

CSE/IT/PHIL 382-01

Ethics of Computing and Information Technologies

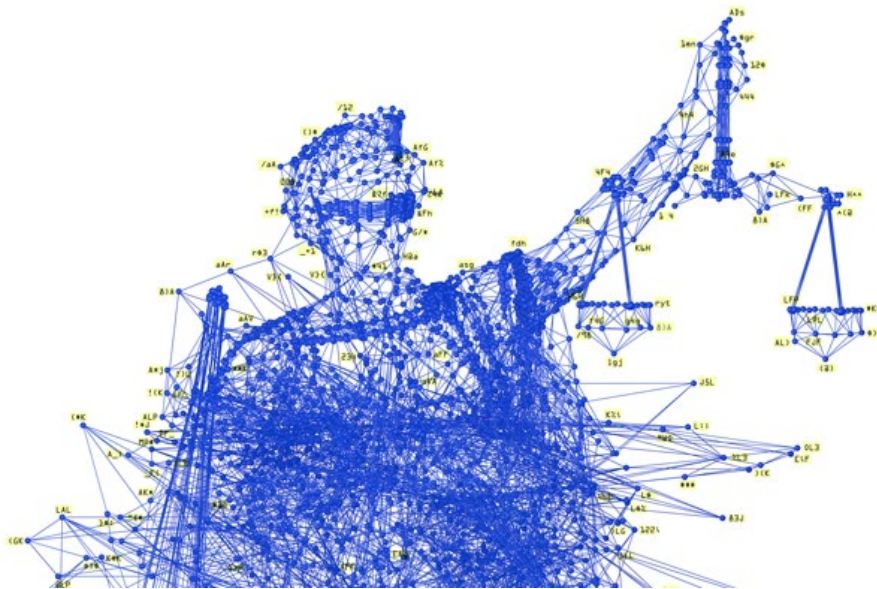
New Mexico Tech
Spring 2022
MWF 10-10:50 AM
Cramer 124

Instructor: Christopher ChoGlueck (pronounced: *KRIS JOH-gluhk*)
Assistant Professor of Ethics (CLASS Dept.)

Pronouns: he/his

Email: Christopher.ChoGlueck@nmt.edu

Virtual Office Hours: TBD and by appointment via Zoom: <https://zoom.us/my/cchoglueck>



Artist: [Pablo Delcan](#)

Syllabus Contents ([Click to follow link](#))

1. Course Description.....	2
2. Course Grading & Requirements.....	3
3. Notes from the Professor	6
4. Important Dates and Deadlines (subject to change)	9
5. Detailed Course Schedule.....	9
Part I: Professional Ethics in Computing and Programming	10
Part II: Big Data and Cyber Ethics.....	12
Part III: Ethical Design, AI, and Robots	15
6. About the Professor	17

1. Course Description

Ethics is the study of right and wrong behavior, including rights, responsibilities, virtues, democracy, and justice. In this class, students will examine ethical and social questions regarding computing and information technologies. The course challenges students to think about connections among digital technologies, the responsibilities of information technology professionals, and social justice as they study topics such as social media, military applications of digital media, gendered technologies, and access to information technologies. In addition to learning the basics of research ethics and social responsibility, students will examine real-world debates regarding subjects like big data, computer code, and digital networks; moreover, they will analyze the legal, political, and social stakes of information technologies. This course is suited both for students training in profession careers of Computer Science and Information Technology as well as for those more generally interested in ethical issues involving the internet, AI, robots, and other related technologies.

As a course in practical philosophy, students will develop their ability to think critically about ethics in real-world cases and the capacity to conduct independent research about ethical issues. The materials introduce students to a diverse set of authors and contemporary topics such as criminal justice software, digital intellectual property, censorship & regulation, hacking, digital activism, Big Tech, artificial intelligence, and robots for love and war. Along with regular participation, assignments include reading journals, 4 short papers, and an individual research project. Special emphasis is placed on intellectual humility, open-minded engagement, charitable reading, and respectful dialogue.

1.1. Pre-requisites and Co-requisites

For CSE/IT 382, CS and IT students must have at least junior standing. For PHIL 382, the pre-requisite is either ENGL 1120 (Composition II) or the consent of instructor and advisor.

1.2. Place in Curriculum

Ethics in CS/IT is a required foundational course for the Bachelor of Science in Computer Science or Information Technology. In addition, this class satisfies the requirements of an Area 5 (humanities) course in the New Mexico General Education Curriculum and focuses on the following Essential Skills: critical thinking, information and digital literacy, and personal and social responsibility. For more on the New Mexico Tech General Education Curriculum and how these essential skills are assessed, please visit the following website:

<https://www.nmt.edu/academicaffairs/assessment/gened.php>. This course also satisfies 3 credits toward a Philosophy minor or a Science, Technology, and Society minor:

<https://nmt.edu/academics/class/minors.php>.

