

INFO 4940: AI in/from the Majority World (Spring 2023)

Instructor:

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SEMINARS:

Mon-Weds,
9:40-10:55 AM

OVERVIEW:

Current understandings of AI systems and their effects have a weakness: most people affected by these systems at a planetary level are left out of discussions about the histories, futures, and approaches to how data-driven AI-based systems operate and where they come from. This course explores existing efforts to reframe the global south as home to the majority of the human population and investigates the diverse ethics, politics, and experiences of living with data and AI in this majority world. Our exploration will be guided by two key questions: First, how can we describe living with AI systems and their data collection practices as they increasingly become central to organizing everyday life? And second, what visions can we surface for building equitable AI infrastructures in/for/from the majority world? In this course, you'll learn about the ground realities, histories, processes, and framing narratives from diverse academic fields (information science, philosophy, communication, sociology, etc.) that provide the foundation for studying what makes data-driven AI-based systems possible in the majority world. We will also address new ethical questions and controversies that are emerging around data-driven AI-based systems in/from the majority world. The classes will be organized around a set of readings and case studies that present new perspectives on how to think from the standpoint of the majority world. You are expected to not only grasp these perspectives, but also explore their implications for the possible future(s) of AI in/from the majority world.

Acknowledgment: This course draws heavily from the collaborative work that went into and the content of Amrute, Sareeta, Ranjit Singh, and Rigoberto Lara Guzmán. 2022. "A Primer on AI in/from the Majority World: An Empirical Site and a Standpoint." New York: Data & Society Research Institute. <https://datasociety.net/library/a-primer-on-ai-in-from-the-majority-world/>.

LEARNING OBJECTIVES:

By the end of AI in/from the Majority World, you will learn to:

- *Analyze* developments in the majority world in their own right instead of treating them as derivative of knowledge and technology production in the global north.
- *Understand* key ethical principles and foundations that have come to shape scholarship on social implications of AI in the majority world.
- *Reflect* on your own ethical positions around living with data and AI, and offer reasoned arguments to support them (including in dialogue with potentially differing positions of others)
- *Analyze* the majority world not only as an empirical site, but also as a method to build developmental, postcolonial, and decolonial computing practices.

These objectives will be met through a combination of seminars, readings, and discussions.

GRADING AND ASSIGNMENTS

Seminar Participation + Leadership	15% + 15%
Two Assignments	20% + 20%
Final Paper	30%

PARTICIPATION:

This is not a lecture class, but a seminar. Much of the work in this course will involve your active participation in the form of interactive exercises, group discussions, and assignments.

1. Readings

The foundation for your work in this class is the course readings. You are expected to have thoughtfully read and engage with the day's readings prior to coming to class. Course readings vary considerably in discipline and difficulty; be aware that reading length does not greatly correlate with expected reading time. You should bring the readings and your notes to class to ground our discussions. All other readings will be available online or handed out in class.

2. Seminar participation:

Your participation in class is essential to your success in this course. This is not a lecture course. The class format is interactive, and activities based. In class we will analyze, build on, and debate the course readings and case studies; practice analytic skills; work on assignments; and engage in other activities to help you master the materials. *You will receive full participation credit for attending class.*

Please note: If you miss class, you may receive substitute credit for participation by submitting two pages of reading notes that engage key arguments, insights, and findings of the class readings within seven days of the missed class. You can produce concise summaries of the readings or explore specific thoughts, questions, or concerns that emerge from the readings. Whatever you do, the main goal is to use the notes to engage the readings in a more sustained and incisive way. You may miss up to two

classes without submitting make-ups during the semester. I strongly recommend you save these for interviews, illness, and personal disasters.

3. Seminar leadership:

Once during the semester, you (working in groups of 2-3) will be responsible for introducing, leading, and summarizing the discussion of the readings. Groups will have three primary responsibilities:

1. Produce a 2-3 page thought piece that pulls out what you as a group find most interesting, useful, or provocative about the readings. The piece shouldn't be a mere summary; rather, there should be some organizing principle(s) or question(s) that can ground, guide, and provoke our group discussions.
2. Introduce the readings and propose questions for discussion, drawing on the thought piece. Introductory comments will be strictly limited to 15 minutes.
3. Take notes from the discussion during the seminar and expand the thought piece based on the discussion. I will review these notes, add to them, and share it as class notes with all the students.

ASSIGNMENTS:

1. A personal experience of interfacing with any data system

Your first assignment takes a rather simplistic description of how data systems operate as a point of departure: data provided by people at digital interfaces of such systems and/or collected from various data sources as inputs are processed through an algorithmic blackbox to produce outputs, which are often automated and personalized data-driven decisions that people must contend with. This work of contending with inputs and outputs either happens on the same interfaces of data systems and/or now increasingly also on different interfaces of other services that rely on these systems.

In your first assignment, you will be writing a 2,000 to 2,500-word *autobiographical story* contending with interfaces of any data system of your choice. The piece could be a reflection on the inputs to the system that are drawn from your everyday life, or it could be a way to think through your own experiences of contending with the outputs of the system or both.

2. An interview with a data subject

Your second assignment takes on the challenge of documenting everyday lives of data subjects by interviewing them. As new computational techniques for tracking and evaluating conduct are becoming more and more pervasive, people are increasingly subjected to constant monitoring that does not depend on direct participation. A typical example of this phenomenon is evident in everyday experiences of gig workers. Along these lines, most operators of these systems would prefer that those affected were not aware of their position, trying to protect their scores from outside interference. The figure of the data subject nicely captures this dual role of people acting as both resources and targets for an automated scoring system. In fact, most scoring systems have far-ranging consequences for people's life chances as citizens, consumers, patients, students, workers, and so on, often putting them in a position of precarity.

This assignment is designed to encourage you to think about your own data subjecthood in relation to experiences of another student from the class.

You will be working in pairs, but not together. Your first assignment will be shared with another student in the class, and you will be interviewed by them about your experiences with a data system. Similarly, the first assignment of another student will be shared with you, and you will interview them.

You are expected to produce a 2,000 to 2,500-word transcript of your interview about everyday life and experiences of your interviewee as a data subject with a data system that they wrote about in their first assignment. Additionally, you will also submit a short 1,000-word reflection piece about being interviewed on your own personal experiences with the data system you wrote about in the first assignment.

3. Final essay

Your final essay will be a 3,000 to 4,000-word critical analysis of the experiences you have documented in the previous two assignments using class readings and seminar discussions. We will start the writing process early in the semester and proceed in the following steps: (1) choice of concepts for critical analysis, (2) extended abstract, (3) feedback from instructor, (4) peer review workshop, (5) final essay.

Requirements for submitting written work:

- Please word-process all written work and submit it before the start of class on the due date
- Use standard font, in 12-point, double space, using 1-inch margins.
- Number your pages
- At the top of the first page include your name, assignment number, date, and essay title.
- Proofread and spell-check before submitting assignments or bringing any drafts to class.
- Appropriate in-text citations (or footnotes) and a complete bibliography

LAPTOP AND SCREEN POLICIES:

While this class doesn't follow any particular laptop or phone policy (laptops banned, laptops in first or last rows, etc.) I want you to be mindful of the potential impact of laptops and phones on the quality of your learning experience and those around you. Used well, these are great resources for learning – for note taking, for collaborative group work, and for looking up class-relevant questions and items on the fly (which I encourage you to do). Used poorly, they are a distraction to you and those around you. If I see evidence of this happening in the seminar, I may ask you to leave your laptop (or phone) in your bag or at home, and also revisit the general class laptop policy (but see important positive uses above). More generally, I'd encourage you to exercise common sense and respect for those around you (and do you really need to check that status update or watch TikTok now? *Really?*).

