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| Class title | Fundamentals of Technology Ethics and Society |
| Course number | TEC 20101 |
| Class Meeting | 2X per week (75-minute class periods) |
| Teacher(s) | Dr. Warren von Eschenbach |
| Points of contact | wvonesch@nd.edu |
| Course Overview: | This course will introduce students to fundamental ethical and social issues related to the design, development, and use of technology. Students will develop an understanding of philosophical ethical theories as a resource for analyzing how technology impacts both individual and collective civil, political, and human rights and issues related to autonomy, privacy, and identity, as well as how it reinforces power dynamics in society and its impacts on equity, justice, and fairness. Specific topics will include bias and fairness in algorithms, privacy, data governance and civil liberties, surveillance and power, social media, and the ethics of artificial intelligence. |
| Learning objectives | By the conclusion of the term, students will be expected to: <ul style="list-style-type: none"> ● Possess a basic understanding of foundational concepts and issues in technology ethics ● Be able to identify ethical dimensions of use and impact of technology ● Be familiar with normative theories that inform ethical thinking ● Integrate normative theories into the practical realities of designing effective laws and regulations around technology governance |
| Assessment structure: | <ul style="list-style-type: none"> ● 30% - Midterm Exam ● 30% - Group Project ● 25% - Weekly Journals ● 15% - Participation and attendance |
| Required resources | <p>Mark Coeckelberg, <i>AI Ethics</i></p> <p>Virginia Eubanks, <i>Automating Inequality</i></p> <p>Jaron Lanier, <i>Ten Arguments for Deleting your Social Media Accounts Right Now</i></p> <p>Cathy O'Neil, <i>Weapons of Math Destruction</i></p> <p>Neil Postman, <i>Technopoly</i></p> <p>Course packet of readings on Library Reserve (accessible via Canvas)</p> <p>Articles and other materials on Canvas. <i>Please be sure to check the course website and syllabus frequently as readings, schedule of readings, and due dates might change.</i></p> |

Classroom policies

All students must familiarize themselves with the Honor Code on the University's website and pledge to observe its tenets in all written and oral work, including oral presentations, quizzes and exams, and drafts and final versions of essays.

<https://honorcode.nd.edu/> **The use of ChatGPT and similar technology constitutes academic dishonesty and is a violation of the University's Honor Code.**

Classroom policies regarding grading, exams, attendance, etc. will be in accordance with the University's Undergraduate Academic Code.

While laptops are permitted the use of phones or handheld devices are prohibited during class.

Any student who has a documented disability and is registered with Sara Bea Accessibility Services should speak with the professor as soon as possible regarding accommodations. Students who are not registered should contact the Sara Bea Accessibility Services as soon as possible since accommodation typically needs to be arranged well in advance.

Support for Student Mental Health at Notre Dame

Care and Wellness Consultants provide support and resources to students who are experiencing stressful or difficult situations that may be interfering with academic progress. Through Care and Wellness Consultants, students can be referred to The University Counseling Center (for cost-free and confidential psychological and psychiatric services from licensed professionals), University Health Services (which provides primary care, psychiatric services, case management, and a pharmacy), and The McDonald Center for Student Well Being (for problems with sleep, stress, and substance use).

Visit supportandcare.nd.edu.

Privacy

This course is a community built on trust; to create the most effective learning experience, our interactions, discussions, and course activities must remain private and free from external intrusion. As members of this course community, we have obligations to each other to preserve privacy and cultivate fearless inquiry. We are also obliged to respect the individual dignity of all and to refrain from actions that diminish others' ability to learn.

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| <p>Schedule</p> | <p>Week 1 - Introduction</p> <p>Class 1 - Mark Coeckelbergh, <i>AI Ethics</i>, Chp. 1</p> <p>Class 2 - Yavul Harari, <i>Homo Deus</i>, Chps. 1 and 9 (reserves), Case Study: <i>The Facebook Papers</i> (Canvas)</p> <p>Week 2 -- The Technosocial World</p> <p>Class 3 - Mark Coeckelbergh, <i>AI Ethics</i>, Chp. 3, Don Ihde, <i>Technology and the Lifeworld</i>, Introduction (reserves)</p> <p>Class 4 - Neil Postman, <i>Technopoly</i>, Chps 1 and 6, Pope Francis, <i>Laudato Si</i>, Chapter 3 (reserves)</p> <p>Week 3 -- Utilitarianism and General Welfare</p> <p>Class 5 - JS Mill, <i>Utilitarianism</i> Chps. 2 & 4 (reserves)</p> <p>Class 6 - JS Mill, <i>On Liberty</i> Chps. 1 & 4 (reserves)</p> <p>Week 4 -- Duty and Rights</p> <p>Class 7 - Immanuel Kant, from the <i>Groundwork of the Metaphysics of Morals</i> (reserves)</p> <p>Class 8 - Ronald Dworkin, "Rights as Trumps" (reserves), William Schulz and Sushma Raman, <i>The Coming Good Society: Why New Realities Demand New Rights</i>, Introduction and Chp. 7 (reserves)</p> <p>Week 5 -- Justice and Equality</p> <p>Class 9 - Michael Sandel, <i>Justice</i>, Chps. 1 and 4 (reserves)</p> <p>Class 10 - John Rawls, Two Principles of Justice (reserves), Annette Baier, "<u>The Need for More than Justice</u>" (reserves)</p> |
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Week 6 -- Virtue Ethics, Ethics of Care, and Other Perspectives