1.3. Course learning outcomes

By the end of class, students will be able to:

- *Construct* and clearly *communicate* arguments about the moral responsibilities of coders, companies, and governments and the rights and virtues of professionals and users, and *defend* arguments with charity and without logical fallacies;

- *Write* and *research* analytic essays about contemporary ethical problems with proper structure that contribute to popular and scholarly conversations;
- *Recognize* how human cultures and value judgments shape the process of programming, development, and implementation of computer software and other digital technologies, including algorithmic bias, internet access, and digital usability;
- *Evaluate* different conceptions of freedom, justice, democracy, and equality in terms of different ethical frameworks and *apply* them to real-world problems with technology, programming, and policy.

1.4. Required Texts

O’Neil, Cathy. (2016). *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. New York: Crown Publishers.

Paperback from NMT Bookstore: \$26.00 new or \$20.80 used
or download EPUB from [RedShelf](#) (\$9.99)

(If you cannot secure a copy, there will be a course reserve in the library for 2-hour use.)

If you are unable to secure a copy, email the professor ASAP.

All other readings & assignments will be available on Canvas (Files>Readings) or online.

2. Course Grading & Requirements

The total points for the class (100%) are broken down into 6 categories:

1. Participation & Attendance (20%): attend and contribute during classes, including large- and small-group discussion and online forums (3 “freebies” for unexcused absences).
2. Reading journals (20%): for each day with assigned readings/materials, write an entry in the form of an annotated bibliography (6 “skips”).
3. Case studies (15%): write 2 case studies responding to a prompt about a hypothetical case (2 full pages, 7.5% each).
4. Analytic papers (15%): write 2 analytic essays on a chosen reading, using AOR structure (2 full pages, plus citations in APA, 7.5% each).
5. Research project (30%): conduct an individual analysis on a contemporary issue related to course themes, including presentation and report. The grade (equivalent to a final exam) includes: a brief proposal (1 page), a virtual presentation, and a written report including a summary (2-3 pages) and an annotated bibliography (2-3 pages).
6. Extra credit (+2%): write an ethical story as an essay prompt about a leader caught in a difficult situation (2 full pages).

2.1. Participation and Attendance

To facilitate active learning, the course is highly interactive and discussion-based. Hence, regular attendance and engaged participation are required. All students are expected to attend every class and participate with their peers in small and large groups and on discussion boards. Regarding *attendance* specifically, students are allowed 3 unexcused absences (“freebies”). Additional unexcused absences will result in the loss of participation points (minus 1 of the total 20). An *excused* absence is one that has been arranged between the student and the professor. (Valid

excuses include [symptoms related to COVID](#), hospitalization/serious illness, occupational/educational duties, family emergencies, triggering content, and religious holidays.) Students are responsible for communicating with the professor via email/Canvas.

Participation is crucial for students' abilities to recognize and engage with class topics, develop their own beliefs, and explain them to their peers. Students should engage with their small groups each class and make at least one contribution to the larger discussion each week. For *documentaries* and any *asynchronous classes*, students are to participate in online discussion on Canvas. In these cases, post a reflection and question for your peers, and then make one reply (each worth ¼ of a participation point).

2.2. Reading Journals

Regular journaling prepares students for good practices in their independent research, and they will use a similar format for their final project's annotated bibliography. Starting the third Wednesday, before each class with assigned readings or other materials (e.g., videos, podcasts), students will submit bibliographic entries for *each* of the day's materials on Canvas. Every entry should be 4 sentences minimum and must contain the following elements (example [here](#)):

1. a *citation* in APA style;
2. a concise *summary*, including the thesis (main claim) and the author's support (grounds) for this thesis (2+ sentences); and
3. a brief *reflection* on the material, including strengths and weaknesses (2+ sentences).

Students have 6 "skips" to pass on writing the 28 assigned journals (thus, only 22 are required). (To use a skip, simply do not submit a journal on Canvas.) For late entries, students receive half credit. These exercises facilitate *comprehension* and promotes *charitable* reading. The instructors will evaluate these journals solely in terms of completeness.

2.3. Case Studies

Students are expected to write 2 case studies responding to a prompt given a week in advance (at least 2 full pages, double spaced, 12-point font, 1-in margins). The essay should include:

1. a *stance* on the ethics of the situation, including permissibility and proposed actions;
2. *grounds* for that position, with special attention to ethical frameworks and issues in class; and
3. a discussion of *strengths* and *weaknesses* of the author's position.

Any references should be in APA format (see [research guide](#)); citations do not count toward minimum page requirement. These exercises will facilitate students' abilities to think creatively about solutions to ethical problems, to practice taking and defending positions, and to understand the strengths and weaknesses of their chosen stance. Papers will be graded for *completeness*, *clarity*, and *resourcefulness* in terms of ethical frameworks and concepts.

2.4. Analytic Papers

Students will write 2 analytic essays on the reading assigned during the course (at least 2 full pages, double spaced, 12-point font, 1-in margins). In these essays, students should pick a specific claim in one assigned material since the last paper. The essay should use the Argument-Objection-Response (AOR) structure (see Handouts 1 and 3):

1. *Claim*: pick a claim made in the assigned reading material *that you agree or disagree with*, state/quote it succinctly, and identify the page it appeared;
2. *Argument*: state a reason that you agree/disagree with it (the more reasons, the better);
3. *Objection*: identify a strong objection to your argument; and
4. *Response*: reply to that objection. (Repeat steps 2, 3, and 4)

Papers should also state the theoretical or social significance of the issue and argument. Include at least 2 objections and responses, and use as many AORs as needed to complete 2 full pages. References should be in APA format (see [research guide](#)); citations do not count toward minimum page requirement. The aim of this exercise is to facilitate charitable reading, clear reasoning, and ability to engage constructively with objections. The professor will grade the papers for *completeness*, *charity*, and *clarity* (see examples on Canvas).

