

STV20235 – Digital Technology, Society, and Ethics

Instructor: Jamee Elder

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Office: 451 Geddes Hall

Office Hours: MW 3:30pm-4:30pm

Semester: Spring 2017

Time: MW 2:00pm-3:15pm

Room: 224 DeBartolo Hall

Course Description

Digital technologies now play a role in almost every aspect of our lives. Computers of all shapes and sizes have been integrated into our daily routines – from laptops, tablets and smartphones, to smart watches, Fitbits, and Amazon Echo. We now socialise, shop, do our banking, get our news, and even meet potential dates online. In this course we will explore how digital technologies transform the world we live in and how ethical issues arise through these interactions. We will be guided by questions like: Is all technology neutral, or can it be infused with the values of those who produce and exploit it? Do digital technologies make life better or worse (and for whom)? To what extent do we control technology and to what extent is it controlling us? Some topics that we will cover include: social media and online identity; the internet and politics; privacy and big data; cybercrime and computer security; gender and race issues in computing; intellectual property; and artificial intelligence. This course will provide students with a philosophical basis for reflection upon the ethical issues raised by digital technologies. Drawing from a range of literature, this course will engage students in interdisciplinary discussions about the opportunities and pitfalls of life in the digital era.

Learning Goals

- Be familiar with the main ethical theories and able to apply them to cases involving digital technologies.
- Understand how technology shapes society and hence *how we live* within it.
- Understand how our values and social norms shape the development, adoption, and use of digital technologies.
- Be able to critically assess the ethical implications of emerging digital technologies and offer concrete proposals for how we should respond.

Text(s)

Students are asked to obtain a copy of the following book, which we will discuss in the second half of the course (available on Amazon for approximately \$8):

- Bruce Schneier. *Data and Goliath*. W. W. Norton and Company, New York, NY, 2015

The rest of the required readings will be available online, either through **Sakai** or the Hesburgh Library.

Course Requirements

- **Participation (30%)** Everyone is expected to carefully do the assigned readings for the week and come prepared to discuss them and raise questions. Your participation grade will be based on:
 - General participation in class discussions.
 - One-minute papers: Every class session will end a few minutes early to permit you to write a so-called one-minute paper, in which you will write no more than two- or three-sentence answers to two questions: (a) What was the most important point covered in today's class? (b) What issue or question was left most unclear in your mind at the end of today's class? These one-minute papers will be required of every student at the end of every class session and will be collected at the end of class, but they will not be graded.
- **Short Papers (40%)** You will complete four short papers, each approximately 500 words in length, responding to a specific question or reacting to a short reading. Each of these papers will be worth 10% of your final grade, so the short papers will be worth 40% of your grade in total.
 - Short Paper 1 (10%): Due **Wednesday, 6 September** by **12:00pm** (noon).
 - Short Paper 2 (10%): Due **Monday, 25 September** by **12:00pm** (noon).
 - Short Paper 3 (10%): Due **Wednesday, 25 October** by **12:00pm** (noon).
 - Short Paper 4 (10%): Due **Wednesday, 15 November** by **12:00pm** (noon).
- **Final Paper (30%)**: The final paper (approx. 3000 words) will be due on **Monday, 11 December** by **6:15pm** (i.e. by the end of our assigned "exam" time). For this paper, you will choose a recent debate or controversy about a particular kind of digital technology and subject it to careful analysis, based on independent research. *All students must meet with the instructor before fall break to discuss their proposed topic.* Further instructions for writing this paper will be distributed separately.

Course Outline

All readings listed here are subject to change – the current version of this document will always be available on **Sakai**.

- Readings marked (\$) are textbooks to be bought (the only one of these is Schneier (2015))
- Readings marked (L) are available through the Hesburgh library website.
- Readings marked (S) will be made available through Sakai.

- Anything written in **this font** is a hyperlink to an online article or other internet source.

This syllabus was last updated June 6, 2025

Unit 0. Introduction & Preliminaries

Wednesday, 23 August: Introduction

- Sherry Turkle. *Reclaiming Conversation: The Power of Talk in a Digital Age*. Penguin Press, New York, 1st edition, 2015, “Education” (pp. 211-227) (S)

Monday, 28 August: Introduction to Ethics

- Michael J. Quinn. *Ethics for the Information Age*. Pearson, 7th edition, 2017, chapter 2 (pp.67-99) (S)
- Wendell Wallach. *A Dangerous Master: How to keep technology from slipping beyond our control*. Basic Books, New York, 2015, chapter 1 (pp.21-45) (L)

Wednesday, 30 August: A Virtue Approach to Technology Ethics

- Shannon Vallor. *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting*. Oxford University Press, New York, 2016, chapter 6 (pp.118-155) (L)
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Unit 1: Networked Communications

