UNIVERSITY OF PENNSYLVANIA
SCHOOL OF SOCIAL POLICY & PRACTICE
Master of Science in Social Policy

MSSP 710-002 | Democratizing Data? Critical Data Studies in Algorithmic Governance
Fall 2021

Professor: Cynthia Conti-Cook *(Call me Cynthia, or Prof. Conti-Cook, my pronouns are she/her)*
e-mail: ctactick@upenn.edu
Office Hours: By appointment. I am unavailable and away from email Friday-Sunday.

Course Description

With the advent of digital technologies and the increasing power of computational analytics, the proliferation and ubiquity of data production has increased at exponential rates enabling new possibilities for social analysis and governance. The footprints of social life are more and more digitalized and available for examination. But, this "data revolution", as characterized by Rob Kitchin, has also raised many questions socially, ethically, and philosophically; challenging old paradigms of the philosophy of science while opening up new interests in transparency and enabling social change. This course will examine the emergence of democratizing data -- the movement to make government and other data more widely or publicly available and its potential for enabling democratic possibilities. The types of data being made available, through various analytic systems, and the ways in which their accessibility and inaccessibility is contributing to reconfigured power relations, will be explored. The paradigmatic tensions and shifts that have emerged in the debates on "Big Data", such as deductive versus inductive reasoning and the challenges posed to statistical sampling theory, will be interrogated. Originally developed and employed in military and corporate research and development, the appropriation of artificial intelligence, machine learning, and predictive analytics algorithms for social analysis and policy practices will be critically examined. Issues related to the ethical and legal use of administrative data, particularly data related to patient, client, student and taxpayer information will be considered, as well as from internet-based sources including social media. These topics and more will be discussed in the context of smart city initiatives, education, criminal justice, and social policy – or, what is now characterized as algorithmic governance – as well as their implications for questions pertaining to race, gender, class, sexuality, dis/abilities, age and youth culture. We will also engage work that seeks to rethink new possibilities of thinking and doing quantification. Finally, as a course on critical data studies in algorithmic governance, students will engage in group based projects that will be case studies of particular practices of algorithmic governance and produce a public facing and/or publishable product.

Educational and Learning Objectives

By the end of "Democratizing Data: Critical Data Studies in Algorithmic Governance" students are expected to demonstrate:

1. a critical understanding of what "Big Data", open data, and administrative data are, their promises, and their challenges;
2. a critical understanding of the extent to which data is being democratized and in what ways;
3. competence in the various ways digital technology and data are and can be brought to bear for social policy research and evaluation, governmentality, the design and planning of urban space, and organizations;
4. knowledge of various data analytic methods and the ways in which they are being used for social policy
5. a critical understanding of the ways in which digital technology and data analytics are discursively shaping bodies and sociality and the possibilities for social change.

Course Requirements & Expectations

Expectations

Classroom learning is a fundamental component of your professional education. Students are therefore expected to attend each class, arrive at class on time, and be in attendance for the full class. In the event that you are unable to attend class for any reason, you must notify the instructor in advance and learn how you are to make up the content you missed. Excessive absenteeism (i.e., missing more than two classes) is considered a serious problem the instructor will handle by meeting with the student and determining whether the student's educational adviser should be notified. Excessive absenteeism could result in course failure.

Students are expected to: (A) participate substantively in class discussions; (B) read on a weekly basis, participate in online discussions of the reading material, and come to class prepared to apply and discuss the reading assignments; (C) work cooperatively in groups toward completing final project by the due date and in accordance with the specified format.

Grades will be based on three major assignments. The first two assignments will each be worth 30% of your course grade and the final assignment will be worth 40% of your overall course grade.

Assignments

Students will be responsible for three assignments during the semester. Each assignment is discussed in more detail on page 9 of this syllabus. Specific instructions for completing each assignment will be provided during the semester.

Format

If a scholarly paper is done for assignment 3 then the i**n-text citations must follow APA style guidelines**, with the specific source including authors' last names and year of publication, regardless of whether you are paraphrasing or using specific quotes. Direct quotes must have the specific source as above but with page number(s). **A list of references cited or consulted must be included at the end of each paper in proper APA bibliographic form**. Footnotes may be used where appropriate to further explicate a concept or issue. **American Sociological Association style may be used, but this must be consistent throughout the assignment.**

You should keep a copy of each paper submitted. The instructor will gladly answer any questions regarding format, citing or organization. Papers written for other classes may not be submitted for written assignments in this course. Direct substitution of papers between courses may result in a failing grade for that assignment.

Evaluation

Assignments will be evaluated based on the following criteria:

1. participation in the weekly online discussion of the reading material;
2. engagement of the readings in all assignments;
3. quality of presentations and the content of the arguments;
4. demonstrates both a critical understanding and ability to make critical interventions into analyzing digital data, technology, and social policy.

Grading Policies

The final course grade is based on the student's performance on all assignments. Students whose performance is minimal or failing at midterm will be notified in writing. Students will only be given completion credit for the first three assignments and not a grade. This means that these assignments must be completed with satisfactory approval from the instructor or the instructor may ask for the assignment to be redone given the feedback provided by the instructor.