2.5. Research Project

This is equivalent to a final exam. Each student will research and present a thorough case study of a contemporary ethical issue of their choosing, related to course themes. Their analyses must include the following elements:

1. Clarify a pressing contemporary ethical issue related to course themes;
2. Present a proposal for resolving the ethical issue or take a critical stance toward the policy/technology;
3. Defend the proposal or stance, using ethical justifications and scientific literature; and
4. Present at least 2 strong objections with a response to each.

Students should engage with both philosophical and scientific sources, including at least 4 peer-reviewed articles or books (not including class materials). The project involves three stages.

Stage 1: Students will submit a 1-page proposal describing the case study, the ethical issue(s) at hand, and their preliminary plans for research and virtual presentation (see [research guide](#)).

Stage 2: After conducting that research, students will prepare and make a virtual presentation of their case study involving multimedia (such as a screencast of slides, a podcast, an explainer video, an infographic, etc.). Presentations will occur virtually during the last week of classes, with a Q/A on Canvas. **Stage 3:** Students will then write a final report, including (1) a summary of their presentation (2-3 pages) in AOR format, and (2) an annotated bibliography of their scholarly sources (2-3 additional pages), due finals week.

This exercise facilitates students' abilities to think about how ethical issues relate to concrete cases, to conduct independent research on an issue of personal interest, and to work toward contributing to scholarly conversations. The professor will grade presentations in terms of *clarity* of argument and *presentation quality* (including creativity, design, and engagement). The summary and bibliography will be graded for *clarity* and *completeness* (including the 4 elements above). See examples on Canvas.

2.6. Extra Credit

For two percentage points of extra credit toward their final grade, students may write an open-ended story about a person in a leadership position who faces an ethically challenging situation related to bioethics (at least 2 full pages, double spaced, 12-point font, 1-in margins). *Without* providing any answers, the fictional story should prompt the audience to question, analyze, and

consider the best outcome based on a limited set of details about the individual, their situation, and other parties involved. Set in the past, present, or future, the storyteller should incorporate a combination of ethical issues to add nuance and real-world complexity to their prompt, based on material from class and their own personal experience. The story should avoid overtly criminal acts and matters clearly settled by the law as well as obviously unethical conduct. While creating a complex set of circumstances, the storyteller neither offers respondents a judgment nor suggests a resolution.

Similar to an essay prompt, storytellers should end their story with setup for the audience to (1) take a stance toward the best course of action and (2) provide and elaborate on the moral justification for the decision made. This exercise invites students to think *creativity* and *empathetically* about ethics in the messy real world. The professor will grade the papers for completeness (see examples on Canvas). Alternatively, students may write a two-page reflection paper on a relevant campus talk (approved by the professor).

2.7. Late Paper Policy

For all papers, a late penalty of 1% per day (out of the assignment's 100 total points) is incurred on submissions past the due date. For instance, a paper turned in 10 days late has a starting grade of 90%. For papers late by over 3 weeks, students are responsible for contacting the professor to arrange a plan for completion.

2.8. Final Grades

Final grades will be based on the percentage of total points earned (see Gradebook on Canvas): **A** (100-93%), **A-** (92-90%), **B+** (89-87%), **B** (86-83%), **B-** (82-80%), **C+** (79-77%), **C** (76-73%), **C-** (72-70%), **D** (69-60%), and **F** (<60%).

3. Notes from the Professor

I encourage all students to come by my virtual office hours in the beginning of the semester and personally introduce yourself. My office hours are a *safe space*; I am happy to help you work through any questions or problems that might arise related to the course or school more generally. Please approach me if you have any questions about the assignments, readings, grading, other aspects of the class, or philosophy as a field of study (and the [Philosophy minor](#)). The best way to communicate with me is via email.

3.1. Course Policies for Respect and Equity

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity the students bring to this class be viewed as a resource, strength, and benefit. I aim to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Given the sensitive and challenging nature of the materials discussed in class, it is imperative that there be an atmosphere of *safety*, *inclusiveness*, and *equity* in the classroom. Accordingly, we will follow the advice of the writer James Baldwin:

*We can disagree and still love each other
unless your disagreement is rooted in my oppression and
denial of my humanity and right to exist.*

In line with this, students are also expected to promote *respectful inclusiveness*, especially in the face of differences, disagreement, and discrimination. Accordingly, certain disagreements, e.g., over the humanity, value, or abilities of marginalized groups, are disrespectful, unfair, and against our ground rules. As the instructor, I will attempt to foster an environment in which each class member is able to hear and respect each other.

Relatedly, students are expected to adopt a policy of *step forward; step back*: In order for everyone's voice to be heard, students who tend to dominate discussions should attempt to "step back" so that other students may participate and contribute to discussion; students who tend to keep quiet during discussions should attempt to "step forward" and let the class benefit from their contributions. In any discussions, all students are encouraged to ask questions and engage fellow students in a respectful manner that facilitates an interdisciplinary setting. Students should also have respect for their fellow classmates and refrain from repeating sensitive or confidential discussions outside of the classroom.