Class 11 - Aristotle, "Nicomachean Ethics" (reserves), Shannon Vallor, "Virtue Ethics and Technomoral Futures" (podcast)

Class 12 - Virginia Held, "The Caring Person" (reserves)

Week 7 -- Morality of Artifacts

Class 13 - Peter-Paul Verbeek, "Do Artifacts Have Morality?" (reserves), Mark Coeckelbergh, *AI Ethics*, Chp. 4

Class 14 - Wendell Wallach and Collin Allen, "Can (Ro)bots Really Be Moral?" Chp. 4 (reserves)

Week 8 -- Midterm Exam

Class 15 - Review

Class 16 - In-Class Exam

Spring Break

Week 9 -- Artificial Intelligence

Class 17 - Margaret Boden, "What is Artificial Intelligence?" (reserves), Mark Coeckelbergh, *AI Ethics*, Chps. 5 and 8, Kate Crawford, *Atlas of AI*, Chp1. "Earth" (Reserves)

Class 18 - Meredith Broussard, *Artificial Unintelligence: How Computers Misunderstand the World*, Chapter 8 (reserves), Warren von Eschenbach, "Transparency and the Black Box Problem: Why We Do Not Trust AI" (reserves),

Week 10 -- Privacy and Surveillance

Class 19 - Richard Spinello, "Information Privacy" (reserves), Carissa Veliz, *Privacy is Power* (Podcast)

Class 20 - Lizzie O'Shea, "Digital Privacy is a Class Issue" (reserves), Shoshana Zuboff, *Surveillance Capitalism*, Chp 1 (reserves)

Week 11 -- Bias and Discrimination

Class 21 - Cathy O'Neil, *Weapons of Math Destruction*, Introduction and Chps 1 and 5, Virginia Eubanks, *Automating Inequality*, Introduction and Chps 1 and 5

Class 22 - Safiya Noble, *Algorithms of Oppression* (Science podcast), Ruha Benjamin, *Race After Technology*, Introduction (reserve)

Week 12 -- Social Media

Class 23 - Jaron Lanier, *Ten Arguments for Deleting your Social Media Accounts Right Now*

Class 24 - Siva Vaidhyanathan, *Antisocial Media*, Introduction (reserve)

Week 13 – Virtual Reality

Class 25 – David Chalmers, *Reality+*, Chps. 1 and 2 (reserve)

Class 26 - David Chalmers, *Reality+* Chp. 18 "Do Simulated Lives Matter?" (reserve)

Week 14 – Transhumanism and Longtermism

Class 27 - Mark Coeckelberg, *AI Ethics*, Chps. 2 and 12

Class 28 – William McCaskill (reserve)

Week 15 - Review

Assignments

Readings and Class Participation: The required readings assigned before class are intended to provide a broad overview of themes, topics, and issues that will be relevant to our class discussions. Please make an effort to prepare for each meeting by completing those readings and taking notes of key concepts and issues. Our meetings will primarily focus on reading, analyzing, and discussing readings and case studies pertinent to technology ethics.

Journal/Written Responses: You will be required to write a 300-word journal entry or written response before each class meeting that provides analysis of the readings for that reading set. You are expected to summarize the main points and arguments presented in the readings and offer a critical response. Journals will be due the mornings before class on Tuesdays and Thursdays each week. Journals will be graded for content at random times throughout the semester. In addition, to receive full credit you must complete a journal assignment before each class. Failure to do so will impact your grade adversely. No late journal entries will be accepted.

Group Project: The final capstone project is to write an 8–10-page original case study or policy paper that analyzes the ethical issues or dimensions of technology, makes a recommendation regarding a solution, and discusses its implementation. This will be a group project. A successful case study will apply the theories and principles learned throughout the course to solve a practical problem or make policy recommendations. Your grade on the capstone consists of three parts:

1. Case study or policy paper topic and list of references: Your group will need to submit a one-page summary of the case or policy you have identified for further analysis and the main ethical issues identified. You will also need to submit a preliminary resource list or bibliography of at least five (5) sources.
2. Oral Presentation: The last week of class meeting will be reserved to allow each group to present their case study or policy paper to the class and receive feedback prior to completing and submitting the final written case study.
3. Final written case study or policy paper: The group will submit the final 8–10-page written case study or policy paper via Canvas.