Plagiarism

Students are expected to conduct themselves consistent with the University of Pennsylvania's Code of Academic Integrity, which presents standards regarding plagiarism, multiple

submissions and other actions. Students are expected to be familiar with the Code, which can be found at http://www.vpul.upenn.edu/osl/acadint.html

Academic Integrity

Students are expected to adhere to the University's Code of Academic Integrity, available at https://catalog.upenn.edu/pennbook/code-of-academic-integrity/. Care should be taken to avoid academic integrity violations, including plagiarism, fabrication of information, and multiple submissions (see descriptions below).** Students who engage in any of these actions will be referred to the Office of Student Conduct, which investigates and decides on sanctions in cases of academic dishonesty.

> 1. Plagiarism: using the ideas, data, or language of another person or source without specific or proper acknowledgment.
> > Example: copying, in part or in its entirety, another person's paper, article, or web-based material and submitting it for an assignment; using someone else's ideas without attribution; not using quotation marks where appropriate; etc.
>
> 2. Fabrication: submitting contrived or altered information in any academic exercise.
> > Example: making up data or statistics, citing nonexistent articles, contriving sources, etc.
>
> 3. Multiple submissions: submitting, without prior permission, any work submitted to fulfill another academic requirement.

**It is students' responsibility to consult the instructor if they are unsure about whether something constitutes a violation of the Code of Academic Integrity.

Readings

It is expected that students will read required class assignments from the recommended texts and/or articles, and from relevant materials of their own choosing.

Students are not required, but are encouraged, to sign up for newsletters outlining current news and debates about technology operating in the public sector, including Upturn's Equal Future, Data & Society, and Justice Code's JusticeTech.

TOPICS AND READING LIST BY WEEK

Week 1: Sept. 2

Course Introduction. View documentary "The Human Face of Big Data".

Recommended: View documentaries "[Coded Bias](#)" and/or the "[Social Dilemma](#)", if available.

Part I. On Democracy, Hegemony, & Enumeration

Week 2: September 9

Required Reading:
Iris Marion Young. *Inclusion and Democracy*.
Chapter 1: Democracy and Justice

Mark Stoddart "Ideology, Hegemony, Discourse: A Critical Review of Theories of Knowledge and Power" *Social Thought & Research 28*, 191-225.

Recommended:
Laclau & Mouffe, *Hegemony and Socialist Strategy*.
Chapter 1: Hegemony: The Genealogy of a Concept
Chapter 4: Hegemony: Towards a Radical Democratic Politics

Week 3: September 16

Required Reading:
Michel Foucault. *Discipline and Punish*.
Part III, Chapter 1: Docile Bodies
Part III, Chapter 2: The means of correct training

Theodore Porter, *Trust in Numbers*.
Chapter 2: How social numbers are made valid
Chapter 4: The political philosophy of quantification

Gilles Deleuze "Postscript on the Societies of Control"

Recommended:
Michel Foucault. *Discipline and Punish*. Part III, Chapter 3: Panopticism

Part II. What is "Big Data" and Why does it matter for Social Policy?

Week 4: September 23

Required Readings:
Ian Foster, Rayid Ghani, Ron S. Jarmin, Frauke Kreuter, Julia Lane. 2016. *Big Data and Social Science: A Practical Guide to Methods and Tools*. Chapman & Hall/CRC Press.
Chapter 1: Introduction
Chapter 4: Databases
Chapter 6: Machine Learning

Week 5: September 30

Required Readings:
Chapter 1-3, 7, 8 of Kitchin, Rob. 2014. *The Data Revolution: Big Data, Open Data, Data Infrastructures & Their Consequences*. Thousand Oaks: Sage.

Week 6: October 7

Required Readings:
boyd, danah and Kate Crawford. (2012). "Critical Questions for Big Data: Provocations for a Cultural, Technological, and Scholarly Phenomenon." *Information, Communication, & Society* 15:5, p. 662-679.

Manovich, Lev. 2011. "Trending: The Promises and the Challenges of Big Social Data."

Week 7: October 14 | Fall Break / No class

Part III. Cybernetics, Digital Ontologies, Post-Truth Politics, & Governmentality

Week 8: October 21| !!!! *Assignment 2 Due* !!!!
Please note: all videos and materials should be uploaded no later than Sunday, October 17th by 12:00 PM EST. All video presentations will be watched during our synchronous meeting time (with a break). There will be time for questions.

Week 9: October 28

Required Readings:
Chapter 10 "Ethical, political, social and legal concerns" of Kitchin, Rob. 2014. *The Data Revolution*

Stiles, Paul G., and Boothroyd, R. G. (2011). *Ethical Use of Administrative Data for Research Purposes.* Actionable Intelligence for Social Policy (AISP), University of Pennsylvania.

Barocas, Solon, and Andrew D. Selbst. 2016. "Big Data's Disparate Impact." *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2477899.

Week 10: November 4

Required Reading:
Prologue, Introduction, Chapter 4 in Halpern, Orit. 2014. *Beautiful Data: A History of Vision and Reason since 1945*. Durham: Duke University Press.