3.2. Land Acknowledgement

We acknowledge that the New Mexico Tech main campus stands on the unceded ancestral lands of the Pueblo and Mescalero Apache peoples. These lands were taken by Congress in the Indian Land Cession 689 on October 1, 1886, and the military forcibly moved the Native peoples to reservations. These injustices were accomplished under false white-supremacist ideologies such as Manifest Destiny and the Doctrine of Discovery. For those of us who are visitors to these lands, we appreciate their millennia of stewardship to the land, water, animals, and plants, and the opportunity to live and learn here. Please visit <https://indianpueblo.org/new-mexicos-19-pueblos> and <https://mescaleroapachetribe.com/> to learn more about these Native nations, their cultures and sovereignty.

3.3. Disability and Accommodations

I want this class to be accessible for each student to flourish with their unique abilities. New Mexico Tech is committed to protecting the rights of individuals with disabilities. Qualified individuals who require reasonable accommodations are invited to make their needs known to the Office for Disability Services (ODS) as soon as possible. To schedule an appointment, please call 575-835-6209, or email disability@nmt.edu.

3.4. Counseling Services

Your mental health and experience in this class is important to me. New Mexico Tech offers individual and couples counseling, safety assessments, crisis intervention and consultations through The Counseling Center. These confidential services are provided free of charge by licensed professionals. For more information, please call 575-835-6619, email counseling@nmt.edu or complete an Intake Form on our website at <https://www.nmt.edu/cds/>. All services are provided via phone or Zoom during the COVID-19 pandemic.

3.5. Writing and Communication Lab

The WCL's mission is to help students become better writers by offering tailored, individual tutoring both in person and online for undergraduate and graduate students. We can assist with lab reports, essays, posters, oral presentations, and much more. The WCL will be open for tutoring in Spring 2022 starting the week of January 24, M-Th from 12-5pm, and Sunday from 7-10pm, in Skeen Library next to the OSL. To make an appointment, please use our scheduling program, WC Online (<http://nmt.mywconline.com>) to make an appointment during our open hours, or email us at write@nmt.edu. Schedule is subject to change based on tutor availability, so please check WC Online or email us to confirm. Visit our website for more information: <https://www.nmt.edu/academics/class/center.php>.

3.6. Academic Dishonesty

Students are expected to submit their original work on journals, papers, and other assignments. They must acknowledge any use (in part or full) of someone else's work with proper citations (in [APA style](#)). The instructor will not tolerate either plagiarism or cheating, which will result in an automatic failing grade on the assignment and/or the class. New Mexico Tech's Academic Honesty Policy for undergraduate students is in the Student Handbook: <https://www.nmt.edu/studenthandbook/>. Students are responsible for knowing, understanding, and following this policy.

3.7. Title IX Reporting (Sex/gender-based Discrimination)

Sexual misconduct, sexual violence and other forms of sexual misconduct and gender-based discrimination are contrary to the University's mission and core values, violate university policies, and may also violate state and federal law (Title IX). Faculty members are considered "Responsible Employees" and are required to report incidents of these prohibited behaviors. Any such reports should be directed to Tech's Title IX Coordinator (Dr. Peter Phaiah, 216 Brown Hall, 575-835-5880, titleixcoordinator@nmt.edu). Please visit Tech's Title IX Website (www.nmt.edu/titleix) for additional information and resources.

3.8. COVID-19 Safety Issues for Face-to-Face Instruction

As of the beginning of Spring semester, NMT classes are under the following constraints, which may change as COVID conditions and/or New Mexico Governor's orders change. Please check for daily updates of COVID constraints, posted on www.nmt.edu/covid19/.

- 1) All vaccinated and unvaccinated individuals are required to wear a face mask indoors anywhere on campus.
- 2) Instructors and TAs will not ask for proof of vaccination.
- 3) Please note provisions on masks, vaccines or other possible requirements are subject to change as the situation evolves, based on guidance from the Centers for Disease Control, the State of New Mexico, and university officials (i.e., the President and the Board of Regents).
- 4) Students should not come to class if they are feeling ill and to follow any quarantine guidelines that they are given in the event of exposure to COVID-19. If you do miss

class, please contact the instructor for missed assignments, contact the Student Health Center, and consider getting tested for COVID-19.

The above guidelines may be modified in response to changing conditions. For the most up-to-date guidelines, please consult NMT's COVID- 19 information page:

<https://www.nmt.edu/covid19/>.

4. Important Dates and Deadlines (subject to change)

1/21: Skills Workshop 1 (Logic)

2/2: First reading journal due

2/14: Case Study 1 due

Skills Workshop 2 (Analytic Writing)

2/25: Analytic Paper 1 due

2/28-3/2: Canvas discussion on *Citizenfour* documentary

3/25: Case Study 2 due

Skills Workshop 3 (Scholarly Research)

3/30: Research Project Proposal (Stage 1) due

4/1-4: Canvas discussion on *The Great Hack* documentary

4/11: Analytic Paper 2 due

5/2: Presentation Multimedia due

Virtual Presentations (Stage 2) on Canvas

5/6: Research Project Report Summary and Bibliography (Stage 3) due

5/7: Late assignments due

Extra-credit (optional) due

5. Detailed Course Schedule

Required readings/prep (—), expected in-class activities (>), and assignment due dates (*); note that content warnings (CW) are marked with double asterisks (**):

Week 1:

What Does Philosophy Have to Do with Computing and IT?