A GENERAL NOTE ON GRADING and LATE POLICIES:

In general, I will grade assignments according to the rubric below:

- F (usually indicates did not complete)
- D (assignment is missing significant parts, seriously mistakes core ideas or concepts, demonstrates serious writing or presentation failures, or is otherwise deeply inadequate)
- C (assignment is substantially complete, but may miss or mistake important points; writing and argumentation may be unclear)

- B (assignment is complete and solid in all respects; covers major relevant points; writing and argumentation are sound; demonstrates understanding of core concepts)
- A (assignment is excellent in all respects; covers the material thoroughly and effectively; demonstrates significant mastery of core concepts; advances a clear and convincing line of argument)

In cases where your work falls short of the mark, I will indicate main weak points and shortcomings in marginal notes or comments. In cases where common problems appear across multiple assignments (i.e., several students are experiencing similar issues) I may also address these in general terms with the wider seminar. I am also happy to meet during office hours or by appointment to talk about any difficulties you may be facing.

Late policies: Assignments are due at the start of the seminar for which they are assigned. Assignments turned in after this time, except for excused medical or family emergencies, will be reduced at the rate of one half-letter per day (i.e., an ‘A’ paper becomes an ‘A-’ after 24 hours, ‘B+’ after 48, etc.). This is partly for reasons of equity, and partly because the assignments often connect to in-class work on the day they’re due, and it’s important that you come ready to participate and contribute. Students are allowed a one-time one-week extension for any of the major writing assignments without any penalty. Please contact me to request your one-week extension on any assignment before the deadline for the assignment. I will by default apply this policy to your first late writing assignment.

COLLABORATION, ACADEMIC INTEGRITY, and TROUBLESHOOTING:

I welcome and encourage forms of collaboration and mutual support in your group (reading or discussion groups, note pools, etc.), and I am fully committed to the principle of teaching, learning and research as activities that are collaborative at their core. I am also committed to the idea of the classroom as a place for differing opinions, and for (respectful) engagement with ideas, values and beliefs that might be different from your own; this is especially important in a class built substantially around questions of ethics, values, and technology. Nevertheless, all work submitted in the form of assignments must still be your own, and relevant outside sources (including online ones) should be properly acknowledged, as outlined in the [Cornell University Code of Academic Integrity](#).

If you have any questions around academic integrity issues, I encourage you to contact me directly and early to address them. If serious problems arise during the semester (medical or family issues; serious stress or well-being issues; falling seriously behind; or other circumstances that compromise your ability to succeed in the course and your wider program of studies) please let me know as soon as possible - I may be able to help. Finally, please let me know at the outset of the course about any special accommodations you may require, as arranged with the office for student disabilities.

WRITING SUPPORT:

This course involves a substantial writing component. I will do my best to help support the development of your writing as the semester goes on, including through feedback. Those concerned about or looking for additional help with writing are encouraged to consult the Cornell Writing Centers:

The Cornell Writing Centers provide support for individuals at any stage of the writing process. It is a free resource available to everyone on campus—faculty, staff, graduate and undergraduate students—for nearly any kind of writing project: applications, presentations, lab reports, essays, and more. Tutors

(trained undergraduate and graduate students) serve as responsive listeners who read thoughtfully, and offer considerate, supportive, and challenging feedback. Please note that tutors can only work with small portions of text (no more than 5 pages) during a typical 30-minute session. They also have experience working with non-native English speakers. During the academic year, the Writing Centers are open Mondays-Thursdays, 3:00–5:00pm (Mann Library & Rockefeller Hall 178) and Sundays-Thursdays, 7:00–10:00pm (Olin library 403; Uris Library 108; Robert Purcell Community Center 105). Writers can schedule appointments (at <http://knight.as.cornell.edu/wc>) or drop in at a convenient time.

Syllabus Themes and their Distribution across Weeks

Themes across the weeks	Seminars	Dates, 2023	Assignments
Introducing the Course and its logistics			
(a) The majority world: A site and a standpoint	1	Jan 23	
(b) AI Ethics in/from the majority world	1	Jan 25	
Theme #1: Emergent Forms of Computing			
(1.a) AI for Development (AI4D)	2	Jan 30 – Feb 1	Assignment #1
(1.b) Computing in/from the South	2	Feb 6 – Feb 8	
(1.c) Feminist Computing	2	Feb 13 – Feb 15	
(1.d) Decolonial Computing	2	Feb 20 – Feb 22	Submit #1
<i>February Break (Feb 25 – Feb 28)</i>			
Theme #2: Thinking with Communities			
(2.a) Taking stock and looking forward	1	Mar 1	Assignment #2
(2.b) Afro-modernity and Afrofuturism	2	Mar 6 – Mar 8	
(2.c) Indigenous Protocols	2	Mar 13 – Mar 15	
(2.d) Anti-Caste Cultures	2	Mar 20 – Mar 22	
(2.e) Disabilities and Computing	2	Mar 27 – Mar 29	Submit #2
<i>Spring Break (Apr 1 – Apr 9)</i>			
Theme #3: Narrative Frames of Computing			
(3.a) Taking stock and looking forward	1	Apr 10	Final Paper
(3.b) Experimentation	1	Apr 12	
(3.c) Extraction	2	Apr 17 – Apr 19	
(3.d) Surveillance	2	Apr 24 – Apr 26	
(3.e) Social Protection	2	May 1 – May 3	
End of our journey			
Wrap-up and Review	1	May 8	
Deadline for Final Paper		May 12	Submit Paper

Introducing the Course and its mechanics

(a) The majority world: A site and a standpoint

At its most basic, the “majority world” signals a shift in standpoint. It was coined by Shahidul Alam, a photographer, writer, curator, and activist from Bangladesh, to highlight how the majority of the human population of the world lives in geographic regions—variously addressed as the “Developing World”, the “Third World,” or the “Global South”—that are rendered and remaindered as passive peripheries of ostensibly global problems and developments.

Rather than assuming that knowledge and innovations move out of the so-called centers of Europe and the United States to the rest of the world, thinking “from the majority world” means tracing out emerging forms of knowledge, innovation, and labor in former and still-colonized spaces and how it is often expropriated, extracted, and made invisible.

The syllabus approaches the majority world in two distinct ways:

- [1] First, developments in the majority world need to be addressed in their own right instead of treating them as derivative of active centers of knowledge and technology production.
- [2] Second, the majority world is not only an empirical site, but also a method to understand, analyze, and build developmental, postcolonial, and decolonial computing practices.

Key question(s):

- What changes when we view AI systems through the lens of the “majority world”? What does the frame add to our ability to engage with the complexity of the everyday experience of AI?
- How can we think about uneven power relations not only between worlds but within them?
 - Is the term “majority world” better than “global south”? What does the term add?
 - What does it fail to consider?
- What is confusing about the design of this course and the syllabus?

Required Readings:

Monday, 23rd January 2023

- Syllabus for INFO 4940: AI in/from the majority world [I would like you to familiarize yourself with the themes of this course (*preferably read the short introductions and key questions provided*) and understand the course logistics]

(b) AI ethics in/from the majority world

We begin with a broad binary to differentiate approaches to AI ethics in the global north vis-à-vis the global south.

Mapping the conceptual vocabulary of AI in the global south will quickly take you away from keywords such as bias and fairness, accountability, transparency, explainable AI, and responsible AI. These keywords are ubiquitous in ethical AI conversations in the global north. Before we go into this difference, there is a key similarity between these “traditional” AI ethics keywords: all of them are

grounded in thinking about AI from a design perspective. *AI is seen as a tool*. And as a tool it can be embedded with features that ground a particular understanding of the concepts that drive its design. For example, decision-making models can be embedded with a particular definition of fairness; they can be designed to formulate a particular kind of explanation for their recommendations or decisions. In designing for these concepts in AI-based systems, the hope is to control what such systems do in the world, to purposefully work towards certain outcomes while minimizing others.

