67.00 – 69.99
- D: 63.00 – 66.99
- D-: 60.00 – 62.99

It is possible that the final grading scale will be shifted downwards (i.e., so people's letter grades might improve), but you should not assume that any changes will happen.

Plagiarism

The representation of other people's ideas as though they were your own is plagiarism, and a violation of academic integrity. I have an absolutely zero tolerance policy about plagiarism. Plagiarism is *not* restricted to verbatim copying of other people's words. Basically, you should cite anything that (a) you got from someone else; and (b) a reasonable person would not know ahead of time. For proper citation, you should cite any ideas and quotes that are due to other people. (Your choice about citation format, but please be consistent.)

I realize that the vast majority of you will never consider cheating. However, a few of you may (for a variety of reasons) be tempted to plagiarize others' work. Do not take chances with plagiarism: **if you are uncertain whether you are doing something acceptable, please just ask**. We are happy to answer questions about whether something constitutes plagiarism. And if you are ever tempted to present someone else's ideas as your own, then please come talk to me so that we can address the underlying challenges that are pushing you to that point.

Statement of support for your well-being

We as a community have to support one another. If you, or anyone you know, experiences academic stresses, difficult life events, or feelings of anxiety or depression, then we strongly encourage you to seek support. Take care of yourself. Do your best to maintain a healthy lifestyle this quarter by eating well, exercising, getting enough sleep, and taking some time to relax. This will help you achieve

your goals and cope with stress. More generally, all of us benefit from support during times of struggle. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is almost always helpful. If you need it, please consider reaching out to a friend, faculty, or family member you trust for help getting connected to support that can help.

Schedule
(subject to revision)

Date	Lecture Topic	Reading/Listening
4/2	Course overview Lifecycle of a data science effort	[no reading]
4/4	Rights, values, & interests	National Academies, *Fostering responsible computing research*, Ch. 2
4/9	Neutrality thesis for data & technology	Danks, "Digital ethics as translational ethics"
4/10	*Reflection #1 due at 6:00 pm*	
4/11	Algorithmic society	Zuboff, "You are the object…" Tufekci, "Algorithmic harms beyond…"
4/17	*Reflection #2 due at 6:00 pm*	

Data Collection

Date	Lecture Topic	Reading/Listening
4/16	Overview of ethical & practical challenges	Hand, "Aspects of data ethics…"
4/18	Core concepts of privacy & consent	SEP entry on "Privacy" (Section 3)
4/23	Privacy & consent in practice	Acquisti, et al. "Privacy and human behavior…"
4/25	Ethical challenges in measurements	Butler, et al. "Beyond measure" (pp. 1-10)
5/1	*In-quarter project #1 due at 6:00 pm*	

Data Analysis

Date	Lecture Topic	Reading/Listening
4/30	Overview of ethical & practical challenges	Mittelstadt, *et al.*, "The ethics of algorithms…"
5/2	Core concepts of bias & fairness	Fazelpour & Danks, "Algorithmic bias"
5/7	Algorithmic bias in analysis & modeling	Margaret Mitchell podcast: *Towards Data Science*
5/9	Explainable models to the rescue?	Lipton, "Mythos of model interpretability"
5/15	*In-quarter project #2 due at 6:00 pm*	

Data Use & Revision

Date	Lecture Topic	Reading/Listening
5/14	Overview of ethical & practical challenges	Elish, "Moral crumple zones…"
5/16	Consent in the long-term	Parasidis, et al. "A Belmont Report for health data"
5/21	Algorithmic justice	Sloane, "Inequality is the name of the game…"
5/23	Accountability during deployment	Raji, et al. "Closing the AI accountability gap"
5/29	*In-quarter project #3 due at 6:00 pm*	

Broader issues & Case studies

Date	Lecture Topic	Reading/Listening
5/24	*Reflection #3 due at 6:00 pm*	
5/28	Data colonialism & sovereignty	Carroll, et al. "Indigenous data governance…"
5/30	Data + Human = ?	Guszcza & Schwartz "Superminds …"
6/4	Case study: Workplace surveillance	West & Bowman, "Electronic surveillance at work: An ethical analysis"
6/5	*Reflection #4 due at 6:00 pm*	
6/6	Case study: Healthcare resources	Obermeyer, *et al.*, "Dissecting racial bias in an algorithm…"
6/12	*Final project due at 6:00 pm*	