[M 1/17: Martin Luther King Jr. Holiday, No Class]

W 1/19: Course Introduction

—Read (optional): Boddington, Paula. (2019, March 21). *What Are the Values That Drive Decision Making by AI?* Aeon. <https://aeon.co/essays/what-are-the-values-that-drive-decision-making-by-ai>.

>In class: Review the syllabus

*Due (before class): Introduce yourself to the class by posting on the Canvas discussion board.

F 1/21: Workshop on Logic

—Review: Handout 1 on Basics of Logic

—Review: Handout 2 on Common Logical Fallacies

v1 (1/18/22)

>In class: Skills Workshop 1 (Logic)

Part I: Professional Ethics in Computing and Programming

Week 2:

Ethical Frameworks through Tech Today

M 1/24: #AliBongoIsDead: Can Fake News Be Used for Good?

—Read: Ping, Jean. (2016, Sept. 5). Save Gabon from Election Fraud. *The New York Times*, Opinion. <https://www.nytimes.com/2016/09/05/opinion/save-gabon-from-election-fraud.html>.

—Listen: Adler, Simon (Producer). (2019, Nov. 26). Breaking Bongo [Audio podcast episode, 1:05:14]. In *RadioLab*. WNYC Studios. <https://www.wnycstudios.org/podcasts/radiolab/articles/breaking-bongo>.

—Read: Internet Sans Frontières [Internet without Borders]. (2019). *Gabon: Censorship on Health of the President and Post-Truth*. <https://internetwithoutborders.org/gabon-censorship-on-the-health-of-the-president-and-post-truth/>.

W 1/26: Apple vs. FBI: Privacy and Security Tradeoffs

—Read: Hennessey, Susan. (2016, March 29). *Did the FBI Just Win Its Fight Against Apple? Not Really*. MIT Technology Review. <https://www.technologyreview.com/2016/03/29/8717/did-the-fbi-just-win-its-fight-against-apple-not-really/>.

—Read: Sanchez, Julian. (2016, Feb. 18). *This Is the Real Reason Apple Is Fighting the FBI*. Time. <https://time.com/4229601/real-reason-apple-is-fighting-the-fbi/>.

—Listen: Sepinwall, Amy, and Eric Orts. (2016, March 9). Apple vs. the FBI: What It Means for Privacy and Security [Audio recording, 30:43]. In *Knowledge@Wharton*. Wharton Business Radio. <https://knowledge.wharton.upenn.edu/article/apple-vs-the-fbi-what-it-means-for-privacy-and-security/>.

F 1/28: Workplace Discrimination and Gender Equality in Tech

—Review: Women in Tech. (2017). “The Elephant in the Valley.” <https://www.elephantinthevalley.com/>.

—Read: Sandberg, Sheryl. (2013). *Lean In: Women, Work, and the Will to Lead* (excerpt). Time. <https://ideas.time.com/2013/03/07/why-i-want-women-to-lean-in/>

—Read: Pao, Ellen. (2017). *Reset: My Fight for Inclusion and Lasting Change* (excerpt). New York Magazine. <https://www.thecut.com/2017/08/ellen-pao-silicon-valley-sexism-reset-excerpt.html>.

Week 3:

Ethics of Computing

M 1/31: Moral Responsibility in Computing

—Read: Nissenbaum, Helen. (1996). Accountability in a Computerized Society. *Science and Engineering Ethics* 2(1), 25-42.

>In class: Activity on annotated bibliographies

W 2/2: Algorithms, Values, and Stakeholders

—Read: O’Neil, Cathy. (2016). Introduction and Chapter 1. In *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. New York: Crown Publishers. 1-31.

>In class: Activities on values in algorithm design

*Due: Reading Journal 1

F 2/4: The Wealth Gap and Algorithms for Education

—Read: O’Neil, Cathy. (2016). Chapter 3: Arms Race and Chapter 4: Propaganda Machine. In *Weapons of Math Destruction*. 50-83.

(Note: skip Chapter 2 for now)

*Due: Reading Journal 2 (x 2)

(Note: Last day to drop classes)

Week 4:

Algorithms and Society

M 2/7: Algorithmic Bias and Mass Incarceration

—Read: O’Neil, Cathy. (2016). Chapter 5: Civilian Casualties. In *Weapons of Math Destruction*. 84-104.

—Read: Anguin, Julia, Jeff Larson, Surya Mattu and Lauren Kirchner. (2016). *Machine Bias*. ProPublica. <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>.

*Due: Reading Journal 3 (x 2)

>In class: Assign Case Study 1 (due 2/14)

W 2/9: Economic Injustice and Optimizing the Workplace

—Read: O’Neil, Cathy. (2016). Chapter 7: Sweating Bullets. In *Weapons of Math Destruction*. 123-140.