In contrast, the conceptual vocabulary of scholars in/from the global south focuses more explicitly on how these systems work for some, often at the expense of others, but not for everyone. The challenges of contending with AI are often mirrored in mundane moments of everyday life where people navigate inequities in power relations along well-recognized intersections of gender, race, class, caste, and ability. *AI is increasingly treated as a part of everyday life*. Its unevenness is articulated through a spectrum of keywords and frameworks such as postcolonial computing, decolonial computing, data extractivism, data colonialism, indigenous data sovereignty, dignity, solidarity, and data justice. These keywords offer a vocabulary to think through the challenges of digitalization and infrastructure building in the majority of the countries in the world.

It is also important to remember that this difference is only a starting point. *It would be ridiculous to say that nobody thinks of data and AI as tools in the global south, or that struggles of living with these systems don't get attention in the global north*. It is just that their conceptual vocabulary tends to emphasize different concerns and these concerns map onto different ways of thinking about AI.

In between these different ways of parsing scholarship on AI ethics, it is equally crucial to remember that AI can often be a placeholder. Part predictive statistical analysis, part marketing strategy. Our interest in AI is located in unpacking its ubiquity. AI in general and machine learning in particular promise to use the recognition of patterns over time to solve problems that range from removing hate speech from online platforms without the need for human moderators to monitoring forest fires in the deep jungle. AI systems do so by claiming that the methods of using historical data to recognize patterns in current situations can be applied to any problem, thereby masking the various forms of violence that this claim enacts.

Key question(s):

- How do we map the ethical landscape of AI in the majority world?
- Why is algorithmic violence often used as a lens to express concerns around ongoing appropriation of data systems in organizing everyday life?
- Why is storytelling key to the process of engaging with everyday experiences of living with data and AI?

Required Readings:

Wednesday, 25th January 2023

- Ricaurte Quijano, Paola. "Ethics for the Majority World: AI and the Question of Violence at Scale." *Media, Culture & Society* 44, no. 4 (May 1, 2022): 726–45.
<https://doi.org/10.1177/01634437221099612>.
- Singh, Ranjit, and Rigoberto Lara Guzmán. 2022. "Prologue." In *Parables of AI in/from the Majority World: An Anthology*, edited by Ranjit Singh, Rigoberto Lara Guzmán, and Patrick

Davison, 1–15. New York: Data & Society Research Institute. https://datasociety.net/wp-content/uploads/2022/12/DSParablesAnthology_Dec2022Prologue_Singh_Guzma%CC%81n.pdf.

- Robehmed, Sacha. 2022. “Capitalising on Crisis & Hope: Emigration & Social Media Ad Targeting in Lebanon.” In *Parables of AI in/from the Majority World: An Anthology*, edited by Ranjit Singh, Rigoberto Lara Guzmán, and Patrick Davison, 22–33. New York: Data & Society Research Institute. https://datasociety.net/wp-content/uploads/2022/12/DSParablesAnthologyDec2022_Ch3_Robehmed.pdf.

Emergent Forms of Computing

(2.a) AI for Development (AI4D)

Development—as a discourse centered on improvement, progress, and modernity—has a long history in economic and political theory. It is a vision and a promise that often underlies plans for circulation of resources as aid and technologies as interventions from “developed” to “developing” worlds.

The discourse of development constructs the majority world as a particular object of intervention structured on ways of knowing it from a distance. Although these interventions are inevitably prone to failure, they have real consequences for the worlds in which they intervene.

Similarly, as AI systems unfold, their use is often justified in terms of how these systems can enable better living conditions for people of the majority world.

The effects of this powerful discourse include the spread of AI systems as a solution to problems of inequality, from poverty alleviation to empowerment of systemically marginalized populations. Such arguments justify not only proliferation of data-driven services, but also data mining, labor exploitation, and vast amounts of energy consumption.

Key question(s):

- How do ongoing investments in data and AI intersect with (im)possibilities, discourses, and imaginaries of modernity, progress, and development?
- What are the material consequences of appropriating data-centric technologies in the name of development?
- What is the first assignment?

Required Readings:

Monday, 30th January 2023

- Weber, Julie Sage, and Kentaro Toyama. “Remembering the Past for Meaningful AI-D.” In *Artificial Intelligence for Development, Papers from the 2010 AAAI Spring Symposium, Technical Report SS-10-01, Stanford, California, USA, March 22-24, 2010*. AAAI, 2010. <http://www.aaai.org/ocs/index.php/SSS/SSS10/paper/view/1125>.
- Blumenstock, Joshua. “Don’t Forget People in the Use of Big Data for Development.” *Nature* 561, no. 7722 (September 2018): 170–72. <https://doi.org/10.1038/d41586-018-06215-5>.
- Mann, Supreet, and Martin Hilbert. “AI4D: Artificial Intelligence for Development.” *International Journal of Communication* 20 (August 2020): 4385–4405. <https://ijoc.org/index.php/ijoc/article/view/12392/3191>

Monday, 30th January 2023: Begin working on your first assignment.

Wednesday, 1st February 2023

- Arora, Payal, and Nimmi Rangaswamy. “Digital Leisure for Development: Reframing New Media Practice in the Global South.” *Media, Culture & Society* 35, no. 7 (October 1, 2013): 898–905. <https://doi.org/10.1177/0163443713495508>.
- Taylor, Linnet, and Dennis Broeders. “In the Name of Development: Power, Profit and the Datafication of the Global South.” *Geoforum* 64 (2015): 229–37. <https://doi.org/10.1016/j.geoforum.2015.07.002>.
- Kumar, Neha, and Nicola Dell. “Towards Informed Practice in HCI for Development.” *Proceedings of the ACM on Human-Computer Interaction* 2, no. CSCW (November 1, 2018): 99:1–99:20. <https://doi.org/10.1145/3274368>.

(2.b) Computing in/from the south

South is a method to change dominant frames about the past, present, and future of computing. Computing in/from the south is often discussed in three narrative frames—developmentalist, postcolonial, and decolonial—to trace a significant body of thinking on computing otherwise. Each of these frames provides a different optic to emphasize the contributions of non-Western, feminist, and queer epistemologies to computing worlds. Rather than thinking of these conceptual developments in thinking about computing as replacing one another linearly, we can think of them as creating a different kind of relation among computing’s spaces and places, its pasts and its futures. These relations, and the switches between them, comprise computing in/from the South as both an empirical site and a method.

“Computing in/from the South” is a guide to technical projects where ethics, materiality, and design sensibilities meet. This interconnection challenges both soft and hard coded assumptions about how computing should work, whose labor produces them, how values such as privacy and progress should be encoded in these technologies, and how data subjects as individuals and collectives should be imagined and empowered through computing technologies. The “/” operator highlights the interdependencies, ambiguities, and potentialities between technopolitical locations, as well as between the South that the North increasingly contains. Southern histories, bodies, and practices drive forward developments in computing usually taken as emanating from the North, both in computing’s adverse effects and the multiple solutions these developments highlight. The current state of computing as a field, industry, and technical discipline needs this exercise in relational thinking to move from a utilitarian, solution-driven practice to a socially entangled, committed, and joyful one.

[This description has been excerpted from: Amrute, Sareeta, and Luis Felipe R. Murillo. “Introduction: Computing in/from the South.” *Catalyst: Feminism, Theory, Technoscience* 6, no. 2 (November 7, 2020). <https://doi.org/10.28968/cftt.v6i2.34594>. It is one of your readings for 8th February 2023.]