Recommended:
Goldsmith, Stephen, and Crawford, Susan. 2014. *The Responsive City: Engaging Communities Through Data-Smart Governance*. San Francisco: Jossey-Bass.

Chapter 3 in Halpern, Orit. 2014. *Beautiful Data: A History of Vision and Reason since 1945*. Durham: Duke University Press.

Week 11: November 11

Required Readings:
Massumi, Brian. 2015. "The Future Birth of the Affective Fact." (p. 189-205) in *Ontopower: War, Powers, and the State of Perception*. Durham NC: Duke University Press.

Parisi, Luciana. 2017. "Reprogramming Decisionism." *e-flux* #85 (October): 1-12.

Boler, Megan, & Davis, Elizabeth. 2018. "The affective politics of the "post-truth" era: Feeling rules and networked subjectivity." *Emotion, Space and Society* 27 (2018): 75–85.

Recommended:

Massumi, Brian. 2015. Politics of Affect. Cambridge UK: Polity.

Massumi, Brian. 2002. *Parables of the Virtual: Movement, Affect, Sensation*. Durham NC: Duke University of Press.

Week 12: November 18

Required Reading:

Section I (pages 1-80) in Galloway, Alexander. 2004. *Protocol: How control exists after decentralization*. Cambridge MA: MIT Press.

Week 13: November 25 !!!! *No Class* !!!!

Part IV. Data, Governmentality, & Computational Practices

Week 14: December 2

Required Reading:
Matthew Conlen, Reuben Fischer-Baum, and Andy Rossback. "Should Prison Sentences Be Based On Crimes That Haven't Been Committed Yet?"

Ruppert, Evelyn. 2013. Not Just Another Database: The Transactions that Enact Young Offenders. *Computational Culture*, pp. 1-13.

Berk, R., Sorensen, S., and Barnes, G.. 2015. Forecasting Domestic Violence: A Machine Learning Approach to Help Inform Arraignment Decisions.

Dixon-Román, E., Nyame-Mensah, Ama, and Russell, Allison. Algorithmic Legal Reasoning as Racializing Assemblages.

Week 15: December 9 | !!!! *Assignment 3 Due* !!!!

Required Reading:
Shoshana Amielle Magnet. *When Biometrics Fail: Gender, Race, and the Technology of Identity*. Durham NC: Duke University Press.

Part V. Rethinking the Quantitative in Computational Culture

Week 16: December 16

Required Reading:
Patricia Ticineto Clough. 2009. "The New Empiricism: Affect and Sociological Method." *European Journal of Social Theory*.

Elizabeth de Freitas, Ezekiel Dixon-Román, and Patti Lather. 2016. "Alternative Ontologies of Number: Rethinking the Quantitative in Computational Culture." *Cultural Studies ↔ Critical Methodologies*.

Ezekiel Dixon-Román. 2016. "Diffractive Possibilities: Cultural Studies and Quantification." *Transforming Anthropology* 24(2).

Assignment 1: Weekly Reading Discussion (30 points)
Due: Weekly reading discussion participation is expected by 9pm the night prior to class.

Each student is required to participate in the online discussion of the weekly readings. This could be by way of questions, comments, quotes, inspirations, wrestles, or even putting the reading(s) in conversation with current events. While everyone is able to respond/comment to any discussion entry it is definitely expected that students will maintain collegial decorum in respecting everyone's contributions. It is the purpose of these online reading discussions to not just begin digital conversations on the readings but to hopefully carry these digital discourses into the classroom. While the Professor may engage a lively stream of dialogue, there will not be regular engagement with each student's contributions.

Assignment 2: Group Case Study Presentation (30 points)
Due: October 17
**Note: All presentations must be uploaded no later than 12:00 PM EST, Sunday, October 17th

In groups of four or five students, students will be asked to pick an ongoing practice of algorithmic governance, engage in a critical case study of it, and present on the project/questions pertaining to the case study. These presentations are explanations of what your group is working on, the outlined arguments, and preliminary findings that will become the final project of assignment 3. The goal of the presentation is for each group to receive feedback from classmates on their case study topic and substantive arguments. The presentations should be no more than 10 minutes in length videoed and uploaded to Canvas the Friday prior to the scheduled synchronous class discussion. The class will be expected to review prior to the synchronous class discussion and we will discuss the presentation as a class during the synchronous class discussion.

Assignment 3: Group Case Study Final Project (40 points)
Due: December

Following assignment 2, groups will be asked to produce a project/product that is public facing. It may be a blog series, a vlog, a series of op-eds, a podcast, a website, an article for a publication like Wired, or a scholarly paper. I would like to see groups be as creative as possible on this. Groups should incorporate the feedback from classmates into this product. It is encouraged that students use this assignment productively. Thus, if a series of blogs or articles is produced, groups are strongly encouraged to upload/submit them to an online source. If the group is doing a website then they are strongly encouraged to create it, make it live, and have a dissemination plan. If groups are producing a scholarly paper it is hoped that this will be

submitted for publication in a scholarly journal. Previous year's assignments have resulted in publications in venues such as Fortune Magazine, Annenberg's 360 Podcast, & the journal *Equity & Excellence in Education*.