—Read: Watney, Caleb. (2017, Aug. 9). *Fairy Dust, Pandora’s Box... or a Hammer*. Cato Unbound. <https://www.cato-unbound.org/2017/08/09/caleb-watney/fairy-dust-pandoras-box-or-hammer>.

*Due: Reading journal 4 (x 2)

F 2/11: Virtue, Vice, and Models in Finance

—Read: O’Neil, Cathy. (2016). Chapter 2: Shell Shocked & Chapter 8: Collateral Damage. In *Weapons of Math Destruction*. 32-49, 141-160.

—Listen (optional): Annas, Julia. (2014). What is Virtue Ethics for? [Audio podcast episode, 15:15]. In *Philosophy Bites*. <https://philosophybites.com/2014/12/julia-annas-on-what-is-virtue-ethics-for.html>.

*Due: Reading journal 5 (x 2)

Week 5:

Professional Responsibilities in Tech

v1 (1/18/22)

M 2/14: Workshop on Writing Analytic Essays

—Review: Handout 3 on Two Examples for Writing Analytic Arguments

>In class: Skills workshop 2 (Analytic Writing)

>In class: Assign Analytic Paper 1 (due 2/25)

*Due: Case Study 1

W 2/16: Accountability, Regulation, and the Tech Industry

—Read: O’Neil, Cathy. (2016). Conclusion. In *Weapons of Math Destruction*. 199-218.

—Read: Sanchez, Julian. (2017, Aug. 17). *What to Expect When Everyone’s Collecting*. Cato Unbound. <https://www.cato-unbound.org/2017/08/17/julian-sanchez/what-expect-when-everyones-collecting>.

*Due: Reading journal 6 (x 2)

F 2/18: Ethical Codes for Ethical Coding and IT

—Review: Institute of Electrical and Electronics Engineers (IEEE) Code of Ethics.

<https://www.ieee.org/about/corporate/governance/p7-8.html>.

—Review: Association for Computing Machinery (ACM) Code of Ethics and Professional Conduct. <https://www.acm.org/code-of-ethics>.

—Review: Information Systems Security Association (ISSA) Code of Ethics.

<https://www.issa.org/issa-code-of-ethics/>.

—Review: Information Systems Audit and Control Association (ISACA) Code of Professional Ethics. <https://www.isaca.org/credentialing/code-of-professional-ethics>.

>In class: Activity on creating professional codes of ethics

(Note: No reading journal due)

Part II: Big Data and Cyber Ethics

Week 6:

Digital Freedoms and Censorship

M 2/21: Liberty and Intellectual Property

—Read: Chopra, Samir. (2018). *The Idea of Intellectual Property Is Nonsensical and Pernicious*. Aeon. <https://aeon.co/essays/the-idea-of-intellectual-property-is-nonsensical-and-pernicious>.

—Watch: Stallman, Richard. (2014). *Free software, Free society* [Video, 13:39]. TEDxGeneva. https://www.youtube.com/watch?v=Ag1AKII_2GM.

*Due: Reading journal 7 (x 2)

W 2/23: Informational Privacy and Paternalism

—Read: Mathiesen, Kay. (2013). The Internet, Children, and Privacy: The Case against Parental Monitoring. *Ethics and Information Technology* 15(4): 263–74.

*Due: Reading journal 8

[F 2/25: Documentary on NSA Wiretapping and Snowden, No Class Meeting]

—Read: none

>Watch** (on your own time): *Citizenfour*. (2014). Directed by Laura Poitras (1 h 53 min).

Documentary on US National Security Administration (NSA) spying scandal and whistleblower Edward Snowden. Available for rent on [Amazon](#) for \$3.99.

****CW:** Contains leaked classified documents. Students seeking/holding security clearances should see professor for scenes to skip.

*Due: Analytic Paper 1

Week 7:

Government Surveillance and Citizen Action

M 2/28: Patriotism and Whistleblowing

—Read: Keck, Zachary. (2013, Dec. 21). *Yes, Edward Snowden Is a Traitor*. The Diplomat.

<https://thediplomat.com/2013/12/yes-edward-snowden-is-a-traitor/>.

—Read: Ceva, Emanuela, and Michele Bocchiola. (2020). Theories of Whistleblowing. *Philosophy Compass* 15 (1), doi: 10.1111/phc3.12642.

*Due: Before class, post short reflection on Canvas about *Citizenfour* culminating in a question.

*Due: Reading journal 9 (x 2)

W 3/2: Civil Disobedience and Hacktivism

—Read: Delmas, Candice. (2018). Is Hacktivism the New Civil Disobedience? *Raisons Politiques* 69 (1), 63-81.

*Due: Before class, post a response on Canvas discussion about *Citizenfour*.

*Due: Reading journal 10

F 3/4: Confucianism and the Great Firewall of China

—Read: Kou, Yubo, Bryan Semaan, and Bonnie Nardi. (2017). A Confucian Look at Internet Censorship in China. In *Conference Proceedings: Human-Computer Interaction (INTERACT 2017)* (ed.) Regina Bernhaupt et al. 377–98. Springer International Publishing.