Key question(s):

- How does shifting our perspective on computing away from the global north afford an alternate view of progress and future societies?
- How do practitioners ‘of the South’ pursue feminist and queer, anti-gentrification and free/open-source projects that might both yield viable substitute models and intensify relations of debt and inequality for, and crucially, within, the South?

Required Readings:

Monday, 6th February 2023

- Kraemer, Kenneth L., Jason Dedrick, and Prakul Sharma. “One Laptop per Child: Vision vs. Reality.” *Communications of the ACM* 52, no. 6 (June 1, 2009): 66–73. <https://doi.org/10.1145/1516046.1516063>.
- Irani, Lilly, Janet Vertesi, Paul Dourish, Kavita Philip, and Rebecca E. Grinter. “Postcolonial Computing: A Lens on Design and Development.” In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 1311–20. CHI ’10. New York, NY, USA: Association for Computing Machinery, 2010. <https://doi.org/10.1145/1753326.1753522>.
- Dourish, Paul, and Scott D Mainwaring. “UbiComp’s Colonial Impulse.” In *Proceedings of the 2012 ACM Conference on Ubiquitous Computing*, 133–42. UbiComp ’12. New York, NY, USA: Association for Computing Machinery, 2012. <https://doi.org/10.1145/2370216.2370238>.

Wednesday, 8th February 2023

- Amrute, Sareeta, and Luis Felipe R. Murillo. “Introduction: Computing in/from the South.” *Catalyst: Feminism, Theory, Technoscience* 6, no. 2 (November 7, 2020). <https://doi.org/10.28968/cftt.v6i2.34594>.
- Beltrán, Héctor. “The First Latina Hackathon: Recoding Infrastructures from México.” *Catalyst: Feminism, Theory, Technoscience* 6, no. 2 (November 7, 2020). <https://doi.org/10.28968/cftt.v1i001.32904>.
- Amrute, Sareeta. “Follow the Money. Follow the Bodies. Follow the Design: An Afterword to Computing in/from the South.” *Catalyst: Feminism, Theory, Technoscience* 6, no. 2 (November 8, 2020). <https://doi.org/10.28968/cftt.v6i2.34622>.

(2.c) Feminist Computing

The term feminism is a shorthand for the diverse and wide-ranging projects that name and challenge sexism and other forces of oppression, as well as those which seek to create more just, equitable, and livable futures. Because of this broadness, some scholars prefer to use the term feminisms, which clearly signals the range of—and, at times, the incompatibilities among—these various strains of feminist activism and political thought.

A core feature of understanding feminism is to ground ourselves in the idea of intersectionality. Key to the idea of intersectionality is that it does not only describe

the intersecting aspects of any particular person’s identity (or positionalities, as they are sometimes termed). It also describes the intersecting forces of privilege and oppression at work in any given society. Oppression involves the systematic mistreatment of certain groups of people by other groups. It happens when power is not distributed equally—when one group controls the institutions of law, education, and culture, and uses its power to systematically exclude other groups while giving its own group unfair advantages (or simply maintaining the status quo). For example, in the case of gender oppression, sexism, cissexism, and patriarchy is evident in everything from political representation to the wage gap to who speaks more often (or more loudly) in a meeting. In the case of racial oppression, this takes the form of racism and white supremacy. Other forms of oppression include ableism, colonialism, and classism. Each has its particular history and manifests differently in different cultures and contexts, but all involve a dominant group that accrues power and privilege at the expense of others. Moreover, these forces of power and privilege on the one hand and oppression on the other mesh together in ways that multiply their effects.

Feminist computing broadly and data feminism particularly is a way of thinking about computing and data, both their uses and their limits, that is informed by direct experience, by a commitment to action, and by intersectional feminist thought. The starting point for data feminism is something that goes mostly unacknowledged in data science: power is not distributed equally in the world. Those who wield power are disproportionately elite, straight, white, able-bodied, cisgender men from the Global North. The work of data feminism is first to tune into how standard practices in data science serve to reinforce these existing inequalities and second to use data science to challenge and change the distribution of power. Underlying data feminism is a belief in and commitment to co-liberation: the idea that oppressive systems of power harm all of us, that they undermine the quality and validity of our work, and that they hinder us from creating true and lasting social impact with data science.

[This description has been excerpted from: D’Ignazio, Catherine, and Lauren F. Klein. 2020. “Introduction: Why Data Science Needs Feminism.” In *Data Feminism*. Cambridge, MA: MIT Press.
<https://direct.mit.edu/books/book/4660/chapter/213284/Introduction-Why-Data-Science-Needs-Feminism>. It is one of your readings for 13th February 2023.]

A feminist, decolonizing reading of AI explores who and what is deemed “artificial” and how—against whom, through what—is intelligence measured.

Key question(s):

- What are the organizing principles that structure asymmetries of power-relations in data and AI?
- When does thinking from a decolonizing, feminist perspective means including more voices in AI futures, and when it might mean refusing AI systems altogether?

Required Readings:

Monday, 13th February 2023

- Gil, Yasnaya Elena Aguilar. “A Modest Proposal to Save the World through “Tequiology.”” *Rest of World*, December 9, 2020. <https://restofworld.org/2020/saving-the-world-through-tequiology/>.
- Ricarte Quijano, Paola. “Artificial Intelligence and the Feminist Decolonial Imagination.” *Bot Populi* (blog), March 4, 2022. https://botpopuli.net/?post_type=post&p=5927.
- D’Ignazio, Catherine, and Lauren F. Klein. 2020. “Introduction: Why Data Science Needs Feminism.” In *Data Feminism*. Cambridge, MA: MIT Press. <https://direct.mit.edu/books/book/4660/chapter/213284/Introduction-Why-Data-Science-Needs-Feminism>.

Wednesday, 15th February 2023

- Cifor, Marika, Patricia Garcia, TL Cowan, Jasmine Rault, Sutherland, Anita Say Chan, Jennifer Rode, Anna Lauren Hoffmann, Niloufar Salehi, and Lisa Nakamura. “Feminist Data Manifest-No.,” 2019. <https://www.manifestno.com/>.
- Jack, Margaret, and Seyram Avle. “A Feminist Geopolitics of Technology.” *Global Perspectives* 2, no. 1 (June 10, 2021): 24398. <https://doi.org/10.1525/gp.2021.24398>.
- Varon, Joana, and Paz Peña. “Not My A.I. » Why Artificial Intelligence Is a Feminist Issue?” *Not my A.I.* Accessed May 26, 2022. <https://notmy.ai/>.
 - [Oppressive A.I.: Feminist Categories to Understand its Political Effects » Not my A.I.](#)
 - [Building a Feminist toolkit to question A.I. systems » Not my A.I.](#)

(2.d) Decolonial Computing

Colonization (from the Latin *colere*, “to inhabit”) refers to an ongoing process of control by which a central system of power dominates surrounding lands and their resources (people, animals, land etc.) through a process of settlement—that is, establishment of a colony. Colonialism, by contrast, refers to the establishment, exploitation, maintenance, acquisition, and expansion of a colony in one territory by a political power from another territory. Crucially, it involves a set of unequal relationships between the colonial power and the colony, and between the colonists—or colonizers—and the indigenous population—or colonized. We might summarize the difference by saying that colonization tends to refer to expansionist migration; for example, settler colonies in America or Australia, the establishment of trading posts and plantations, etc. Colonialism, by contrast, covers this situation along with the ruling of the existing indigenous peoples of so-called “new territories.”