Monday, 4 September: The Networked Self

- Sherry Turkle. *Alone Together: Why We Expect More From Technology and Less From Each Other*. Basic Books, New York, NY, 2011, Introduction & chapter 8 (pp.1-20, 151-170) (L)

Wednesday, 6 September: The Networked Self

[*First Short Paper Due by 12:00pm (noon)*]

- Sherry Turkle. *Alone Together: Why We Expect More From Technology and Less From Each Other*. Basic Books, New York, NY, 2011 chapters 9 & 10 (pp.171-209) (L)

Monday, 11 September: The Internet and Politics

- “Election 2016 Belongs to the Twitter Bots” https://motherboard.vice.com/en_us/article/78kmky/election-2016-belongs-to-the-twitter-bots
- Nicholas M. Anspach. The new personal influence: How our facebook friends influence the news we read. *Political Communication*, 2017 (L)
- EXTRA (non-compulsory): Listen to: “Is The Internet Closing Our Minds Politically?” <http://www.npr.org/2012/04/23/151037080/is-the-internet->

closing-our-minds-politically (this is long, so you might just want to listen to a bit)

Wednesday, 13 September: The Internet and Politics

- Evgeny Morozov. *The Net Delusion: the Dark Side of Internet Freedom*. Public Affairs, New York, NY, 2011, Introduction, chapter 8 (pp.ix-xvii, 205-244) (L)

Monday, 18 September: Virtues for Life Online

- Shannon Vallor. *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting*. Oxford University Press, New York, 2016 chapter 7 (pp.159-187) (L)

Interlude 1: UPDATED: #gamergate

Wednesday, 20 September:

The purpose of this “interlude” is to discuss a recent event or controversy. The particular issue to be discussed is therefore subject to change (& student suggestions for possible topics are welcome!)

- “The Only Guide to Gamergate You Will Ever Need to Read” https://www.washingtonpost.com/news/the-intersect/wp/2014/10/14/the-only-guide-to-gamergate-you-will-ever-need-to-read/?utm_term=.997778f08c95

Unit 2. Robots & Automation

Monday, 25 September: Robot Companions

[*Second Short Paper Due by 12:00pm (noon)*]

- Sherry Turkle. *Alone Together: Why We Expect More From Technology and Less From Each Other*. Basic Books, New York, NY, 2011 chapters 3 & 4 (pp.53-81) (L)

Wednesday, 27 September: Driverless Cars

- Patrick Lin. *Why Ethics Matters for Autonomous Cars*, pages 69–85. Springer Berlin Heidelberg, Berlin, Heidelberg, 2015. ISBN 978-3-662-45854-9. doi: 10.1007/978-3-662-45854-9_4 (S)
- Activity: <http://moralmachine.mit.edu/>

Monday, 2 October: Autonomous Weapons

- John P. Sullins. An ethical analysis of the case for robotic weapons arms control. *2013 5TH International Conference on Cyber Conflict*, 2013, <http://ieeexplore.ieee.org.proxy.library.nd.edu/stamp/stamp.jsp?arnumber=6568394> (L)

Wednesday, 4 October: Automation and Work

- Michael J. Quinn. *Ethics for the Information Age*. Pearson, 7th edition, 2017, chapter 10, pp.457-465
- “Why the Tech Elite Is Getting Behind Universal Basic Income” 2015. URL https://www.vice.com/en_uk/article/mv5d3y/something-for-everyone-0000546-v22n1

Monday, 9 October: Robotics and Virtues

- Shannon Vallor. *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting*. Oxford University Press, New York, 2016, chapter 9 (pp.208-229) (L)

Wednesday, 11 October: Guest Lecture: Kenton Murray (Department of Computer Science and Engineering) – Machine Learning and Artificial Intelligence

- Reading TBA

Fall Break

Workshop

Monday, 23 October:

The purpose of this workshop is to get feedback from your peers on your proposed paper topic. Please bring along an outline of your proposed final paper based on preliminary research and be ready to talk about with other students (in small groups).

- No assigned reading.

Unit 3. Data & Privacy

Wednesday, 25 October: The World We’re Creating

[*Third Short Paper Due by 12:00pm (noon)*]

- Bruce Schneier. *Data and Goliath*. W. W. Norton and Company, New York, NY, 2015, Part I (pp.13-87) (\$)

Monday, 30 October: What’s at Stake

- Bruce Schneier. *Data and Goliath*. W. W. Norton and Company, New York, NY, 2015, Part II (pp.91-151) (\$)

Wednesday, 1 November: Solutions – Government

- Bruce Schneier. *Data and Goliath*. W. W. Norton and Company, New York, NY, 2015, Part III, chapters 12 & 13 (pp.155-189) (\$)

Monday, 6 November: Solutions – Corporations & the rest of us

- Bruce Schneier. *Data and Goliath*. W. W. Norton and Company, New York, NY, 2015, Part III, chapters 14-16 (pp.190-238) (\$)

Wednesday, 8 November: Virtues and the Panopticon

- Shannon Vallor. *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting*. Oxford University Press, New York, 2016, chapter 8 (pp.188-207) (L)
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Interlude 2:

Monday, 13 November: Student Choice!