*Due: Reading journal 11

Week 8:

Identity on the Internet

M 3/7: Intersectional Oppression and Google's Biases

—Read: Noble, Safiya. (2018). Searching for Black Girls (Chapter 2). In *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York: NYU Press. 64-109.

*Due: Reading journal 12

W 3/9: Freedom of Speech and Anonymity Online

—Read: Véliz, Carissa. (2019). Online Masquerade: Redesigning the Internet for Free Speech Through the Use of Pseudonyms. *Journal of Applied Philosophy* 36(4), 643-58.

*Due: Reading journal 13

F 3/11: Trans* Identity and “Real Names” on Facebook

v1 (1/18/22)

—Read: Haimson, Oliver, & Anna Lauren Hoffmann. (2016). Constructing and enforcing “authentic” identity online: Facebook, real names, and non-normative identities. *First Monday*, 21(6).

*Due: Reading journal 14

>In class: Assign Case Study 2 (due 3/25)

[M 3/14—F 3/18: Spring Break, No Class]

Week 9:

Trust on Social Media

M 3/21: Echo Chambers and Epistemic Bubbles

—Read: Nguyen, C Thi. (2018, April 9). *Why It’s as Hard to Escape an Echo Chamber as It Is to Flee a Cult*. Aeon. <https://aeon.co/essays/why-its-as-hard-to-escape-an-echo-chamber-as-it-is-to-flee-a-cult>.

*Due: Reading journal 15

W 3/23: Online Trust and Challenging Ignorance

—Read: Frost-Arnold, Karen. (2016). Social Media, Trust, and the Epistemology of Prejudice. *Social Epistemology* 30(5–6), 513-31.

—[Know Thyself #1] Visit: ASU’s Perils and Perks of Privilege Workshop (<https://projecthumanities.asu.edu/perils-and-perks-of-privilege>) and work through one or more of the Checklists on the right under “Resources”.

>In class: assign Research Project (proposal due 3/30)

*Due: Reading journal 16

F 3/25: Workshop on Research (with Librarian)

—Review: Library course guide on research: https://nmt.libguides.com/phil389_choglueck/

>In class: Skills workshop 3 (Scholarly Research)

*Due: Case Study 2

Week 10:

Hacking and Cybersecurity

M 3/28: Ethical Hacking and Cyber Warfare

—Read: Denning, Dorothy. (2008). The Ethics of Cyber Conflict. In *The Handbook of Information and Computer Ethics*, (eds) Kenneth Himma and Herman Tavani, 407–28. Hoboken, NJ: Wiley & Sons.

*Due: Reading journal 17

W 3/30: Documentary on Personal Data and Political Manipulation

—Read: none

>In class: Watch *The Great Hack*. (2019). Directed by Karim Amer and Jehane Noujaim (Netflix). Documentary on the Facebook–Cambridge Analytica data scandal of 2018.

*Due: Research Project Proposal (Stage 1)

v1 (1/18/22)

F 4/1: Revenge Porn and Data Rights

—Read**: Marwick, Alice. (2017). Scandal or Sex Crime? Gendered Privacy and the Celebrity Nude Photo Leaks. *Ethics and Information Technology* 19(3): 177–91.

**CW: Sexual harassment, cyber exploitation

*Due: Post short reflection on Canvas about *The Great Hack* culminating in a question

*Due: Reading journal 18

**Part III:
Ethical Design, AI, and Robots**

Week 11:

The Modern Good Life and Digital Technologies

M 4/4: Humanity and Automated Technology

—Read: Zoller, David. (2017). Skilled Perception, Authenticity, and the Case Against Automation. In *Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence*, (eds.) Patrick Lin, Ryan Jenkins, and Keith Abney, 80–92. Oxford University Press.

>In class: Assign Analytic Paper 2 (due 4/11)

*Due: Post a response on Canvas discussion about *The Great Hack*

*Due: Reading journal 19

W 4/6: Aristotle Online and Digital Friending

—Read: Elder, Alexis. (2014). Excellent Online Friendships: An Aristotelian Defense of Social Media. *Ethics and Information Technology* 16(4), 287-97.

*Due: Reading Journal 20

F 4/8: Confucius Online and Virtuous Networks

—Read: Wang, Tom. (2016). Designing Confucian Conscience into Social Networks. *Zygon* 51(2), 239-56.

*Due: Reading Journal 21

Week 12:

Digital Liberation

M 4/11: Digital Democracy and “Slacktivism”

—Read (optional): Tufekci, Zeynep. (2014, March 20). *After the Protests*. The New York Times, Opinion. <https://www.nytimes.com/2014/03/20/opinion/after-the-protests.html>.

*Due: Analytic Paper 2

(Note: No reading journal)

W 4/13: Universal Design and Disability Accessibility

—Read: Toboso-Martín, Mario. (2011). Rethinking Disability in Amartya Sen’s Approach: ICT and Equality of Opportunity. *Ethics and Information Technology* 13(2): 107–18.

*Due: Reading Journal 22

[F 4/15: Spring Holiday, No Class]

**Week 13:
Roboethics and Artificial Intelligence**

M 4/18: Moral Status and Machine Persons?