Colonialism as a project of European political domination involving settlement formally ended with the national liberation and independence—or decolonization—movements of the 1960s. Yet the modernity which colonialism engendered persists, albeit transformed under the condition of postmodernity, which has meant the

persistence of certain “sedimented” colonial ways of knowing and being—that is, colonial epistemology and ontology—based on systems of categorization, classification, and taxonomization and the ways that these are manifested in practices, artifacts, and technologies. It is the persistence of colonial ways of knowing (and being)—or coloniality—following formal decolonization that provides the underlying motivation of the decolonial project.

Decolonial computing, as a critical project, is about interrogating who is doing computing, where they are doing it, and, thereby, what computing means both epistemologically (that is, in relation to knowing) and ontologically (that is, in relation to being). As a perspective, it involves: Firstly, consider your geo-political and body-political orientation when designing, building, researching, or theorizing about computing phenomena. Secondly, embrace the “decolonial option” as an ethic, attempting to think through what it might mean to design and build computing systems with and for those situated at the peripheries of the world system, informed by the ways of thinking and knowing (epistemologies) located at such sites, with a view to undermining the asymmetry of local-global power relationships, and effecting the decentering of Eurocentric/Western-centric universals.

[This description has been excerpted from: Ali, Syed Mustafa. “A Brief Introduction to Decolonial Computing.” *XRDS* 22, no. 4 (June 2016): 16–21.
<https://doi.org/10.1145/2930886>. It is one of your readings for 20th February 2023.]

Key question(s):

- How do we bring our geo-political and body-political perspective to unpack the work of building and thinking with data systems?
- What does embracing the “decolonial option” look like pragmatically? How would it change our approach to thinking about computing practices?

Required Readings:

Monday, 20th February 2023

- Ali, Syed Mustafa. “A Brief Introduction to Decolonial Computing.” *XRDS* 22, no. 4 (June 2016): 16–21. <https://doi.org/10.1145/2930886>.
- Couldry, Nick, and Ulises Ali Mejias. “The Decolonial Turn in Data and Technology Research: What Is at Stake and Where Is It Heading?” *Information, Communication & Society* 0, no. 0 (November 9, 2021): 1–17. <https://doi.org/10.1080/1369118X.2021.1986102>.
- Mumford, Densua. “Data Colonialism: Compelling and Useful, but Whither Epistemes?” *Information, Communication & Society* (November 9, 2021): 1–6. <https://doi.org/10.1080/1369118X.2021.1986103>.
- Singh, Ranjit. “The Decolonial Turn Is on the Road to Contingency.” *Information, Communication & Society* (November 18, 2021): 1–4. <https://doi.org/10.1080/1369118X.2021.1986104>.

- Couldry, Nick, and Ulises Ali Mejias. “Response.” *Information, Communication & Society* (November 9, 2021): 1–2. <https://doi.org/10.1080/1369118X.2021.1986105>.

Wednesday, 22nd February 2023

- Casilli, Antonio A. “Global Digital Culture | Digital Labor Studies Go Global: Toward a Digital Decolonial Turn.” *International Journal of Communication* 11 (September 29, 2017): 3934–54. <https://ijoc.org/index.php/ijoc/article/view/6349>
- Qadri, Rida, and Noopur Raval. “Mutual Aid Stations.” *Logic Magazine*, May 17, 2021. <https://logicmag.io/distribution/mutual-aid-stations/>.
- Posada, Julian. “Controller of the Universe? A Reading List on Labour and Technology.” Mayworks Festival, May 5, 2022. <https://mayworks.ca/2022-festival/2022/readinglist>.

Wednesday, 22nd February 2023: Submit your first assignment.

Thinking with Communities

(2.a) Taking Stock and Looking Forward

Key question(s):

- How is the course going for you? What themes and questions remain under-discussed?
- How was the first assignment? What does “living with data and algorithmic systems” mean to you?
- What is the second assignment?
- What does it mean to think with communities?

Required Readings:

Wednesday, 1st March 2023

- Ziewitz, Malte, and Ranjit Singh. “Critical Companionship: Some Sensibilities for Studying the Lived Experience of Data Subjects.” *Big Data & Society* 8, no. 2 (July 1, 2021): 1–13. <https://doi.org/10.1177/20539517211061122>.
- Kapadia, Melissa. “Illness Methodology for and beyond the COVID Era.” *Penn GSE Perspectives on Urban Education* 18, no. 1 (2020). <https://urbanedjournal.gse.upenn.edu/archive/volume-18-issue-1-fall-2020/illness-methodology-and-beyond-covid-era>.

Wednesday, 1st March 2023: Begin working on your second assignment.

(2.b) Afro-modernity and Afrofuturism

Technologies developed in Africa draw on indigenous traditions of mathematics, pattern-making, architecture, and ethical sensibilities.

This section highlights these developments as constitutive of what Michael Hanchard calls afro-modernity: “a form of relatively autonomous modernity” (Page 247) distinct from its Western conceptions. Hanchard goes on to articulate three features of Afro-Modern politics: “(a) a supranational formulation of people of African descent as an ‘imagined community’ that is not territorially demarcated but based on the shared belief in the commonalities of Western oppression experienced by African and African-derived peoples; (b) the development of alternative political and cultural networks across national-state boundaries; and (c) an explicit critique of the uneven application of the discourses of the Enlightenment and processes of

modernization by the West, along with those discourses' attendant notions of sovereignty and citizenship" (Page 248).

[This description has been excerpted from: Hanchard, Michael. "Afro-Modernity: Temporality, Politics, and the African Diaspora." *Public Culture* 11, no. 1 (January 1, 1999): 245–68. <https://doi.org/10.1215/08992363-11-1-245>. It is one of your readings for 6th March 2023.]

The idea of Afro-modernities locates Africa as a site of technical innovation, though a frequently under-recognized one. This innovation often takes forms that are not recognized within existing models of entrepreneurship, technology, or capitalism. At the same time, like Asia and Latin America, Africa is a continent that is often on the receiving end of schemes to transfer or develop technologies for Africa on the one hand and to extract data and minerals on the other.

Our seminar discussions will ground an alternative story about Afro-modernities that recognizes indigenous frameworks that have developed independently and as an ongoing rebuke to how the "minority world" engages people in the "majority world." These sources expand this recognition to understandings of the African continent's relationship to the African diaspora and engage with Afrofuturist approaches that ground data and AI in the possibilities that emerge through this relationship.

Key question(s):

- How does the African approach grounded in relationality reimagine ethics and politics of data and AI?
- How does Afro-Modern politics and consciousness undergird a critical transnational engagement with the ongoing entrenchment of data and AI in discriminatory legacies of colonialism?
- How can we expand our understanding of the possibilities in Afro-futurism without glossing over the real contests over emergent African approaches to technology?

Required Readings:

Monday, 6th March 2023

- Hanchard, Michael. "Afro-Modernity: Temporality, Politics, and the African Diaspora." *Public Culture* 11, no. 1 (January 1, 1999): 245–68. <https://doi.org/10.1215/08992363-11-1-245>.
- Eglash, Ron. "The Fractals at the Heart of African Designs," June 2007. https://www.ted.com/talks/ron_eglash_the_fractals_at_the_heart_of_african_designs.
- Birhane, Abeba. "Algorithmic Colonization of Africa." *The Elephant*, August 2020. <https://www.theelephant.info/long-reads/2020/08/21/algorithmic-colonisation-of-africa/>.

Wednesday, 8th March 2023

- Kadiri, Aisha P. L. "Data and Afrofuturism: An Emancipated Subject?" *Internet Policy Review* 10, no. 4 (December 7, 2021). <https://policyreview.info/articles/analysis/data-and-afrofuturism-emancipated-subject>.