The purpose of this “interlude” is to discuss a recent event or controversy. Please let me know if you have any requests! This may or may not be related to other topics we cover in this class.

- Readings TBA
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Unit 4. Cyber Crime & Cyber Warfare

Wednesday, 15 November: Intellectual Property & Piracy

[*Fourth Short Paper Due by 12:00pm (noon)*]

Michael J. Quinn. *Ethics for the Information Age*. Pearson, 7th edition, 2017, chapter 4, (pp.161-213) (S)

Monday, 20 November: Computer & Network Security

- Michael J. Quinn. *Ethics for the Information Age*. Pearson, 7th edition, 2017, chapter 7 (pp.321-351) (S)
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Thanksgiving Break

Monday, 27 November: The Ethics of Cyber Warfare I

- George Lucas. *Ethics and Cyber Warfare: The Quest for Responsible Security in the Age of Digital Warfare*. Oxford University Press, New York, NY, 2017, chapter 2 (pp.33-49)

Wednesday, 29 November: The Ethics of Cyber Warfare II

- George Lucas. *Ethics and Cyber Warfare: The Quest for Responsible Security in the Age of Digital Warfare*. Oxford University Press, New York, NY, 2017, chapters 4 & 5 (pp.85-120)

Monday, 4 December: Bitcoin & Silk Road

- Bitcoin – FAQs: <https://bitcoin.org/en/faq>
 - “The Untold Story of Silk Road” (Part I & II) <https://www.wired.com/2015/04/silk-road-1/>
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Overview and Wrap-Up

Wednesday, 6 December

- No assigned reading.
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Course Policies

- **General**

- You are expected to behave ethically. You are encouraged to ask questions, respond to other students’ points, and raise issues for discussion. Everyone is expected to treat their fellow students and professor critically but respectfully.
- Attendance: No more than one unexcused absence will be permitted during the semester; for every additional unexcused absence, the student’s final course grade will be reduced by one step on a plus/minus basis. Thus, for example, for a student with two unexcused absences, a final grade of B+ becomes a B, and for a student with three unexcused absences, a final grade of B becomes a C+. A student more than fifteen minutes late for class is assumed to be absent. If you must miss a class for any reason, be sure to let me know beforehand, or as soon after the fact as possible, so as to enable me to determine whether or not to excuse the absence. I promise to be generous in allowing excused absences for legitimate purposes.
- You are to have done the assigned readings prior to each class meeting (see below for the list of readings). I also expect each of you to make frequent, quality contributions to class discussion.

- **Assignments**

- All written assignments should be emailed to jelder@nd.edu (except for one-minute papers, which may be handwritten and given to the instructor at the end of class).
- You are expected to work independently on the essays and assignments. Discussion among students is encouraged, but when in doubt, direct your questions to me.
- Late assignments will be penalized with half a letter grade per day. If there are special circumstances, please come talk to me, preferably before the

deadline.

- **Letter Grade Distribution**

≥ 93.00	A	73.00 - 76.99	C
90.00 - 92.99	A-	70.00 - 72.99	C-
87.00 - 89.99	B+	67.00 - 69.99	D+
83.00 - 86.99	B	63.00 - 66.99	D
80.00 - 82.99	B-	60.00 - 62.99	D-
77.00 - 79.99	C+	≤ 59.99	F

- **Academic Integrity**

- As a member of the Notre Dame community, I will not participate in or tolerate academic dishonesty. Please take advantage of the aid I can give you rather than resorting to academic dishonesty.
- It is your responsibility to familiarize yourself with the Academic Honor Code (<http://fys.nd.edu/current-students/honor-code/>).

- **Disability Services:** Students with disabilities are warmly encouraged to contact me about accommodations. It is the policy and practice of The University of Notre Dame to provide reasonable accommodations for students with properly documented disabilities. Students who have questions about Sara Bea Disability Services or who have, or think they may have, a disability are invited to contact Sara Bea Disability Services for a confidential discussion in the Sara Bea Center for Students with Disabilities or by phone at 574-631-7157. Because the University's Academic Accommodations Processes generally require students to request accommodations well in advance of the dates when they are needed, students who believe they may need an accommodation for this course are encouraged to contact Sara Bea Disability Services at their earliest opportunity. Additional information about Sara Bea Disability Services and the process for requesting accommodations can be found at <http://sarabeadisabilityservices.nd.edu>.