—Read: Sparrow, Robert. (2012). Can Machines Be People? Reflections on the Turing Triage Test. In *Robot Ethics: The Ethical and Social Implications of Robotics*, (eds.) Patrick Lin, Keith Abney, and George A. Bekey, 301–15. MIT Press.

>In class: Assign Ethical Story (optional extra-credit, due 5/7)

*Due: Reading Journal 23

W 4/20: Moral Machines and the Autonomous Trolley Problem

—Read: Awad, Edmond, et al. (2018). The Moral Machine Experiment. *Nature* 563(7729): 59–64.

—[Know Thyself #2] Visit: MIT Media Lab’s Moral Machine (<https://www.moralmachine.net/>) and click “Start Judging.”

*Due: Reading Journal 24

F 4/22: More Self-Driving Cars and Ethical Algorithms

—Read: Brandão, Martim. 2018. Moral Autonomy and Equality of Opportunity for Algorithms in Autonomous Vehicles. In *Envisioning Robots in Society – Power, Politics, and Public Space*, (eds) Coeckelbergh et al. 302–10.

*Due: Reading Journal 25

**Week 14:
Robots for Love and War**

M 4/25: Military Ethics and Killer Robots

—Read: Kahn, Leonard. (2017). Military Robots and the Likelihood of Armed Combat. In *Robot Ethics 2.0*, (eds) Lin et al., 274–87.

*Due: Reading Journal 26

W 4/27: Bias in the Machine and CareBots

—Read: Howard, Ayanna, and Jason Borenstein. (2018). The Ugly Truth About Ourselves and Our Robot Creations: The Problem of Bias and Social Inequity. *Science and Engineering Ethics* 24(5), 1521-36.

—[Know Thyself #3] Visit: Harvard’s Project Implicit (<https://implicit.harvard.edu/implicit/>) and take one or more Implicit Association Tests (IAT).

*Due: Reading Journal 27

F 4/29: Automated Intimacy and Robo-Lovers

—Read: Reich, Leah. (2014, June 6). *How Will Sexbots Change the Way We Relate to One Another?* Aeon. <https://aeon.co/essays/how-will-sexbots-change-the-way-we-relate-to-one-another>.

—Read: Beck, Julie. (2015, Sept. 30). *The Sex Robots Aren't Coming for Our Relationships*. The Atlantic. <https://www.theatlantic.com/health/archive/2015/09/the-sex-robots-arent-coming-for-our-relationships/407509/>.

v1 (1/18/22)

*Due: Reading Journal 28 (x 2)

Week 15: Conclusion and Final Presentations

[M 5/2: Virtual Presentations, No Live Class *Asynchronous*]

—Read: None

>In class: Watch three of your peers' presentations. Before Friday, ask at least 3 questions and respond to any questions you get.

*Due (upload before class time): Presentation multimedia (Stage 2)

W 5/4: Course Conclusion

—Read: None

(Note: Final day of class)

[R 5/5—T 5/10: Finals Week, No Class]

(Note: No final exam)

*Due F 5/6: Research Project Report of Summary and Bibliography (Stage 3) before midnight

*Due Sa 5/7: Late assignments (before midnight)

*Due Sa 5/7 (optional): Extra-credit Ethical Story/Reflection (before midnight)

Disclaimer:

The content of this syllabus is subject to change. The instructor will notify students in class and via Canvas of any changes with prior warning.

6. About the Professor

I am the Assistant Professor of Ethics at New Mexico Tech. I specialize in philosophy of science, biomedical ethics, and feminism. My research and teaching lie at the intersection of science and values, particularly the philosophical issues raised by pharmaceutical drugs. My main line of research explores how values and gender norms shape drug regulation at the US Food and Drug Administration (FDA), involving reproductive health and the labeling of drugs, as well as the consequences for women's health and reproductive justice. I am currently analyzing how values influence biomedical research on male contraception in the form of double standards.

Through philosophy, I work on socially relevant issues in health equity, public policy, and industry-funded research. To engage a broader audience, I write essays about public philosophy and science communication. I also serve as the Faculty Advisor for Responsible Conduct of Research with the NMT Office of Research and direct the [Research Ethics series](#). To get outside my head, I climb rocks and read comics. My daily struggle is keeping house plants (likes terrariums and bonsai trees) alive in the desert climate of New Mexico—which is much less cooperative than my original home, New Orleans, LA.

I offer several philosophy courses for undergraduates involving ethics and values in science, for both general education and degree requirements in biology, computer science, and IT. I also

v1 (1/18/22)

teach gender studies courses about feminism and sex/gender in science, and ethics for the transdisciplinary cybersecurity graduate program. I am the primary adviser for [philosophy minors](#) in the CLASS department. Course offerings include:

- PHIL 130/1146: Ethics and Values in STEM, Fall semester.
- WGS/PHIL 2040: Science & Gender, Spring semester.
- PHIL 342: Philosophy of Bioethics, Fall semester.
- CSE/IT/PHIL 382: Ethics in Computing and Information Technologies, Spring semester.
- CYBS 502/PHIL 489/PHIL 589: Cybersecurity Ethics & Law.

For syllabi and more, see my website at:

<http://nmt.edu/academics/class/faculty/cchoglueck/index.php>.