- Dinkins, Stephanie. “Afro-Now-IsM.” *NOEMA*, June 16, 2020. <https://www.noemamag.com/afro-now-ism>.
- Mhlambi, Sabelo. “From Rationality to Relationality: Ubuntu as an Ethical and Human Rights Framework for Artificial Intelligence Governance.” Carr Center Discussion Paper Series. Cambridge, MA: Harvard Kennedy School, Harvard University, 2020. <https://carrcenter.hks.harvard.edu/publications/rationality-relationality-ubuntu-ethical-and-human-rights-framework-artificial>.

(2.c) Indigenous Protocols

“Indigenous is an analytic, not an identity.” Excerpted from @storfjta’s tweet, January 20, 2021.

Indigenous Protocols (IP) consider the ontological relationships with non-human beings, such as rivers, stones, and trees, as reciprocal sites of exchange from which to reality can be deciphered. The way such relationships organize or articulate a distinct worldview is often described as a cosmology, or the study of the overall structure of the universe, but Indigenous protocols goes beyond logos to include ways of being and knowing concerned with pluriversal co-existence in a complex, living system that honors and reveres the elemental forces of creation, not just the study of singular, isolated phenomena.

Protocols are a better way to understand these contingent dynamics. Protocols provide frameworks or sets of ethico-juridical instructions (laws) passed down through generations as procedural codes for governing and mediating space-time matters. What makes a protocol “indigenous” is its connection to a complex web of intra-relations, grounded in a particular place, and used to determine belonging to self, family, and land.

In recent years, indigenous thinkers from mainland and island nations have deployed such protocols— informed by specific intellectual, ceremonial, and ancestral traditions—to intervene and contribute to ongoing debates about the long-term, ecological viability of planetary scale computation.

Key question(s):

- How are indigenous protocols influencing the development, regulation, and design of data-intensive processes like machine learning?
- How is indigeneity enacted and claimed through data? How do data management practices become a reflection of and sustain indigenous culture?

Required Readings:

Monday, 13th March 2023

- Tuck, Eve. “Suspending Damage: A Letter to Communities.” *Harvard Educational Review* 79, no. 3 (October 6, 2009): 409–28. <https://doi.org/10.17763/haer.79.3.n0016675661t3n15>.
- Lewis, Jason Edward, Angie Abdilla, Noelani Arista, Kaipulaumakaniolono Baker, Scott Benesiinaabandan, Michelle Brown, Melanie Cheung, et al. “Indigenous Protocol and Artificial Intelligence Position Paper,” 2020. <https://doi.org/10.11573/SPECTRUM.LIBRARY.CONCORDIA.CA.00986506>.
 - **Read only:** “Introduction” (Pages 3-18)

- Carroll, Stephanie Russo, Ibrahim Garba, Oscar L. Figueroa-Rodríguez, Jarita Holbrook, Raymond Lovett, Simeon Materechera, Mark Parsons, et al. “The CARE Principles for Indigenous Data Governance.” *Data Science Journal* 19, no. 1 (November 4, 2020): 43. <https://doi.org/10.5334/dsj-2020-043>.

Wednesday, 15th March 2023

- Haas, Angela M. “Wampum as Hypertext: An American Indian Intellectual Tradition of Multimedia Theory and Practice.” *Studies in American Indian Literatures* 19, no. 4 (2007): 77–100. <https://www.jstor.org/stable/20737390>.
- Fourchard, Laurent. “Bureaucrats and Indigenes: Producing and Bypassing Certificates of Origin in Nigeria.” *Africa* 85, no. 1 (February 2015): 37–58. <https://doi.org/10.1017/S0001972014000734>.

(2.d) Anti-Caste Cultures

Caste is a flexible form of prevalent dehumanization in South Asia that is similar to, but not the same as, race. The perpetuation of caste-based discrimination in AI systems is not surprising to those who study caste. There is a deep historical computational culture that moves from the modes of classification and data collection, especially through the census of the British Raj, that undergirds, but cannot entirely explain, these practices. Caste precedes the colonial encounter, and caste continues as an extractive and oppressive practice after the formal end of colonialism.

Exploring how such discrimination is perpetuated requires thinking about caste in its particularity and across the experiences of the systemically marginalized. It also requires thinking about alternative visions that emerge, and have consistently emerged, from oppressed-caste, anti-caste spaces and voices.

Anti-caste cultures are sites of politicization for the larger goal of annihilating caste. To accomplish this goal, we need to both think with emancipatory politics and the way that digital systems reassert dominant caste hegemonies across South Asia and the South Asian diasporas, and across religions.

Key question(s):

- How do automated decision making systems reproduce and normalize caste as a social identity?
- How does the digital become a modality through which caste is articulated, and how does the digital become a space of "purity"?

Required Readings:

Monday, 20th March 2023

- Rai, Saritha. “How Big Tech Is Importing India’s Caste Legacy to Silicon Valley.” *Bloomberg.Com*, March 11, 2021. <https://www.bloomberg.com/news/features/2021-03-11/how-big-tech-is-importing-india-s-caste-legacy-to-silicon-valley>.
- Zwick-Maitreyi, Maari, Thenmozhi Soundararajan, Natasha Dar, Prathap Balakrishnan, and Ralph F. Beel. “Caste in the United States: A Survey of Caste Among South Asian Americans.” Equality Labs, 2018. <https://www.equalitylabs.org/castesurvey>. {Read the [Full Report](#)}
- Yengde, Suraj. “Global Castes.” *Ethnic and Racial Studies* 45, no. 2 (January 25, 2022): 340–60. <https://doi.org/10.1080/01419870.2021.1924394>.

Wednesday, 22nd March 2023

- Shanmugavelan, Murali. “Caste-Hate Speech: Addressing Hate Speech Based on Work and Descent.” Copenhagen: International Dalit Solidarity Network (IDSN), March 22, 2021. <https://idsn.org/portfolio-items/caste-hate-speech-addressing-hate-speech-based-on-work-and-descent/>.
 - [Lecture] Shanmugavelan, Murali. 2021. *Part II: A proposal for caste-ing out media*.
- Vaghela, Palashi, Steven J Jackson, and Phoebe Sengers. “Interrupting Merit, Subverting Legibility: Navigating Caste In ‘Casteless’ Worlds of Computing.” In *CHI Conference on Human Factors in Computing Systems*, 1–20. CHI ’22. New York, NY, USA: Association for Computing Machinery, 2022. <https://doi.org/10.1145/3491102.3502059>.
- Deeksha, Johanna. “How Caste Certificates in India Make or Break Dreams.” *Scroll.In*. September 28, 2022. <https://scroll.in/article/1033729/how-the-struggle-for-a-caste-certificate-dashes-marginalised-students-dreams>.

(2.e) Disabilities and Computing

Disabled people generally don’t lead tragic lives, despite what our culture tells us. Many disabled people, amputees included, have good lives, and many of the barriers to our normalcy and inclusion are matters of social stigmas and poor accessibility planning, rather than ones “solved” with technologies donned by individuals. This dominant cultural narrative about overcoming, about disability as burden, and about disabled-technologized bodies as inspirational makes it harder, not easier, for disabled people to be included in social life, to adapt to newly acquired disability, and to accept and adapt new ways of doing things. We don’t need redemption; we need better narratives.

[This description has been excerpted from: Shew, Ashley. 2019. “Stop Depicting Technology as Redeeming Disabled People.” *Nursing Clio*. April 23, 2019. <https://nursingclio.org/2019/04/23/stop-depicting-technology-as-redeeming-disabled-people/>. It is one of your readings for 27th March 2023.]

The readings in this section investigate the intersections of computing practices with experiences of disability; they are broadly in alignment with the idea that disability is a point of departure to examine a host of political, theoretical, and practical issues, rather than a deficit that needs to be made whole. Furthermore, moving away from reducing disability to denote lack or deficit allows us to engage with the true potential of disability as a lens to disrupt and shake the normative foundations of culture and society broadly and in our case, approaches to computing particularly.

One of the guiding philosophies of disability studies has been a mantra that is common and deeply consequential for activism and resistance in the face of various forms of marginalization: *Nothing about us, Without us*. This mantra foregrounds that the journey of learning about any disability must begin

with taking the expertise of disabled people seriously and creating conditions where they can act as “critical companions” (Ziewitz and Singh, 2021) in this journey.

Acknowledgment: This section has been created in collaboration with Kimberly Fernandes, who suggested most of the excellent readings that you will be engaging with this week.

Key question(s):

- What does it mean to think of the world in general and computing practices in particular through disability?
- When does disability become merely an object of intellectual inquiry? How can we ensure that disability remains a driving subject of contemplation in building and living with data systems rather than a passive object that must be tokenistically included?

Required Readings:

Monday, 27th March 2023

- Young, Stella. 2014. “I’m Not Your Inspiration, Thank You Very Much.” TED. June 2014. https://www.ted.com/talks/stella_young_i_m_not_your_inspiration_thank_you_very_much.
- Garland-Thomson, Rosemarie. 2016. “Becoming Disabled.” *The New York Times*, August 19, 2016, sec. Opinion. <https://www.nytimes.com/2016/08/21/opinion/sunday/becoming-disabled.html>.
- Butler, Judith, and Sunaura Taylor. 2010. *Examined Life*. YouTube. <https://www.youtube.com/watch?v=k0HZaPkF6qE>.
- Shew, Ashley. 2019. “Stop Depicting Technology as Redeeming Disabled People.” *Nursing Clio*. April 23, 2019. <https://nursingclio.org/2019/04/23/stop-depicting-technology-as-redeeming-disabled-people/>.

Wednesday, 29th March 2023

- Williams, Rua M., Kathryn Ringland, Amelia Gibson, Mahender Mandala, Arne Maibaum, and Tiago Guerreiro. 2021. “Articulations toward a Crip HCI.” *Interactions* 28 (3): 28–37. <https://doi.org/10.1145/3458453>.
- Shew, Ashley, Jillian Weise, and Alice Wong. 2019. “Ep 66: Cyborgs.” Disability Visibility Project. December 19, 2019. <https://disabilityvisibilityproject.com/2019/12/18/ep-66-cyborgs/>.
- Jackson, Liz, Alex Haagaard, and Rua Williams. 2022. “Disability Dongle.” *Platypus: The CASTAC Blog* (blog). April 19, 2022. <https://blog.castac.org/2022/04/disability-dongle/>.
- Yergeau, Melanie. 2014. “Disability Hacktivism.” *Computers and Composition | Hacking the Classroom: Eight Perspectives* Spring. <http://cconlinejournal.org/hacking/#yergeau>.

Wednesday, 29th March 2023: Deadline for submitting your second assignment.

Narrative Frames of Computing

(3.a) Taking Stock and Looking Forward

Key question(s):

- How is the course going for you? What themes and questions remain under-discussed?
- How was the second assignment? What does “data subjecthood” mean to you?
- What is the third and final paper assignment?
- What are narrative frames of computing?

Required Readings:

Monday, 10th April 2023

- No readings

Monday, 10th April 2023: Begin working on your final paper assignment.

(3.b) Experimentation

One of the enduring legacies of transferring technoscientific interventions from the “developed” to the “developing” worlds is the contestations over the ideology of progress wherein the suffering, the anger, and often the despair over the appropriation of such interventions is treated as irrelevant. If these new technologies “solve social problems,” then they can be justified.

Increasingly, however, the promise to resolve social problems is being replaced by aspirations of experimentation with technoscientific solutions to produce evidence of their efficacy. This evidence, in turn, is employed as proof of concept for large-scale investments in such solutions within “developing” countries.

Majority world becomes a laboratory for testing data-driven technologies and producing usable, marketable, data. Much of the relationship between AI systems and development fits within a model of experimentation that holds out the promise of creating systems—such as universal ID cards and Know Your Customer systems— that simultaneously deliver goods to the poor and can be packaged for sale in other markets.

Such emphasis on experimentation shapes government efforts in securing international aid from promoting development projects as a responsibility towards citizens to treating development projects as an opportunity to gather data on efficacy of technoscientific and data-driven interventions.

Key question(s):

- How do historical legacies of experimentation shape AI-based interventions?

- How does experiment mark both the persistence of uncertainties as a limitation of as well as a justification for continued investments?

Required Readings:

Wednesday, 12th April 2023

- Sandvik, Kristin Bergtora, Katja Lindskov Jacobsen, and Sean Martin McDonald. “Do No Harm: A Taxonomy of the Challenges of Humanitarian Experimentation.” *International Review of the Red Cross* 99, no. 904 (April 2017): 319–44. <https://doi.org/10.1017/S181638311700042X>.
- Martin, Aaron, Gargi Sharma, Siddharth Peter de Souza, Linnet Taylor, Boudewijn van Eerd, Sean Martin McDonald, Massimo Marelli, Margie Cheesman, Stephan Scheel, and Huub Dijkstra. “Digitisation and Sovereignty in Humanitarian Space: Technologies, Territories and Tensions.” *Geopolitics* (March 2022): 1–36. <https://doi.org/10.1080/14650045.2022.2047468>.

(3.c) Extraction

In the majority world, AI systems rely on a logic of extraction. There are many debates over how such extraction works, but fundamental to them is the underlying question: what is considered "a resource"?

The extraction of resources can be as obvious as the literal removal of matter from the earth through mining or industrial agriculture. But forms of data mining and biocapitalism also rely on subjecting human populations to processes of extraction. Examining how these social data are constructed as resources adds a distinct layer to the critiques of AI systems as extensions of the extractive logic of capitalism.

Our discussion will broadly span three distinct analytic layers by focusing on: [1] the materiality of data-driven systems, [2] the labor practices that make them possible, and [3] the data generated by commodifying human attention. While critiques centered on exploitation of the environment and human labor have a much longer history, critiques of extraction as a form of data colonialism are relatively new.

While extraction varies in its forms, it is deeply consequential for efforts to map and analyze the circulation of data as capital and the emergent relationship between the majority world and data-driven systems.

Key question(s):

- How do people become targets of data-driven systems?
- Can we ever separate the collection of data from the extraction of minerals, knowledge, and information?

Required Readings:

Monday, 17th April 2023

- Hodal, Kate. “Death Metal: Tin Mining in Indonesia.” *The Guardian*. November 23, 2012, sec. Environment. <https://www.theguardian.com/environment/2012/nov/23/tin-mining-indonesia-bangka>.

- Ensmenger, Nathan. “The Environmental History of Computing.” *Technology and Culture* 59, no. 4 (2018): S7–33. <https://doi.org/10.1353/tech.2018.0148>.
- Crawford, Kate, and Vladan Joler. “Anatomy of an AI System.” *Anatomy of an AI System*, 2018. <http://www.anatomyof.ai>.

Wednesday, 19th April 2023

- Thatcher, Jim, David O’Sullivan, and Dillon Mahmoudi. 2016. “Data Colonialism through Accumulation by Dispossession: New Metaphors for Daily Data.” *Environment and Planning D: Society and Space* 34 (6): 990–1006. <https://doi.org/10.1177/0263775816633195>.
- Solon, Olivia. “‘It’s Digital Colonialism’: How Facebook’s Free Internet Service Has Failed Its Users.” *The Guardian*, July 27, 2017, sec. Technology. <https://www.theguardian.com/technology/2017/jul/27/facebook-free-basics-developing-markets>.
- Spuy, Anri van der. 2020. “Should We Nationalise Data? In Conversation with Ulises Mejias.” *Research ICT Africa* (blog). April 7, 2020. <https://researchictafrica.net/2020/04/07/should-we-nationalise-data-in-conversation-with-ulises-mejias/>.
- Bailur, Savita, and Nasubo Ongoma. “I Feel Empowered...but You Have to Have a Thick Skin.” *Bot Populi* (blog), December 1, 2021. https://botpopuli.net/?post_type=post&p=5355.
- Vox. “It’s A WhatsApp World.” *Land of the Giants*, August 24, 2022. <https://podcasts.apple.com/us/podcast/its-a-whatsapp-world/id1465767420?i=1000577184486>

(3.d) Surveillance

Practices of collection and storage of data about populations are forms of remembering designed to structure recall of a particular person’s existence, rights, entitlements, and obligations.

Remembering is simultaneously a tool for recognition and surveillance. On the one hand, to be remembered is to be recognized as a member of a community and a nation state and actively engage with infrastructures of the state as a citizen. On the other hand, to be remembered is to live under the constant threat of being watched, tracked, measured, and classified—in short, surveilled.

In between these two binary positions are the emerging conditions of living in a world where a person’s choice to participate in data-driven interventions legitimizes the use of their personal data to track them and sell them things. Alongside this predicament of data capture, AI systems innovate new means to track individuals and populations, from biometrics to finding patterns in large data-sets. At the same time, these innovations develop directly from the long history colonial projects to control enslaved and colonized peoples.

Our seminar discussions will explore the lived experiences of and attitudes towards privacy and surveillance in the majority world.

Key question(s):

- In what ways do people think about their privacy in different places?
 - Is privacy necessarily individualistic, or are there other models of privacy that need to be developed along collective lines?

- How do we think about the tradeoffs between identification and surveillance, between being seen, and being watched?

Required Readings:

Monday, 24th April 2023

- Arora, Payal. “Decolonizing Privacy Studies.” *Television & New Media* 20, no. 4 (May 2019): 366–78. <https://doi.org/10.1177/1527476418806092>.
- Weitzberg, Keren, Margie Cheesman, Aaron Martin, and Emrys Schoemaker. “Between Surveillance and Recognition: Rethinking Digital Identity in Aid.” *Big Data & Society* 8, no. 1 (January 1, 2021): 1–7. <https://doi.org/10.1177/205395172111006744>.

Wednesday, 26th April 2023

- Newell, Bryce Clayton. “Introduction: Decolonizing Surveillance Studies.” *Surveillance & Society* 17, no. 5 (December 10, 2019): 714–16. <https://doi.org/10.24908/ss.v17i5.13652>.
- Arora, Payal. “General Data Protection Regulation—A Global Standard? Privacy Futures, Digital Activism, and Surveillance Cultures in the Global South.” *Surveillance & Society* 17, no. 5 (December 10, 2019): 717–25. <https://doi.org/10.24908/ss.v17i5.13307>.
- Ogasawara, Midori. “Mainstreaming Colonial Experiences in Surveillance Studies.” *Surveillance & Society* 17, no. 5 (December 10, 2019): 726–29. <https://doi.org/10.24908/ss.v17i5.13521>.
- McKinson, Kimberley D. “Black Carcerality and Emancipation in Postcolonial Jamaica.” *Surveillance & Society* 17, no. 5 (December 10, 2019): 734–37. <https://doi.org/10.24908/ss.v17i5.13437>.
- Schnepf, J. D. “Unsettling Aerial Surveillance: Surveillance Studies after Standing Rock.” *Surveillance & Society* 17, no. 5 (December 10, 2019): 747–51. <https://doi.org/10.24908/ss.v17i5.13480>.
- Au, Yung. “Surveillance from the Third Millennium.” *Surveillance & Society* 19, no. 4 (December 13, 2021): 425–40. <https://doi.org/10.24908/ss.v19i4.15121>.

(3.e) Social Protection

Social protection is a broad orienting principle for ongoing global efforts to end poverty, which is the first among the United Nations’s Sustainable Development Goals. Data-centric technologies have become integral to these efforts by establishing evidentiary modes of belonging, whether as citizens, refugees, or migrants.

The use of data is imagined to be a step towards practically achieving both efficiency and inclusion at the same time in organizing the workings of international humanitarian organizations as well as governments. However, these goals tend to produce conflicting imperatives in designing social protection services. When targeting beneficiaries is oriented towards inclusion, the imperative is to relax conditions of eligibility in accessing public services; when it is geared towards efficiency, the imperative becomes to tighten these conditions.

Despite such contradictions, these imaginaries are not new. The conception of the nation state, for example, is deeply entwined with its characterization through statistics and various forms of citizen

data. However, the emergent changes in identification practices, particularly through new interventions in digitizing identity, have created uneven conditions of digital mediation of social protection.

These uneven conditions have produced a variety of challenges across the majority world that range from troubles with efficient targeting and determining eligibility of beneficiaries through their data to everyday struggles with navigating access to and exclusions from data-driven services. The result is the deep transformation of social protection. Understanding the core tensions in the emergent investments in datafication of social protection requires that we pay close attention to this unevenness.

Key question(s):

- How does data become the foundation of uneven efforts to practically achieve social protection?
- How does digital identity mediate the ability and experience of beneficiaries in navigating and accessing social protection services?

Required Readings:

Monday, 1st May 2023

- Conneally, Paul. “Digital Humanitarianism.” TED, February 17, 2012. https://www.youtube.com/watch?v=L9_c1j9VRwE.
- Currion, Paul. “The Refugee Identity.” *Caribou Digital* (blog), March 25, 2018. <https://medium.com/caribou-digital/the-refugee-identity-bfc60654229a>.
- Madianou, Mirca. “Technocolonialism: Digital Innovation and Data Practices in the Humanitarian Response to Refugee Crises.” *Social Media + Society* 5, no. 3 (April 1, 2019). <https://doi.org/10.1177/2056305119863146>.
- Schoemaker, Emrys, Dina Baslan, Bryan Pon, and Nicola Dell. “Identity at the Margins: Data Justice and Refugee Experiences with Digital Identity Systems in Lebanon, Jordan, and Uganda.” *Information Technology for Development* 27, no. 1 (January 2021): 13–36. <https://doi.org/10.1080/02681102.2020.1785826>.

Wednesday, 3rd May 2023

- Dencik, Lina, and Anne Kaun. “Datafication and the Welfare State.” *Global Perspectives* 1, no. 1 (May 11, 2020). <https://doi.org/10.1525/gp.2020.12912>.
- Singh, Ranjit, and Steven Jackson. “Seeing Like an Infrastructure: Low-Resolution Citizens and the Aadhaar Identification Project.” *Proceedings of the ACM on Human-Computer Interaction* 5, no. CSCW2 (October 18, 2021): 315:1-315:26. <https://doi.org/10.1145/3476056>.

End of our journey

(a) Wrap-up and Review

Key question(s):

- How was the course? What are key takeaways from it?
- What could be done better? Were there parts of the course that could be changed/improved?
- Any lingering questions about your final paper?
- What changes when we view AI systems through the lens of the “majority world”? What does the frame add to our ability to engage with the complexity of the everyday experience of AI?

Required Readings:

Monday, 8th May 2023

- No readings

Friday, 12th May 2023: Deadline for submitting your final paper assignment.
